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COMPARISON OF THE ICT IMPACTS BETWEEN CZECH REPUBLIC AND SLOVENIA - PANEL DATA ANALYSIS

Zuzana Somogyiová

Abstract
This paper compares the ICT impacts occurred in Czech industries during years 1995-2006 to those in Slovenia. We examined whether macro panel data analysis proves significance of ICT capital variable in sense of productivity growth on the whole economy. Unfortunately, there are not many studies observing the ICT impacts from perspective of Central and Eastern European (CEE) countries, even if ICTs are assumed to have potential to enhance economic growth, labour productivity, competitiveness of developing countries and lower income gap within Europe.

Key words: ICT, Czech Republic, Slovenia, Panel Data Analysis

Introduction
Numerous researches since the 1990s have focused on topic of the ICT impacts in sense of GDP or labour productivity growth but in particular from the view of the US or other developed countries. However, not many studies pay attention to how to alleviate income disparities between countries by improving the ability of developing countries to adopt and use ICTs.

Clarke (2002) highlighted the potential of new technologies (such as Internet) if they are implemented into business sector of developing countries. He assumed that it might lead to the development of their business processes and increase their overall competitiveness in comparison with more developed economies.

Moreover, Indjikian and Siegel (2004) in their research compared the impact of ICTs on economic growth in developed and developing countries. In general, studies from developed countries show a strong positive relationship between ICTs and economic performance. ICTs

1 Ing. Zuzana Somogyiová is Phd. candidate at Technical University in Kosice – Faculty of Economics (Slovakia). Email: zuzana.somogyiova@tuke.sk
also induce positive organisational changes as well as changes in the structure of the workforce (better educated and trained labour). On the other hand, emerging countries have shortcomings in terms of knowledge and best practices related to the use of ICTs but also in ICT-skilled workforce. Therefore, these countries should try to adopt technologies and adjust business environment so that they will enhance their long-term economic growth.

The authors pointed out that the state should play an important role to improve the knowledge and best practices of local companies in the ICT use in their perspective industries; create an enabling environment for investment in ICTs and also build inevitable infrastructure, which contributes to gaining access to broadband at lower cost and supports the use of free software (open source). Fast and reliable connection helps to build confidence in the “impersonal” transactions, exchange of information online and creation of electronic services etc. Moreover, the state should also ensure improvement in ICT skills and qualification of workforce.

However, they assumed that the state itself cannot effectively overcome all these shortcomings and it is also necessary to establish proper cooperation between public and private sectors. Such cooperation would be able to bring benefits such as better access to financial capital, which might stimulate ICT investment; human capital development in order to ease implementation of new technologies; development and expansion of networks, which serve to improve the private (business level) and the societal benefits of ICTs, e-commerce or information sharing etc.

Another study by Fuss, Meschi and Waverman (2005) examined the growth potential of investment in telecommunications infrastructure in both developed and developing economies and found out that a country with an average of 10 more mobile phones for every 100 people would have enjoyed a per capita GDP growth higher by 0.59 percent annually. The effect of mobiles was twice larger in developing countries than in developed ones. It indicates great perspectives of mobile infrastructure and services in order to improve their economic development.

A World Bank’s econometric analysis of 120 countries (2009) also suggests that an increase of broadband access in countries by 10 subscribers per 100 inhabitants might induce a 1.3 percent increase in per capita GDP growth. According to this study the growth effect of broadband is stronger in developing countries than in developed ones but also higher than that reached by telephones or the Internet. The main conclusion of this study is that broadband has a significant impact
on growth and deserves a central role in country development and competitiveness strategies. Unfortunately, there is lack of similar studies which examine these issues from perspective of Central and Eastern European (CEE) countries. Only in 2003 Piatkowski provided the first estimates of the ICT capital contribution to economic growth and labour productivity in Bulgaria, Czech Republic, Hungary, Poland, Slovakia, Slovenia, Romania and Russia. The results of this paper show that contribution of investment in IT hardware, software and telecommunication equipment to output growth and labour productivity between 1995 and 2000 in most countries included into the study was much higher than what might be expected on the basis of the level of their GDP per capita. This might mean that the transition economies are able to increase their growth rates in output and labour productivity through the use of ICTs and hence accelerate the process of catching-up more developed countries. The last results of his co-work with Van Ark (2007) show that labour productivity growth in most New Member States of the EU accelerated in 2004 and continued to grow fast in 2005 and 2006. Manufacturing industries in the these states contributed between 0.4 and 1.9 percentage points to the aggregate labour productivity growth between 1995 and 2004 that is substantially more than in the EU-15 and the US.

All these studies support the assumption that ICTs have potential to enhance economic growth, productivity and competitiveness of developing countries and lower income gap between developed and developing countries. Therefore we consider necessary to study the ICT impacts and their future growth prospects for CEE countries.

Consequently, the aim of this paper is to assess the ICT impacts on productivity growth in Czech Republic and Slovenia during years 1995 – 2006 by using EU KLEMS Growth and Productivity Accounts.

Data
To analyse the ICT impacts we employed available annual data series of Czech Republic and Slovenia from 1995 to 2006. Data inevitable for our analysis were obtained from released EU KLEMS database and consists of variables - ICT-capital stock (coded in this analysis as ict), non-ICT capital stock input (noict), Production or Gross output (prod), Total hours worked by employees (hours), Number of employees (emp). For better comparison of two countries the capital and output values are expressed in millions of USD and number of employees and total worked hours in million units. We used time series of 29 industry branches of every country classified by the European NACE revision 1 method. (Table 1
provides overview of analysed industries and their codes used in the further analysis for simplification).
Table 1: Industries overview

<table>
<thead>
<tr>
<th>INDUSTRIES OVERVIEW (with coding)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL INDUSTRIES</td>
<td>195</td>
</tr>
<tr>
<td>AGRICULTURE, HUNTING, FORESTRY AND FISHING</td>
<td>105</td>
</tr>
<tr>
<td>MINING AND QUARRYING</td>
<td>1014</td>
</tr>
<tr>
<td>TOTAL MANUFACTURING</td>
<td></td>
</tr>
<tr>
<td>FOOD, BEVERAGES AND TOBACCO</td>
<td>1516</td>
</tr>
<tr>
<td>TEXTILES, TEXTILE, LEATHER AND FOOTWEAR</td>
<td>1719</td>
</tr>
<tr>
<td>WOOD AND OF WOOD AND CORK</td>
<td>20</td>
</tr>
<tr>
<td>PULP, PAPER, PAPER, PRINTING AND PUBLISHING</td>
<td>2122</td>
</tr>
<tr>
<td>CHEMICAL, RUBBER, PLASTICS AND FUEL</td>
<td>E</td>
</tr>
<tr>
<td>Coke, refined petroleum and nuclear fuel</td>
<td>23</td>
</tr>
<tr>
<td>Chemicals and chemical</td>
<td>24</td>
</tr>
<tr>
<td>Rubber and plastics</td>
<td>25</td>
</tr>
<tr>
<td>OTHER NON-METALLIC MINERAL</td>
<td>26</td>
</tr>
<tr>
<td>BASIC METALS AND FABRICATED METAL</td>
<td>2728</td>
</tr>
<tr>
<td>MACHINERY, NEC</td>
<td>29</td>
</tr>
<tr>
<td>ELECTRICAL AND OPTICAL EQUIPMENT</td>
<td>3033</td>
</tr>
<tr>
<td>TRANSPORT EQUIPMENT</td>
<td>3435</td>
</tr>
<tr>
<td>MANUFACTURING NEC; RECYCLING</td>
<td>3637</td>
</tr>
<tr>
<td>ELECTRICITY, GAS AND WATER SUPPLY</td>
<td>4041</td>
</tr>
<tr>
<td>CONSTRUCTION</td>
<td>45</td>
</tr>
<tr>
<td>WHOLESALE AND RETAIL TRADE</td>
<td>F</td>
</tr>
<tr>
<td>Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of fuel</td>
<td>50</td>
</tr>
<tr>
<td>Wholesale trade and commission trade, except of motor vehicles and motorcycles</td>
<td>51</td>
</tr>
<tr>
<td>Retail trade, except of motor vehicles and motorcycles; repair of household goods</td>
<td>52</td>
</tr>
<tr>
<td>HOTELS AND RESTAURANTS</td>
<td>55</td>
</tr>
<tr>
<td>TRANSPORT AND STORAGE AND COMMUNICATION</td>
<td>G</td>
</tr>
<tr>
<td>TRANSPORT AND STORAGE</td>
<td>6063</td>
</tr>
<tr>
<td>POST AND TELECOMMUNICATION</td>
<td>64</td>
</tr>
<tr>
<td>FINANCE, INSURANCE, REAL ESTATE AND BUSINESS SERVICES</td>
<td>H</td>
</tr>
<tr>
<td>FINANCIAL INTERMEDIATION</td>
<td>6567</td>
</tr>
<tr>
<td>REAL ESTATE ACTIVITIES</td>
<td>70</td>
</tr>
<tr>
<td>RENTING OF M&amp;EQ AND OTHER BUSINESS ACTIVITIES</td>
<td>7174</td>
</tr>
<tr>
<td>COMMUNITY SOCIAL AND PERSONAL SERVICES</td>
<td>I</td>
</tr>
<tr>
<td>PUBLIC ADMIN AND DEFENCE; COMPULSORY SOCIAL SECURITY</td>
<td>75</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>80</td>
</tr>
<tr>
<td>HEALTH AND SOCIAL WORK</td>
<td>85</td>
</tr>
<tr>
<td>OTHER COMMUNITY, SOCIAL AND PERSONAL SERVICES</td>
<td>9093</td>
</tr>
<tr>
<td>PRIVATE HOUSEHOLDS WITH EMPLOYED PERSONS</td>
<td>95</td>
</tr>
<tr>
<td>EXTRA-TERRITORIAL ORGANIZATIONS AND BODIES</td>
<td>X</td>
</tr>
</tbody>
</table>

Source: EU Klems (2007)

As a measure of productivity we defined logarithm of production (gross output) per employee. Final model, which assess the ICT impacts, is based on Cobb-Douglas production function. The next section presents applied methodology and the final model.
Methodology

In this paper we attempt to assess the ICT impacts in sense of productivity growth of Czech Republic in comparison to Slovenia by using panel data analysis. Using panel data we can control for variables that vary across subjects but not over time or are unobserved or unmeasured and therefore cannot be included in regular OLS regression. This method requires data in which each observational unit or entity is observed at two or more time periods. Our panel is balanced which means that all subjects (29 industries) are observed in all determined time periods (1995-2006).

The regression model is defined as follows:

\[ Y_{i,t} = \beta_0 + \beta_1 X_{i,t} + \beta_2 \eta_i + u_{i,t}. \]

Where \( Y_{i,t} \) is dependent variable, \( X_{i,t} \) is observed regressor, \( \eta_i \) is unobserved variable that varies from one industry to the next but does not change over time (for example in our case it could be openness towards new technologies). Because \( \eta_i \) does not vary over time the regression model can be interpreted as having \( n \) intercepts \( \alpha_i \), one for each industry:

\[ \alpha_i = \beta_0 + \beta_2 \eta_i. \]

Then equation of the regression model becomes:

\[ Y_{i,t} = \alpha_i + \beta_1 X_{i,t} + u_{i,t}. \]

Using this method we can study changes (differences) in the dependent variable over time and therefore the omitted variables (that does not change over time) are dropped out from equation. We can control for all time-constant differences between individuals:

\[ Y_{i,t} - \bar{Y}_i = (\beta_0 + \beta_1 X_{i,t} + \beta_2 \eta_i + u_{i,t}) - (\beta_0 + \beta_1 \bar{X}_i + \beta_2 \eta_i + \bar{u}_i) = \]

\[ = \beta_1 (X_{i,t} - \bar{X}_i) + (u_{i,t} - \bar{u}_i). \]

Where \( \bar{Y}_i, \bar{X}_i, \bar{u}_i \) are means of \( Y_{i,t}, X_{i,t} \) and \( u_{i,t} \) over time.

We can rewrite equation in the form that is similar to the regression function in OLS, if we define \( \tilde{Y}_{i,t} = Y_{i,t} - \bar{Y}_i \) and similar for \( \tilde{X}_i, \tilde{u}_i \):

\[ \tilde{Y}_{i,t} = \beta_1 (X_{i,t} - \bar{X}_i) + \tilde{u}_{i,t}. \]

---

\[ \tilde{Y}_{i,t} = \beta_1 \tilde{X}_{i,t} + \tilde{u}_{i,t}. \]

We have N.T observations. Our original variables were transformed and this transformation caused that we have a model specification without intercept.

Our final model is based on Cobb-Douglas production function:

\[ Y = A.ICT^{\beta_1}.L^{\beta_2}.K^{\beta_3}. \]

Where \( Y \) is output per employee, \( A \) is a constant representing other factors of production (e.g., increased level of education, improved skills of workers, etc.), \( ICT \) is ICT capital variable, \( K \) is non-ICT capital variable and \( L \) represents hours worked by employees. \( \beta_1, \beta_2, \beta_3 \) are elasticities of the production resources.

For the further analysis the equation is transformed into linear form:

\[ \ln(Y_{it}) = a + \beta_1 \ln(ICT_{it}) + \beta_2 \ln(K_{it}) + \beta_3 \ln(L_{it}). \]

Using the panel data methodology our final model is constructed as followed:

\[ \ln(\tilde{Y}_{i,t}) = \beta_1 \ln(I\tilde{C}T_{i,t}) + \beta_2 \ln(\tilde{K}_{i,t}) + \beta_2 \ln(\tilde{L}_{i,t}) + \tilde{u}_{i,t}. \]

**Empirical results**

As mentioned before our ambition in this paper is to assess the ICT impacts by using panel data of 29 industry branches of Czech Republic and Slovenia. The graph 1 indicates growth of ICT capital in both countries during 1995 – 2006. There is significantly higher volume but also higher volatility of the Czech ICT capital. The total volume of ICT investment in Slovenia during the same period is on average four times smaller than in Czech Republic but its trend seems to increase constantly and more stable.

If we look at the graph 2 we can compare average percentage share of ICT capital to total capital for individual industries. It is not surprising that the highest share of ICT capital is in Post and Telecommunications industry (64) and Financial Intermediation sector (6567) where its share is about 40-60%. The pattern of ICT capital distribution is very similar for both countries (but in most cases its percentage share is higher in Slovene industries). It might reflect differences in the real ICT capital needs and heterogeneity of individual industries. For instance Mining and Quarrying (1014) requires only about 5% of ICT capital in both
countries, however, Post and Telecommunications industry (64) requires about 60% on average.

Huge development and implementation of technologies is expected to bring benefits in form of enhanced productivity, higher profits, lower cost, quality improvements as well as new product or process innovations. Believing that ICTs are an important driver of economic growth and employment, it is necessary to examine real impacts of investment in ICTs and more precisely determine specific technology needs for each industry branch. Unfortunately, in this case we are not able to assess each single industry because we have access only to aggregate industry level data but not to micro level ones. The available observations are for 12 years and 29 industries. But such a small dataset might not be able to provide reliable estimates.

**Graph 1: The ICT capital growth, all industries, 1995-2006**

![Graph showing ICT capital growth](image)

Source: EU Klems (2007)
Assuming that only industries with higher proportion of ICT capital might benefit from using it, we excluded industries with the lowest average percentage share of ICT capital to total capital – Real Estate Activities (70), Transport and Storage (6063), Agriculture, Hunting, Forestry and Fishing (105) and Private Households with Employed Persons (95). Industries with too low ICT capital in comparison to non-ICT capital could bias our analysis and lower potential results of the ICT effects. By excluding the least ICT-intensive industries (from this point of view) we could more precisely indicate significance of ICT investment to productivity growth. Afterwards we conducted panel data analysis of such reduced panels.
As mentioned in previous section panel data analysis is controlling for omitted variables, which does not change over time. Moreover, we added also time dummy variables, which control for omitted variables that change over time. The final regression model structure consists of logarithm of gross output per employee as dependent variable and logarithm of total hours worked, logarithm of ICT capital, logarithm of non-ICT capital and time dummies as independent variables.

To test whether the fixed effects (FE) or random effects (RE) model is more appropriate for the panel data analysis, we conducted Hausman test. The fixed effects model assumes that individual heterogeneity (or individual effects by which entities differ from each other) is captured only by the intercept term $\alpha_i$, which means that every individual entity (in this case industry) gets its own intercept while the slope coefficients are the same. On the other hand the random effects model assumes that individual effects are captured by the intercept but also by a random component $\varepsilon_i$, which is not correlated with the regressors on the right side and part of the error term. The intercept becomes $\alpha_i + \varepsilon_i$.

Considering this test Slovenia follows random effects model and for Czech Republic fixed effects model is more suitable. Picture 1 and 2 present obtained results of panel analysis:

**Picture 1: Slovenia – panel data analysis**

| LPQ       | Coef. (Std. Err.) | z     | P>|z|    | [95% Conf. Interval] |
|-----------|-------------------|-------|--------|----------------------|
| lognoict  | 0.0900878 (0.047752) | 1.89   | 0.059  | -0.0035044 to 0.18368 |
| logict    | 0.1332555 (0.0686751) | 1.94   | 0.052  | -0.0013451 to 0.2678562 |
| loghours  | 0.0539103 (0.1537772) | 0.35   | 0.726  | -0.2474875 to 0.353082 |

Source: Author

Looking at p-value we can consider all dependent variables as significant at 10% significance level. The results explain that 1% increase of ICT investment would yield a 0.13% increase in the
productivity (holding all other variables constant). Moreover, 1% increase of non-ICT capital would yield a 0.09% increase and 1% increase of hours worked would increase productivity by 0.05%. All dummy variables are significant which means that we omitted some variables that change over time. The Wald test that the coefficients on the regressors are all jointly zero is rejected. In this paper we are estimating a within-effects model, therefore the within R² is relevant and its value 88.82% implies that our model is quite well specified.

**Picture 2: Czech Republic - panel data analysis**

| LPQ   | Coef.  | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|-------|--------|-----------|-------|-----|---------------------|
| loghours | .39458 | .1765507  | .23  | .034 | .757485 - .0316749 |
| logict | .0353768 | .0287817 | 0.53 | .597 | .0374347 .074974 |
| y96   | .0856369 | .0280148 | 3.72 | .001 | .0832993 .1829466 |
| y97   | .0604179 | .028933  | 2.08 | .047 | .0588419 .1111416 |
| y98   | .1338832 | .0348211 | 3.99 | .000 | .0674073 .215059 |
| y99   | .145045 | .0428285 | 3.38 | .002 | .0569896 .2331913 |
| y00   | .1515661 | .0485799 | 3.12 | .004 | .0517538 .2533783 |
| y01   | .2185207 | .0530013 | 4.12 | .000 | .1955478 .3474657 |
| y02   | .3900242 | .0569104 | 6.94 | .000 | .2745271 .5055252 |
| y03   | .6006887 | .059631 | 10.07 | .000 | .4781154 .7233262 |
| y04   | .7891531 | .0684565 | 13.50 | .000 | .6689941 .9091322 |
| y05   | .9338624 | .0558268 | 16.37 | .000 | .7991087 1.0881661 |
| y06   | .9155874 | .056998 | 16.06 | .000 | .7984263 1.032748 |
| y07   | .5427013 | .9403322 | 5.72 | .000 | .3478249 7.377772 |

Source: Author

Looking at p-value of the second reduced panel for Czech Republic we can also confirm that all dependent variables are significant at 10% significance level. The results indicate that 1% increase of ICT capital variable would lead to 0.015% increase in productivity (holding all other variables constant), 1% increase of non-ICT capital would increase productivity by 0.014% and 1% increase of hours worked would decrease productivity by 0.4%. All dummies are significant therefore we can assume that there are other omitted variables that change over time and our model does not include them. The F statistic tests that the coefficients on the regressors are all jointly zero is rejected. The within R² is 91.52% which implies that our model is quite well specified.

We can compare our results also with previous study of Piatkowski and Van Ark from 2004, when they examined the ICT effects in CEE countries during 1995-2001 and concluded that ICT capital growth leads...
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to 0.87% average growth of output in four CEE countries (Czech Republic, Hungary, Poland and Slovakia). Average contribution of ICT capital in these countries was higher than average of EU-15 (0.73%), which indicates that ICTs might contribute to convergence process between CEE and EU-15. Our results show lower impacts but it may be caused by differences in methodology, datasets or longer time period. After longer time ICTs are more adopted and diffused in the country and their marginal ICT effects are getting lower.

In our model the ICT effects of Slovene industries seem to be significantly higher than in Czech Republic. Looking closely on correlation coefficients between productivity per employee and ICT capital there is significant positive correlation (above 0.7) for almost all industries (except for Textiles, Textile, Leather and Footwear industry (1719), Coke, Refined Petroleum and Nuclear Fuel industry (23) and Sale, Maintenance and Repair of Motor Vehicles and Motorcycles; Retail sale of Fuel (50)), which might mean that almost all industries reach considerable benefits of using ICTs. They might have proper establishment of ICT capital and also other complementary factors that improve the ICT effects might be well adjusted such as infrastructure, suitable economical and political environment, ICT-skilled workforce etc.

On the other hand Czech industry correlation coefficients of productivity and ICT capital are mainly insignificant or negative. The highest correlation slightly above 0.7 is reached only in Wood and of Wood and Cork industry (20), Electrical and Optical Equipment (3033) and Renting of M&EQ and Other Business Activities (7174)). The highest negative correlation is in Mining and Quarrying industry (0.42), but in this case we did not even expect high correlation according to the industry character.

Insignificant or negative correlations in some industries might be explained by wrong cost policy, time-consuming process of new technologies adoption (for instance employees training, adjustment of internal and external processes of companies etc), unqualified or insufficiently trained employees, inefficient computerization, obsolescence and low flexibility of business processes, incorrect bookkeeping of ICT capital, incorrect management of ICT investment (for instance “maverick spend”) etc.

Moreover, other reasons might be for instance that some industries (or companies) invest into ICT but their core processes do not necessarily require significant ICT support and increase in ICTs would not lead to higher productivity anyway or some industries still have low level of ICT investment and therefore their productivity may be also low. But in this
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In the case we can assume that higher increase in the usage of ICTs but also improvement and modernisation of business processes and management would improve their productivity results.

Unfortunately, we analysed only available aggregated data on the industry level therefore we miss a lot of information about individual firms in each industry and their characteristics (number of companies, their size etc). Moreover, we do not have also detail information about the concrete forms of ICTs used in individual companies, which might be very important to assess the real ICT impacts. For instance report about the ICT impacts “Information Society: ICT impact assessment by linking data from different sources" concluded that some technologies are more beneficial for certain industries. Inappropriate even huge investment in ICTs in the industry will not bring expected effects, which could also partly explain insignificant results in some examined industries of our research.

Conclusion

The main aim of this paper is to study the ICT impacts of Czech Republic and Slovenia during 1995-2006. We believe that more studies focused on CEE countries and higher interest in this region would lead to its further economic growth. By improving methodologies and more precise analyses in this field we might potentially lower income gap within Europe as well as lower negative impacts of the crisis.

For the purpose of the ICT impacts assessment we conducted panel data analysis, which controls for variables that vary across subjects but not over time or are unobserved or unmeasured and therefore can not be included in regular OLS regression.

Czech results from macro analysis did not prove significance of ICT investment in sense of productivity growth, which is measured by logarithm of gross output per employee. In comparison to Slovenia which shows significant ICT effects without any reduction of whole economy panel. Taking into account heterogeneity of industries and the fact that not all the industries need to implement ICTs into their production, we performed analysis which excluded industries with the lowest average ICT capital share from both countries. Afterwards also Czech Republic proved importance of ICT capital to productivity growth. But looking separately on individual industry correlation coefficients between productivity and ICT capital, majority of Czech industries demonstrate low or negative correlations. We cannot confirm that ICT investment in Czech Republic significantly contribute to productivity growth in every industry. But it might be also caused by other factors.
such as for instance unqualified or insufficiently trained employees, inefficient computerization, obsolescence and low flexibility of business processes or incorrect management of ICT investment etc.

Unfortunately, we have to admit that our analysis lacks detail data about industry structures (number of companies or their size involved in an industry) which would help us better detect the ICT impacts in individual industry branches, effective distribution of ICT capital or suitable form of technologies that matches industry or company individual needs. We are also aware of insufficient length of the time series in our analysis what could lead to biased results. Therefore we consider our analysis as eventual model or proposal for further research in this field more than explicit evaluation of the ICT impacts. Our main ambition was to point out on inevitability to pay more attention to potential benefits of ICTs in CEE countries and development of our region.

**Resources**


THE CONTEMPORARY MILITARY: BETWEEN PUBLIC INDIFFERENCE AND TRUST

Marjan Malešič

Abstract

The early debates on civil-military relations were limited to the relations between the military and the state whereas contemporary studies encompass the military, state and political institutions, and civil society (the public). The article deals with two elements of the triad, namely the relationship between the military and the public, and it deals with the following concepts: marginalization of the military in contemporary society, public trust in the military and public support of the military in terms of missions performed, provision of financial and human resources, and development projects. The article brings about a comparative analysis and a typology of countries reflecting the attitude of the public towards the military.

Key words: civil-military relations, military, public, indifference, trust, social distance

Introduction

When we consider the relationship between the public and the military in contemporary societies we should observe that the early debates on civil-military relations were limited to the relations between the military and the state (see, e.g. Huntington 1957), where the public was not considered as a relevant factor. Janowitz (1960), however, conceptualized civil-military relations in terms of the relations between the military and society, and also left some space for the general public to be explored in this context. He argued that the military ought to reflect civilian society as closely as possible.

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1 Marjan Malešič is a Professor at the Faculty of Social Sciences (FSS) and a Head of Defence Research Centre at the Institute of Social Sciences, University of Ljubljana. His recent teaching and research areas are environmental security, security policy, crisis management, and public opinion on security. Malešič served as a Vice-Dean responsible for research at FSS (2007-2011) and as a Chairman of European Research Group on Military and Society (ERGOMAS; 2000-2002). He is a member of EU’s COST Domain Committee for ‘Individuals, Societies, Cultures and Health’.
Segal (2003: 61) introduced some concepts that attempt to explain recent civil-military relations in U.S. The ‘culture gap’ (Feaver/Kohn 2001) between the military and society which contributes to the weakening of the civilian control of the military and the alienation of soldiers from the civilian populace, appears not to be fully validated. In a broader context, the concept of a postmodern military (Moskos et al. 2000) is also significant for an understanding of civil-military relations. The question arises, however, whether contemporary military organizations, warfare and soldiers have undergone any major change, or whether they are, in fact, merely a modern incarnation of the same long-term historical patterns (Segal 2003: 62). Concepts that deserve our full attention in this context are the institutional versus occupational (I/O) hypothesis (Moskos 1977), the conceptualization of new military professionalism which stresses the overlap of civilian and military spheres (Sarkesian 1981), and the recognition that military officers are not necessarily representative of the military as a whole (Segal et al. 1974). Also important is Bland’s concept of ‘shared responsibility’ between politicians and military officers which requires constant dialogue between them. Bland (1999: 8) warned that the problem of civil-military relations is often “politicians’ indifference and inattention to military matters and the inadequate understanding of the politics of defense by military professionals”.

Cohn (2003: 65) concurs that the civil-military concept is broader in its nature, having in mind that ‘civilian’ can be divided into those civilians who represent the authorities and those who comprise ‘general society’. In the past, the analyses of civil-military relations were too often limited to the relationship between the political and military elites. Cohn (2003: 65) asserts that “to reduce all civil-military relations to a question of who is holding the reins” is too simplistic – it is true that the state cannot survive without the protection of the military, but it is also true that in a democracy the military cannot survive without the support of the general public. She introduces the triad of civil-military relations, in which the government should not abuse its authority over the military institution; the general public should inform itself of and participate in matters of national security; and military personnel should subordinate their institutional and personal interests to the legitimate civilian authority. The military should also be constantly aware of the mutual dependence between themselves and the general populace. Boëne (2003: 121) also uses a triad to explain civil-military relations, taking into account “the armed forces, the state and society”.

Pinch (2003: 82) similarly recognizes civil-military relations as an interface between the military and the political/governmental
establishment on the one hand and between the military and civilian society on the other. As to the military-societal interface, the cooperation between the armed forces and civilian institutions and the level of value congruence among both is regarded as being of strategic significance in terms of ‘human resource management’. Pinch (2003: 82) also sees the public attitudes towards the military and military-media relations as an indicator of civil-military relations in society.

Kuhlmann (2003: 93), in a cross-national comparative research on civil-military relations, notices that it is important to decide which strata of society should be taken into account when studying the relationship between the military and society. The inclusion of only those institutions that have the legal authority to execute control over military bodies represents too narrow an approach. All institutions and organizations that contribute to the public debate about security policy and military matters should be included in the analysis.

According to Dandeker (2000: 9), civil-military relations have two dimensions. The first one is related to the question raised by Boëne (1990), namely how the military and society deal with tensions emanating from “the need of armed forces to remain apart from society with distinctive organizational structure and a culture or ethos to (...) protect society, and at the same time to reflect that society’s civilian norms and values”. The second dimension raises the question of how the military’s use of coercive force serves the legitimate and democratic objectives of the society without prejudicing the professional autonomy of an effective military. Dandeker (2000: 37) discerns two trends that are crucial for the political dimension of civil-military relations and are relevant for our discussion. The first one is the impact of electronic media and public opinion on the formulation and implementation of security policy in terms of managing the potential tensions between the military imperative for secrecy and the public’s right to be informed. The second trend is related to the ICT revolution that further erodes the boundaries between political and technical military decision-making and makes the work of politicians and military officers less distinctive.

Therefore civil-military relations extend far beyond the relationship between the military and the civilian authorities; they also involve civil society with the public playing a significant part in it. Various permutations are possible within the individual elements of the triad; among them, however, we will be interested in the question of public trust in the contemporary military, which reflects the legitimacy of armed forces in society. We will try to explain four distinctive but interrelated and even ostensibly contradictory observations: (1) The military is
marginalized and less visible in contemporary society, (2) The contemporary military enjoys public trust, (3) The level of public trust in the military does not reflect in the readiness of civilian society to cooperate with the armed forces and in the public support of the military’s missions and development projects, and (4) the ratio between trust and indifference is idiosyncratic and varies from one country to another.

To explain these observations, we will first theoretically conceptualise the relationship between the military and the public. That will be followed by secondary analysis of public opinion data in various countries whereas at the end of the process we will make a comparison among and classification of countries explored in the analysis.

Public Trust in the Military: A Comparative Approach

Several researchers have explored the relationship between the public and the military as an institution. Burk/Moskos (1994) assert that public opinion on the armed forces in postmodern societies is sceptical and even characterized by ‘apathy’. Since the end of the Cold War defense no longer seems to be an important social objective; the armed forces are subject to a transformation towards an all-volunteer force, and the military has consequently become somewhat marginalized in the public’s view. Shaw (2000: 23f.) touches upon the issue in the context of a ‘post-military society’. He examines the post-Cold War trend in Western states in particular, and notes that, due to the technological advances in weaponry and the subsequent diminished participation of citizens in the military as a component of citizenship, militarism no longer takes the same forms and no longer holds the same significance that it did in the past. Even military institutions could be described as ‘post-military’ in terms of their assuming new missions of peacekeeping and peace-making, humanitarian assistance, policing in a global context, and war-managing. Moskos et al. (2000) characterize the public attitudes toward the military in the post-Cold War era as ‘indifferent’. The ‘postmodern military’ is confronted with a diminished level of military threats, the transformation of the manning system, and a limitation on the resources available for their operations and further development. All these trends should lead to the marginalization of the military. Van der Meulen (2003: 299) examines that relationship in the context of legitimacy. In his view, the typical institutional characteristics of the military as ‘managers of violence’ explain why the issue of legitimacy is so important for the

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2 Today more than three quarters of European countries made a decision to suspend conscription and to introduce the All-Volunteer Force.
military, especially in a democratic society. For van der Meulen (1998: 148) public opinion is a central concept for assessing the legitimacy of the armed forces.

However, public attitudes towards the military have not necessarily followed the above mentioned patterns of indifference, apathy and marginalization. On the contrary notes Van der Meulen (2003: 200), while defense may no longer be widely regarded as an important common goal, the trust of the public in the military has increased. Similarly, new military missions in a postmodern society are understood in the context of protecting human rights and therefore receive a high level of approval with the public. Indeed, van der Meulen’s cross-national analysis of public opinion trends in Europe during the 1990s displayed a growth of confidence in the military.

Manigart (2001: 26; 2003: 34) also obtained cross-national data to prove that confidence in the military has increased in all EU countries (15 at that time) between 1997 and 2001, with the exception of Finland and Greece, where indicators of trust were the highest anyway. The data reveals that the armed forces top the list of the most trusted social institutions (reaching 71 percent), ahead of the police, the educational system, humanitarian organizations, the United Nations, the mass media and so forth. At the bottom of the list are political parties, scoring only 18 percent. Manigart (2001: 28) also revealed that the Finns trust the military the most (91 percent), followed by the Greek and the Irish with 87 percent and 85 percent respectively, whereas the lowest level of trust was expressed in Spain (65 percent), Denmark (66 percent) and Italy (67 percent).

Similarly, Burk (1994) reports, that the military in U.S. is regarded as one of the most prestigious institutions in society. Although there were some signs of a growing ‘social distance’ between the military and the public at the beginning of the 1990s (the quality of public support for the military engagement abroad and the structural isolation of the all-volunteer force), Burk proved that the phenomenon was not as salient as some may have thought. According to Leal (2005: 123), recent polls in the U.S. reveal that the military is the most respected government institution, too, which is crucial for the American armed forces in terms of

3 However, Ricks (1997, 2) reported on the sense of alienation from their former civilian lives felt by Marine recruits, whom he interviewed in 1995. Each of the Marines seemed to experience “a moment of private loathing for public America”. They were astonished by the unfitness of civilians, their uncouth behavior, selfishness and consumerism. Some Marines avoided their old friends and even members of their families. Civilians seemed to be self-destructive losers, a bunch of freaks, goofing around and not trying hard enough.
garnering support for funding and raising recruitment. Without strong public support these two objectives cannot be adequately achieved. Cohn (2003: 66) asserts however, that the American military is both respected and slightly mistrusted: “Military personnel look down on civilians as slovenly and degenerate, and civilians look down on the military personnel as unintelligent and unimaginative; military personnel are told that politics is none of their business, and are then thrust into situations where they have no choice but to be political”.

Pinch (2003: 82) reveals that the Canadian public has often taken an ambivalent position towards the military, returning “quite a positive” response when asking specific questions about the institution; however, spending on the armed forces was perceived as a rather low priority. Due to the various scandals during their deployments abroad in the 1990s, the Canadian Forces have lost a lot of media support and have also suffered from a lower level of support from both the government and the public. Recent polls show that trust and support have been re-established in several dimensions of military activities, meaning that the public’s image of the armed forces has improved. This is a consequence of an improvement in internal communication and the exchange of information with the media and the public.

Wither (2003: 76) reports that the British public respects the armed forces for their professionalism and effectiveness, however, the military profession is little understood by most civilians. This is a consequence of the fact that, with the exception of the two world wars, Britain has relied on relatively small professional armed forces for the entire 20th century; thus, citizens in general have had little chance to experience military service. Questions of defense and the military are not salient topics during election campaigns, nor do the political elite and the public pay a lot of attention to military matters. The outsourcing and privatizing of some support functions have not improved the picture, the disappearance of military uniforms from the streets is not helpful either. All these circumstances increase “a sense of separate military and civilian societies” (Whither 2003: 76). Most military commanders are satisfied with the civil-military distance in order to be able to maintain the military ethos and the discipline required to sustain an individual in combat. However, rapid social change in Europe and the greater integration of the UK into the EU have emphasized the rights of the individual in the domain of employment and social legislation which has undermined the military’s ‘separateness’ from the wider social and

4 The MoD launched a public discussion of the Strategic Defence Review in 2002 through local authorities, public libraries and via the internet, and it received only 252 replies (Wither 2003: 76).
cultural environment. Several judicial verdicts have been issued to this
effect improving the position of individuals in the military and affecting
changes within the military itself.

The review of public opinion data in France (Les Francais et la Defense
2002: 43) reveals that 81 percent of the population held a good opinion
of the French Armed Forces in 2001. And a look at the trend over a
decade shows that the data range +/- four percent around this figure. Judging the armed forces in 2001, the general population expresses
sympathy (78 percent), a feeling of security (72 percent), and pride (67
percent).

Recent public opinion surveys have also revealed a relatively high trust
in the military in Switzerland (Haltiner et al. 2005: 65). Haltiner (2003:
85) reports that the Swiss military was more subject to public scrutiny
and criticism during the Cold War than it has been since the new
millennium, although its “social and political valuation of the role of the
military has changed”5. Although the acceptance of the military oscillates
at around 70 percent, the attitude is “characterized by a kind of apathy”
(Haltiner 2003: 85). Szvircsev et al. (2010: 15) reveal that in 2010 the
Swiss Armed Forces have reached a medium level trust among the
federal institutions and have regained the 2009 level of trust and
support. Nevertheless, while three quarters of the population believe that
the armed forces are necessary and wish to have well-equipped and
well-trained armed forces, half of the population advocates military
downsizing. Also, the ratio between the advocates of a militia and an all-
volunteer force is more or less balanced. Although the trust into the
military has recovered from a low in the previous year, the level remains
below the average of several years. In general, the Swiss Armed Forces
receive high approval rates, however opinions are divided regarding
their size and form.

Similar public attitudes towards the military have been observed in
Slovakia and Poland. In the former the military is perceived ‘very
positively’ and the armed forces represent an institution which the
Slovaks ‘deeply trust’, however, the military “has never been paid any
special attention by society’ (Čukan 2003: 117). In addition, trust in the
military is not a consequence of its combat experience, but rather a
result of positive interactions between soldiers and the general public,
such as the military’s involvement in search and rescue activities during

5 Haltiner refers to two referenda held in Switzerland on the abolition of the armed
forces that took place in 1989 and 2001, respectively. The latter was regarded as a
complete failure with a minimal turnout and only 22 percent of voters favoring
abolition; even among young voters the idea was not accepted.
natural disasters, and performing other tasks that follow from the ‘societal imperative’. However, Čukan warns that the public is not well informed about the problems in the military due to an information barrier that has been erected to protect the military from public scrutiny. As a consequence, Slovak public opinion of the military can be said to rest on certain myths rather than on reality. The trust in the military has grown from an initial 52 percent in 1993, when the Slovak armed forces were established, to over 70 percent in recent years.

In Poland, the military also seems to be an institution of high social prestige which inspires public confidence: In various polls the public has chosen the military “as one of the most trusted institutions” (Gogolewska 2003: 104). Some 60 – 75 percent of the population holds a positive image of the military. In 2001, 76 percent of the respondents declared their confidence in the armed forces. According to Gogolewska, a high level of trust in the army does not necessarily mean that it is popular and socially respected. Compulsory conscription is rejected by a majority of the respondents; meanwhile officers have become frustrated at the loss of jobs, the drop in living standards and the continuous reductions and reforms of the armed forces, as well as the communication gap between the military and the rest of society. The gap is also a consequence of the absence of a genuine security community in Poland (Gogolewska 2003: 106).

On the contrary, at the end of the last and the beginning of new millennium, the level of trust in the military in Hungary is characterized as being rather low. Only 27 percent of respondents ‘absolutely’ or ‘rather’ trust the military as an institution; this is closely related to the heated debates at the time regarding the abolition of conscription and the introduction of an all-volunteer force (Kiss 2003: 137).

In Ukraine, the armed forces do not attract much public attention except as a result of extraordinary events such as the missile that hit a house, the missile that brought down a civilian airplane (70 casualties) and a tragedy during an air show (80 casualties) at the beginning of millennium. Consequently, more than half of the Ukrainian population is concerned about the situation in the military and believes that the country should not maintain large and ill-equipped armed forces (Churylov 2003: 157).

As reported by Rukavishnikov (2003: 163f.) Russian trust in its armed forces has been very much dependent on the wars in Chechnya. During the first war, from 1994 – 96, the armed forces have experienced a considerable reputation damage: The portion of respondents who claim
to be ‘fully confident’ in the armed forces has dropped from 37 to 27 percent. During the second Chechen war, which began in 1999 as a ‘counter-terrorist operation’, the public trust in the Russian army has increased to 48 percent due to its initial success, however in 2001 it has again dropped to 33 percent. According to Rukavishnikov, Russian public opinion is very much influenced by the mass media that have challenged the official version of the wars, and it is evident that the state and the military institutions have lost the ‘information war’ despite their continuous effort, especially during the second Chechen war, to control the flow of information and to influence the public view.

In the former Federal Republic of Yugoslavia, where the military was defeated in several wars during the 1990s (Slovenia, Croatia, Bosnia & Hercegovina and Kosovo), the level of trust did not fall below 50 percent. It appears to be the case that military defeat during the NATO air strikes against the country in Spring 1999 has even strengthened public trust (65 percent), which has decreased to 53 percent in 2000, just prior to the fall of Milošević’s regime. Soon after the toppling of Milošević trust in the military increases to 75 percent again, but another drop in public support can be seen in mid-2001, down to 57 percent and even to 48 percent by the end of that year (Timotić 2003: 206, 208). In Bosnia & Herzegovina trust in the military is also rather high: 54 percent in the Republika Srpska and even higher in the Federation – 60 percent. This trend is supported by two important factors: (1) the conviction that each entity should have its own armed forces; and (2) the strong feeling that the armed forces’ main mission is to defend the territory against a potential enemy (Turković 2003: 224). In Macedonia, a 2001 poll demonstrated that the armed forces are also highly trusted. They are regarded as a successful crisis management institution and as fully capable to defend the country by 78 percent of the respondents (Vankovska 2003: 224).

The Bulgarian Armed Forces have also managed to attract a high level of support and trust from the very beginning of its democratic transformation in 1989. Yanakiev (2003: 257) reports that the level of confidence in the armed forces varied from 63 to 70 percent in the period immediately following the democratic transformation and has not changed since then. This is due to the armed forces’ political neutrality in the transitional process, the cadre reform of the upper echelons of the military, and the assumption of its new role as a peacekeeper and participant in humanitarian missions. In Romania the trust in the military is also high and accompanied by a willingness of the public to support

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6 The FRY was renamed in the State Community of Serbia and Montenegro in 2003, whereas following the declaration of Montenegrin independence in 2006 both countries became separate and independent states.
the reform process and to increase of defense budget (Watts 2003: 280).

In Slovenia recent data reveal (see DRC public opinion poll 2012), that the armed forces rank third among fifteen relevant social institutions. The most trusted institutions are the family and relatives, the educational system, and the armed forces. The latter enjoys more trust than humanitarian organizations, the ombudsman, the police, the president of the state, trade unions, the courts, the Euro, and the mass media. The least trusted institutions in society are the parliament, the government, the intelligence agency and the church.

The armed forces therefore currently enjoy a relatively high level of trust within society. However, trust in the armed forces has been significantly changing over the last two decades. At the beginning of the 1990s it was rather high (60 percent), however from that time to the mid-1990s trust in the armed forces gradually eroded (30 percent). In 1998, the level of trust began to increase again, and during the next two years this trend became even more prominent (54 percent). In the first years of the 21st century the armed forces enjoyed almost the same level of trust as they had at the beginning of the 1990s (around 60 per cent), and until 2007 it remained fairly stable. However, in 2009 the level of trust has once again fallen below 50 percent, whereas in 2012 it slightly recovered again (53 percent).

The reasons for these changes during the last two decades are not easy to explain. The initial high level of trust can be reasonably explained by the successful role of the territorial defense units during the armed conflict against the Yugoslav People’s Army after Slovenia’s proclamation of independence in 1991. We can speculate that the downward trend in the first half of the 1990s was connected to the loss of prestige which the armed forces felt they had earned by their successful protection of Slovenia’s independence and also connected to the unclear and only partially successful military reforms in the following years. This process was accompanied by several ‘affairs’ in which the military was involved.7

The political project of NATO membership and the military reforms necessitated could also be linked to the shift in trust during the 1990s. In

7 Here, one has to mention the ‘Depala vas’ affair, where the military police stopped and beat a civilian, a supposed spy; an arms trafficking affair, where a transfer of arms to Bosnia & Herzegovina that was under UN embargo was disclosed; and the misuse of trust in the MoD that became obvious when training video tapes were used to test the political inclinations of military officers. (for more details see Malešič 2006).
1997, despite expectations, Slovenia was not invited to join NATO. For politicians this represented a thorough disappointment resulting in an even more active reform policy to meet the criteria for NATO membership. In 1998, Slovenia adopted a comprehensive national strategy for NATO integration which included the ‘restructuring, reorganization and modernization’ of the armed forces and an announced increase in defense spending. The pace of reforms was accelerated. Additionally, participation in peace operations began in 1997 with the number of soldiers deployed constantly increasing since then. Through these missions the armed forces have become more visible to the public. Modernization, together with new objectives performed in support of international peace and stability could perhaps best explain the subsequent increase in trust in the military (Malešič/Vegič 2009: 115). At the beginning of the millennium we witnessed the theft of weapons from military storages that remained for a long time unexplained, and, even more importantly, the system of conscription faced a crisis: Demographic trends in Slovenia were unfavorable, the level of conscientious objection was particularly high and still increasing, and the number of conscripts who were not medically fit was also increasing, most probably in large part in an attempt to dodge the draft (Malesic 2003: 173). The introduction of an all-volunteer force in 2003 improved the picture and the level of trust again increased. However, within the last couple of years, trust in the armed forces has once again decreased most probably due to the ‘Patria affair’ and the heated political debate questioning the wisdom of the deployment of soldiers abroad, especially in Afghanistan. The 2012 positive turn could be explained by the fact that the armed forces were the first institutional ‘victim’ of social and economic crisis, renouncing app. a fifth of their regular budget.

We also checked the correlations between the performance rating, trust and reputation of the Slovenian Armed Forces, and selected independent variables by using the method of cross-tabulations. As far as performance rating is concerned, age ($\chi^2 = 0.161$) and education ($\chi^2 = 0.639$) of the respondents are not significant variables. However, gender is significant as far as the performance rate of armed forces is concerned ($\chi^2 = 0.026$) since 68 percent of the men think that the armed forces do not perform well compared to 32 percent of the women. The t-test confirms that men are much more critical towards the armed forces performance than women.

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8 The Slovenian MoD commissioned 135 armored vehicles from the Finnish provider Patria in December 2006; allegations of corruption erupted even before the delivery of the first vehicle. Several court trials are taking place in Austria, Slovenia and Finland as a result of this ongoing affair.
Furthermore, there is a significant correlation (\( \chi^2 = 0.000 \)) between trust in the Slovenian Armed Forces and age of respondents. Trust in the armed forces increases with the age of respondents. Whereas 61 percent of those aged 56 and above rather or completely trust in the armed forces, only 35 percent of those 26 – 35 years old do so. The strength of the correlation between education and trust is a bit weaker (\( \chi^2 = 0.042 \)), but still existing. Less educated respondents have slightly more trust in the military than those with a higher level of education. Gender, in turn, does not significantly influence the level of trust (\( \chi^2 = 0.097 \)).

Finally, there is a significant correlation between reputation of the Slovenian Armed Forces, age (\( \chi^2 = 0.017 \)) and education (\( \chi^2 = 0.017 \)). Again, the reputation of the armed forces increases with age (the older the respondent the better the perceived reputation) and decreases with the level of education (the higher the level of education, the lower the perceived reputation). When it comes to gender, this is not a significant variable affecting the perceived reputation of the armed forces (\( \chi^2 = 0.227 \)).

Bebler (2000: 147) warns however that the high public trust in the Slovenian military is not followed by its high prestige in the society, nor by adequate public interest in military matters. The awareness of the Slovenian political and military elites that efficient and legitimate armed forces must equally satisfy the social, political and functional expectations of the public seems to be crucial in this context (Jelušič 2003: 183).

Why is the trust in the military so high in almost all the countries analyzed? According to Kuhlmann (2003: 99), participation in international missions has brought back legitimacy and prestige to Europe’s armed forces in general. This level was never achieved in times when traditional military missions prevailed. The highest levels of trust and prestige associated with the armed forces were experienced in Finland, Bulgaria and Romania; whereas Russia, Hungary and the Czech Republic experience the opposite pattern. Haltiner (2003: 85) reports that in Switzerland most people acknowledge the need for some form of national defense and the role of military in it, but they do not want to be involved personally: The so-called ‘without me’ attitude. Similarly to Haltiner’s observation, Kuhlmann notes that a high level of public support for the armed forces does not mean that the ‘count me out’ inclination among civilians has been overcome, quite the opposite is true. Boëne (2003: 121) discerns that the process of transformation from
a conscript army to an all-volunteer force has triggered some fears among politicians that the military may become socially and culturally isolated. However, the strengthening of military-society links via outsourcing, recruitment policy contacts, the education of officers at civil universities and the possibility for officers to serve part of their career in civilian institutions has brought about the closer integration of the military with their parent society. Boëne (2003: 126), having in mind the case of France, seems to concur with Haltiner and Kuhlmann claiming that a “favorable public image of the military does not automatically translate into high recruitment figures”.

**Comparative Analysis Findings**

On the basis of the (limited) data available we have made a provisional attempt to display the clusters of countries (either individual countries or the EU-15 countries as a group) according to the level of trust and the level of indifference in the public’s attitudes towards the military. We placed this attitude in the broader context of the legitimacy of the armed forces in society and the potential social distance, and also in the context of the new military missions performed in the international arena, and military related ”projects” (budget, human resources, weapons and equipment, development objectives…). It seems that maintaining a high degree of trust in the military is a necessary, but insufficient precondition for achieving its legitimacy in society. Legitimacy is reached when trust is accompanied by a generally favorable attitude, including the public’s acceptance of military missions and their support for military ‘projects’.

As Graph indicates, we may distinguish several typical clusters. In the first cluster there are countries (Switzerland, Slovakia, Poland, Slovenia, and Ukraine) in which one or more of the favorable features are perceived as (relatively) high as far as public attitudes towards the armed forces are concerned: Trust, respect, a feeling of security, pride and sympathy; but concurrently one or more of the unfavorable characteristics are also perceived as highly present: Indifference, inattention, invisibility, marginalization, apathy and unpopularity.

The second cluster comprises EU-15 countries with a (relatively) high degree of trust in the military, but at the same time indifference is not as salient as in the first cluster.⁹

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⁹ We are cognizant of the fact that some EU-15 countries, e.g. Finland and Greece, might deviate from the average having an extremely high level of trust in the military and a concurrently relatively low level of indifference. Similarly, we could see that British armed forces are trusted by the public however public attention to military matters is rather low.
This cluster is followed by another entailing the U.S. and Canada where public trust in the military is again relatively high, but indifference is lower than among the majority of EU-15 countries.

The fourth cluster consists of Russia, the Czech Republic and Hungary which display a rather low degree of public trust in the military and a high level of indifference.

And finally, there is a cluster of countries (Bulgaria, Romania, the former Federal Republic of Yugoslavia, Bosnia & Herzegovina, and Macedonia) where it seems that a (relatively) high level of trust in the armed forces is accompanied by a (relatively) low level of indifference.
Graph: The Public and the Military: Trust and Indifference

Source: own research
Conclusion

Public support for the military is crucial to achieving its legitimacy in society, however many scholars warn that the public’s attitudes towards the military in a post-modern or post-military society is indifferent, characterized by the marginalization and invisibility of the military, and even a sense of apathy regarding the military. All these features produce a sense of separation between the military and civilian society or at least a growing social distance between them. However, the survey data, as a rule, demonstrate that public trust in the military has increased significantly over the last two decades. The military is (one of ) the most trusted and respected social institutions that maintains a good image, attracts sympathies and produces feelings of security in the majority of countries surveyed. Nevertheless, high approval rates do not necessarily equate to concrete public support for the military in terms of approving a higher defense budget, faster development and a better human resources management.

Why is there such a contradiction in the majority of countries in which a high level of trust in the armed forces is accompanied by a relatively high level of indifference? One possible general explanation can be found in the value structure of post-modern society, the prevailing values being pluralization and individualization, specialization and professionalization, hedonism, and the increasing importance of global concerns. One reason explaining the contradiction is most probably the profound change in threat perceptions where military threats as a rule no longer attract public attention, and the ‘fight against terrorism’ did not prove to be an adequate substitute in the majority of countries. It is possible that the communication gap between the military and the public also plays an important role to this effect, as noted by some analysts. There is also the question of the influence of different image-damaging ‘affairs’, such as Abu Ghraib and Guantanamo, the behavior of peacekeeping soldiers in Somalia, Bosnia & Herzegovina, Afghanistan etc., and the various military-related problems of corruption and crime in transition countries and so forth. The diminishing military experience amongst the general populace due to the suspension of conscription and the introduction of an all-volunteer force and the invisibility of the military in societies (there are no military uniforms on the streets) are not helpful either in creating more fruitful relationship between the military and the public.

The extent of the impact of these general characteristics of postmodern societies and their militaries should be studied on a case by case basis: Their significance and the combinations in which these characteristics appear are idiosyncratic and depend on the various countries. In the case of Slovenia, the question arises whether the public places its
confidence in the real military or perhaps in the military as imagined and wishfully thought by society: Well organized, effective and rational, the military that could be an important element of national identity and pride? Although the various disgraceful affairs in which the armed forces have been (in)directly involved from time to time cause oscillations, the level of public trust in the military remains relatively high. It also appears to be the case that ‘new military missions’ that were initially a source of legitimization of the armed forces from the end of 1990s onwards, in times of economic and social crisis and mass media reports on unsuccessful and ‘never ending’ operations abroad, have slowly, but steadily become a source of their de-legitimization\(^\text{10}\). It remains to be seen whether this trend will be followed by the public in other countries.

\(^{10}\) The poll results in 2012 revealed that 42 percent of population supports participation of Slovenia in peace operations whereas 45 percent opposes it.
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COMPETITIVENESS POSITION OF SLOVAK REPUBLIC - VARIOUS MEASURES COMPARISON

Tomáš Šoltés¹

Abstract
Is Slovakia competitive within the European area? Since other European countries represent the main and direct competitors of Slovak republic, this paper analyzes the competitive position of Slovak republic from the view of 4 competitiveness measures. It takes into consideration two competitiveness indices prepared by renowned international organizations active in the field of national competitiveness measurement (WEF, IMD), as well as two characteristics identified by most theoretical and practical approaches to be the most suitable measures of a country’s competitiveness – GDP growth and productivity. Based on these 4 measures, the paper presents a simple ranking of Slovak republic for each of the measures.

Key words: competitiveness position, measures

Introduction
The today’s world is more and more globalised. This sentence was and probably still is very popular in many fields. The truth, however, may be that the today’s world has been almost fully globalized for some time now. This always creates more competition among individuals, companies, nations, regions, etc. In order to be successful in any field, one must always be a step ahead of the competition. Countries and regions in most parts of the world represent fully open entities interacting with other countries or regions and trying to be successful in order to ensure prosperity and high living standards for their citizens. Therefore, national and/or regional competitiveness is a very current topic. Efforts in the field of increasing production efficiency and consequently ensuring the competitiveness of countries have been especially active in time of the still ongoing global economic crisis, but have been in one form or another present even before the crisis. The reason for the sudden increase in efforts is the fact that countries are now more than ever

¹ Tomáš Šoltés is a internal PhD student at the Department of Regional Sciences and Management at the Faculty of Economics, Technical University in Košice, Slovakia (tomas.soltes (at) tuke.sk)
trying to be successful in an intensive manner, trying to enhance the performance without the need for any additional resources. Since the concept of competitiveness, as will be shown later in the paper, is mostly defined as the ability to achieve economic growth, the efforts of national and regional governments are aimed on the support of all of the aspects that can improve the performance of the economy. For these purposes it is important to know how to measure competitiveness and what factors influence competitiveness, and so to know what aspects to improve in order to enhance competitiveness.

Slovakia is no exception in analysis and enhancement efforts in the field of national and regional competitiveness. Enhancement of Slovak competitiveness is set in many programming and strategic documents as one of the most important priority areas aimed on the achievement of the targeted growth in living standard and ensuring of sustainable development of Slovak republic. Therefore, the analysis undertaken in this paper will show the perception of competitiveness from the viewpoint of the most relevant theoretical approaches, renowned international institutions active in the field of competitiveness measurement, as well as the perception of competitiveness by the main strategic documents of Slovak republic in the field of competitiveness enhancement. The aim is to present a theoretical background overview in order to better understand the basis of competitiveness, the factors that affect it and to better analyze and understand the position of Slovakia from the view of international competitiveness.

This paper in the light of above mentioned facts tries to compare European countries from the viewpoint of several competitiveness measures and proposes a simple ranking based on these measures. It helps to show the competitive position of Slovak republic among European countries and analyze which of the measures should be considered by different Slovak governance levels in order to assess competitiveness in the most suitable way and prepare policies and strategic documents with respect to the measures, where Slovak republic has the most powerful position.

The concept of competitiveness

The concept of competitiveness has a long history, which was, however, mainly focused on the analysis in the field of businesses (individual companies). Despite that, we can find throughout the economic theory various examples of studies that try to identify and analyze various aspects of the success of countries in international comparison. This shows that even though the term competitiveness was not originally intended for or used in the case of countries, we can somehow find
synonyms of this term also on the level of countries. The following text shows only a brief extract of the author’s previous efforts in the field of competitiveness understanding. It should provide the reader with an insight into the theoretical background of competitiveness. However, since the theory behind competitiveness is not the main issue of this paper, we will try not to bother the reader with too many and detailed theories, approaches, definitions, etc., but rather present conclusions and/or conjunctions.

A short overview of theoretical approaches to competitiveness

The theoretical approaches to competitiveness can be, based on previous research undertaken by the author, broadly divided into two large groups. The first group understands competitiveness as the ability of a country to achieve some kind of an advantage over other countries. This group is represented mainly by the classical economics and approaches and theoretical schools based on classical economics. On the other hand, the second group is based on the ability of countries and their economies to successfully capitalize its products in international markets environment (e.g. New Trade Theory). The joint idea of both of the two groups is the identification of productivity as the source of success of countries, and thus, in a figurative meaning also the source of competitiveness of a country.

As mentioned above, the first group of theoretical approaches is largely characterized by classical economics. Among the most influential classical authors who have directly examined the "advantages" of countries were in particular Adam Smith and David Ricardo. Especially Ricardo's theory on comparative advantage was indeed an early attempt to understand how nations compete. The Ricardian model assumes that countries differ in their production technology and that each country has a comparative advantage in the production of at least one good. Then, by exploiting this advantage the country can maximize its possible output. Competitiveness would then be a function of production technology, or in other words the added productivity that the enhanced technology provides.

The second group focuses on the success of a country’s production on international markets. This assumption is quite understandable. We will, however, use this group as an opportunity to present a critique of national competitiveness. It can be illustrated by the example of the New Trade Theory and the work of its most famous representative Paul Krugman. Krugman, in his theory criticizes the concept of competitiveness. Krugman goes even further and calls the concept of national competitiveness a dangerous obsession. According to his work,
Krugman bases his critique on three key aspects. First of all, there is no limit for a country, not like in the case of companies, which would clearly represent the bankruptcy of a country (meaning the end of existence). Another complication is that the success of one company is the loss to another (loss in revenues, sales, market share etc.). But this does not apply to country level, where even the success of one country or region creates opportunities for other countries or regions. Finally, according to Krugman, if competitiveness is of any importance, then only in the sense that it is only another way how to express productivity. (Krugman, 1994) This part is, however, only a short extract of many theoretical studies and approaches to national competitiveness that was analyzed in the former efforts of the author. As the main aim of this article is not the theoretical concept of national competitiveness, this part is intended only as an insight into the issue of theoretical basis of competitiveness on the level of nations. The most important fact of the previous short preview is the identification of productivity as the main driving force of competitiveness.

In the following part we will apply the same to the empirical studies of competitiveness and we will present some of the most popular and most comprehensive approaches to monitoring and/or measuring international competitiveness.

Understanding of competitiveness by international organizations

This part will show the definitions and understanding of national competitiveness from the view of international organizations that have a long tradition in analyzing and/or monitoring, measuring and ranking of competitiveness on national level.

As mentioned above, this is only a brief description with the aim to identify possible measures for the international comparison of the competitive position of Slovak republic.

Organization for Economic Cooperation and Development

If we would like to get an exact definition of competitiveness according to the OECD, we would have to search for it earlier reports and documents published in the various departments of the OECD. Such definition can be found in the OECD's project focused on the Framework Conditions for Industrial Competitiveness. This document defines competitiveness as "... the capacity of firms, sectors, regions, countries or supranational regions to generate, in an environment exposed to international competition, relatively high factor income and factor employment on a sustainable basis."
World Economic Forum

World Economic Forum (WEF) since 1979 publishes the annual Global Competitiveness Report, which is one of the most comprehensive sources of information on comparative advantages, weaknesses and opportunities of economies around the world. The Global Competitiveness Report for 2009/2010 defines the concept of competitiveness as "... set of institutions, policies and factors that determine a country's level of productivity. The level of productivity then predetermines a sustainable level of prosperity that can be achieved by the economy." In other words, more competitive economies can produce higher revenues for its citizens. The most important fact in this context is the identification of productivity as a source of competitiveness.

Institute for Strategy and Competitiveness at the University of Harvard

A report prepared for the Council on Competitiveness by Michael Porter (Porter, 2007), which was dedicated to the understanding of competitiveness and its causes, defined the aim of competitiveness as the prosperity of nations, or alternatively the per capita standard of living. The aim of various competitiveness policies should therefore be to maximize productivity in order to ensure that production of a certain country will be able to compete in international markets with products of other countries. This will ultimately ensure a rising per capita standard of living. The main source of long-term prosperity is the productivity with which a country can use its human, financial and natural resources in the production of goods (Porter, 2007).

European Union

European Union on an annual basis publishes its European Competitiveness Report (ECR). In its 2009 version, competitiveness is directly defined as: "Competitiveness is seen as a sustainable growth in living standards of the country or region at the lowest possible involuntary unemployment rate." The main objective of the ECR is to analyze and evaluate the competitiveness of European countries with emphasis on the examination of productivity as the most reliable indicator of long-term competitiveness. In addition, the 2009 report also says that "competitiveness represents the overall economic performance of a country measured by the country's ability to provide all of its citizens with increase in their standard of living on a sustainable basis and with a broad access to working positions for those who are willing to work."
International Institute for Management Development

International Institute for Management Development annually publishes the World Competitiveness Yearbook (WCY). It is a comprehensive annual report on the competitiveness of countries published since 1989. WCY provides analysis, comparison, trends, statistics and opinions on the competitiveness of the most economies of the world. WCY analyzes and evaluates how nations manage their competencies and resources to achieve greater prosperity. WCY for the year 2010 states that "competitiveness of the economy cannot be understood only in relation to GDP and productivity, because firms must also overcome political, social and cultural dimensions. Therefore, countries must create an environment with the most appropriate structure, institutions and policies to support business competitiveness." As the definition clearly states, national competitiveness is based according to WCY on microeconomic foundations, but mentions also GDP and productivity as important factors.

Understanding of competitiveness in terms of Slovak Republic

Despite the orientation of Slovak strategic documents on the increasing of the competitiveness of Slovak republic, these documents do not directly define the very concept of competitiveness. However, we can assume that in the preparation process of such important documents the authors considered the most important known concepts and theoretical approaches to competitiveness.

National Strategic Reference Framework (NSRF) is the basic document of the Slovak Republic in the field of economic development, competitiveness and innovation for the programming period of 2007 - 2013. Despite the fact that this document is the basic document for the identification of economic and performance priorities of Slovakia, it does not contain a specific and comprehensive definition of competitiveness. The main objective of NSFR is to raise the standard of living of Slovak citizens to progressively and sustainable catch-up on the more advanced Western European countries. Competitiveness is not directly defined, but from the overall context of the document it is obvious that this term is understood in particular as the ability to achieve economic growth and as Slovakia’s ability to successfully place its products in international markets.

The program document for the Operational Program Competitiveness and Economic Growth (OP CEG) also does not contain a clear definition of the term competitiveness. The objective of the OP CEG is to maintain and further develop the competitive and effectively producing potential of
Slovak industrial production, energetic sector, tourism and other selected services potential. The aim is to contribute to the long-term sustainable improvement of economic performance of Slovakia as a whole and reduce disparities in economic performance across the regions in Slovakia. From this we conclude that competitiveness is understood as the ability to maintain or increase the level of economic growth (performance) SR.

**National Lisbon Strategy - Competitiveness Strategy of Slovakia until 2010** was adopted as an economic strategy of Slovakia until the year 2010. The strategy aimed to make until the year 2010 from the Slovak economy one of the most competitive economies able to catch up as quickly as possible to the living standards of the most European Union countries. The strategy defined that its goals "can be achieved only through rapid and long-term growth." The national government can support economic growth by creating favorable conditions for growth of competitiveness of the economy. The National Lisbon Strategy is based on the Lisbon Treaty, and therefore is focused on the overall goal of the European Union to be "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion."

The understanding of competitiveness in terms of Slovak republic is very important from the view of competitiveness measures analysis. It is important to identify key measures by which the Slovak republic perceives its competitiveness internationally and try to analyze and rank Slovak republic mostly among other European countries for which we can obtain the same type of data.

**Competitiveness Measures**

In this chapter the paper will propose some of the most popular measures of competitiveness analysis and international comparison. First of all, the paper shows the position of Slovak republic and selected European countries from the view of indices constructed to express country competitiveness, namely the Global Competitiveness Index and the World Competitiveness Yearbook country ranking. Consequently, based on the analysis of theoretical approaches to territorial competitiveness and on the analysis of the most important documents concerning the enhancement of the competitiveness and performance of Slovak Republic, we will analyze the position of Slovak Republic among other selected European countries from the view of GDP growth and productivity.
Global Competitiveness Index

The Global Competitiveness Report (GCR) measurement methodology and the expression of competitiveness are based on twelve pillars of competitiveness. These represent various characteristics, which assesses the impact of competition from the view of institutional environment, infrastructure, education, health, macro-economic indicators, market efficiency, innovation and technology, market size and business environment. WEF clearly links competitiveness of a country to an effective institutional environment, effective policies and other factors, and by this combination of factors aims on increasing productivity and consequently the prosperity of a country.

Table 1 shows the results of the competitiveness ranking of Slovak republic and other European countries within the European area. The position of each country represents its ranking in comparison to other European countries based on the ranking it achieved in the worldwide context according to the results as obtained by methodology developed by the World Economic Forum. This will show us, where Slovak republic ranks among European countries based on the values of the Global competitiveness index.
Table 1: Competitiveness position of Slovak Republic and other European countries by the Global Competitiveness Report – European context

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Source: Own, data from Global Competitiveness Reports 2002 - 2011.

The table shows, that Slovak Republic ranks somewhere in the range from 20th to 25th position. This shows both a narrow interval and the consistency in competitiveness ranking of SR. On the other hand, we can view the most recent ranking from the year 2011 as a negative fact. The figure for the year 2011, as being the most recent one, should best describe the actual competitiveness position of SR within Europe. Therefore, it is unpleasant to say, that from the view of Global Competitiveness Index this is the worst ranking of Slovak republic among European countries so far. If we compare the position of SR among all countries in the world to the position of Slovak republic exclusively only among the selected group of other European countries we can see similar trends but with a smoother development in the case of EU ranking. The world ranking shows that the changes in the position
among the whole world are more dramatic than in the case of changes in the European area viewpoint.

**World Competitiveness Yearbook**

The International Institute for Management Development (IMD) through its World Competitiveness Center (WCC) has for a long period been a pioneer in the field of competitiveness of nations and enterprises. It is dedicated to the advancement of knowledge on world competitiveness by gathering the latest and most relevant data on the subject and by analyzing the policy consequences. The WCC conducts its mission in cooperation with a network of 54 partner institutes worldwide and provides various stakeholders in the field of national competitiveness with its World Competitiveness Yearbook, special country/regional competitiveness reports and workshops on competitiveness. In this paper, we will focus on the World Competitiveness Yearbook (WCY), where we can find, on an annual basis, the ranking of world economies according to their competitiveness as estimated by the IMD.

As in the case of Global Competitiveness Report, also in the case of World Competitiveness Yearbook we analyze the ranking of Slovakia purely in the context of other European countries. So again, the ranking each country achieved by WCY is used to rank the country among other European countries (Table 2).
Table 2: Competitiveness ranking of Slovak Republic and other European countries by the World Competitiveness Yearbook – European context

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Source: Own, data from World Competitiveness Yearbooks 2007-2011.

In the analyzed period, the position of Slovak republic among other European countries according to the methodology of WCY has been a little better if compared to the Global Competitiveness Report. The best position, 15th best rank in Europe, was achieved in the year 2008. Unfortunately, since this year up to the most recent ranking, the position has dropped 5 ranks. We can also identify different development trends in the two methodologies. While the GCR ranking shows more consistent development, the WCY ranking shows a declining trend in the position of Slovakia. As can be seen from the table above, the position started out around the 16th rank, but has dropped in recent years below the 20th rank.
Economic growth

Many of the theoretical approaches, international organizations methodologies and strategic documents of Slovak republic show that one of the main features perceived to enhance the overall competitiveness of a country as a whole is the ability of the particular country and its economy to achieve growth of its economic performance. Therefore, this chapter will focus on the measure of GDP growth and will analyze the competitiveness position of Slovak republic in the European context from this viewpoint. The analysis will be carried out at the country level as well as regional level (NUTS 2). The aim is to identify the position of the Slovak republic in Europe not only as a country, but also in terms of its regions. This analysis was not possible in the case of the competitiveness indices presented in the previous chapter and can show a more detailed breakdown with the aim to identify the driving regions of Slovak competitiveness.

GDP growth ranking – EU country level

First, let us analyze the competitive position from the view of GDP growth, of Slovak republic among other European countries based on data from the national level. In this case we see on the next table that Slovakia places as the 35th country in Europe in the year 2000 and from this point continuously rises up to the achievement of the absolutely best position in the year 2007. Since 2007 we can see a decline in the position, and thus the decline of competitiveness from the viewpoint of its ability to achieve economic growth. In the period from 2002 to 2008, Slovak republic has almost always placed among the 10 best countries (with the exception of the year 2004), meaning it achieved one of the 10 best GDP growth rates in Europe. But, in the year 2009, mostly due to the consequences of the shift of the economic crisis from USA to Europe, Slovakia has dropped from the 5th best position to the 26th position in 2009 and 24th in 2010.
Table 5: Ranking of European countries according to GDP growth.

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Source: Own, data from World Bank.

GDP growth ranking - EU regional level

When we break down the analyzed territory into regions, we can see only figures up to the year 2008, as the last available in the time of the analysis execution. However, the position of Slovak republic is still good. Since the year 2003, Slovak republic has always had one or more regions in the top 10 regions with the highest GDP growth among all of the 243 analyzed regions in Europe. In the year 2003, the SK 02 region, Western Slovakia, had the highest GDP growth rate in Europe. If not only focusing on top regions, we can also state a positive fact that none of the Slovak regions has ever in the entire analyzed time period placed in the bottom 10 places among all of the regions. The worst position was achieved by the SK02 region in the year 2001. But, as already
mentioned, this region went in two years from the 121st place to the 1st place.
Also a very interesting fact is that we can see a shift in the recent years, as the more advanced regions of Slovak Republic, namely SK01 and SK02 are being overran by the less developed regions of Center Slovakia (SK03) and Eastern Slovakia (SK04). This can be a positive fact also in the efforts in the field of regional disparities reduction.

Table 6: Ranking of European regions according to GDP growth.

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Source: Own, data from Eurostat.
Productivity

Unlike GDP, in which case it is not possible to compare countries and their using absolute values of the reference indicator, the indicator of productivity enables to analyze country competitiveness based on absolute, as well as relative (growth rates), values. In this paper we will use both absolute and growth values of productivity to establish the competitiveness position of Slovak republic within the European area. Productivity will be represented by total labor productivity - gross domestic product per employee. The goal of each country should be to maximize this indicator, in order to achieve long-term economic growth. Productivity therefore clearly represents the degree of competitiveness of a country. Increasing productivity represents intensive and qualitative growth and therefore the achievement of an advantage over other countries. As in the case of GDP growth evaluation, also for productivity measures we will analyze both national and regional levels.

Productivity ranking – EU country level

Table 7 shows the position of Slovakia in European context from the view of absolute values of productivity. Since the year 2000 Slovak republic has constantly placed around the 23rd position. This shows consistency, but also a low ranking of Slovakia. Since productivity is a measure enabling to compare countries in absolute values, we can see that in this sense there are still many countries with competitiveness higher than Slovak republic. A positive fact is that in the years 2007 and 2008 Slovakia has achieved the best position so far. These figures, however, are not the most recent due to insufficient statistical data in the time of analysis realization, so we cannot make any stronger assumptions and state a positive development trend.
### Table 7: Ranking of European countries based on absolute values of productivity

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Source: Own, data from World Bank.

When we switch our focus from absolute values of productivity to its growth rates, we can see an entirely different position and development for Slovak republic. If we perceive competitiveness of a country not only by its ability to achieve a high level of productivity, but also a high productivity growth rate in order to stay ahead of its competitors, we can identify a much more pleasant position of Slovakia. In this case Slovakia belongs to the leaders within Europe. The worst position for Slovakia was the 13th place in 2001, with most of other years being in top 10 best countries. Especially positive is the position in 2007, where in absolute values Slovak republic was only the 22nd best country in Europe, but in the case of productivity growth in this year Slovakia was the absolutely
best country. In the last of the analyzed years the position has slightly dropped, but Slovakia still remains among the best countries.

Table 8: Ranking of European countries based on productivity growth.

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Source: Own, data from World Bank.

If we analyze the trend in the development of the competitive position of Slovak republic from the view of productivity measures, we can see completely different trends when comparing the position estimated by absolute values of productivity and by productivity growth. The position is almost constant in the case of absolute values of productivity. On the other hand, when analyzing productivity growth rates, we can see that
the position of Slovak republic is much more volatile, but still better as in the case of absolute values.

**Productivity ranking - EU regional level**

The last comparison is dedicated to comparing the competitive position of Slovakia by analyzing the regional aspect of productivity and productivity growth rate. The same methodology as in the case of country level productivity was applied to the regional level and the outcome in form of rating can be seen in the two following tables.
### Table 9: Ranking of European regions according to absolute values of productivity

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Source: Own, data from Eurostat
Table 10: Ranking of European regions according to productivity growth

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<td>HU23</td>
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<td>RO31</td>
<td>RO11</td>
<td>ES63</td>
<td>LV00</td>
<td>PL33</td>
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<td>PL11</td>
<td>RO31</td>
<td>SK02</td>
<td>RO42</td>
<td>RO21</td>
<td>RO12</td>
<td>RO41</td>
<td>PL41</td>
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<td>6</td>
<td>LT00</td>
<td>HU10</td>
<td>RO21</td>
<td>HU22</td>
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<td>RO12</td>
<td>RO31</td>
<td>RO22</td>
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<td>7</td>
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<td>PL34</td>
<td>RO22</td>
<td>SK03</td>
<td>SK03</td>
<td>RO41</td>
<td>GR42</td>
<td>SK03</td>
<td>PL61</td>
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<td>10</td>
<td>PL12</td>
<td>PL52</td>
<td>PT30</td>
<td>RO11</td>
<td>HU31</td>
<td>PL61</td>
<td>LV00</td>
<td>SK01</td>
<td>CZ06</td>
</tr>
</tbody>
</table>

Source: Own, data from Eurostat.

Table 9 shows the absolute values of productivity ranking on regional level in the EU. From the table we can see an unpleasant state of the regional level in Slovakia. Not even the SK01 region, the region represented by the most developed and capital city in Slovakia – Bratislava, can be viewed from this perspective as competitive within
Europe. All of the other regions achieve lower absolute values of productivity than the SK01 and none of the Slovak regions is even in the upper half of the ranking. The best position was achieved in the 2008 by the SK01 region, but it was only the 162nd position among all of the 234 regions. What if positive though, is the development trend of productivity values. Despite a bad position, all of the regions are slowly improving their position. Even the least developed regions in Slovakia, the SK03 (Central Slovakia) and SK04 (Eastern Slovakia), have left the group of the worst 10 regions that they achieved in the period 2000 – 2002, and are constantly rising in the ranking.

A completely different situation of Slovak regions among other European regions is from the view of productivity growth comparison. In this ranking there has never been, for the entire analyzed period, a Slovak region that would place in the last 10 places of the ranking. The worst period was in the years 2000 – 2002, where Slovak republic had no regions in the 10 best ranks or at least near these ranks. Since 2003, some of the Slovak regions have always been ranked either among the 10 best regions in productivity growth, or have placed just outside this group. What is more important, not like in the case of absolute productivity values, in case of productivity growth characteristic not only the most developed region (SK01) has placed among the best regions in Europe, but also the less developed regions of Slovakia are achieving productivity growth that ranks them among the best regions.

Conclusions

What competitiveness measure is the best one? What measure should the Slovak republic focus on in order to exactly identify factors of competitiveness and support their positive development? These are the questions the paper aimed to help formulate answers to by providing a preview of theoretical background of territorial competitiveness and ranking of European countries according to various competitiveness measures. In order to fully interconnect the analysis to the conditions in Slovak republic, the paper analyzed the most important strategic documents in Slovakia and in each analysis it considered mainly the position of Slovak republic.

As the analysis identified, strategic documents of Slovak republic do not directly define the term competitiveness. They only state various factors on which to base long-term competitiveness of Slovakia, but do not link them into a comprehensive definition of description of the concept of competitiveness. However, the overall understanding and focus of the strategic documents shows that the attention is given to economic performance factors – economic growth and productivity. These
measures were therefore selected to analyze the competitiveness position of Slovak republic in Europe. The other two used measures, ranking by World Economic Forum and the International Institute for Management Development, are to a high extent more qualitative measures taking various broader factors into consideration, such as political situation, law system, administration, environment, etc. On the other hand, the economic measures can simply and effectively identify the actual state of country performance and provide a quantitative comparison to other countries.

From the analysis of the selected competitiveness measures we can see different results of the Slovak republic ranking. The best overall position is in the case of economic growth, followed by the measures of productivity. As for the regional aspect, only two of the four measures allowed analysis to be conducted on regional level. It was the case of GDP growth and productivity. From the view of these two measures, we can see, that Slovak republic is ranked better in the case of GDP growth. In case of absolute productivity values is the position worst, with even the best regions not competitive enough to rank at least in the upper half of the overall ranking (among the better 50% of the regions). A better position can be concluded for productivity growth ranking. In this ranking, in the most recent years at least some Slovak regions rank annually among the best 14 regions in Europe. This can show us that despite lower values of productivity, the higher rate of productivity growth can ensure that Slovak regions can slowly catch-up on the more developed regions in regions.

The field of competitiveness shows high potential for further investigation. Understanding of theoretical foundations and clear definition of the conceptual framework as well as identification of competitiveness factors is a crucial part in preparation of development policies on national and/or regional level in order to support overall territorial development. We hope that this paper helped to cast some light on the issue of competitiveness measures and provided the reader with an insight into the position of Slovakia from various perspectives of competitiveness analysis.
Resources


Národný strategický referenčný rámec 2007-2013. Ministerstvo výstavby a regionálneho rozvoja, Bratislava


Rojaka, J. (2008): Lithuania’s Competitiveness, Myths, Realities, and Perspectives. In: Ekonomika. ISSN 1392-1258
Vláda SR (10.10.2001): Národná stratégia trvalo udržateľného rozvoja, Bratislava
AN EMPIRICAL STUDY OF TRANSFORMATIONAL LEADERSHIP IN SLOVENIAN ENTREPRENEURSHIP

Dejan Jelovac¹, Matjaž Maške²

Abstract
The present article reports on the results of a quantitative empirical survey of leadership styles of Slovenian entrepreneurs, owners and/or founders of SMEs. The study aimed to answer the following research question: Which leadership style enhances the success of a leader’s organisation? On the basis of the existing literature, we hypothesised that the transformational leadership style is likely to increase the effectiveness and success of a business. We also hypothesised that Slovenian entrepreneurial leaders used the transformational leadership style to a greater extent than the transactional leadership style. The survey was conducted using the self-reported Multifactor Leadership Questionnaire on a sample of 100 entrepreneurial leaders from the entire territory of Slovenia. The results suggest that Slovenian leaders use transformational leadership more than transactional. The use of transformational leadership was correlated with increased self-reported effectiveness of their organisation. The article concludes with a discussion on the impact of transformational leadership on enhancing the effectiveness of Slovenian business. Implications for future research are discussed.

Keywords: entrepreneur, leader, transformational leadership, transactional leadership, effectiveness.

Introduction
The study of organisational leadership has been dominated by change-oriented leadership models and practices for the past 30 years (Groves and LaRocca, 2011), these include transformational leadership (Bass, 1985; Avolio and Bass, 1991), charismatic leadership (Conger, 1999), and visionary leadership (Nanus, 1992). Several qualitative and meta-analytic reviews (Lowe, Kroeck and Sivasubramaniam, 1996; Conger,

¹ Assoc. Prof. Dr. Dejan Jelovac is a Professor and Head of Department of Business Ethics, Corporate Culture and Management of Organisational Development at Gea College - Faculty of Entrepreneurship, Ljubljana, Slovenia.
² Matjaž Maške, M.A. is an Assistant Lecturer of organisational development at GEA College - Faculty of Entrepreneurship, Ljubljana, Slovenia.
Innovative Issues and Approaches in Social Sciences, Vol. 5, No. 3

1999; Judge and Piccolo, 2004) have demonstrated the significant effects of change-oriented leadership at all three levels of analysis (individual, group, and organisational). The results of transformational leadership studies are significant, including positive effects on follower effort, performance, job satisfaction, and organisational commitment (Lowe et al., 1996), organisational citizenship behaviours (Podsakoff, Niehoff, Moorman and Fetter, 1993), net profit margin (Waldman, Ramirez, House and Puranam, 2001), leadership effectiveness during periods of organisational change (Groves, 2005), and leadership effectiveness in engendering follower innovative behaviour (Pieterse, Knippenberg, Schippers and Stam, 2009). In trying to conceptually distinguish transformational from transactional leadership recent literature has focused on the research of Burns (1978), and Bass (1985) and colleagues (Avolio and Bass, 1991; Bass and Avolio, 2000). All of those scholars claimed that transactional leaders influence followers by controlling their behaviours, while transformational leaders influence their followers by developing and communicating a collective vision and inspiring them to look beyond self-interests for the common good of the team, organisation etc. (Groves and LaRocca, 2011). The most recent model of transformational leadership was developed by Bass, Avolio, and other scholars (Bass, 1998; Avolio, 1999) and includes five leadership dimensions: (i) idealised attributes, (ii) idealised behaviours, (iii) inspirational motivation, (iv) intellectual stimulation, and (v) individualised consideration (Bass and Avolio, 2000).

In contrast to transformational leadership, transactional leadership is defined as leadership that supports the status quo through mutual leader and follower self-interests across three dimensions: contingent reward, active management-by-exception, and passive management-by-exception (Bass and Avolio, 2000). Transactional leaders demonstrate in everyday business life: 1) strong intention to specify the standards for compliance and punishment for non-compliance, 2) close monitoring of followers for any deviances, mistakes and errors (so that corrective action can be taken as soon as possible), and 3) contingent reward by clarifying follower expectations and offering recognition and rewards when goals are achieved (Groves and LaRocca, 2011). In spite of considerable empirical support for the previously mentioned dimensions of transformational and transactional leadership (e.g., Bass, 1998; Avolio, 1999; Bass and Avolio, 2000), some other studies have disclosed a number of different factors which might be important for the design of leadership model (e.g., Carless, 1998; Yukl, 1999; Turner, Barling, Epitropaki, Butcher and Milner, 2002; Yukl, 2002; Pieterse et al., 2009).
Since leadership is a process in which an individual influences a group of individuals to achieve a common goal (Northouse, 2007: 3), one may ask, what is the right way in which a leader in today’s rapidly changing Slovenian society and its entrepreneurial sphere should impact the most meaningful on his followers to achieve efficient and effective results. It is generally accepted that leadership is one of the major factors of success or failure in life (not only in business but also in the private and/or public), because it has a greater impact on events, than any other factor. A leader’s most important task is to mobilise the hampered and frustrated ambitions of his followers and members of his team, to mobilise their competencies that have fallen asleep, and enable them to ignite a new enlightened and holistically minded spirit in all its unpredictable glory and power. In connection with changes in society there are also logically changing needs of the various leadership competencies and styles. Leaders must adapt their style of leadership to the changing needs of society and followers, but on the other hand, there is "interdependence of style of leadership and style of leader that always derives from his essential ideas and a sense of human nature" (Covey, 2000: 52). From this it follows that there is no single and sole style of leadership, which could be uncritically, stiff, universally used and would only lead to success.

There have been as many definitions conceptualised about this complex phenomenon as there have been academics engaged with it3. For example, understanding the phenomenon of leadership as a process means that we are not speaking about the traits in character, or characteristic located in an individual, but the interaction between a leader and his followers. Process in this case means that the leader has an impact on followers and vice versa - even his followers have an impact on him. Leadership is a type of social relation in which the action of a leader and his followers appears to be a reciprocal, interactive. Therefore, leaders need "supporters (a group of followers) and followers need leaders" (Burns, 1978 in: Northouse, 2007: 3). Both of them, leaders and followers are involved in the leadership process as two sides of same coin (Rost, 1991 in: Northouse, 2007: 4). Leadership in this context means "the ability to influence, encourage and direct the staff to the aim pursued. [...] A successful leader cooperates with team

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3 In this regard, a recent review study in this field provides a very useful insight into “recent theoretical and empirical developments in the leadership literature, beginning with topics that are currently receiving attention in terms of research, theory, and practice” (Avolio, Walumbwa and Weber, 2009: 421).
members in creating a favourable climate to achieve organisational goals” (Možina in: Možina et al., 2002: 499). Leadership is the action - a good leader makes his colleagues be successful (Schmieder, 2006: 21). The good leader can mean the difference between success and bankruptcy (Robbins and Judge, 2008: 175). Leaders are artists in the management of people with the aim of achieving common goals. They are like the orchestra conductor who "achieves that all comply with total musical score, total quality sound and tempo, which he sets" (Černetič, 2004: 31). Leadership is thus the ability to influence the group to achieve the vision or goals, which may be formal, or informal4 (Robbins and Judge 2008, 176). Leadership is primarily the use of power and influence, based on the interests of people, allowing short- and long-term efficient and effective operation of the organisation (Tavčar, 2005: 16). It is implemented only when leaders are mobilising people with some shared motives and intentions, be they institutional, political, psychological or other (possibly in competition or conflict with others), in order to arouse, engage and satisfy the motives of followers. Thus, leadership often tends to elitism, unconsciously, as it projects heroic images on a shady background of dark, monotonous, helpless masses (Burns, 2002: 916). The essence of leadership is therefore skills and habits that are reinforced in practice. "When you become more skilled, when it becomes a habit, the less you are engaged in the mechanics of leadership and more towards results" (Taylor, 2003: 45). From this perspective, leadership can be linked with the arts of a leader’s influence on the effective management of his followers’ emotions (Goleman, Boyatzis and McKee, 2001: 182-6). It means passion, values and self-image on one hand and position (in the hierarchy) and impact on the other (Heifetz, 1994: 13), it is an active and a reflected act, the choice between participation and observation, which always requires the strategy of learning and adaptation (Heifetz, 1994: 276). Leadership is actually powered by "the ability to retain creative tension, the energy that is created when people develop a vision and tell the truth (their best one) about the current reality" (Senge, 1999: 16). "Leadership is vision" (Drucker, 1995 in: Senge et al., 1999: 16). Moreover it is “the capacity to translate vision into reality” (Bennis in: Maxwell, 1997: 14). In this regard, the Alaska proverb tells that only the lead sled dog has a different view in the dog sled.

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4 The formal appointment of a leader in the hierarchy and the actual running of everyday practices does not always match. Individuals may in special circumstances come to the fore and take leadership i.e. temporary informal management (Goleman, 2001: 205).
If in the above definitions of the concept of leadership we tried to get to a general understanding of this phenomenon, then we can conclude the following: a) leadership is a process, b) it has to do with the influence, c) it occurs in groups, and d) leadership includes also the achievement of objectives. Out of this it may be deduced or summarized very general and widely applicable definition: Leadership is a process whereby an individual influences a group of individuals to achieve the common objective of the organisation (Maške and Jelovac, 2011: 3-12). It is important to remember about a person acting as a leader that everything he does in the modern business life, he does it in a way that leads him to the achievement of both personal moral as well as corporate social responsibility (Jelovac, 2012).

Academics have discovered several types of leadership and, consequently leaders. Several studies in the late 20th century, as we have already mentioned, compared the effects of transformational leadership with transactional leadership effects, indicating that inspirational leadership possesses a lot of components, which can very reliably lead to success of the whole team. But organisations in the 21st century, their structure and dynamics, are different and, consequently, the pace of their action is faster. This raises new ideas about where the leader should invest his energy. Perhaps this means less visionary and more connectivity or networking. Some researchers put in a high place the leader’s so called soft skills and qualities, such as the need for self-knowledge, the development of emotional intelligence competencies and skills of positive thinking. However the leader definitely must be bold and confident in himself. Today’s leader must take a decision about the right action at the right time; while it must be constantly alert "on the ball". Successful leadership depends to some extent on the possession of suitable leaders’ qualities (who have an open-minded, extroverted personality and developed a sense of conscience) and on presenting of their proper behaviour. While the efficiency of leadership may be a result of the proper behaviour at the right time, it is obvious that there is quite a common understanding of what the leader should be. For leaders we should select individuals with specific characteristics and predisposition to certain behaviour, with the qualities, skills, and virtues that these individuals could turn into inspirators of their followers, and individuals with the emotional intelligence that enable all this. It has appeared in practice that those who exhibit these characteristics, could learn to become better leaders5.

5 Somewhat different point of view is represented by Peter Drucker in his seminal work The Practice of Management (1954) asserted that »leadership cannot be created or promoted. It cannot be taught or learned” (Drucker, 1954: 158).
Leadership plays a central role in the understanding of group behaviour, as the leader is the one who usually presents a vision and direction towards the goal. However, the leader cannot change things alone – the whole team with well thought-through roles and with dedicated people should support him. In the era of globalisation, corporation cannot operate isolated such as like an island, leader also cannot remain isolated from his followers. The key to a more open organisation must represent a more open leader - open to new ideas and markets, open to others, open to learning, because the new processes require new skills and/or know-how. Leadership is probably one of the most studied and explored areas of development management, but unfortunately the "practice of improving leadership skills and leadership behaviour in our organisations, it seems that does not follow the results of theoretical research" (Wash, 2006: 155).

By way of a comparative analysis of relevant sources of recent literature in the field of leadership, we have correlated the theoretical findings of academics and the findings of recent researchers’ studies of transformational leadership, which we dare to claim to be one of the most appropriate methods of leadership for today's business world. The construct of the so called transformational leader was founded by Burns (Lowe et al., 1996: 385), who defined leadership as transactional or transformational (Bass and Riggio, 2006: 3). Transformational leaders, in his opinion, stimulate and inspire their followers to achieve excellent results; on the other hand, they enable followers through the process to develop their own leadership skills. "They help them to grow and to develop leaders in a way to respond to their individual needs, to empower them and to help them sort the goals: individual goals of followers (their own), leader’s goals, group’s goals and wider organisation’s goals" (ibid. 3). Bass developed further the idea of transformational leadership. In his extensive research has been proven that with the success of leadership likely related elements are charismatic leadership and inspirational leadership (Bryman, 1992 in: Cameron and Green, 2007: 128). Within the horizon of transformational leadership the leader transforms and raises the level of motivation and a sense of reasonableness towards the followers or to members of his team while doing so. The leader tries to combine and integrate his own goals and the goals of his followers into one common goal. He expands and even boosts confidence, trust and expectations within the members of his group. Burns adds to this that the transformational leader and his group raise each other to a higher level not only in motivation but also in ethics. Such a leadership is engaged in mobilising of hearts and minds of followers and helps everyone involved achieve greater satisfaction and sense of achievement. It is driven by the trust, care, interest and
support and assistance, rather than direct control. We could find a bunch of synonyms for transformational leadership: *inspiring, mobilizing, enthusiastic, moral rising, encouraging and others* (Burns, 2002: 916).

Transformational leadership carefully provides benchmarks and strategic limits in order to transform people and organisations. Transformational leadership tends to transform people, to expand their vision, to deepen their insight and understanding, to clarify the purpose, to act with their beliefs and values and to trigger the lasting, permanent changes that encourage the followers. Only the leader can initiate the changes when he acts as a "transformer" in any situation, in any kind of organisation – he is the "yeast" of the entire organisation. The leader who transforms must have “a vision, initiative, patience, respect, endurance, courage and faith” (Covey, 2000: 241). In this context, one of the most important tasks of a transformational leader is to encourage innovation in the behaviour of his followers, since numerous studies over the last twenty years have shown that the innovative behaviour of employees is of great significance to organisational effectiveness and survival (Woodman, Sawyer and Griffin, 1993; Scott and Bruce 1994; Oldham and Cummings, 1996; Shalley, 1995; West, Hirst, Richter and Shipton, 2004; Pieterse et al., 2009).

After years of study of the phenomenon of transformational leadership and development of its paradigms, the researchers have concluded that transformational leader acts upon the following elements:

- **charisma (idealised influence):** such leadership provokes enthusiasm in co-workers, influences pride and confidence building, communicates important aims in a simple way, and inspires respect; team members follow his/her example and trust his/her vision, values, and try to identify with him/her. Proponents of transformational leadership distinguish between *attributed idealised influence* that reflects the charisma of the leader, gained through the socialisation process, and *behavioural idealised influence* that reveals his/her charisma through acts, behaviour centred on values, convictions and a feeling of mission;

- **inspirational motivation:** stimulates the spirit of his/her followers by setting his/her own example and encouraging their enthusiasm for achieving common objectives. Clearly represents the sense of their work, attractive and charming vision and challenges to his/her followers, inspires the collective spirit, optimism and enthusiasm;
• intellectual stimulations: the leader develops creativity and rationality, and challenges his/her followers at all times to solve problems in a systematic and creative manner;
• individualised consideration (personal treatment of followers): personally speaks up for the development of every team member, treats everyone as an individual with particular personality, and not only as an employee or subordinated worker, supports and respects the employee, allows the employee more autonomy, stimulates bidirectional communication, is a good listener, applies the method of management by walking around. The leader acts like a good coach and mentor (Cameron and Green 2007, 129; Bass and Riggio, 2006: 5-7; Antonakis, Avolio and Sivasubramaniam, 2003: 264-5).

Based on our understanding of the existing literature and anecdotal evidence of Slovenian leadership practices, we hypothesised that Slovenian entrepreneurial leaders would already be in the process of becoming transformational leaders. Our study also aimed to replicate the findings of previous research conducted in developed Western countries which showed that the effectiveness of the leader's group or organisation was increased by the use of transformational leadership. We hoped to replicate this on a sample drawn from Slovenia, an EU member state in post-socialist transition.

We tested the following two hypotheses:

H₁: Slovenian entrepreneurial leaders will use transformational leadership style more than transactional.
H₂: The effectiveness of a leader's group or organisation will increase through the use of transformational leadership.

Method

This is the first report of the results of our quantitative empirical survey of entrepreneurial leadership styles in Slovenia.

Sampling method

Potential respondents were identified from publicly available electronic databases of AJPES (Agency of the Republic of Slovenia for Public Legal Records and Related Services) and Gea College of Entrepreneurship, Ljubljana, Slovenia, as well as the authors’ personal networks. The survey was carried out between August 14 and September 14, 2009. Ultimately, 100 questionnaires that were suitable
for further analysis were collected. Of these 100 respondents, 67 were men, 32 were women, while one respondent did not provide the information on gender. The gender distribution of respondents in our sample approximately corresponds to the gender structure in the population of Slovenian managers (74.17% men, 25.83% women) (Statistical Office of the Republic of Slovenia, 31.12.2008, 121, SKP Rev. 2).

Measures

We used the Multifactor Leadership Questionnaire (MLQ Form 5X-Short) (Avolio et al., 1999; Bass and Avolio, 2000). The MLQ is an established quantitative tool for surveying transformational leadership. The instrument has been tested in more than 75 studies and has been used for studying leaders of different types of organisations and leaders at different levels of the managerial hierarchy (Lowe et al., 2006). The MLQ has made it possible to collect “similar types of data using the same instruments, constructs, and model across all levels of leadership” (Bass and Riggio, 2006: 229). We chose this validated and reliable measure due to its widespread use in the literature and its excellent psychometric properties. Such a decision was supported by Lowe et al.’s (1996) meta-analysis of a decade of research using the MLQ which established its reliability and showed that it significantly predicted the effectiveness of organisational units.

The MLQ was translated from English into Slovenian by the authors. The translation was aided by the use of an existing Croatian version of the scale. The translated version was pilot tested on 10 native Slovenian speakers whose linguistic suggestions were taken into account in the final version. The version of the MLQ used in the present study consists of 45 self-rated statements on an ordinal Likert scale ranging from 0 to 4 which rates the frequency of use of various leadership behaviours. Using the answers from the questionnaire, the MLQ measures the following 12 constructs:

- Idealized Influence (Attributed)
- Idealized Influence (Behaviour)
- Inspirational Motivation
- Intellectual Stimulation
- Individualized Consideration
- Contingent Reward
- Management-by-Exception (Active)
- Management-by-Exception (Passive)
- Laissez-faire Leadership
• Extra Effort
• Effectiveness
• Satisfaction

The first five of these constructs (idealized influence [attributed], idealized influence [behaviour], inspirational motivation, intellectual stimulation, and individualized consideration) measure the transformational leadership concept, the following four items (contingent reward, management by exception [active], management by exception [passive], and laissez-faire leadership) measure transactional leadership, while the remaining three constructs measuring outcome of leadership are: extra effort made by subordinates, effectiveness and satisfaction.

Eleven demographic items were also added to the questionnaire (gender, age, birth order, postcode of residence, educational attainment, legal status of organisation, year of founding of organisation, postcode of organisation, total number of employees, total number of subordinates, total number of days spent in further education in the area of leadership in the last three years).

In order to explore the relationship between a respondent’s leadership style and the effectiveness of his/her organisation or group (Hypothesis 2), we supplemented the questionnaire with the following three original items (also rated on a Likert scale ranging from 0 to 4) for the respondents to rate the effectiveness of their respective organisations, the change of effectiveness in the last three years, and their own leadership competencies:

1. I consider my organisation to be successful.
2. The effectiveness of the group (organisation) I lead has increased over the last three years.
3. As a leader, I believe I possess all the requisite contemporary leadership competencies (skills, knowledge and qualities).

As some respondents did not answer all the questions, the problem of missing data (which occurred in less than 5% of responses for each variable) was dealt by imputing the mean of all valid answers for each variable.

All statistical analyses were carried out using the Statistical Package for the Social Sciences (SPSS) version 16.0.
Results

We have performed the factor analysis upon the first five constructs (i.e. idealized influence [attributed], idealized influence [behaviour], inspirational motivation, intellectual stimulation, and individualized consideration). Bartlett's test of sphericity and Kaiser-Meyer-Olkin measure of sampling adequacy were used to determine whether the data are appropriate for factor analysis. The internal consistency of scales was assessed by using Chronbach’s standardised alpha. In the case of our survey α had a value of 0.82 which indicate a strong internal consistency. Thus the factor analyses confirmed the adequacy of the Slovenian version of the questionnaire for the measurement of transformational leadership concept.

In the surveyed sample of Slovenian leaders (N = 100), the most frequently used leadership behaviour was intellectual stimulation (mean value 3.38) while the laissez-faire approach (mean value 1.08) was the least frequently used. The ratings of the remaining MLQ constructs are shown in Table 1 below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual Stimulation</td>
<td>3.38 (.45)</td>
</tr>
<tr>
<td>Contingent Reward</td>
<td>3.29 (.50)</td>
</tr>
<tr>
<td>Inspirational Motivation</td>
<td>3.25 (.55)</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>3.24 (.48)</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>3.18 (.50)</td>
</tr>
<tr>
<td>Management-by-Exception (Active)</td>
<td>3.06 (.60)</td>
</tr>
<tr>
<td>Extra Effort</td>
<td>3.01 (.60)</td>
</tr>
<tr>
<td>Individualized Consideration</td>
<td>2.98 (.61)</td>
</tr>
<tr>
<td>Idealized Influence (Behaviour)</td>
<td>2.98 (.55)</td>
</tr>
<tr>
<td>Idealized Influence (Attributed)</td>
<td>2.65 (.69)</td>
</tr>
<tr>
<td>Management-by-Exception (Passive)</td>
<td>1.64 (.60)</td>
</tr>
<tr>
<td>Laissez-faire Leadership</td>
<td>1.08 (.71)</td>
</tr>
</tbody>
</table>

Our first hypothesis stated that Slovenian entrepreneurial leaders would use transformational leadership more than transactional. Based on the data shown in Table 2, it appears that in the studied sample, on average, transformational leadership was more frequently used.
Our second hypothesis stated that the effectiveness of a leader’s group or organisation would increase through the use of transformational leadership. A correlational analysis using Pearson's correlation coefficient showed that all three self-report items we used to assess an organisation’s effectiveness (i.e., (i) I consider my organisation to be successful. (ii) The effectiveness of the group (organisation) I lead has increased over the last three years. (iii) As a leader, I believe I possess all the requisite contemporary leadership competencies.) were statistically significantly positively correlated with the concept of transformational leadership (see Table 3 below). On the other hand, the correlations between our three indicators of organisation’s effectiveness and transactional leadership were weak and statistically non-significant ($p > .05$).

**Table 3: Means and standard deviations (SD) of self-rated frequency of use of the two leadership styles**

<table>
<thead>
<tr>
<th>Leadership style</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational</td>
<td>3.05 (.43)</td>
</tr>
<tr>
<td>Transactional</td>
<td>2.27 (.35)</td>
</tr>
</tbody>
</table>

**Table 4: Pearson’s $r$ correlation coefficients measuring the strength of relationship between transformational leadership and self-reported measures of an organisation’s effectiveness**

<table>
<thead>
<tr>
<th>Transformational Leadership</th>
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<tbody>
<tr>
<td>Organisation’s effectiveness</td>
</tr>
<tr>
<td>Recent increase in organisation’s effectiveness</td>
</tr>
<tr>
<td>Leaders’ self-rated competency</td>
</tr>
</tbody>
</table>

*correlation is significant at the $p < .05$ level (two-tailed)
**correlation is significant at the $p < .001$ level (two-tailed)

**Conclusion**

The results of the present study suggest that Slovenian leaders use the transformational leadership style more frequently than transactional. Increased use of transformational leadership was significantly correlated with increased self-reported effectiveness of their organisation. Interestingly, no such relationship was found between the transactional leadership style and an organisation’s success.

The results obtained through our study are encouraging. Nonetheless, further empirical research in this extremely important and delicate area
would be merited. Further research on leaders in Slovenia could provide replicability of the obtained results. The principal limitation of our research has been the fact that the sample included only leaders and therefore the validity of our findings is uncertain. Further studies in a Slovenian business environment should be carried on a representative sample of followers. Only then could we have results that are not be based on constructs measured by subjective self-assessments of leaders (who in their small- and medium-sized companies are not only founders and owners, but at the same time leaders and/or managers) regarding their personal leadership competencies. Hereafter, studies in different directions should be performed. At the same time, we are aware of the difficulties in obtaining a sufficiently representative sample of leaders and their followers.

Another direction of further study on leadership should follow the studies on the increase of the competitiveness of SMEs through the influence of innovation and social responsibility of their transformational leaders. At the same time, future studies should rely on the results of the up-to-date research which establishes, as we have already mentioned, that the innovative behaviour of employees is very important for the organisational efficiency and struggle for the survival on the market (Woodman et al., 1993; Shalley, 1995; Oldham and Cummings, 1996; West et al., 2004; Pieterse, et al., 2009). In today’s rapidly changing business environment it is especially important for companies to achieve competitive advantage. Transformational leaders could achieve such an advantage by influencing the change of behaviour patterns and the mindset of their followers. However, research carried out by academics and the experiences of practitioners suggest that this is not enough. It would be interesting to see in this context how Slovenian leaders act as personally and socially responsible leaders in small and medium-sized companies. At the same time, it would be acceptable to rely on the result of an extensive number of studies in the developed world, dealing with the subject of Corporate Social Responsibility (CSR) influence on SMEs (Spence and Schmidpeter, 2003; Jenkins, 2006; Lepoutre and Heene, 2006; Courrent and Gundolf, 2009; Fitjar, 2011; Jelovac, 2012), which establish the importance of competitive advantage of socially responsible companies for their employees, consumers and investors. The important research question to be answered in further studies is as follows: Are Slovenian leaders, who are as far as we can see more likely to use transformational leadership, actually also moral leaders, who in the practice of their everyday business life take into account the standards of socially responsible acting? According to Groves and LaRocca there is a “surprisingly deficient in studies that examine the ethical values and moral underpinnings of transformational leadership”
(Groves and LaRocca, 2011: 511). Possible further studies that would associate transformational leadership style with the influence on moral values of followers would significantly contribute to the knowledge in the subject of transformational leaders. Transformational leaders have the charisma or idealised influence that inspire admiration in followers and make them identify with the leader. Consequently, we can assert that the transformational leaders with high moral standards motivate and inspire their followers, thus making employees satisfied and therefore increasing the efficiency in achievement of objectives of the organisation. The results of recent research “suggest that transformational leaders influence followers through the development of a collective vision that clearly delineates the salience of multiple stakeholders while inspiring all parties to look beyond self-interests for the betterment of the organisation and community” (Groves in LaRocca, 2011: 524).

All leaders in the developed world would be successful and excellent if there was a simple formula on how to lead people applicable to all situations. In reality, this is not the case. Therefore, many things are left to the leader’s personal judgement, his/her competencies, and use of common sense as well, which are important in the moment when a decision is reached. At the same time, many things depend on his/her capability and willingness to get to know oneself. The more possibilities he/she has to choose from, the more experienced he/she will get in making decisions as a leader (including wrong ones as well), and the probability that he/she will become an excellent leader is higher. A good leader who always adapts to changes and uses the new information at all times in order to improve his/her leadership has at the same time understanding of how theories work in practice. At the same time, such leader is aware of fickleness of human nature. There is an old saying: there are no bad soldiers, only bad officers.
References


THE ROLE OF POVERTY AND SOCIAL EXCLUSION IN THE ACQUISITION OF EDUCATIONAL AND PSYCHOSOCIAL COMPETENCES OF CHILDREN

Nevenka Podgornik

Abstract

In this article we study the concept of social exclusion from a point of view of social inequality that surpass the dimension of the material capital “to have” and that focus on the dimension of social capital, which is the position of individuals in society, their habitus. In other words, this is what determines the opportunities and possibilities of individuals for their integration, belonging, connection, acceptance, realization and social upward mobility. We understand and present the concept of social exclusion like the consequence of a small income, poverty, unemployment, lack of social security, isolation and anomie. In this article, we present the social and political responsibility for the phenomenon of social exclusion and its influence on the children’s educational and psychosocial achievements.

Key words: poverty, social exclusion, educational competences, psychosocial competences, youth’s social vulnerability, school leavers, educational system, parent’s formation, good school

Conceptual starting-point

The period from 1997 to 2006, labelled by the United Nations General Assembly as a decade with a view of eradicating poverty, is over. By the official statistical data, there are 68 millions of people in the extended European Union dealing with poverty today. The fight against poverty and social exclusion continues, furthermore it has become a high priority task of the European union. In accordance with the European legislation, Slovenia also has passed numerous documents for the diminution of poverty and the elimination of social exclusion.

1 M. Sci. Nevenka Podgornik, is an Assistant at the Faculty of Advanced Social Studies. Slovenia (nevenka.podgornik@fuds.si)
The Government of the Republic of Slovenia defined the modern politics of the social inclusion in February 2000 in the Program of fight against poverty and social exclusion. The program includes the measures for achieving two key objectives, helping and enabling the people, who found themselves in situations of poverty and social exclusion, to find a way out of this situation and preventing poverty and social exclusion from striking people who live on the border (Program of fight..., 2000: 4). After two years of exercising the program, the Government establish in the Statement of the realization of the Program of fight against poverty and social exclusion that most of the adopted measures were in accordance with delineated directions and adequately mutually coordinated, in order to follow the collective goals for reducing the poverty and social exclusion. It is expected that these measures will have an important contribution to a better social position of the more vulnerable groups (The exercising of the social inclusion strategy, 2002: 88-90). The partial evaluation of the strategies for social protection and social inclusion of the period from 2006 to 2008 was presented in The national report's supplement of the strategies (2007), which already predicts new measurements for the educational level's lift and the amelioration of the vulnerable groups’ social inclusion.

In April 2002 the Government passed the first statement of the program's enforcement and defined the directives for its further execution. Passing this program, the social inclusion politics was defined as a priority task of the government politics. The government committed itself completely to lower the risk for poverty and social exclusion and to enable the social inclusion for excluded people or people that risk to be excluded.

In 2003 there was a Collective memorandum prepared in collaboration with the non-governmental department which follows the strategic objectives of the European union, included in the Lisbon's document. Besides other, short-term measurements in the field of social security, the measurements passed in the field of education and employment are oriented in the sense of precautionary effect of poverty and social exclusion prevention.

- The social inclusion measurements are formed around four key elements, namely:
  - encouraging employment inclusion (employment’s active politics measurements, understood as the instrument of social inclusion)
  - ameliorating the access to sources, rights, goods and services (social protection system and access to apartments, health protection, education, judicial protection, culture and free-time activities and lowering the regional differences)
• preventing the risk of exclusion (preventing the exclusion from work, preventing discrimination and other forms of exclusion and stimulating e-inclusion) and
• helping the most vulnerable groups with explicitly limited measurements for Romani and invalids (helping with employment options, education and solving their housing problems) (Collective memorandum..., 2003: 42).

The national action plan for social inclusion for the period from 2004 to 2006 includes written measurements for achieving objectives from the memorandum. Among the preferential tasks and goals it classifies everyone’s (regardless of the social and cultural origins, gender, nationality,) possibility to education, rise of the educational level and improvement of the employment possibilities and prevention of discrimination.

The active plan envisages the following long-term objectives in order to prevent discrimination:
• stimulating the respect for differences in all the social life spheres
• creating the conditions to realize the principle of treating equally anyone on all the levels of the social life, establishment of the institutional sphere of discrimination prevention (The national active plan..., 2004: 24).

We did not get an insight into the content of the successive action plan for the period 2005 – 2010.

For the period 2006 – 2008 there was introduced the National statement of the social protection and social inclusion strategies (2006). In the field of social protection and social inclusion, the National statement notifies that Slovenia is classified among the EU members with favorable work conditions on the labor market, in the social protection system and relatively on the attained standard of living, risk of poverty and different incomes. The standard of living is improving, the level of poverty risk and different incomes are lowering and they are among the lowest in EU (Complement of the national report..., 2007: 16).

The Parliament of the Republic of Slovenian ratified in 1999 the revised European social document which defines in the article 30 the right to protection from poverty and social exclusion. It is worded as follows:
»To assure an effective realization of the right to protection from poverty and social exclusion, the contractors bind up to:
• adopt the measurements, with an integral and adjusting approach, with which they stimulate an effective access to
employment, housing, training, education, culture and social and medical assistance for people and families that live or risk to live in poverty or social exclusion...« (Program of fight... 2000: 7).

The Slovenian chairing of the EU along with the European anti-poverty network (EAPN), and the support of the European commission, aims to contribute actively at the realization of national and collective European objectives in the field of lowering the poverty and social exclusion in Europe until 2010. The Slovenian chairing gives a lot of attention to the social exclusion problems. The priority task of the chairing is the preparation of a new open coordination method cycle in the field of social protection and social inclusion and a further strengthening of positive interactions between the Lisbon's agenda and collective social objectives of the member states. There is also a special attention given to the inclusion and participation of people, who are confronted with poverty and who are the most distant from the labor market, and to the formation of active inclusion strategies (Priority tasks...).

We understand the social exclusion as a bad inclusion of individuals or groups into the political, economic or social systems of society's activity in which they live. It is about the exclusion at the access to the institutions and social sources and the collaboration among them, about the exclusion of generally inclined possibilities and opportunities which are important for an individual's material and social security and the assurance of living sources and living conditions. The social exclusion is often accompanied by a poor involvement of individuals in the network of interpersonal relations and their poor participation in the social activities. The social exclusion is a relational concept, because the individuals and groups exclusion or inclusion is studied thoroughly through the relation with others in the society (by Javornik et. al., 2006: 9-10).

The concept of social exclusion is complex, large and multi-dimensional. Some sociologists consider it as an advantage, because it is the only way to include different dimensions and forms of the same phenomenon. Commins connects the social exclusion to the failure of the collaboration in one of the systems which assure the individuals inclusion into the society. He divides the systems in:

- democratic and legal (juridical) system – civil inclusion;
- manpower market – economic inclusion;
- state welfare system – social inclusion in a narrow sense;
- family and neighbourly and friendly networks systems – interpersonal inclusion (Commins in Trbanc, 1996).
The social inclusion in a wider sense includes a civil, economic, social and interpersonal dimension, and within these dimensions it has fields from which an individual can be excluded.

On the European union level the social exclusion is understood as tightly linked to the unsuitable access to education and training, to a poor position in the manpower market and to lower incomes. The basic supposition is that unemployment and reduced social expenses endanger the social participation and integration, and consequently the social inclusion. The unemployment and the insufficiency of incomes cause an accumulation of further insufficiency and deprivation on other living spheres (by Javornik (ed.), 2006: 10). Here the social exclusion meets or exchanges with poverty. The concept of poverty can be understood as a part of the social exclusion or as a condition that leads to social exclusion.

Katherine Duffy (1998) defines the difference between poverty and social exclusion as the difference between »unsuitable or unequal material resources and an unsuitable or unequal participation in the social life«. Poverty refers to the exclusion from money and services, while social exclusion surpasses the exclusion from a consuming society and includes the exclusion from a social status.

Abrahamson mentions that the concept of social exclusion refers to structurally new marginalization processes and concepts in modern post-industrial societies, the so-called middle classes societies. He defines poverty as a modern society concept, and social exclusion as it's postmodern equivalent. We have to understand both in relation with their opposites – wealth and social integration. Poverty is the condition of the major part of a society (working class), while social exclusion is the condition of a minority, pushed from the principal current of the social action to the margins because of an unsuccessful collaboration in the key sources, institutions and mechanisms. Abrahamson alleges to this affirmation a proof, namely different social politics emphasis in the fight against poverty and social exclusion. In the first example they focus on the distribution of material sources, while in the second example they focus on assuring the access to important sources and institutions and they enables its inclusion (Abrahamson in Trbanc, 1996).

Review of the data about social exclusion, unemployment and poverty in the Republic of Slovenian

There were only a few researches that discovered the phenomenon of social exclusion, because the social exclusion research has an essentially shorter tradition than the research of the poverty
(phenomenon). The subjective point of view for identifying and measuring the discussed phenomena is characteristic of the social exclusion researches. We do not understand this as an imperfection, because we believe that sensing and feeling poverty and social exclusion is in every person's domain, in the way of his perception, understanding the visions and being aware of the conditions and the phenomena.

The research Quality of life in Slovenia (Trbanc, 1996) took place in 1994 and included a representative sample of 1806 people older than 17.

The research took into consideration the economic, social and interpersonal dimension and it showed that the interviewee are the most excluded in the field of education and in apartment's access (almost one of two persons) and the least in the social field (isolation). 13,7% of them believed that they are excluded from all three dimensions and 16,9% believe that they are at the limit of being socially excluded. Regarding the social exclusion and the attained educational level, the research showed that among people, who finished elementary school or even less, one of four people is excluded. For people with finished vocational school have less possibilities to be excluded, a higher educational level lowers essentially the possibility of social exclusion.

In 1998 subjective idea of social exclusion was prepared and 15,4% of the respondents answered that they feel exposed to a high risk of social exclusion. Unemployment, loneliness and fear of violence, so feelings of being isolated, lead to the most commonly expressed feeling which is the insufficiency of being a member of a group. The feelings of weakness – anomy, absurdity and political apathy – were a little less expressed (Program of fight against poverty and social exclusion, 2000: 15).

In 1975 the European Foundation for the Improvement of Living and Working Conditions (EUROFOUND) was established with the purpose of contributing to the planning and re-establishing of better living and working conditions. EUROFOUND did a complex, comparative study of social exclusion perceptions, causes of exclusion in the society, conditions for a social integration and sense of different integration points of view for individuals in different EU countries. The mentioned study was realized on the basis of the data from 28 European countries, gathered in 2001 and 2001, including Slovenia. The study showed that Slovenians feel the less socially excluded (5,6%) in comparison to respondents from other countries that took part in the research. The
sense of social exclusion was measured by the feeling of alienation, powerlessness and inferiority, the lack of recognition and the feeling of marginalization in the society (by Javornik (ed.), 2006: 2).

According to the data of the Statistical office the level of relative poverty (inequality within the examined group) is low. In 2004 in Slovenia the 12,2% of the population lived below the poverty line, in EU there were 16% of them. Another characteristic of Slovenia is a low incomings inequality comparing to other EU countries (Intihar, 2007). In 2005 the level of poverty risk stayed on the same level as the year before, it came to 11,7 %. The comparison of the risk of poverty levels among the EU countries shows us that only 5 other countries had a lower percentage of poor people than Slovenia: Netherlands, Norway, Czech republic, Iceland and Sweden. Austria, Denmark and Finland had a similar percentage as Slovenia. The average for 25 EU countries was 16% (ibid).

Let's take a look at the everyday life data. In October 2003, Slovenia experimentally started to undertake EUSILC (Statistics on Income and Living Condition). The first data of the questionnaire about living conditions, carried out by SURS, show that only 2% of the households cannot afford a car, 32% of them cannot afford one week of holidays a year and 8% cannot afford to eat meat every second day. An insight, of the non-financial poverty and social exclusion components, can show us that 6% of the households live in an apartment where there is not enough daily light, the majority (98%) can afford an adequately warm apartment. The situation about living conditions is even worse: 18% of all the households have problems with humidity in the apartments. 68% of the households in Slovenia can afford to take an annual vacation, most of the differences among them are made by a collective income which they can use. Among the poorest households, the ones from the first quintile, only 39% can afford a one-week annual vacation; among the households from the fifth quintile the percentage is 91%. Only 92% of the households can afford proper food, but regarding the different types, the one-member households’ stand out, for their percentage is 81%, and households with 2 grown-up kids, without supported children and one-parent households with at least one supported child, for which the percentage is 88%. 60% of the households can cover unexpected expenses with their own funds; once again the renters stand out, because there is only one fifth among them that could cover unexpected expenses with their own funds.
The interviewees judged their state of health as good, only 3% have a bad health condition.

The questionnaire showed that households are well equipped with permanent and durable goods. More than 98% of the households have a phone, washing machine and a color TV. 93% of the households own a personal car, 2% cannot afford one and 5% do not have it, because they do not need it. 71% of the households own a personal computer, 5% cannot afford it and 24% think they do not need it. The questionnaire confirms that the most deprived households belong to the first income quintile, because 15% of the households in this group cannot afford a computer (SURS, 2005).

In generally Slovenia does not belong among countries with a high level of inequality, but we can see the discrepancy between the registered poverty and the subjective perception of inequality. The Human Rights Ombudsman Office also warns about that, because they frequently come up against the question about poverty and social exclusion of our citizens, exposing separately children and youth’s needs. They treat the children and youth’s poverty and social exclusion in relation to a general poverty level and social exclusion in a society and in correlation with their parent’s poverty and social exclusion.

People from the Ombudsman Office are convinced that children from this kind of families, most of the time, do not have enough stimulations and support. They do not finish their studies, because they do not have the necessary self-confidence and they are often socially bad equipped, they have less possibilities for a personal development, they acquire the adequate education with more difficulty, they have more difficulties integrating into society and they have less possibilities finding a job, the director of the Human Rights Ombudsman Expert service (Cvahte, 2004:111).

Regarding the data from the researches SJM (Slovenian public opinion, The Public Opinion and Mass Communication Research Centre – Faculty of Social Sciences) in Slovenia, half of the interviewees fit in the middle class. Almost 40% are members of the lower working class, 5% are members of the upper class, which can be called elite (Aralica, 2003:40). These are the data of the self-image, self-perception and self-judgment of the interviewees, but they are not negligible, because poverty has many faces, it's subjectively perceived, it's not easily recognized and not always measurable.

The new research of the characteristics and forms of poverty and social exclusion of families with children (2008) reflects the people's reality
from the point of view of poverty and social exclusion in the key spheres of life (health, housing standard, education, possibilities and forms of free-time activities...). The Social Protection Institute of the Republic of Slovenia realized the analysis of the accessible secondary data about the children poverty (especially the analysis of the Leaken indicators, data from the HBSC study...) and completed it with the realization of focus groups with the representatives of target groups, who meet every day with poor people and families, and with half-structured interviews with poor people (57 realized interviews). The focus groups and the interviews were carried out in five Slovenian regions (Črnak Meglič, 2008).

Based on the obtained data, they formulated four groups of poor families with kids:

- »apparently poor« - a group of families that know very well the rights welfare services and facilities specified by statute, which result from their status and they put them entirely into effect. They do not show their actual social standing (a false showing of the single-parent family status, scab work). In the co-speakers estimation from the focus groups, they represent 10-25% of social financial welfare receivers. The percentage is higher in the bigger urban centres.

- »truly poor« - they represent the largest part of the poor families. They are marked by one or more forms of social exclusion at the same time (besides the low incomes or unemployment also low housing standard, bad state of health...). Their status decreases with the augmenting number of social exclusion forms they are confronted with. Half of this population is marked by serious health problems of one or both parents.

- »invisible poor« - group of families that does not know their rights, does not know how to assert them, does not feel poor enough to ask for help or they are ashamed of their position. In the co-speakers estimation from the focus groups, their percentage come to 10-30%, compared to the existing social financial welfare receivers.

- »poor employees« or group that exceed the censuses for the assignment of social welfare funds because of their incomes, however their social situation is threatened or even worse than the situation of the social financial welfare claimants. This is the fastest increasing group of people (ibid).

The authors of the research place among the strategies for solving the children's poverty the equalizing of the starting opportunities for all the children and they propose a free elementary school education, including
the food, and a more effective educational system that would make it possible for the children to attend school and help them as a way out of poverty (ibid).

We agree that poverty does not show itself only in the incomings and material differences, but also in the field of unequal educational possibilities, social isolation, access to health services, satisfying the cultural and other everyday needs. Despite the different official data, the experts that actually do fieldwork meet more and more poor people, there are also more people that see and judge themselves as poor. Regarding the last unofficial data, one third of the population in Slovenia is poor. By that, the question of responsibility rises, because we identify the appearance of poverty as a social problem, for which the state should take responsibility. Besides the fact that the right to an adequate life standard is every individual's civil right, most of the poor people understands poverty as the cause of their own failure and personal responsibility, which only augments the feeling of weakness and hopelessness.

The lack of material resources and insufficient social equipment lead an individual to powerlessness, hopelessness and despair. All this can manifest in socially acceptable ways of expressing the distress. In Slovenia we can definitely count among them alcohol abuse problems, suicides, increase of anxious-depressive disturbances and other mental health problems. The age limit of the young that start to take drugs is lowering, the drug abuse is definitely augmenting, the range of dependence is increasingly various. We have no doubts about the genuineness of the poverty phenomenon in our area, we are just warning about the necessity of taking into consideration the socio-psychological viewpoint of the poverty and social exclusion discussion, because the mental health problems are an inevitable consequence. Yes, to be poor means a lot more than just 'not having'.

The phenomena of poverty and social exclusion are still not enough researched, without fail the number of people that can be potentially pushed to the society margins, is augmenting. The today's society is a society of power in all the aspects and it threatens the already vulnerable groups of population. A low education level and unemployment are among the main causes of poverty and social exclusion, that's why we will present them in the continuation within some of the most vulnerable population groups.
Social vulnerability

The concept of *youth social vulnerability* is directly linked with the greatest risk of poverty and social exclusion for youth. The life individualization in today’s pluralistic post-modern society brings, among other things, an augmenting social and cultural uncertainty, which is perceived especially by the young people that do not have an adequate economic and social support of their primary family. The youth searches for answers for many “existential questions”, as defined by Giddens, in their every day’s context. Regardless of the necessary family’s more visible role, it is necessary to expose the basic integration of the social vulnerability into the large social sphere. The exposure to social solitude, productivity pressure, competition on numerous levels of the social life, negative self-image, low self-esteem, self-destructive relation with life are just some of the challenges that the young people have to confront with and that augment their vulnerability.

The social vulnerability is characteristic of the major part of the youth population as confirmed in the empiric study “The youth’s social vulnerability” which was carried out in 1998 by the Center of social psychology – youth studies in the Faculty of Social Sciences. The research made on the pattern of 1687 elementary school’s eight-graders showed that the youth’s social vulnerability is influenced also by their so-called “interaction competences” (mutual activity possibilities) among which the authors of the research define a positive self-image, a relative emotional stability, communication abilities, language skills and knowledge, common knowledge (worldliness) and an active use of computer technology. Interaction competences are not only youth’s characteristic or personal abilities, they are also influenced by family environment (primary socialization process) and the (in)accessibility of the sources in the large social environment (Ule et al., 2000: 214). Besides all that, the research showed that boys are much more equipped with interaction resources that are important for a good social inclusion than girls. The research also shows an alarmingly high level of (self-)destruction, feelings of insecurity, guilt and youth’s demoralized relation with the world and life.

The parents’ social, economic and cultural capital, directly linked with the attained education level, has a great influence on youth’s social vulnerability. Education is very important for acquiring a status in the society that is why the school unsuccessfulness is the key factor of the youth’s social exclusion.

The drop-outs have an important place among the unsuccessful students, because they do not finish their studies and they do not have
a formally obtained education, which reduce their employability and influence the social economic status in the society. The interruption of the school career has a lot of social consequences, in the opinion of researchers from different sociological and humanistic fields.

In Slovenia the first drop-outs happen already in elementary schools. On one hand we have people who redouble the year or drop out from the lower classes of elementary school an on the other hand we have individuals that finish elementary school but they do not continue their education in high school. In the last ten years, two to three thousands or 10% of the generation drop out of elementary school. These scholars are generally very young, from 15 to 16 years old, and they frequently have learning disabilities and a bad prior knowledge. Most of the time they come from bad social conditions, have inferior possibilities and are unmotivated for education (Klančišar, 2004: 60). The author does not mention whether the given marks (learning disabilities, bad prior knowledge, inferior possibilities, lack of motivation) are the cause of bad social conditions.

Numerous researchers confirmed the statistical connection between the low socio-economic status and poverty on one side and the growing drop-out on the other side. The national experts also state that all too much children who live in poverty start and then finish their studies with an education failure and the social exclusion. That is why further in life they are confronted with unemployment, poverty and diseases. Most of the time the strategies, knowledge, behavior and norms that poor children bring along into the school environment do not correspond to the ones expected by the school and so, they are a frequent reason for the education unsuccessfulness and social exclusion, says Milena Košak Babuder. Besides that, Babuder explains: “The results of the research, which studied the connection between poverty and children’s educational success and social inclusion, show that in the major part of the observed variables children coming from families with a lower socio-economic status differentiate structurally from the group of children coming from families with a higher socio-economic status. The structural differences between the two groups of children indicate the differences in knowledge and strategies that children have at their entrance in the school environment. With other variables, that evaluate the basic conditions for a successful learning, educational success and social inclusion, there are statistically important differences between the two groups” (Košak Babuder, 2006: 94).

The socio-economic status is a composed variable that includes especially the parents’ profession and education, the family’s material
state and cultural level, mutual relationships within the family, the parents’ aspirations regarding the child’s intellectual and personal development, the child’s encouragement and help with his studies and education style (Toličič and Zorman, 1977). In the western countries it is shown that the socio-economic status is one of the most important predictors of the child’s school success, job’s standpoint, assimilated values, professional career and his life orientation in general. Havighurst (1971, in Toličič and Zorman, 1977: 8) says that the socio-economic status generally enables a more precise prediction of the child’s success and his/her behavior than any other single information, like the child’s IQ or some other personal quality.

Jana Bezenšek (2003) studied the influence of poverty and social exclusion on the education of the talented. She analyzed the factors of the poverty and social exclusion’s actual state and their influence on the education (in)efficiency and she warned about the increasing presence of this socially unwanted phenomenon, regarding which a poor talented child does not have the possibilities for an optimal development of his abilities. In the process she exposes the influence of some social factors on the individual’s acquiring of education, among which she especially exposes the influence of one’s family and the level of life standard, the locality where the family lives and the quality of providing for the family household members needs, which have an important influence on a person’s educational success along with his (usual) individual talents. The author establishes that both the choice of the education program and the educational success depend also on the social origins, financial, social and cultural capital of the individual’s family.

A higher income influences the choice and collaboration possibilities. The spectrum of choices widens, the fields that our status can reach are accessible: additional training, taking part in different courses, studying abroad, etc. The status selection in the Slovenian educational system in the nineties is increased by ‘the external high school graduation exams, the classification of schools by the high school graduation exams points, the selected general high schools; introducing school fees, especially for the increasing number of self-paying scholars in colleges, an almost entire private solvency of postgraduate studies, augmentation of new school books and increase of their prices, which increases the private study expenses; and finally the augmentation of student rental’s prices in the university cities in Slovenia (Kramberger, 1999: 115).

A better education means a higher income, a better material level, a stronger social power and a more quality life style. On this basis, a
person forms his own value system and other psychosocial differences that form between different social classes or groups, because of what stated above. A person’s material status is not a decisive factor anymore for the defining of a social status. Knowledge is starting to become the instrument of development and the key possibility for the progressive climbing of the social scale.

The research Environment and scholars success, carried out by Ivan Toličič and Leon Zorman in 1977, showed the influence of the social origins on the children educational success. They established that there are bigger differences regarding the school marks than the tests among children that come from different social and economic classes. They also took into account the possibility of the teachers subjective grading, which may had different expectations for the children that were mostly in accordance with their origins. The research is pretty old, but the question of subjectivity still remains.

The research of the intellectual potentials realization of children from different socioeconomic classes, published in the book Social inequality, schooling and talents (Makarovič, 1984), confirmed the influence of social inequality. This inequality reflects in the lack of realization potentials of youth from lower social classes, the differences in the over-realization of less intelligent children from higher classes compared to children from lower social classes with the same abilities are obvious. Makarovič affirms that the children of a worker have inappropriately less possibilities to develop their intellectual possibilities than the children of capitalists (Makarovič, 1985: 17). The author states that there is a connection between the results of the intelligence measurement and the social origins, which is not very elevated. The results of the intelligence tests attained by the scholars coming from lower classes are on average lower that the results of scholars from higher classes (ibid: 21-24).

In the analysis of education mobility in Slovenia, Kramberger states that the influence of the families on the children’s achievements was increasing until the end of the second World War, when the families wanted, by all means and with all the support, to increase their children’s chances of success in schools in consequently later in life. But later, at the time of socialism, with the introduction of publicly accessible education, the influence of the families started to decrease. The role of the family and the parents influence on the children should have lowered with the institutionalization of the public schools, because the educational institutions and schools with daylong programs have taken over this role.
The families influence on the children can be once again perceived in critical periods, when the employment opportunities are low. This is why ‘the meaning of the connection between a higher class family, a ‘good school’ and a good employment started once again to increase’ (Kramberger, 1999: 117).

“The social selection in the Slovenian school territory, measured by the status influence of the original families, did not constantly decrease (...) but it was more like oscillating back and forth, …, but mainly the intergeneration family energy, which wilfully supports the children and maintains the social selection in the school sphere, always redirects from lower, accessible educational levels to higher, more closed educational levels” (Kramberger, 1999: 116). Kramberger insists on the presence of the family influence on the children’s education, although it’s a common finding that it decreases in a long-run.

The connection between the reached education and the poverty risk still exists. The lower is a person’s education, the higher is the risk of a life in poverty. We can find far the major number of poor people among the low educated (observed in 1993, 1997/1998, 1998, 1999), who represent almost 60% of the poor population. In 1999 the level of poverty in this group was high over the average - 26,8% (Klančišar, 2004: 36).

In the experts’ opinion, unemployment also leads young people to social exclusion. The level of registered unemployment in Slovenia in 2007 was 4,9 %, thereof the highest was among young people, from 15 to 24 years; it was 10,4% (SURT, Active population, 2008).

The analysts from the Employment bureau believe that the biggest problem is finding jobs for unemployed people without education, because their percentage is always around 47% (Rapuš Pavel, 2005: 338). This information is also in line with the information that unschooled people cover almost 60% of the poor population. In 1999 the level of poverty in this group was high over the average - 26,8% (Klančišar, 2004: 36).

When we talk about the drop-outs and unemployment, it seems important, within the context of social exclusion, to point out the youth’s social network, which in this case is getting thin. Jana Rapuš Pavel (2005) mentions numerous foreign studies (Coffield, 1986; Hutchens, 1994; EmlerinMcNamara, 1996; Donovan and Oddy, 1982; Paugam 1996), orientated to the analysis of the increasing problem of social isolation and the loss of social contacts, which accelerated and increased the risk of problems in the field of psychosocial health. In
France the uncertain employment situation of young people is closely linked to the losses in the social life, while the permanent work contributes to quality social networks and it is linked to the social and economic inclusion. In the study, the weak social contacts of young people appear in direct connection with the field of work. The young unemployed people in Scotland are “cut out” of numerous social contacts opportunities, which influence their social exclusion. In Great Britain the youth’s unemployment also contributes to the social contacts restriction; young unemployed people do not have the possibilities to establish as much social contacts in an active way as the would like to, and that contributes to the feeling of isolation and unhappiness (Rapuš Pavel, 2005: 347-349). Regarding different statements, Rapuš Pavel concludes that not all the young people lose important social contacts because of the uncertainty in the labor market (example of the developed Denmark), but without doubt the field of work represents one of the important social spheres, where young people have the possibility to establish new social contacts and connections.

Numerous studies in the United States of America, which researched the influence of poverty on children in different ages of development, state that children, faced with poverty in the preschool period and the early school years, are less likely to successfully finish their studies compared to the children and adolescents that fell into poverty more later. They do not develop the knowledge, abilities and skills necessary for a successful collaboration in the educational process, because of a discouraging environment in the preschool period. The effects of poverty are the most obvious with children under the age of three. The children’s school unsuccessfulness has immeasurable consequences in the life of young people and their emotional and mental health. All too much children, who live in poverty, start and conclude their childhood in the social exclusion and school unsuccessfulness and, later in life, they are confronted with unemployment, poverty, diseases, and featurelessness.

We do not affirm that an individual’s development depends only on the socio-economic status, we acknowledge the proved influence of other factors, but we believe that the discrimination of children and adolescents coming from poor families is inadmissible and that ours basic rights are equal possibilities and opportunities to education for all people.
The influence of the parents’ education on the children's education results

We cannot discuss the children's and young people's poverty and social exclusion separately from the general increasing of their parents' poverty and social exclusion.

Besides the family's socio-economic status, there are also the parents’ educations that influence the formation of differences in the obtained knowledge. Researches show that the parents’ education has more influence on the children's integration in further education after elementary school than the family financial state, which is even more intensified at the passage to higher education. Most of the scholars come from higher social classes, but not regarding the financial status as much as the parents’ education level. At the same time we find out in literature that despite everything the family influence on the children’s education results decreases in a long-term. In Kramberger's opinion (1999), there was a great contribution to it by the socialism with its aspiration for a systematic increase of the status independent accessibility to education and, in a smaller measure, in the nineties, it was also the consequence of new selective mechanisms like secondary school admission tests and the possibility to enrol for continuing education based on the high school graduation exams points.

The international and new Slovenian researches confirm the recognition of differences from the preschool period on. Zupančič (2003) finds out important differences in understanding the conceptions, language knowledge, common knowledge, attention and concentration among preschool children from poor families with a high socio-economic status (Kavkler 2004,: 125). Rožanc (2000) indicates some important differences in the vocabulary of fourth graders from poor families and those from families with a high socio-economic status. The parents’ education is the factor that has the most influence on the differentiation of seven-years-old children successfulness in mathematics. In Vončina’s research (2003) we can see the clear differences in the automation of arithmetic knowledge and the procedures and abilities to solve verbal problems among seventh graders from poor families and those from families with a high socio-economic status (Košak Babuder, 2006: 94).

The final report of the project Identification of the criteria for the evaluation of impartiality in education (Razdevšek Pučko and others, 2003), elaborated and based on the analyses of statistic data, confirms that the children’s achievements in elementary school and their enrolment in high school programs with different length and difficulty are,
statistically speaking, significantly linked to the parents education. Children with low educated parents achieve more often low education results and they frequently enrol in less difficult high school programs in contrast to children with more educated parents. This kind of researches cannot be performed since 1997, because of the protection of personal data.

Despite everything the education opportunities are improving. Every next generation has a higher education average. From 1968 until today, the share of highly educate people increased three times as much, but despite that we still cannot reach the European Union’s requests, that is 25% of the active population with finished undergraduate or postgraduate studies. This year, there is already half of all the people between the age of 19 and 23 that are enrolled in higher professional programs or university programs. Only six years ago, less than a third of the people from the previously mentioned group were enrolled in the tertiary education (SURNS, Student registration in tertiary education in the school year 2007/08, 2008). Regarding the number of people registered at the faculties, this limit could be exceeded, but the share of dropping out at the faculties is too high. A lot of scholars actually drop out also because of high expenses that they alone or with the help of their families cannot cover, despite the present forms of governmental help (scholarships, subsidized services, tax relief, child benefits, possibilities of earning money with part-time jobs).

The influence of the educational system on the class reproduction

The possibility of choosing the formal or informal education is increasing, but at the same time the possibilities of accessibility for all are decreasing, which in a postmodern society, that is based on knowledge, increases the possibility of social exclusion and poverty.

The education institutions are losing the monopoly over the children and youth education that is why the offer and the market of informal education offers and extracurricular activities are strengthening. The pressure on parents to start the education of their children already in the preschool period is strengthening. The activity of the school institution alone is also passing into childhood. This process has its own negative effects in the overloading of children and stress because of the unsuccessfulness feelings (Ule and Rener, 2007: 12).

The reform or the renovation of school (9 year elementary school) also went this way. We acknowledge numerous organizational, positive changes introduced by the nine-year elementary school, but we have serious doubts about contents innovation.
If we take into consideration the Scandinavian countries, we can easily notice the difference between our and their complimentary schooling. For them a complimentary schooling means also free transport for the children, free textbooks, free alimentation. Here, even with the introduction of the nine-year program, things stay the same, a burden for the parents. It is true that we have the so-called textbook founds and the possibility to have subsidized food in school, but in spite of all that the costs of obligatory schooling are still high and they frequently represent the biggest family expense.

We see in grades or grading an ineffective external motivator which slows down creativity and our children’s personal growth, works destructively on them, contributes to an unhealthy rivalry and it mostly prevents children from learning for themselves and not for grades, teachers or parents. We agree that the grades and other sanctions are successful motivators at the time or for a short period of time, especially for the teachers work, but in no way they are suitable and effective in a long-term period, because they ruin important relationships for the child’s development and success. We believe that people are intrinsically motivated beings on the inside and that we are successful and satisfied only when we successfully satisfy our basic psychological needs, which is not always possible for the children within the existing school system. Our common goal should be a successful, satisfied, happy and personally healthy student, because this is the only way he could grow up to be a healthy and responsible adult.

Descriptive grading does not mean a school without grades. That’s why we support the descriptive grading, which requires from the teachers a more individualized work, a good familiarity with the children, watching their behavior, which contributes to the school quality. With this approach the teacher nicely describes the student’s cognitive, emotional, social and motoric achievements from the point of view of reaching the set goals and education standards and in the light of his individual development. Besides the knowledge acquiring (cognitive competences), actually ignored social and emotional components are also included.

The problem with descriptive grading is the fact that here the tendency to molding also frequently prevails when the progress of one child is similarly described to the progress of another child, because of the teacher’s lack of time or (psychological) knowledge. But we all are individuals and that should be taken into consideration also by the so-called differentiated schooling, which sadly keeps only on classifying the children (regarding the knowledge standards) and that additionally
stigmatizes, marks and prevents them from getting an equal education and inclusion into society.

School is an institution that should essentially contribute to the decrease of interpersonal differences. It is a place that should connect, include and encourage all the scholars, regardless of their socio-economic status, education and their parents influence. The basic duty of every school is to enable the growth and progress of all the children. We have to get rid of the jeopardy that comes along with the position loser – winner and work on the position winner – winner, which enables the progress of all the participants. Let’s encourage the self-competitiveness, when the child with some self-estimation discovers where he was and where he is now; everything he learned, where did he make any progress; what is he doing differently now than before. The important mistake about competitiveness and comparison; when personally no one gains if someone else attains good results, and we still remain unsuccessful. Because of the fact, that a man is an internally motivated creature, we doubt the motivational effect of mutual rivalry.

Education is a process, within which the expectation of framed thinking and rigidity do not have any place nor the application of threats and critiques, because they destroy the creativity of every individual and of course his progress and development. In the existing educational system there is always too much of these destructive behavior. The excuse that it is only about a constructive critique does not stand, because a critique is a critique and it is destructive. We cause too much damage when we refer directly to a student for communicating him his mistakes (you are not right, you cannot do this, you are not capable…), even if by doing so we use the well-known and advised ‘Me messages’. That way we communicate as well: ‘I’m OK’, ‘you are not’; ‘my way of saying and doing things is right’, ‘your way is not right’. Let not the school success also is a personal success. It would have much more sense and it would be more effective to focus on the child’s product, behavior or whatever he did not do very well, because that way we do not destroy the relationship. We avoid the destructive insults, underestimation and other hurtful behavior.

We should be searching for knowledge and not for ignorance in a child, but the discrepancy between what we believe in and what we do is always big. All of this contributes to the reproduction of mutual differences and evaluation of individuals, feelings of guilt, weakness, and exclusion. Although the importance of the socio-psychological point of view in the modification of the school system is very stressed, sadly we
are finding out the opposite; more burden for the children and the increase of the differences.

If we resume quickly the international researches (TIMSS, PISA) results, in which the Slovenian schools took part, we can see that they are not very encouraging, because they show that the number of scholars that get joy from studying is decreasing; the percentage of scholars who do not like to study natural sciences is increasing; the knowledge is not useful, there is too much reproduction. Children are too burdened, the courses are not attractive. These are just some of the indicators of the actual school system unsuccessfulness, which show us, beside the increasing scholars’ personal problems, also the need for new educational choices.

Conclusion
The strategic objectives of the program of fight against social exclusion and poverty in the field of education were integrated into the systematic and content’s changes in the school sphere. With the reform of the school system, the Republic of Slovenia brought into education the mechanisms it needs to ensure equal possibilities in education, to increase the socio-integration role of the school, the levels of children, adolescents and adults inclusion into education, to increase the access to different programs, to lower the drop-outs, to increase the quality of achieved knowledge and to ensure the diversity of the education forms. The reformed study contents would be able to influence different spheres of the child’s growth and the new introduced methods and forms of education should be able to enable a major educational role of the teacher.

The evaluation of the education curricular reform in the Republic of Slovenia (1993: 15) ensures that all the participants (teachers, scholars and parents) accepted positively the differentiated schooling and they have positive viewpoints about it. The evaluation pass the conclusion that the level differentiation of education in elementary school is a suitable novelty and it is necessary to carry it out with quality and to still study it.

The most common scholars’ remark about grading is that in grading the differences between different levels are too large and because of that it is very difficult to get the highest grades, that grading is too strict and that it would be better to give just grades from 1 to 5. They are thinking about introducing the ten-level grading scale.
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The surprising results about relationships between peers and friendship among scholars’ shows that they managed to keep the friendships in the internal classes and to form good mutual relationships in the level groups. By all this they conclude that differentiated schooling in generally did not have a negative effect on the scholars’ social life in the class.

The evaluation also states that the differentiated schooling did not have a negative influence on the scholars’ self-image on the lower level of difficulty as these scholars conserved their self-image in a two-year period on the same level. With this statement they reject some people’s frequent and, in our opinion, legitimate doubts that the scholars will be deprived exactly on the emotional sphere because of the differentiated schooling (ibid: 15-17).

The doubts about the individualized descriptive grading are confirmed by the certificates evaluation, which showed that in the first grade more than two thirds of the certificates (68,5%) have marks with individualized grades, in the second grade there is a little more than half of certificates (50.8 %) like that. More than 40% of the descriptive grades from the first and second grade are like that – among the certificates from the second grade there is almost half of them like that – from them we cannot see the individual progress of a scholar when achieving goals or knowledge standards; this shows a great percentage of unsuitable descriptive grading (Evaluation of descriptive grading..., 2004: 11).

By clashing the results they found out that in the whole pattern only a few more than a tenth (11,5%) of the certificates have individualized descriptive grading and the same time they describe (only) the scholar’s progress in achieving goals or knowledge standards – therefore they give a quality grade, which suits the normative provisions of the regulations of knowledge grading. The evaluators found out that for the certificates with individualized grades it is more possible that the grade includes the evaluation of improvable goals and it describes the scholar’s behavior and/or characteristics. The clashing of the results showed that 80,4% of the certificates with individualized grades include either the evaluation regarding one of the two criterion or the two together (ibid: 15).

The review of the certificates of departments as wholes showed that teachers “help” themselves at the final descriptive grades also with the preparation of a specific pattern for descriptive grades and they use these more or less adapted grades for a scholar’s final grading. From the point of view of the adopted solutions it is this wrong, because the
starting-point for a grade composition with this pattern is not the scholar’s individual knowledge. This procedure leads to less individualized descriptive marks, because the scholar’s proved knowledge by this approach is graded by being “classified” in description of the reached goal or knowledge standard, prepared in advance. This kind of undefined descriptive grading turns into “judgments of value, which could stigmatize the children as much as what we tried to avoid by annulling the numerical grading” (ibid: 15-16). The stigmatization and evaluation of the child’s personality within the school system is confirmed by the information that more than half of the certificates (55,6%) include, besides the description of the shown knowledge, also one or more notes about the student’s qualities and/or behavior (restlessness, disturbing behavior, kindness…) and/or they give implicit judgments of value about the student (ibid: 13).

The efforts of the organizational and professional reforms, raising the level of knowledge and reaching the education objectives (in the European community passed “4 pillars”: to know, to use the knowledge, to know how to live in a community, to know how to live with oneself and with one’s identity), are realizable only with a rightful education system. In order to be able to call the school system rightful, it is necessary to formally ensure equal education possibilities and at the same time to even the objective differences among scholars. The school system cannot realize these requests only on a formal, institutional level, but it must intervene also on the relationships level. The educational approach must contribute to the increasing and equalizing of the possibilities and opportunities in education and by that contributing to lower the negative social factors connected to the social exclusion.

References:


ASSESSING THE M-GOVERNMENT REQUIREMENTS IN INFORMATION STAGES

Golnaz Azhdari ¹, Hamid Tofighi², Shadi Sanagoo³

Abstract

Recently mobile phone subscribers reach the peak of 6 million people, it means that more than the whole population of the world. So this is the first manmade technology that penetrated the globe, not only in a short period of time, but also a technology that can fulfill the digital gap in the poor societies as well. As a result there is a tremendous variety of business model to lunch different value added services base on mobile phones. One of these uses of mobile phones is m-government; the governmental services which offer to citizens through mobile phones. Also there is a growing trend for implementing m-government in the both developing and developed countries. In this paper by regarding the literature, we first categorize the requirement of m-government implementation and then we assess these requirements in the 4 information stages by a panel of experts. They believe that after the information stage the role of government are becoming more and more. And the proposed requirements are expected to be fully adopted as the level of stages goes to upper levels.

Key words: m-government, mobile phone, value added services, m-government stages, readiness assessment of m-government

Introduction

This is not more than 25 years after the first commercial and wide speared use of mobile phones. During these years there is a tremendous effort on not only the technology but also the use and the business models as well. The results of this effort is the penetration of mobile phone is more that the whole world population. The World Bank reports mobile communication has arguably had a bigger impact on humankind in a shorter period of time than any other invention in human history (Information and Communications for Development 2012:

1 Golnaz Azhdari is the PhD student of Ferdousi University, Mashhad, Iran. E-mail: g.azhdari@gmail.com
2 Hamid tofighi got his Phd in economic
3 Shadi Sanagoo is MSc in Industrial Engineering (system management & productivity), Amirkabir University of Technology, Tehran, Iran. E-mail: shadisanagu@gmail.com).
Maximizing Mobile, 2012). According to the ITU statistics 2011 while the penetration of mobile phone in the CIS countries is more than 145% this rate in the Africa is 53% and the whole world average is 85% (Mobile-cellular subscriptions per 100 inhabitants, 2011). While this gap is still huge, in comparison with the other technologies this is a global success. For example the penetration of internet in the Europe is more than 68% this rate in the Africa is 12% and the whole world average is 32% (Individuals using the Internet per 100 inhabitants, 2011). These numbers proof that the use of mobile phones are easier for common man in the globe than other ICT technologies. And according to different reports (Bhatnagar, 2009) in any field of public services which the target point is the bottom of the pyramid of any society, mobile phones are much better than any other tools.

Iran follows the global trend in mobile penetration as well. During the 12 years the subscriber of mobile phone became 50 times more (Mobile-cellular telephone subscriptions, 2011). And the rate of mobile penetration reaches to the 100% by the end of 2012 (Iran telecommunications Report, 2012). Despite different effort on lunching e-government project in Iran, still the ranking of e-government is not appropriate, so m-government project can be a very good chance to facilitate the governmental services.

The penetration is not just the only factor that influence the use of mobile phones, the more important factor is the formation of mobile value added services (MVAS) which is any kind of services that can be delivered to customers by mobile phones. Generally a value-added service (VAS) is popular as a telecommunications industry term for non-core services, or in short, all services beyond standard voice calls and fax transmissions. However, it can be used in any service industry, for services available at little or no cost, to promote their primary business. In the telecommunication industry, on a conceptual level, value-added services add value to the standard service offering, spurring the subscriber to use their phone more and allowing the operator to drive up their ARPU. For mobile phones, while technologies like SMS, MMS and data access were historically usually considered value-added services, but in recent years SMS, MMS and data access have more and more become core services, and VAS therefore has beginning to exclude those services (http://en.wikipedia.org/wiki/Value-added_service, 2010).

These value added services glorify during the recent 10 years and reshape from a fantasy service to the core and fundamental services. The categories of these services according to the report of PWC in India
are communication, entertainment, information, and m-commerce. The communication services include SMS, checking mails on gmail or always on push mail interface, accessing mobile search engines, instant messaging on blackberry, video calling, and facebook. The entertainment services include CRBT, Wallpapers, downloading or playing online games, video streaming, conferencing, mobile TV. Information services include Getting weather forecast, news websites, information related to location, info updates on profession, online maps and finally m-commerce services include mobile banking, hotel bookings, mobile tickets, stock trading etc (Connect with Consumers Value Added Services: The Next Wave, 2010).

Governments react on this demand by offering services through additional mobile communication channels. Such activities have become commonly known under the term mobile government (m-Government) and are usually regarded as a subset of e-government (Zefferer, 2011). M-government use all different variety of mobile value added services in different stages of implementation for different value transferring to citizens. There is a trend in implementing m-government projects in the global (Hany Abdelghaffar, Yousra Magdy, 2012).

**M-government**

The definition of m-governance is a strategy and its implementation to leverage available wireless and new media technology platforms, mobile phone devices and applications for delivery of public information and services to citizens and businesses (Framework for Mobile Governance, 2012), which emphasis on the strategy and the implementation of this strategy is m-government. The appearance of m-government term is such a young term and not more than 10 years and is still in infancy and early stages of development (Mansoor Alrazooqi, Rohan De Silva, 2010).

The m-government term hence appears as a powerful e-government component to facilitate the delivery of more and better services for citizens, in a customized manner and by means of various devices (Abraham Sotelo Nava, Irak Lopez Davila, 2005). It aims to leverage one of the most used communication medium, mobile phones, in improving Governments fundamental functions (Nitin Nagpal, Saurabh Agarwal, 2009). The use of mobile technology in government sector not only provides an alternative channel of communication and public service delivery, but more importantly, it can address the mobility of government itself and in this way transcend the traditional e-government service delivery model by bring personalized, localized and context aware services close to its mobile citizens (Song, 2005).
M-government is a combination of the two concepts e-Government and mobility that have been described and defined in the previous sections. The general idea of m-Government is to make use of mobile technologies in order to enhance existing e-Government procedures and services and to develop new mobile approaches in this field of application (Zefferer, 2011). M-government is not meant to be a replacement for e-government but a complement to e-government (A. Farshid Ghyasi, Ibrahim Kushchu, 2004).

Despite e-government which according to the OECD, is the use of ITCs, particularly Internet, as tools for better Governance (Abraham Sotelo Nava, Irak Lopez Davila, 2005); m-government is not limited to the accessibility of internet. According to the report of ITU the core indicators on access to, and use of, ICT by households and individuals are radio, TV, fixed line telephone, mobile-cellular telephone, computer, internet access at home (Core indicators on access to, and use of, ICT by households and individuals, 2010). This report which is based on the data from 227 countries shows that there is a gap between internet access and mobile phone in almost all countries. This issue enhances the capacity of this technology for using the facilities and more importantly innovation and the arrival of the mobile technology has created new opportunities for citizen participation and engagement through its vast reach (Nitin Nagpal, Saurabh Agarwal, 2009). This is a global truth that the penetration of internet in still not appropriate, specially in the poor and rural areas it means that for accessing the e-government services there is a gap not only in the developing and developed countries but also in the countries between rural and urban areas as well (Nitin Nagpal, Saurabh Agarwal, 2009).

For example in Iran while the mobile phone penetration is more than 100% the computer penetration is 33.7% and the internet access is just 20.8%. This trend is followed in countries such as India, Colombia, El Salvador, Mexico, Morocco and etc (Core indicators on access to, and use of, ICT by households and individuals, 2010).

In the context of delivery of Government services, mobile phones and accessories may be used in the following ways: of substitutes a fixed line phone as an access point for users to make calls to a call center run by the government to provide information and services like filing complaints, Push down message from a central server to reach users who seek specific alerts/information, Two-way interaction using an SMS service to enquire and receive responses from a Government agency, A mobile phone and related accessories replace the Internet access point for delivering services in an assisted mode to clients,
Mobile phones given to functionaries who need to communicate with their supervisors or other functionaries to seek expert advice or pass instructions. Mobile phones are used as a data-capturing device by field staff for collection of health statistics, reporting activity levels by field workers as a part of daily MIS, and conducting surveys (Bhatnagar, 2009).

M-Government can be applied to four main purposes in the public sector: m-communication, m-services, m-democracy, m-voting and m-administration (13). And also some other researchers mention other facets of m-government such as m-service, m-participation, m-voting and m-information. For facilitating different aspect of m-government there are some of the tools of mobile technology for providing information and soliciting input from citizens at their convenience such as Short Message Service (SMS), Multimedia Messaging Service (MMS), Interactive Voice Response System (IVRS), General Packet Radio Services (GPRS) and Video Calls (Nitin Nagpal, Saurabh Agarwal, 2009).

To be able to use these tools, there are some requirements and also different steps of maturity models. For extracting the requirements I use the maturity model which validated and localized in Iran (Fatemeh Saghafi, Fatemeh Nassereslammi, Masoumeh Aljerban, 2010). As general there are five basic classes of information modes Information, Communication, Transaction, Coordination and Collaboration. M-government aims at building these four information modes between government and citizen (Nitin Nagpal, Saurabh Agarwal, 2009). In this paper by regarding the literature we combine the information stages and m-government requirements, as a main framework.

**Method and results**

For finding the requirements of m-government we use the maturity model which proposed and localized in Iran and validity of this model is confirmed by a questionnaire and survey analysis with experts’ opinions and using appropriate statistical tests (Fatemeh Saghafi, Fatemeh Nassereslammi, Masoumeh Aljerban, 2010). The requirements are: cultural Excellency, abilities and maturities of private sector, the effectiveness of governance, the executive forces, organizational, economic, political and strategic, legal, cultural and social, security, and finally technological issues.

Then we assess these requirements in 4 information stages as explained previously, by panel of experts of mobile technology field. The
results show none of these requirements ignored and all of them accepted by experts. The results are shown in the table below.

**Table 5: The results of expert’s opinion**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Information</th>
<th>Communication</th>
<th>Transaction</th>
<th>Coordination</th>
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<tbody>
<tr>
<td>Cultural Excellency</td>
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<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Abilities of private sector</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Effectiveness of governance</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Organizational</td>
<td>3</td>
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<tr>
<td>Economic</td>
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<td>Political and strategic</td>
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<td>Legal and social</td>
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</tr>
<tr>
<td>Security and technological</td>
<td>3</td>
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</tr>
</tbody>
</table>

As its shown in table below at the information stage the experts believes that the cultural excellency, technological, security and political and strategic issues are more important that others, while other requirements are all more than average importance.

**Table 6: information stage**

As its shown in table below at the communication stage the experts believes that the cultural excellency, technological, security, cultural and social, effectiveness of governance, organizational and political and strategic issues are more important that others, while other requirements except abilities of private sectors, are all more than average importance.
Table 7: communication stage

As it is shown in table below at the transaction stage the experts believes that all requirements except abilities of private sectors and political and strategic issues are so important.

Table 8: transaction stage

As its shown in table below at the communication stage the experts believes that the cultural excellency, technological, security, cultural and social, effectiveness of governance, executive forces, and legal issues are more important that others, while other requirements except economic and economic issues are all more than average importance.
As conclusion the proposed requirements are all accepted by experts. They believe that political and strategic issues are more important in the information stage than other stages. They believe that after the information stage the role of government are becoming more and more. And the proposed requirements are expected to be fully adopted by the level of stages.

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THE ROLE OF GOVERNMENT IN PLANNING TOURISM DEVELOPMENT IN MACEDONIA

Biljana Petrevska

Abstract
As one of the fastest growing world industries, tourism has been detected as a source for benefiting to various sectors. Thus, each country insists on developing it and making a profit from its variety of impacts. This has been a priority task to all governments, particularly to small and developing countries as Macedonia. This paper addresses the role of government in its efforts for planning tourism development in Macedonia. Moreover, an attempt is made in assessing several key areas of governmental influence on tourism, like process of privatization, legislation, tourism promotion and fiscal policy. The paper performs different types of analyses based on available sources of secondary data and comparable quantities which are analysed by descriptive statistics. The data set generally covers a twenty year horizon and over. This empirical evidence underlines the importance of government actions as a prerequisite for well-established tourism planning process.

Key words: Tourism; Government; Tourism development; Macedonia.

1 Ph.D. Biljana Petrevska is an Assistant Professor at the “Goce Delcev” University - Stip, Faculty of Tourism and Business Logistics - Gevgelija, Republic of Macedonia (biljana.petrevska(at)ugd.edu.mk)
Introduction

Being identified as one of the most promising industries that mainly contribute to the world’s economy, tourism has become a challenge for every country. Small and developing countries are particularly interested in taking advantages of all positive impacts that tourism implies. Macedonia is one of the countries which have identified tourism as a mean for generating various micro and macro-economic impacts. Consequently, a National Strategy for Tourism Development 2009-2013 was prepared with a main vision - Macedonia to become famous travel and tourism destination in Europe based on cultural and natural heritage (Government of the Republic of Macedonia, 2009: 3). Up-to-date, tourism in Macedonia has accomplished an average growth of 4.64% per year, which is higher than the average growth of the entire economy (3.12%). One may say that the contribution of tourism in the gross domestic product (GDP) is very modest with an average of only 1.7% per year, but the impression is completely opposite when compared to the average for Central and Eastern Europe (CEE) of 1.6% (WTTC, 2009: 6). Regarding the participation of tourism employees in the total workforce of Macedonia, the national average is 3.1%, which is more than twice bigger than the average of the CEE being 1.4% in 2009 (WTTC, 2009: 6). The importance of tourism to national economy can be evaluated by tourism inflows which in 2009 represented 26% of total inflows of services and 8% of exports of goods in Macedonia. In the same line, the tourism inflows were 20% higher than the foreign direct investments. Accordingly, the net tourism inflows in Macedonia have an average of 1% of GDP (Petrevska, 2010). Such condition indicates high potential of tourism effects especially if taking in consideration the forecasts for tourism demand in terms of foreign tourists in Macedonia which foresees increasing of 40% by 2014 (Petrevska, 2011).

Additionally, the projected values referring tourism development in Macedonia are very optimistic. Namely, according to the estimations by 2021 it is expected tourism contribution to the national GDP to reach 4.9% thus bringing revenue of US$200 million. Moreover, the total contribution to employment including jobs indirectly supported by tourism industry is forecast to rise to 35 000 jobs (5.4%). Furthermore, the investment in tourism is projected to reach the level of US$ 95 million representing 2.8% of total investment (WTTC, 2011: 3). Consequently, Macedonia identified tourism as an industry which might contribute to enhancing foreign export demand for domestic goods and services, generating foreign currency earnings, new employment opportunities, repaying the foreign debt, increasing the national income etc.
Necessity of government intervention in tourism planning

One may argue that formulating appropriate tourism development plan and policy is not a trouble-free process (Vanhove, 1978; Mason, 2003). Namely, the tourism policy must be created in a way that ensures hosting visitors by maximizing the benefits to stakeholders, while minimizing the negative effects, costs, and impacts associated with accomplishing successful destination (Goeldner and Ritchie, 2006). Yet, all efforts in order to consider and understand the interrelated nature of tourism industry require monitoring and evaluation when tourism policy issues are involved (Edgell et al., 2008). However, many case studies on planning provide indications that tourism policy may be viewed as simple by those whose job is to create and implement it (Wilkinson, 1997).

Due to the fact that tourism generates many impacts which are contributing to the overall economic development, the inevitable connection is evident to the process of state, regional and community planning. In the same line, it is important to create a strategic document for tourism development as a strong mechanism in assessing the development priorities (Williams and Shaw, 1991; Gunn, 1993; Frechtling, 2001; Hall, 2005).

In order to accomplish the projected economic targets, each government must define its role in undertaking operative measures and activities. Everyday practice has justified the state intervention in tourism industry regardless the size and effects. However, the overall state intervention usually does not provoke fully positive impacts on tourism development. On the other hand, the absence of governmental intervention in free market economy may lead to short-term benefits in tourism oriented enterprises, so the lack of a long-term control over tourism supply may occur. Therefore, the necessity of a balanced state approach in terms of tourism intervention is a must. So, the government may serve as balance between the exploratory power of private tourism enterprises on one hand, and its own interests, on the other. In this line, it must have been precious since the basic goals of the government and the basic goals of the enterprises may not intersect always, although having common interests in most cases.

Accordingly, the partial state intervention is identified as the best solution ever, despite the cognitive conclusion that this kind of “mixed” entrepreneurship often initiates strategic conflicts among the state and the private enterprises. In this respect, the preliminary task is to identify the priority areas of state intervention as the only way of making it the most effective. The government may not be directly involved in tourism support, except in some areas of national importance such as
developing tourism information systems or national tourism promotion. Moreover, the government may initiate actions and activities for tourism development by ensuring funds or setting quality standards. So, this kind of intervention is acceptable as a supportive and balance-oriented concept. Therefore, the role of the government is to act as an economic power that will guide and manage tourism development. Its intervention is justified only when tourism by itself may not act efficiently.

**Methodology**

In this paper we applied both, secondary and primary sources based on desk-research. We also performed different types of analyses based on qualitative approach because the official statistical data are not always sufficient for pointing out the concluding remarks regarding particular issues.

Accordingly, the paper underscores the need for continuous analysis of tourism contribution as an important consideration to all tourism key-actors responsible for creating development strategies in Macedonia. In this respect, the main conclusions of the analyses should initiate urgent need for undertaking serious measures and activities for enhancing tourism development in Macedonia.

**Analysis, Results and Discussion**

In the changing environment, it is especially important adequately to define the role of government in maintaining tourism development. Its mission is particularly crucial in the process of implementing tourism development plan in order to achieve sustainable growth of tourism industry. This task can be accomplished by different measures and activities in the line of supporting international tourism or, by redirecting domestic tourists towards domestic tourism destinations. In both cases, it is fundamental to look at several issues referring the general role of government in different planning periods, the process of privatization, creating comprehensive tourism legislation, tourism promotion and the fiscal policy as well.
Governmental Role in Different Planning Periods

In order to gain more interesting conclusions regarding the general role of government in tourism development planning in Macedonia, a retrospective breakdown is made. Additionally, the major characteristics of several sub-periods are pointed out. The number of tourist arrivals is the basic variable analyzed within the period 1956-2010 (Chart 1).

Chart 1: Tourist arrivals in Macedonia, 1956-2010

The lack of official statistical data referring to the earlier period for applied variable prevented us in its visual presentation in the Chart 1. However, it is known that before 1956, Macedonia had an administrative system of management, so generally the goals, aims and objectives of development plans were focused on domestic tourism. The state had an active role, so the investment policy was generally concentrated on enlargement of public hotel capacities as well as on the establishment of catering service and restaurants for the working class. In the line of supporting the domestic tourism, the government introduced certain reduction of traffic taxes.
The period covering 1956-1965 was characterized by workers self-management system. The government enhanced tourism development in Macedonia by undertaking various measures and activities for introducing an “open-door” and “good-neighbor” policy. Moreover, the government built many new accommodation facilities, educated and trained personnel for tourism industry, invested in tourism infrastructure, allowed free market price policy, presented discounts for domestic tourists up to 40% in the season and up to 60% in out-of-season, introduced subsidies in hospitality, granted capital tourism investments, invested in enhancement of international tourism flow etc. The positive upward trend can be seen in Chart 1. An exception of this positive trend is 1963 when a catastrophic earthquake destroyed Skopje - the capital of Macedonia. However, despite all above noted positive measures, this period is branded by the lack of clearly defined long-term tourism policy. So generally, the state acted partially and unsynchronized towards tourism obstacles by undertaking short-term and ad-hock measures and activities.

The period from 1966-1975 is an interval when tourism was defined among the priority areas of economic development of Macedonia. Due to that fact, the government started to conduct extremely strong intervention by introducing tax allowances for stimulating construction of new tourism facilities, loans, credits, funds for regional development etc. The main aim was to initiate and stimulate positive tourism development outcomes. The accomplishment of this task is visually supported by the Chart 1 presenting that the tourist arrivals in this sample sub-period, really expanded.

Between 1976 and 1990, the government significantly changed its role in qualitative manner. Namely, the state continued with its intervention but only limited to certain, highly important areas such as funding tourism promotion, crediting capital tourism capacities, stimulating tourism income, enhancing tourism supply, initiating tourism networking etc. This is a period when tourism in Macedonia reached its highest peak ever with 1.2 million tourists.

The period from 1991 until today, represents a twenty year horizon of independence. The role of government in planning tourism development has considerably changed. Namely variety of shocks with which the country was faced (the collapse of former Yugoslavia, transition process, various reforms, political instability, war conflicts in neighboring countries, economic crisis, internal ethnic conflicts etc.) resulted negatively on tourism development. This is visually presented in the Chart 1 as an extreme downwards movement of the time series. The
active role of government was transformed and tourism was marginalized. Consequently, until the end of 1990s, tourism stagnated as a result of a slow recovery and transformation process, a lack of coordination between the key-tourism players, a lack of foreign investments etc. Another breakdown is noted in 2001 due to the ethnic war conflict in Macedonia. After that shock, the government redefined the tourism as an important factor for economic development and put it in its agenda as a priority area. So, tourism is one more time seen as a chance for accelerating the economic development. Respectively, the government identified its role in formulating a medium and long-term tourism policy, preparing and implementing tourism development plan, creating tourism legislation, assuring tourism quality etc.

Privatization

Unlike most transition countries, which opted for mass privatization schemes, Macedonia adopted the model of case-by-case privatization. The privatization process formally began in the middle of 1993 when the Parliament adopted the Law on Transformation of Enterprises with Social Capital. This law provided several models of privatization employee buy-out (EBO), management buy-out (MBO), sale of an ideal part of the company, privatization through additional share issue, debt-equity conversion, asset sell-off, leasing, liquidation etc. (Official Gazette, 1993). However, in the practical implementation of the Law, the specific variants of EBOs and MBOs were by far predominant in terms of the number of enterprises and employees as well as the equity. In the first case, the employees were given the opportunity to buy out at least 51% of the appraised value of the enterprise under very favourable conditions (receiving large discounts and being able to pay the shares in five years, including a two-year grace period).

In the second case, a group of natural persons (a management team) obtained the right to control the enterprise by paying down only 10% or 20% of the appraised value, depending on the size of the enterprise. In addition, this privilege was balanced with the obligation to purchase at least 51% of the enterprise's shares in no more than five annual installments that were interest-free. The frequent use of this privatization method was especially favoured by the authorities who claimed that it demonstrated a certain degree of ownership concentration with a positive impact on companies' efficiency (Agency of the Republic of Macedonia, 1996).

With regards to the transformation process the former socialist countries form the CEE, the majority applied quick and rather massive privatization of tourism enterprises. That was the case of Hungary,
Poland, Czech Republic, Estonia, Bulgaria and other transition countries where the direct sale to “strategic” investors (world hotel brands) was the most applied privatization method (IBRD, 1997:122-154).

In the case of Macedonia initially, the privatization of tourism enterprises represented only a small fraction of the entire privatization programme. Namely, the number of tourism enterprises being involved in privatization process was around 140 (with approximately 12 000 employees) representing only 8% of total number of enterprises to be privatized. Obviously, the privatization of tourism enterprises was a marginal question of only EUR 880 million-worth of equity. Although the actual implementation of privatization programme was prolonged to the beginning of 1995, the process progressed with an impressive pace, being almost completed by the end of 1997 when 1.132 enterprises (93% of the total) were formally privatized. In contrast to this progress, the privatization process in the tourism has advanced rather slowly with only 56% of the total number of enterprises and 48% of the equity having been privatized. After a 12-year period of privatization, the state in-cashed over EUR 2.3 billiards of all state-owned enterprises in Macedonia (Author’s own calculations).

Tourism Legislation

An important part of the government active role in planning tourism development is setting the general frames for national tourism legislation. In the same line, the state is responsible for the reviewing process and quality improvement of the current law framework.

Tourism in Macedonia is legally defined with laws and bylaws. In this respect, the basic tourism legislative is comprised of several laws, the Law on Tourism and the Law on Hospitality (both from 2004 and with many additional amendments and improvements in the past several years), the Law on establishing Agency for promotion and tourism support in the Republic of Macedonia (relatively new law from 2008) and the Law on Taxes for Temporary Stay (dated from 1996, but with many qualitative improvements in 2002, 2003 and 2008). This law is particularly important due to the fact that implies legal obligations for preparation of tourism program on yearly basis as a precondition for enhancement of conditions for tourists’ stay. Moreover, this law presents the distribution of tourism incomes, out of which 20% is an income to the state budget in Macedonia, while 80% is an income to the budget of local self-government units.
Beside the above noted laws, tourism legislation in Macedonia incorporates many bylaws with its main purpose to contribute to the effective and efficient approach of all key-actors responsible for tourism development. However, defining tourism legal framework is neither a task by its self, nor is an ending story to the governmental role. On the contrary, it is in the state’s mandate to look after fulfillment of legal obligations, the necessity of its improvement and continuous upgrade. So, considering the tourism legislation, the government intervenes only in moments when a need rises for its modifications. In the case of Macedonia, there are still open issues referring to new initiatives for innovative legal solutions on the process of tourist tax utilization; introducing criteria for follow-up of tourist flows; creating criteria for detailed definition of tourist guide service etc.

Tourism Promotion

With the establishment of the Agency for promotion and support of tourism in Macedonia in 2008, it became fully responsible for national tourism promotion. Before that, the Ministry of economy through the Tourism department was in charge for preparation and implementation of the Program for general tourism advertising. Regardless the institution accountable for raising tourism national visibility, the budget foreseen for this type of activity is of highest importance. Undertaking measures and activities for supporting tourism promotion is a common example of state intervention. So, permanent budget increase is an inevitable activity in order to gain more economic effects. As a case-example, we may mention the one from 2009 when Croatia had bigger budget for tourism promotion for 60% compared to the previous year (UNWTO, 2009).

In Macedonia, the budget expenditures allocated for the implementation of the Programme for tourism promotion are very modest, though their constant increases every year. For instance, approximately EUR 100000 were scheduled for tourism promotion in 2005 (Government of the Republic of Macedonia, 2009), and another EUR 120000 were spent in 2011 (Government of the Republic of Macedonia, 2010). The need for major efforts in the field of tourism promotion in Macedonia is illustrated by the fact that Macedonia has been ranked low on the list of the most attractive destinations for travel and tourism, issued by the World Economic Forum. For example, in 2007 Macedonia was ranked as 83rd out of 124 countries. In 2008, it was placed at the same position, but this time out of 130 countries. In 2009, a small progress was made, i.e. Macedonia was ranked 80th out of 133 countries (Blanke and Chiesa, 2009: 31). Finally, a small progress was made in 2011, when Macedonia was ranked at the 76th place out of 139 countries. However, it should be
mentioned that the majority of the countries in the region are significantly better positioned than Macedonia. Slovenia - 33rd place, Croatia - 34th place, Montenegro - 36th place, Bulgaria - 48th place and Albania - 71st place (Blanke and Chiesa, 2011: xv). Concerning the neighboring countries, only Serbia, and Bosnia and Herzegovina are ranked lower than Macedonia.

If we make a detailed analysis of all indicators concerning certain sub-indexes, many interesting concluding remarks emerge, in particular with respect to travel and tourism regulatory framework, tourism business environment and infrastructure, tourism human, cultural and natural resources etc. The tourism infrastructure index is categorized within the business environment and the necessary infrastructure for tourism and travel development. Thus, it represents its appropriateness by a score of 3.8 being ranked at the 69th place out of 139 countries (Blanke and Chiesa, 2011: 256).

The shortage of allocated budget for successful tourism promotion in Macedonia is supported by data presented in Table 1. The comparative analysis of selected countries underscores their obvious professional approach towards promotion of its tourist products, which is not a case with Macedonia. Despite the governmental efforts in this line, the modest and limited budget is the biggest obstacle in achieving better results.
Table 1: Budget for tourism promotion in selected countries, 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>EUR mil.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macedonia</td>
<td>0.1</td>
</tr>
<tr>
<td>Romania</td>
<td>5.7</td>
</tr>
<tr>
<td>Slovakia</td>
<td>6.3</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>6.8</td>
</tr>
<tr>
<td>Poland</td>
<td>7.7</td>
</tr>
<tr>
<td>Slovenia</td>
<td>8.5</td>
</tr>
<tr>
<td>Hungary</td>
<td>17.6</td>
</tr>
<tr>
<td>Greece</td>
<td>121.7</td>
</tr>
</tbody>
</table>


**Fiscal Policy**

Fiscal policy is defined as the most frequent example of state intervention in the tourism development. It refers generally to tax allowances for hospitality services; tax allowances for catering services or tourist nights spent; direct investments in tourist infrastructure (accommodation capacities, national parks, cultural events etc.) etc.

Governments of different countries took a particularly active role in supporting tourism impacts for achieving overall economic development in times of world financial crisis. The Table 2 gives an overview of state intervention regarding tourism taxes in 2009. Some positive examples can be seen in the cases of Great Britain, Czech Republic, France and Belgium when taxes were reduced for 2-15%. In these cases the governments decided to assist their tourism industries to easier and quicker recovery by decreasing the taxes referring to tourism and hospitality services. However, the bottom rows in the Table 2 presents some negative examples in terms of tax increasing. Namely, due to the shocks of the global crisis, the governments of Estonia, Lithuania, Latvia and Hungary decided to increase their taxes in order to help the national economies in their recovery.
Table 2: Government intervention on tourism taxes in selected countries, 2009

<table>
<thead>
<tr>
<th>Country</th>
<th>Tourism taxes before the crisis (%)</th>
<th>Tourism taxes after the crisis (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>17.5</td>
<td>15</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>France</td>
<td>19.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Belgium</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>Estonia</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Lithuania</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Latvia</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Hungary</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Author’s own notes based on www.hotrec.eu

With regards to Macedonia, the government just recently, in 2010 decreased the VAT rate from 18% to 5%. However, this measure was scheduled and introduced just after the parliamentary elections and despite the positive impacts on tourism development, provoked negative reactions in public being labeled as populist policy.

Additionally, starting from 2010, the government, through the Ministry of economy provides financial support for tourist and travel agencies which promote Macedonia as a tourist destination by incoming tourism.

More precisely, subsidies are introduced for bringing organized group of ten tourists with minimum 3 overnights at categorized accommodation capacities. An alternative is set for the round-tours which have organized tourist arrival and departure by plane, bus or train with minimum 2 overnights in different destinations within Macedonia.

Due to the fact that foreign tourists from neighbouring countries are dominant, it is normally to have the lowest subsidy of EUR 10 for tourists from Albania, Bulgaria, Serbia, Greece, Montenegro and Bosnia and Herzegovina. In the line of expending the international tourist market, the subsidies increase to EUR 20 per tourist when coming from Turkey,
Romania, Hungary, Slovenia and Croatia. These kinds of measures and activities have long tradition in many countries in line of supporting tourism development.

Conclusion and Recommendations

Tourism is an industry that may not be self-developed, so provokes necessity of applying certain forms of state intervention. In this respect, state intervention in tourism means direct participation of the government in tourism market. This may be accomplished generally, in two ways. The first one refers to selective allocation of funds which means market intervention of government as a financial institution.

The second approach is a direct control over tourism enterprises which means state’s inclusion in the business. Consequently, if tourism development is out of control, variety of conflicts may arise. So the government must be included in order to make certain positive-oriented interventions.

To which extend this intervention will appear, depends on many factors, out of which the political orientation of government is the most explored. Usually, governments that support free market and open economy, often create encouraging environment for successful tourism development in contrast to central-oriented ones.

Tourism outcomes in Macedonia refer to the need of government support and encouragement in the line of accomplishing positive impacts with larger extends. Yet, the state intervention should be based on balanced background regardless the applied forms. So it is irrelevant whether the state interferes directly through the Ministry of economy, or indirectly by the foreign policy. The main aim is to implement different measures and instruments in order to manage tourism flows in the line of fulfilling the projected goals.

The general conclusion is that Macedonian tourism suffers from lack of coordinated activities and organisational forms functioning on horizontal and vertical line, unclear set of goals, aims and field of interest within the public, as well as the private tourism sector. Although some significant efforts have been made in promoting tourism, yet the modest and limited budget is the biggest obstacle in achieving greater competitive advantages.

The result is a poorly developed tourism industry. Therefore, as a starting point, partial tourist products must be introduced until the moment when certain preconditions are created in the sense of
strengthening the cooperation between all key actors in tourism. Hence, it can be concluded the need for further governmental intervention in tourism in Macedonia, with emphasize to be supportive and balanced since up-to-date effects are positive, but very modest.
References


HOW MUCH ATTENTION DOES OUTDOOR ADVERTISING ATTRACT AND WHO PROFITS?

Andrej Kovačič

Abstract
Outdoor advertising is a special media you can not escape. A research measured on 9 different locations showed that for 15.2% of consumers standard poster advertisement attracted more than 500 ms of attention. When using a 3D lenticular poster visual attention was reported with an outstanding 25.9 %. Attracting so much attention can be a potential threat to consumers as unlike with other media the consumer has a very limited possibility to turn off the reception of the outdoor media.

Key words: Outdoor advertising, attention, threats

Introduction
The focus of outdoor advertising in targeting consumers when they are 'on the go' in public places, in transit, waiting, or in specific commercial locations. The term outdoor (also referred to as out-of-home advertising) has expanded to cover a number of advertising formats like billboards (400 cm x 300 cm or 504 cm x 238 cm), city-lights (118.5 cm x 175 cm), digital panels, transit and alternative. In USA, the share of billboards in all outdoor advertising is 62% (Outdoor Advertising Association of America [OAAA], 2009).

Despite revenue growth, outdoor advertising remains “one of the least researched of any mass media” (Katz, 2003). The main reason for less research as compared to other media research is in the theoretical, methodological and empirical difficulties in the area. The main difficulties present difficulties in identification, measurement, classification and observation of data (Taylor, Franke and Bang, 2006). Acquiring the

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1 Andrej Kovačič is a researcher at the Faculty for Media – Institute for Media Research. He has acquired a degree at the Faculty of Economics (Ljubljana, Slovenia) and postgraduate degree at Humboldt University (Berlin, Germany). Being CEO of a research and advisory company he has conducted numerous qualitative and quantitative consumer related surveys. His current research is focused on the responses of consumers to different visual media and is part financed by the EU – Investing in your future – OPERATION PART FINANCED BY THE EUROPEAN UNION, EUROPEAN SOCIAL FUND.
necessary data is one of the biggest problems in outdoor research as the exposure time is short, the number of exposures is high, and the responses from consumers are difficult to measure. In addition, as Lombardot (2007) explains, individuals, when measured with traditional self-report measures, may have had a tendency to underestimate the amount of attention paid to the advertisement because of the sensitive nature of its subject matter. The actual amount of attention paid to outdoor advertisements is often greater than measured and autonomic measures are preferred.

This paper aims to answer the following research questions:

- Have multinational advertisers in Slovenia gained power to (ab)use outdoor advertising to influence consumers and to what extent?
- Does outdoor advertising attract attention in Slovenia?
- Who gains the most?

First this paper will show the increase in quantity of outdoor advertising and the restrictions in this field. Then to prove the importance of outdoor advertising attention to influence consumers as evidence from neuroscience is presented. This is followed by a behavioural research in order to connect the number of exposures to attention. Finally the article critically focuses on who is gaining the most from outdoor advertising and what price the consumers are paying for this.

The importance of outdoor advertising - Case study Slovenia

Only after declaring the independence, our country was first introduced to systematic construction of outdoor advertising panels. The first 200 (12m$^2$ each) billboards were built by an Austrian company Proreklam in 1991. After the initial effort the increase was systematic ranging from 0% to 77% per year in the period between 1994 and 2006 (Prepeluh, 2006) - an increase from zero to 11,500 advertising panels. In Slovenia in 2006 outdoor advertising billboards surfaces (12m$^2$ or larger) were estimated at around 6,000 (Prepeluh, 2006).

Europlakat d.o.o. market share was 88.7 % in 2008, achieved by acquisitions of competitors (Mediana, 2008). With 19.7 million € revenues and 4.4 million € profit before taxes in fiscal year 2008, Europlakat group is a very profitable business (Europlakat, 2009). Other providers are small companies. Slovenian outdoor advertising market share is 7.0 % of total advertising (Mediana, 2008) and has become similar to the world market share, which is 6.9% (Zenith Optimedia, 2009). Since reliable data is hard to obtain it is the Europlakat’s financial report and market share that allow us to make direct projections and
good estimations of the total market revenues, community taxes paid, rent paid to landowners and potential consumer exposures.

Prepeluh claims that in Slovenia outdoor advertising will increase further and although not stating the estimation of this increase, he is providing a very convincing self-explanatory graph (2006).

**Figure 1: Number of outdoor advertising panels in Slovenia 1991 – 2006**

Source: Adapted from Prepeluh (2006)

World trends are that the quantity of outdoor advertising will increase further in its total advertising share as well as in revenues. New outdoor media like digital billboards 2 all contribute to the increase of the popularity of outdoor advertising. The world market share of outdoor advertising is expected to rise to 7.0 % (33,385 million US$) in 2011 (Zenith Optimedia, 2009). Given different ROIs (returns on investments) in different media and changes in ROI over time, advertisers should

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2 Digital billboards are a fast-growing segment of the outdoor advertising market (USA). The number of digital billboards has more than doubled since 2007 to about 1,800 of 450,000 total billboards (Copeland, 2010). In USA 39 states allow digital billboards, whereas others, mainly because of the road distraction, do not (Copeland, 2010). In Slovenia there are no restrictions.
increase their share of outdoor budget. The optimal share should be 16% of the total advertising budget (Outdoor Advertising Association [OAA], 2009). This projected increase could mean more than doubling the current number of advertising panels.

**Key advantage of using outdoor advertising is the number of exposures**

Obstacles in advertising derive from the volume of advertising to which consumers are exposed every day. Media Dynamics publication states that an average American adult is daily exposed to about 600-625 ads in any form. (Media Matters, 2007). The average number of noticed ads is 285 ads a day for males and 305 for females. Thus the main advantage of outdoor advertising is the number of potential exposures and a large share of the total ads consumers are exposed to. It is important to consider that in a small country like Slovenia for “mere” 30,000 € (without VAT) outdoor advertising expenditures advertisers can reach 70% of the population (Europlakat, 2010a). The importance of the frequency of exposures in advertising can be seen in Osborne and Coleman research (2008) where a person’s attitudes toward non-persuasive stimuli are positively associated with the number of exposures. Moreover, Osborne and Coleman suggest repetition has greater effects when consumers lack the motivation to scrutinize the validity of a message. This is certainly the case in outdoor advertising because the involvement of consumers in receiving the advertising message is usually very limited. Of the 19 different structural features of the billboards there were only three that showed significant differences in their effect on aided recall. These were awareness of the product or service, length of the campaign, and technology3 used in outdoor advertising (Osborne and Coleman, 2008). Companies can thus increase the effect of advertising by increasing the repetition of stimuli to which a consumer is exposed. Similarly Bhargava and Donthu (1999) have shown that the number of billboards was the most important factor in analyzing the connection between billboard efficiency and sales result, followed by billboard location and possible promotional offer.

**Can outdoor advertising be effective despite short exposure time and low involvement of consumers?**

As Lombardot explains, attention-getting process is first and foremost emotional (2007) and occurs entirely before any cognitive analysis of the advertisement. This means that regardless of what we think of an ad emotional and cognitive processes have already started. Only later, in

3 Regular billboard or digital billboard
In order to be able to manage this volume of information, consumers control their own information processing and engage in selective perception, which leads to processing only a limited number of advertisements and ignoring others (Taylor et al., 2006). To construct a regression model analyzing factors influencing the effectiveness of outdoor advertising Meurs and Aristoff (2009) have measured the speed of recognition of a product or brand from outdoor (comparable) advertising stimuli. The measured time for recognizing the brand/product from a format sized 175 x 118.5 cm varied from only 0.67 to 1.00 second. Raymond (2003) points out that minimal time of exposure to a complex image is between 100–200 ms. Most authors researching with eye-tracking explain exposure has to last at least between 200 in 500 milliseconds to be effective (Josephson, 2005).

How much attention does outdoor advertising attract

When deciding on the research model we argue that the only relevant measure of attention must be executed in a realistic environment. With this respect to the context of this research we suggest an alternative method for measuring the combined effect of attention (conscious) and engagement (subconscious) in outdoor advertising. To measure the power of an advertisement to stimulate the need for additional information we define attention as stopping power. If advertisers want to achieve overall effective advertising they need to achieve engagement or attention that can be seen in existence of stopping power. In the respect of the overall effectiveness of outdoor advertising we acknowledge the stopping power as a necessary but not self-sufficient measure. As it is only important when it leads to other positive effects for example a change of consumer attitude and purchase intention we discuss the content strategies in the following section.

In order to analyze the power outdoor advertising has on attracting consumers’ attention we have conducted a study to analyze how many people look a poster in a shopping environment for more than 500 ms. Direct exposure (a look at a poster at a 1-5 degrees visual angle) as suggested by Josephson (2005) was thus the only variable in this research. In other words the poster had to stop the walking consumer. The interval 500 milliseconds (half of a second) should be long enough for inputs of adaptive importance to be perceived, to influence behavior, and to be represented in the next stage of retention, short-term memory, while inputs without significance can disappear. Implications of this research are that consumers have enough time to recognize the brand name and a short message of practically any visible poster. Even though exposure time is short, the emotional and cognitive processes are
unstoppable. Only after an ad has already been evaluated memory filter is applied.

The main idea of this research was to observe consumers in a real time environment without any interaction to make this evaluation as objective as possible. Thus we have created two posters of the same size (1.07 m x 0.85 m) and motive but printed in different techniques (standard 2D and lenticular 3D) and placed them according to Figure 1. We have switched between the two posters every hour to satisfy the condition for comparison analysis and recorded behavior using HD surveillance camera. Consumers did not know they were observed as the camera was a part of a surveillance camera used in shopping centre and marked only on entrance doors to the centre.

**Figure 1: The setting of the poster and the recording camera.**

Following the training for the two evaluators, who evaluated the research and were rewarded for this task in money, first 592 consumers were analyzed twice to calculate the inter-coder reliability Krippendorff’s alpha ($\alpha$). The sampling distribution of the means was assumed to be normally distributed as well as the sampling distribution of the scores. Based on the SPSS analysis described in Hayes (2007), Krippendorff’s alpha showed fairly high reliability for 592 pairs of analyzed evaluations of the same consumers $\alpha = 0.8835$. Alpha 0.88 means that 88 % of the units tested by evaluators are perfectly reliable while only 12% are the results of chance. Reliability calculations using Krippendorff’s alpha for each of the language group shows alphas at 0.90 level, which is to be considered reliable variable for analysis. Krippendorff (2006; 2011) suggest, for example, to rely on evaluators with variables $\alpha \geq 0.80$ although $\alpha \geq .667$ can suffice for drawing tentative conclusions.
After this test total of 5115 consumer reactions to the poster were analyzed. Among these there were 2198 males (43 %) and 2917 females (57 %) equally distributed for 2D (47 %) and 3D lenticular (53 %) advertisement. Results from this study show that on average for 15.2% of consumers standard 2D advertisement attracted more than 500 ms of attention. When using 3D lenticular poster the half a second limit of visual attention was reported with an outstanding 25.9% of consumers.

Figure 2.: Attention in outdoor advertising using 2 D (standard print) and 3D (lenticular print)

Source: own research conducted from November to December 2011

Locations 1 to 7 were urban; locations 8 and 9 were in rural environment. All locations are in Slovenia. Percentages were similar for all 9 locations. Pearson's chi-square was calculated for differences between 2D and 3D for every location (table 1).
Table 1: Results (different locations).

<table>
<thead>
<tr>
<th>Location</th>
<th>% of attention 2D ad</th>
<th>% of attention 3D ad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location 1 (Interspar, Ljubljana): ( \chi^2 (1) = 4.438, p= .035 )*</td>
<td>18.0</td>
<td>26.1</td>
</tr>
<tr>
<td>Location 2 (Interspar, Maribor): ( \chi^2 (1) = 8.877, p= .003 )*</td>
<td>15.7</td>
<td>26.4</td>
</tr>
<tr>
<td>Location 3 (Planet Tuš, Novo Mesto): ( \chi^2 (1) = 10.990, p= .001 )*</td>
<td>13.8</td>
<td>25.1</td>
</tr>
<tr>
<td>Location 4 (Hofer, Kranj): ( \chi^2 (1) =2.181, p= .140 )</td>
<td>15.9</td>
<td>20.4</td>
</tr>
<tr>
<td>Location 5 (Mercator, Nova Gorica): ( \chi^2 (1) = 8.332, p= .004 )*</td>
<td>14.8</td>
<td>23.6</td>
</tr>
<tr>
<td>Location 6 (Lidl, Koper): ( \chi^2 (1) = 8.251, p= .004 )*</td>
<td>16.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Location 7 (Hofer, Domžale): ( \chi^2 (1) = 29.475, p= .000 )*</td>
<td>16.1</td>
<td>40.6</td>
</tr>
<tr>
<td>Location 8 (Mercator, Trzin): ( \chi^2 (1) = 20.593, p= .000 )*</td>
<td>14.3</td>
<td>30.6</td>
</tr>
<tr>
<td>Location 9 (Mercator, Ivančna Gorica): ( \chi^2 (1) = 22.292, p= .000 ) *</td>
<td>13.5</td>
<td>32.3</td>
</tr>
</tbody>
</table>

We conclude that outdoor advertisements in Slovenia can attract substantial attention in outdoor advertising. In our research attention was between 13.5% to 18% for 2D and between 20.4% and 40.6% for the 3D ad. The results are illustrative as they cannot be used to conclude that every poster attracts this amount of attention. However the purpose of this study was to demonstrate the extent that ordinary posters can attract consumer attention and how it can be measured without the interference of the researcher and thus without the cognitive and researcher's bias. In addition we connect the number of potential exposures with the actual attention we defined as the stopping power of outdoor advertisements.

This research may also serve as a starting point for additional research with similar methodology to additionally verify the results. Future research is especially recommendable for new technologies that are seeking to find their way in outdoor advertising. With the introduction of 3D advertising (lenticular, holographic, 3D TV and other) the ability to stop the consumers will increase dramatically as we have seen when
testing lenticular 3D where it almost doubled for the same motive of the poster (the difference was only the printing technique).

What does it mean when so much attention is obtained in outdoor advertising? We search for the answer in modern neuroscience that has opened a new dimension in advertising research in the last decade. As Ambler, Ioannides and Rose (2000) argue, we can see the effects of advertisements on the brain activity for the first time. In their experiment they used magneto encephalography (MED) to record the brain activity whilst the subject watched cognitive and affective advertising stimuli. Their research showed that affective ads generated greater activation in the ventromedical frontal lobes – the area to be associated with decision making and social sensitivity.

As the authors Ambler, Ioannides and Rose (2000) conclude, scary as it may sound, if an ad does not modify the brains of intended audience then it has not worked. In Slovenia 30,000 € spent on advertising campaign should - according to Europlakat (2010a, 2010b) research - capture 70% of the Slovene population and cause 8,081,345 exposures (four times the population of Slovenia). Aren’t we consumers in Slovenia already modifying our brains too much? Calculating brings us to the number that every Slovene would on average have to be exposed to 2961 billboards per year to earn outdoor advertising businesses their yearly revenues. Even more, for every euro landowners and communities earn, 1,056 consumers have to be exposed to a billboard or 11,070 to a city-light4.

Outdoor advertising businesses justify the need for outdoor advertising and thus the quantity of exposure to ads as a source for consumers to get valuable information about new products contributing to rational purchase behavior. But is this really the case? The main purpose of companies is to increase return on investment in advertising and marketers are doing their best to convince consumers to purchase the advertised products, rarely by just providing information. As this is not an easy task (the market is flooded with suppliers) the “modern” ads include a variety of tools and technologies (lenticular print, digital billboards or other) to involve consumers emotionally.

There is no academic researcher or practitioner that would not agree that emotions play an important role in advertising. This trend to move towards emotional advertising is analyzed in many academic review

4 Calculations are based on the estimated yearly community tax and estimated yearly rent and the exposure date from Europlakat (2010a and 2010b).
articles. There is also evidence of the increase of emotional advertising from econometric studies. Thus Chandy, Tellis, Macinnis and Thaivanich (2001) provide evidence that as consumer markets are getting “older”, consumers are already educated about the rational value of products and services. In these markets argument-based ads are likely to become less effective. On the other hand, emotion-based ads become more effective as markets get older. To express the importance of emotional value in the future of advertising Pawle and Cooper (2006) introduced a new term “lovemarks” defining brands that involved the emotion (love of the product) as an incorporated value. When playing with consumer emotions it often seems that advertisers do not completely “understand” the range of emotional experiences and distraction that their ads evoke.

We have seen examples of just how much exposure consumers get from outdoor advertising. The threat lies, however, not only in the quantity of exposure, but in the contents of ads. By having 11,500 outdoor advertising panels in Slovenia we are already “giving” an enormous power to advertisers, aiming to improve their sales results. If not limiting the quantity of exposures we should at least have an effective control over the contents of the message in order to protect the consumers. Some strategies directly affecting consumers which advertisers use to attract attention, regardless of the social implications they cause, are exaggerated advertising claims, sexuality and nudity and advertising to children.

**Who are the largest outdoor advertisers?**

The first nine out of ten outdoor advertisers in Slovenia are multinationals (table 2), where only Teleray is Slovenia based. The same pattern can be seen in USA where all top 10 companies listed are multinationals. Both tables show us also that the first two companies on the list in Slovenia are telecommunication companies. Similarly in the USA telecommunication sector represent the first three companies. This can also be seen in a comparison table 4.
### Table 2: Largest outdoor advertisers in Slovenia

<table>
<thead>
<tr>
<th></th>
<th>Outdoor advertising budget in million €</th>
<th>Outdoor advertising budget per capita in €</th>
<th>Share of advertising budget in a company</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMOBIL</td>
<td>2.11</td>
<td>1.04</td>
<td>24.5</td>
</tr>
<tr>
<td>MOBITEL</td>
<td>1.63</td>
<td>0.81</td>
<td>14.8</td>
</tr>
<tr>
<td>RANAUlT NISSAN SLO</td>
<td>1.59</td>
<td>0.79</td>
<td>28.2</td>
</tr>
<tr>
<td>LIDL</td>
<td>1.54</td>
<td>0.76</td>
<td>25.0</td>
</tr>
<tr>
<td>MERCATOR</td>
<td>1.38</td>
<td>0.68</td>
<td>12.3</td>
</tr>
<tr>
<td>HERVIS</td>
<td>0.66</td>
<td>0.33</td>
<td>37.7</td>
</tr>
<tr>
<td>SPAR SLOVENIJA</td>
<td>0.57</td>
<td>0.28</td>
<td>9.1</td>
</tr>
<tr>
<td>PORSCHE SLOVENIJA</td>
<td>0.56</td>
<td>0.28</td>
<td>13.5</td>
</tr>
<tr>
<td>L’OREAL SLOVENIJA</td>
<td>0.56</td>
<td>0.28</td>
<td>5.7</td>
</tr>
<tr>
<td>TELERAY</td>
<td>0.47</td>
<td>0.23</td>
<td>46.9</td>
</tr>
</tbody>
</table>

Source: Mediana (2008)

### Table 2: Largest outdoor advertisers in USA

<table>
<thead>
<tr>
<th></th>
<th>Outdoor advertising budget in million €</th>
<th>Outdoor advertising budget per capita</th>
<th>Share advertising budget in a company</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T</td>
<td>69.6</td>
<td>0.23</td>
<td>3.4</td>
</tr>
<tr>
<td>VERIZON COMM.</td>
<td>40.8</td>
<td>0.14</td>
<td>2.1</td>
</tr>
<tr>
<td>SPRINT NEXTEL</td>
<td>38.8</td>
<td>0.13</td>
<td>3.2</td>
</tr>
<tr>
<td>TIME WARNER</td>
<td>34.8</td>
<td>0.12</td>
<td>1.8</td>
</tr>
<tr>
<td>WALT DISNEY</td>
<td>30.7</td>
<td>0.10</td>
<td>2.1</td>
</tr>
<tr>
<td>MCDONALD’S</td>
<td>29.3</td>
<td>0.10</td>
<td>4.0</td>
</tr>
<tr>
<td>GENERAL MOTORS</td>
<td>28.9</td>
<td>0.10</td>
<td>1.5</td>
</tr>
<tr>
<td>ANHEUSER BUSCH</td>
<td>23.6</td>
<td>0.08</td>
<td>2.7</td>
</tr>
<tr>
<td>GENERAL ELECTRIC</td>
<td>18.3</td>
<td>0.06</td>
<td>1.6</td>
</tr>
<tr>
<td>COCA-COLA</td>
<td>17.6</td>
<td>0.06</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Source: Outdoor Advertising Association OAA (2009)
### Table 3: Advertising budget across sectors in Slovenia and USA

<table>
<thead>
<tr>
<th>Sector</th>
<th>Slovenia</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Telecommunication (19.7 %)</td>
<td>Entertainment and services</td>
<td></td>
</tr>
<tr>
<td>2. Services (18.8 %)</td>
<td>Insurance and real-estate</td>
<td></td>
</tr>
<tr>
<td>3. Retail (18.2 %)</td>
<td>Telecommunication</td>
<td></td>
</tr>
<tr>
<td>4. Automotive dealers and services (14.7 %)</td>
<td>Transportation and resorts</td>
<td></td>
</tr>
<tr>
<td>5. Food (9.1 %)</td>
<td>Media and advertising</td>
<td></td>
</tr>
<tr>
<td>6. Different products (8.8 %)</td>
<td>Retail</td>
<td></td>
</tr>
<tr>
<td>7. Cosmetics (5.4 %)</td>
<td>Food</td>
<td></td>
</tr>
<tr>
<td>8. Textile (4.2 %)</td>
<td>Financial</td>
<td></td>
</tr>
<tr>
<td>9. Home - appliances (1.1 %)</td>
<td>Automotive dealers and services</td>
<td></td>
</tr>
</tbody>
</table>

Source: Mediana (2008) and Outdoor Advertising Association OAA (2009)

No doubt that the last 15 years brought multinationals as outdoor advertisers in Slovenia. Similarities across the sectors are clearly seen in table 3. In Slovenia due to small population size\(^5\) total expenditures of major companies per capita 5 to 10 times exceed the USA top companies in outdoor advertising. Considering the internal ROI calculations of the listed companies this can only prove that outdoor media in Slovenia is delivering its promise to be able to influence consumers.

### The importance of outdoor advertising for advertisers

Outdoor advertising is because of the nature of the media very important for companies. Taylor and Franke (2003) analyzed 352 from a random sample of 1,315 companies that use billboards in USA. The authors concluded that 75.1 % of advertisers claim they would lose sales if outdoor advertising was banned. The average of reported potential loss would be 18.4 % of their sales. Advertisers see billboards as a unique media since the other media (television, radio, newspapers magazines, internet and flyers) do not give the same effect (Taylor and Franke, 2003). In addition the authors present evidence that on-premise signs do not serve the same function as billboards.

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\(^5\) 2,048,000 people lived in Slovenia 1.10.2011 (Statistični urad RS; 2011)
Another research based on 348 companies using outdoor advertising (USA) identified four main factors influencing the decision for using billboards (Taylor, Franke and Bang). The first two factors, regarded as selective - perception issues (visibility and media efficiency), are according to the research more important from the advertiser’s point of view than the retail gravity (local presence and tangible response). This indicates that the decision whether to advertise on boards is mainly based on the characteristic of media and not so much on the ability to address consumers locally.

Having a complete ban would definitely hurt many companies. However, considering the move to other forms of advertising, it is very difficult to estimate to which extent a media substitution would be effective, and how much revenue would be lost. Taylor and Franke (2003) analyzed the substitution preferences in companies in a “what-if-banned” case. In a real environment where outdoor advertising is already banned more research still needs to be done.

**Communities and landowners’ point of view - financial benefits of outdoor advertising in terms of taxes and rent paid**

In 2008 Europlakat paid 1.9 million € for community tax and 3.0 million € for renting the advertising space (Europlakat, 2009; Europlakat, 2010a). Projecting, we can estimate the total Slovenian community tax paid in 2008 to around 2.2 million € and the total rent paid to 3.3 million €. Financial benefits paid to communities, individuals and companies for advertising space in Slovenia sum up to 5.5 million € per year. This estimation is calculated from Europlakat’s financial report and a projection considering their market share. Dividing 5.5 million € by 11,500 advertising spaces the community and landowners get an average of 66.2 € /m² every year for allowing outdoor advertising⁶. This nominal number is not high, but considering that leasing space usually does not bring costs itself, it is a valuable extra income for landowners and communities.

**Outdoor advertising is very different from any other media from a consumer’s point of view**

We have seen that advertisers, outdoor advertising businesses, communities and landowners all benefit from outdoor advertising. What about the largest group – the consumers? In the concept of self

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⁶ Dividing the sum of an estimated yearly community tax and estimated yearly rent by the estimated cumulated surface of advertising panels in Slovenia measured in m².
regulatory economy one could argue that a consumer is a rational individual who can decide what is best for him. So if a certain newspaper with a set of ads provokes negative emotions, it might not be bought again. By not buying consumers have a chance to send a message to media companies not to make similar mistakes. If consumers think the ads on TV are not suitable for their children, they can prevent the children from watching them. Again a TV station learns and limits the same ads in the future. With outdoor advertising this is not the case. Here consumers cannot turn off the exposure and distraction (at least to the phase of recognizing brands and messages). They also do not “vote” against the unwanted message. The consequences are that advertisers can use measures for example exaggerated claims, sexual content or ads that aim to appeal minors to get additional attention and an outdoor media business will not suffer a lower number of exposures to consumers. Regardless of the advertised contents the effectiveness of a media in its ability to send messages to consumers is not threatened substantially. The consequence is that an outdoor advertising firm is not so much concerned (compared to a subscription newspaper for example) with the contents being advertised on their panels.

Rosewarne, when referring to outdoor advertising, developed the idea of public space that exists for the enjoyment of all (2005). Her suggestion, based on numerous studies, is that activities in public space have to be regulated and controlled in order to prevent exclusion or inappropriate portrayal of any social group (Rosewarne, 2007). She urges to limit the outdoor media because of the nature of the media itself. Namely medium is visible by all consumers all of the time, it can be placed anywhere and is largely inescapable. That is also the main reason why this medium is so valuable to the advertising industry and why it has to be censored.

**Conclusion and further research**

This paper shows that despite the current economic crisis there is strong initiative to build more and more panels. In a small country like Slovenia advertisers do not need large outdoor advertising budgets to capture the majority of Slovenian population and thus influence our purchase preferences, influence electoral results, change our advertising tolerance, or change our cultural values and those of our children. Research presented in this article reflects the inability to escape from exposure to outdoor advertising. Regardless of our efforts to avoid them, ads are processed in our brain and are affecting us. Dangers for consumers are of quantitative and qualitative nature. As the quantity of outdoor advertising increases consumers are more and more influenced by this media to process large amount of advertising messages. Our
research showed that the potential for attracting attention is enormous especially with the introduction of modern 3D technologies. Having the consumers’ at least subconscious attention modern neuroscience gives us evidence that we are affecting the neurology of our brain. Following that 1,056 consumers have to be exposed to a billboard and 11,070 to a city-light for every euro landowners and communities earn is that not a too high price to pay for one euro of community money? Aren’t we consumers modifying our brain too much just so that communities can have a fraction of extra money to spend?

The described threats consumers are exposed to force us to think beyond the financial benefits of landowners and communities in order to protect consumers with effective control of the content and quantity of outdoor advertising. Influencing emotions of the consumers without their consent should be of concern for our government and communities, despite the fact that as elected body themselves (ab)use this media frequently. Self-regulative nature of economy in respect to consumer protection is not sufficient and outdoor advertising has to be put on the legislation agenda before it will become uncontrollable.
References


ART EXPRESSION OF IDENTICAL TWINS

Matjaž Duh¹, Lucija Gosak²

Abstract
The presented research discusses art expression of identical twins in different art fields: drawing, painting and sculpting. The research sample included two elementary school boys of age 12. With the help of a case study we observed, analyzed and studied artworks of these two identical twins.

We established that the artistic expression of identical twins is similar at drawing and painting. At sculpting, the final artworks visually differ, but the boys used similar art and design strategies.

Key words: twins, boys, artistic expression, design strategies, primary school.

Introduction
Statistic shows that only 12-14 twins are born per 1000 births, and they can be divided into three populations: the population of identical twins, fraternal twins of the same sex and fraternal twins of the opposite sexes. On a global scale, identical twins occur three-and-a-half times in every 1000 birth. It is distinctive of identical twins to always be of the same sex. Their genetic code is identical, as they develop from the same zygote, which divides into two embryos ten days after fertilization (Milčinski, 1998). The number of multiple pregnancies is rapidly increasing. Experts believe that the causes can be found in fertility medication and in vitro fertilization, which can increase the chance of double fertilization. Črepinšek (2007) says that scientists have confirmed strong bonds between twin pairs. These bonds are much stronger than the ones between two peers, which are born at the same time and then live in the same family. Twins have a greater need for imitating each other, as they have already lived together in the uterus. In her research, Brodar (1967) sums up the thoughts of Luigi Gedda, who stresses the advantage of an identical twin over a singleton, as the twin has an

¹ Ph.D. Matjaž Duh is Associate professor at the University of Maribor, Faculty of Education, Koroška 160, 2000 Maribor, Slovenia. matjaz.duh@uni-mb.si

² Lucija Gosak, prof. is a Ph. D student at the University of Maribor, Faculty of Education, Koroška 160, 2000 Maribor, Slovenia. gosak.lucija@gmail.com
opportunity to better know oneself through his twin brother/sister. The twin can also have lesser abilities and various impediments, which can be eliminated with proper upbringing.

Identical twins are anything but a typical sample of population; biologically, psychologically or during the educational process. Studies have shown that twins achieve below-average results on intelligence tests. The birth and early development in twins is not without risks, that is why they tend to achieve below-average results also in physical and intellectual development. The differences in speech and language development in twins are also greater that the differences in intelligence. Twins use a more reduced vocabulary and simpler sentences than non-twin children. Language differences in twins are the most conspicuous between the ages of 2 and 5 years and get reduced with age (Mittler, 1971). Rutter established that twins fall behind their peers in language development by three weeks (Rutter et al., 2003). Sahin et al. showed in their research mental development of Turkish twins. They established that the development of twins did not differ statistically in comparison with other children; however differences occurred at language tests. They concluded that twins have slower development in language (Sahin et al., 2003). In reading Harlaar et al. tried to establish the influence of environment on the development of reading in twins. In their research they used fraternal twins of the same and the opposite sex, aged seven years. The research showed that the differences are more the result of genetic factors and not the environment. Reading abilities are similar in both sexes and are mainly the result of genetics (Harlaar et al., 2005).

Kovas et al. carried out a research on 2596 pairs of identical and fraternal twins. They were looking for correlations between their reading abilities and knowledge of mathematics. The twins were tested through the internet. They picked out 15 per cent of those with the lowest scores in both, reading and mathematics. The results have shown correlations between problems in reading and problems in mathematics, of which both are influenced by environment and genetics (Kovas et al., 2007). Josipović Smojver (2007) used a case study of two pairs of identical twins to establish how an individual twin’s identity is expressed through speech from the age of 1 to 8 years. The research has shown that there are differences in the speech of twins. One of the twins uses more phrases every day as the other one follows them and is slower in development. Josipović Smojver (2007) determines four stages in the developments of twin identity: (1) twins have collective identity; (2) twins distinct their personal identity from the identity as a twin pair; (3) personal identity is established within phrases (use of words me, my, mine, etc.); (4) final stage where the identity of both twins is formed and
both identities differ from each other. This is when personal identity of both twins is established. Research findings show that the identity development in twins is different than in non-twins. Brodar (1967) mentions that intellectual abilities are not necessarily reduced in twins and sums up the words of Zazzo, who says that recurrent mental retardation in twins is most likely the consequence of birth injuries rather than a consequence of unsuitable environment and heredity. She established in her research that the average IQ in identical twins or fraternal twins of the same sex is lower than in fraternal twins of the opposite sex. She sums up the words of Gedde, who says that twins are somewhat jealous, and that none of the twins wants to be better than the other, which leads to diminished spontaneity and a kind of mental obstruction. The group of researchers carried out a research on the population of twins that is on the sample of 1300 twins. The study talks about behaviour stiles in puberty. The twins were answering questions about their behaviour stiles, symptoms of depression, and their parents’ upbringing methods. The influence of the parents plays a crucial role in the development and behaviour stiles of children in puberty. The correlation is important as the parents’ depression can be passed onto their children. The twins were chosen because they wanted to explore the influence of genetics as well as environment. The results have shown that the patterns of behaviour are caused by genetic and social factors (Lau, Rijsdijk & Eley, 2006). Similar research that explored the twins and the influence of genetics and environment on the transfer of depression from parents onto their children was carried out by another group of authors (Silberg, Maes & Eaves, 2010). They established that parents’ depression influences children through genetic factors as well as through environment. Individual genetic factors increase the risks for an individual to fall into depression. In longitudinal research that was carried out by Gagne and Hill Goldsmith they followed anger and behaviour in twins from 12 to 36 month of age. They came to a conclusion that typical twins with low level of self control show high level of anger. They confirmed genetic influence on anger and behaviour control as a result of parents’ influence or environmental factors. They established that common genetic factors have an influence on similarities in twins and they overcome genetic factors. Problems in behaviour can also be of genetic origin (Gagne & Hill Goldsmith, 2011). In the second longitudinal study that was carried out by Rietveld et al. they wanted to see how behavioural problems are connected to genetic and environmental factors. They carried out their research on twins between three, seven, ten, and twelve years of age. The research has shown that behavioural problems as impulsivity, hyperactivity, and attention disorder have their origins in genetics. The twins were chosen because they live in the same environment. They established that is not
very likely to develop these problems later in life if they are not present at the age of three (Rietveld et al., 2004).

Newman, Freeman, and Holzinger (1937) studied heredity and environment of identical and fraternal twins. They established that identical twins have identical genetic code, while fraternal twins have 50 per cent of the same genetic code. The findings show that environmental factors have an influence on the twins but they are not the crucial reason for differences in personality characteristics. There are stronger correlations between identical than between fraternal twins. That especially goes for physical characteristics, intelligence, and success in learning. I find the information that more identical than fraternal twins are left-handed quite interesting. In their research authors introduce nineteen identical twins that were separated at birth, but were later on united again. They spend a part of their lives in different families and different environment. The authors were curious about their education, social surroundings, and diseases they have had. They explored the similarities in their writing, as well as their physical similarities and differences, and their character traits. The similarities in pairs of identical twins were surprising. They were similar in their education and careers, physics and characters, as well as their writing, or manuscript. They linked intelligence to the education of an individual and established that the twin that had better education than his sibling got more points on the intelligence test. The results have shown that pairs of twins had similar diseases. The differences were linked to different environment as well as poorer health condition of one sibling at birth. When we speak about similarities and differences in identical twins, we must stress the words of Brodar (1967), who said that identical twin is an individual with his own psyche. The more psychic characteristics are taken into consideration, the more twins’ individuality can be seen. Črepinšek (2007) writes that equating the twins is not always in their best interest, as it can put back their personality development. That is why it is crucial to consider individual needs of every twin. Even though they are very similar their needs are not the same.

We represented a few studies that have been done on the population of twins from different fields. We found out there are no studies of twins in art. We wanted to establish what are the similarities and differences in art expression between pairs of identical twins.
Methodology

During the research, we were interested in the artistic expression of an identical twin pair. What are the similarities and the differences and what are their art and design strategies at drawing, painting and sculpting.

Research method

For our research, we used a qualitative paradigm of scientific-pedagogical research with an active observation of the boys’ art creation process. Qualitative researching is a path of discovery, where the researcher collects, organizes and interprets information, acquired from people (Lichtman, 2009: 5). In these researches, the data is processed and analyzed verbally without using measurement procedures (Mesec, 1998: 26). We used descriptive, comparative and qualitative method. In the art education field, qualitative researches are more heuristic and are more active within the world of the art teaching praxis (O’Farrell & Meban, 2005). As it follows the process of making an artwork, qualitative approach is also the most appropriate for observing the construction of an artwork and thus determining the manner of creating an artwork. Document analysis technique – especially visual material – appears as the most suitable to accompany the observation. Today photographs are being used in qualitative empirical studies with increasing frequency. Peez establishes that photographs are not used as the sole research material, but as a complement to observations, transcriptions of interviews or students’ written reports about art or describing of their own artwork (Peez, 2006). Occasional, yet planned photographing of persons who are being studied provides reliable data for analyzing art and design strategies of children.

Research questions

In our research we asked ourselves some research questions where we were interested in similarities and differences in art and design strategies as well as similarities and differences in final works of identical twins.

- RQ1: Research questions from the perspective of similarities and differences in art and design strategies of identical twins
- RQ1.1: What are similarities and differences from the perspective of art and design strategies between the twins in the art field of drawing.
- RQ1.2: What are similarities and differences from the perspective of art and design strategies between the twins in the art field of painting.
• RQ1.3: What are similarities and differences from the perspective of art and design strategies between the twins in the art field of sculpturing.
• RQ2: Research questions from the perspective of similarities and differences in final works of identical twins.
• RQ2.1: What are similarities and differences in final works of twins in the art field of painting.
• RQ2.2: What are similarities and differences in final works of twins in the art field of sculpturing.

Research sample
In this research, we used case study. The research sample is represented by a pair of identical twin boys from the 6th grade at an elementary school with a nine-year program.

Data acquisition and analysis procedures
Data was acquired by observing the pupils during artistic creation and comparing their artwork. We chose data analysis as an independent data acquisition technique. We analyzed the photographs taken during the pupils’ work procedure. An elaborated class preparation was made and carried out three times for two 45-minute periods in the 6th grade. Thus we acquired two paintings and one sculpture from each pupil. For tempera painting technique we chose an imaginary sea theme. Imaginary outer space theme was also chosen for cane painting and coloured ink painting. For sculpting technique the pupils depicted their self-portraits. Altogether we acquired four surface design artworks and two sculptures.

The boys were creating these artworks for three weeks in a row. The task for the first week was to make a pencil drawing on the theme of a thousand miles under the sea and colour it with tempera. First, we observed the pencil drawing and tried to establish similarities and differences between the twins’ stencil expression. Then we observed how they coloured the drawing with tempera paints. We did not want to affect their choice of colours or painting technique. In the second week, the pupils draw a picture using a cane and black ink on the theme of wonders of the universe and then used coloured ink to paint it. In the third week, they made their self-portraits from clay. It is important to stress that we engaged the whole class in the art tasks, so the observed boys (identical twins) would not feel exposed. We took photographs of other pupils’ work procedures and thus reduced possible disruptive factors, which could affect the observed boys’ work. The boys were not sitting together in class, so they could not observe each other during work. At painting techniques, there were four different formats available
to the pupils to choose from as a mat board for their artwork. Each pupil chose their format individually, so that we could prevent possible arrangements about the format between the observed boys. They could also choose how would they turn their piece of paper; horizontally or vertically.

We described the pupils’ finished artworks based on the photographs we took during their work. We thoroughly inspected each artwork, analyzed it and presented the making of it from the beginning to the end. We compared their artwork and try to establish similarities and differences between the identical twin pair.

Results

The first art task: A thousand miles under the sea

In the first art task we originated from the motif in the opening motivation. We observed the photographs of different animals and plants that live in the see on the laptop computer and try to talk and revive our imagination about the underwater world.

The process of making a drawing using tempera colours of Boy A

Amongst four different paper formats Boy A used an elongated shape format. He turned the paper horizontally. Firstly he depicted a large octopus, which represents a focal motif. Then he depicted the bottom with a chest and algae on the left, and two fish on the right side. He added small details to the octopus and the fish, circles and small lines. The drawing is filled up, despite smaller amount of elements. Octopus is the central figure that is balanced out with elements on each side.

Picture 1: Initial drawing of Boy A on the theme a thousand miles under the sea and her continuation

We can see in the picture on the right (picture 1) that the boy used four colours, blue, green, orange, and brown, which he applied alternately.
His painting technique is accurate; he used a thin brush to paint the forms he drew earlier. He painted the background with a slightly thicker brush in blue colour. He was applying the colours directly from the tube without mixing them. He painted all previously drawn details. The bottom was filled with brown, the background with blue, and as a contrast to blue he coloured the octopus orange. He was painting with his right hand, which indicates he is right-handed.

The process of making a drawing using tempera colours of Boy B

It is interesting that boy B also used elongated paper format and turned it horizontally. He started his drawing at the bottom with a bottle and plants that grow from the ground. He moved the centre of the drawing slightly to the right, where he depicted three sea snakes and arranged them in the shape of a triangular. Then he filled the picture with two octopuses above the sea snakes, facing each other. In the upper left corner he added a smaller snake. He wasn’t adding any smaller details; he just outlined animals and plants.

Picture 2: Initial drawing of Boy B on the theme a thousand miles under the sea and her continuation

Boy B squeezed three colours on the palette, orange, blue, and green, which is quite interesting as his brother had done exactly the same in spite the fact they were not sitting together and were not able to see each other. We can see in the right picture how he enriched his drawing with colours. He started painting the octopuses green. Then he used orange colour to colour three sea snakes, and a snake on the left side. The bottom was filled with brown, and the plants in slightly darker green shade. Boy B also did not mix colours; he was using a dense tempera colour from the tube. In his painting he relied on the drawing that he had done before. He tried to paint the elements very accurately with a thin brush, and the background with a thicker one. The details, like eyes and mouth, were emphasized with black colour. We can see in the right picture that Boy B is painting with his right hand, thus being right-handed.
The comparison of the finished artworks of boys

From the perspective of art and design strategies of identical twins we can see that both boys chose the same paper format and turned it horizontally. (RQ1.1) In the art field of drawing Boy A firstly drew a focal motif, an octopus, in the middle of the paper format. Boy B firstly depicted the bottle at the bottom of the sea and some plants. Both boys drew a line that represents the bottom. The drawing of both boys is pure and clear with some animals and plants. Boy A paid more attention to the details as did his twin brother. Both drawings are accurate and done with consideration. (RQ1.2) Boy A and B have a very similar painting technique. They depicted the painting on the theme a thousand miles under the sea flat with only a few shades of different colours. They both quite relied on their drawings. They both emphasized some details, like eyes, nose, and mouth, with black colour. Differently from Boy B, Boy A painted a few more details. He paid special attention to the octopus, as he painted black dots and lines on her tentacles; he also used black colour to paint rocks at the bottom. He outlined two fish on the right with red colour first. Boy B did not outline the animals in the painting, but have chosen similar colours as Boy A. He was not paying much attention to the details either. At the end, both pupils painted over their painting a few strokes with diluted colour that represent water.

Picture 3: Finished artworks of Boys A and B on the theme a thousand miles under the sea

(RQ2.1) Because the boys chose similar colours their final artworks are quite alike. On both paintings we can see complementary contrast between the depicted elements and the background. They coloured the central motif in orange, and the background in blue colour. They filled the bottom with brown colour. As we said before, Boy A paid more attention to the details which he painted with black colour. Black was also used by Boy B for smaller details as the mouth and eyes.
The second art task: Wonders of the universe

In the second week the pupils used black ink and cane to draw imaginary world on the theme wonders of the universe. Later they enriched their drawings with coloured ink using the colours they picked out themselves. We motivated the pupils by showing them photographs of the planets, stars, the sun, flying objects, and astronauts in space. We also talked about unusual creatures and monsters that do not live on planet Earth.

The process of making a drawing using coloured ink of Boy A

The boy chose a standard A3 format and turned it horizontally. In the middle he painted a big spaceship, a part of a bigger planet in the lower right corner, and a comet on the upper right side. He depicted a planet with a circle around it, and a star underneath. The spaceship and two planets stand still; only the comet gives us an impression that it races downwards with a high velocity.

Picture 4: Initial drawing of Boy A on the theme wonders of the universe and her continuation

Boy A first painted the spaceship in blue, green, and orange colour; and then the comet and the star in orange-yellow. Four legs on the spacecraft are coloured in purple. A smaller planet on the left side and spots on the bigger planet in the lower right corner are also coloured with purple colour. He added a circular shape above the spaceship in black and purple colour.
The process of making a drawing using coloured ink of Boy B

In the art task on the theme wonders of the universe Boy B chose A3 paper size, which he turned horizontally, similar to his twin brother. In the painting that is represented in the picture (picture 5, left) he depicted in the middle a big spacecraft with a Martian head sticking out of the craft. He painted a part of a big planet with spots in the upper left corner (the planet resembles his twin brother’s planet). Then he depicted in two groups on each side a few smaller stars.

Picture 5: Initial drawing of Boy B on the theme wonders of the universe and her continuation

Boy B enriched his painting with green colour that he initially applied on the spots of the planet in upper left corner. After that he coloured the spacecraft in blue, yellow, and orange colour. He painted the smaller stars on both sides of the craft yellow. He painted the background purple, diluting ink with water and thus getting darker or lighter shades. He left white surfaces in the lower part of the spacecraft and in the cockpit with the Martian.

The comparison of the finished artworks of boys

In the picture (picture 6) we can see finished projects of both boys, Boys A and B. (RQ1.1) When we look at them closely, we can again notice the details that became apparent in the making of the drawing with black ink and cane. Both boys put the spacecraft in the middle of the paper format with stars and planets around it that, just as the spacecrafts, float in the air. They both designed the drawing with much sense for filling up the paper format. Boys did not have any problems with ink and cane technique. It can be seen that the drawing of Boy A was done with both thick and thin lines; while the Boy B used only thin lines.
(RQ1.2) In this art task boys were using similar art and design strategies. They also used the same paper format and turned it horizontally. Both boys painted the elements accurately, they did not want to dilute ink with water too much. They coloured the background in more or less one colour; Boy A with blue and Boy B with purple colour. It is interesting that they both left white surfaces around the spacecraft.

(RQ2.1) If we compare final products of both boys we can notice the focal motif, the spacecraft, in the middle in both paintings, with some planets and stars hovering around it. In the picture of Boy B (picture 6, right) there is no movement, while on the picture of Boy A (picture 6, left) the comet is racing downwards with a high velocity, and also the purple ball above the spacecraft gives us an illusion of spinning. They also depicted in the corner a bigger planet with spots. Their colour palettes are again very similar with complementary contrast on both paintings.

The third art task: Clay self-portrait

In the third week the art task was to design a self-portrait from clay. We presented the frequent mistakes made when making a clay sculpture. They had to be aware of the facial proportions and also had to be careful that the sculpture stands.
The process of making clay self-portrait of Boys A and B

As we can see in the picture (picture 7) both boys started making their self-portrait in a very similar way.

**Picture 7: The process of making clay self-portraits by Boy A and Boy B**

Boy A designed his self-portrait by separating two forms, a head that he designed four-angled, and the shoulders. The shoulders work as a kind of a base, as they were made in a circular shape and then flattened; he cut off the rims of the base with a modelling stick. We can see in the picture (picture 7, left) how the pupil is making the base using both hands. Boy B worked with clay for a longer period of time, crumpling it and making different forms; then he designed the head and thin, bottom part that he cut off with a modelling stick. The picture (picture 7, right) shows how the boy is using his modelling stick, which he holds in his right hand.

**Picture 6: Finished artworks of Boys A and B on the theme wonders of the universe**
In continuation we can see almost finished self-portrait of Boy A (picture 8, left). The pupil started designing the face by pulling a big elongated nose out of the clay; he imprinted the eyes with a key thus making an unusual shape with a circle in the middle. Then he designed big, protruding ears in semicircular shape that he pulled out of the clay with his fingers and smooth them out. He made the eyebrows with a modelling stick, pulling them slightly forward with his fingers, above the eyes. He opened the mouth with the help of his modelling stick. He added the hair in elongated strips at the top of the head. He made the surface of the sculpture smoother.

Picture (picture 8, right) represents the making of Boy’s B self-portrait. The pupil pulled out a big nose that is widened at the end from the clay, and imprinted the nostrils with a stick. With the help of pointy modelling stick he hollowed the eyes and mouth that are indicated with the upward turned line. He designed the ears by pulling them out of the clay and adding a few lines with a pointy modelling stick that we can see in the picture (picture 8, right) in the bottom right corner. He made the almond shaped eyes without any pupils with a stick, and designed elongated, slightly opened mouth with a modelling stick. He attached the hair with smaller pieces of clay to the head, thus creating a wavy surface. He tried to smooth out his self-portrait but was not very successful as the clay became quite dry.

**Comparison of the finished clay self-portraits of boys**

In making the self-portrait the boys were using quite similar art and design strategies (RQ1.3). They began with forming the head and the base, then they added the elements on the face, such as the nose, eyes, and mouth, and at the end they added the hair.
Boy A designed the head in the shape of a cube, not paying much attention to the details, such as eyes, ears, and mouth. He indicated the hair in four strips. The base was designed circularly; he did not make any clothes. Boy B also did not pay much attention to the details on the face; he just indicated the eyes and mouth. He shaped the head in a circle, pulling out the base from the neck. He designed wavy hair from smaller pieces of clay. They both tried to smooth out their sculpture but were not very successful as we can still see the imprints of hands and tools they were using. Boy B had more problems when he tried to smooth out the surface as the clay was dry and was difficult to form.

(RQ2.2) Final products of two boys are quite different, which indicates individual characteristics of each boy. The differences are quite apparent in the making of the base that both boys designed in a unique way. The differences can also be seen when they were sculpting the hair, eyes, nose, and ears that were also designed in a unique manner.

Their art and design strategies in making self-portraits are similar; they started designing the head and the base, then they made the elements on the face, such as nose, eyes, and mouth, adding the hair at the end.
Conclusion

The purpose of this research was to discover the artistic expression of identical twins; what are the similarities and the differences, what are their art and design strategies at drawing, painting and sculpting. We established that art and design strategies and the artistic expression of identical twins is quite similar, especially at drawing and painting. To the first research question (RQ1.1), what are the similarities and differences from the perspective of art and design strategies between the twins in the art field of drawing, the answer is: similarities in the drawing were the most apparent in the second art task, where the boys were being creative on the theme wonders of the universe. Both boys put the spacecraft in the middle of the paper format, and draw different planets and stars around. Drawing of Boy A that was made with ink and cane is drawn with both thin and thick lines, while Boy B was using only thin lines. In the first art task on the theme a thousand miles under the sea, Boy A depicted more details than his brother, Boy B. It is interesting that identical twin pairs always chose the same format among the four different formats available. The position of the format was also the same, as they all turned their piece of paper horizontally. In the second research question (RQ1.2), what are similarities and differences from the perspective of art and design strategies between the twins in the art field of painting, we established the following: boys have a very similar painting technique. In both tasks the paintings are depicted flat, they added the same colour shades on bigger surfaces, and they did not want to mix the colours. It is also very apparent that Boy A depicted more details. Colour palette of boys was very meagre, they mostly used four colours, which they did not mix but applied them directly from the tube. The artistic expression of boys is flat and simple. During painting, they relied on the drawing, which they sketched earlier; they almost did not change anything.

Their painting was accurate, done with a thin brush. In comparison to the girls from a previous research (Duh, Gosak, 2012) we establish that boys were slower from the girls. (RQ1.3) We also wanted to see the similarities and differences from the perspective of art and design strategies between the twins in the art field of sculpting. At sculpting, the boys used similar art and design strategies but nevertheless, their final works are quite different. The sequence of the elements is quite similar. Firstly, they shaped the head and the base and added elements, such as eyes, nose, mouth, ears, and finally added the hair. In the research question (RQ2.1) what are similarities and differences in final works of twins in the art field of painting we established the similarities in colour palettes of both boys, as well as colour contrasts in paintings that make the works more diverse. We asked ourselves similar question in the art
field of sculpting where we compared the final products of boys. (RQ2.2) We established that in making the clay self-portrait the individual characteristics of both boys are very apparent, as the final works are, in spite of the similarities between boys, quite different. The results were quite similar to the results in our previous research where we observed two identical twin girls (Duh, Gosak, 2012).

In our research, we focused on the artistic expression of identical twins. We could compare the twin population with singletons of the same age and establish the differences and similarities between them. The results of the study we carried out on singletons, where we observed art and design strategies of children between the ages on 10 and 11, show that art and design strategies were changing when they were using traditional drawing techniques (felt-tip pen and charcoal) as well as when they were using drawing tools in the computer program Paint. Obviously, there were greater differences at drawing with the computer in comparison with the other drawing techniques – felt-tip pen and charcoal (Duh et al., 2011). Duh (2009) established in the study of preschool children that despite the same starting point, there were signs of individual characters of children. It would be interesting to continue observing the pair of identical twins. And study the similarities and differences in their artistic expression at various art techniques and materials. We would discover how identical twins respond to offered techniques and materials; whether they respond similarly to artistic problems and choose similar solutions.

This research could be an introduction to an extensive study, where we would research the three populations of twins: the population of identical twins, fraternal twins of the same sex and fraternal twins of the opposite sexes. We would compare acquired results within individual pairs as well as within different population of twins. Thus we would establish the differences and similarities in the artistic expression of twins on a larger sample, which is necessary for generalizing the acquired results.
Literature and references


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