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CUPRINS

ROMANIA BETWEEN OPPORTUNITIES AND CHALLENGES IN A EUROPEAN UNION OF CONTROVERSIES

Ph.D. Professor Romeo-Victor Ionescu[1]

Abstract

The paper deals to the idea that Balkan EU economies have to improve their position in the context of the new challenges for the EU. The analysis is focused on five representative indicators: GDP growth rate, gross fixed capital formation, unemployment rate, inflation rate and governmental gross debt and covers 2012-2018. The analysis is realized on three steps: a comparative analysis between the five indicators, a regression analysis in order to quantify the present and future regional disparities and a cluster analysis able to give a scientific approach to the regional development. One of the paper's main conclusions is that the Balkan EU economies have to be analyzed using two cluster structures. In order to check this, the analysis uses clusters approach in 2016 and 2018. The second conclusion is that Romania presents the better economic performance during 2016-2018 and can become a regional economic leader. The analysis in the paper is based on the latest official statistic data, on pertinent tables and diagrams. The modeling procedures in the paper were supported by dedicated software IBM-SPSS.

Keywords: regional economic disparities; regional clusters; regional economic leader.

JEL Classification: R11, R12, R13.

1. Introduction

2017 started with new important challenges for the EU. The Brexit seems to become real; the new President of USA started to change the official American attitude towards the EU; the refugees' crisis is far away of solving and the Greek economy just started the economic recovery process.

EU has to redefine itself, to increase cooperation and to find new ways of cohesion across Member States. This is the moment when other European economies, as Poland for example, will improve their positions alongside Germany and France in leading the new EU27. On the other hand, the adhering process has to be suspended at least on short and medium terms.

All the above expected developments can put in a good light the Balkan region, which covers both Member States and candidate states, as well.

Five from the eleven Balkan economies are Member States. They can support the regional development in this area and to accelerate the adhering process. On the other hand, the group of the Balkan Member States and the whole region ask for a leader able to support better their interests in the European Institutions.

Unfortunately, the economic performances of the Balkan Member States are not the best, but the official forecasts pointed out a positive trend at least on short time.

The paper analyses the economic performances of the Balkan Member States using five representative economic indicators. The analysis covers 2012-2018, including the official Eurostat forecasts.

In order to quantify the economic disparities between these states, the regression analysis is useful. It is followed by a cluster approach.

The basic idea is to identify that economic leader able to promote development in the region.

2. General economic approach

According to the World Bank, Bulgaria is an industrialised upper-middle-income country, which operates as a free market (World Bank, 2017). It realised a GDP of 143.1 billion USD, a GDP per capita of 20116 USD and an average monthly salary of 491 Euros in

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2016 (CIA, 2017; National Statistical Institute of Bulgaria, 2017). Finally, Bulgaria is characterised by strong growth ahead (European Commission, 2016).

Greece faced to serious socio-economic problems, which put into discussion a possible Grexit. The EU support and a severe recovery programme are close to an economic stabilization. This is why the recovery backed by domestic demand and exports (European Commission, 2016). As a result, the GDP was 194.9 billion USD (World Bank, 2016) and the GDP per capita achieved to 26391 USD (International Monetary Fund, 2016). Moreover, the average monthly salary in Greece is 1630.6 USD (OECD, 2017).

Croatia goes on the economic recovery way, as well (European Commission, 2016). The GDP was 91.1 billion USD in 2015, and the GDP per capita achieved 21169 USD in the same year (World Bank, 2017). On the other hand, the average monthly salary was 1166 USD in 2016 (Croatian Bureau of Statistics, 2017).

Romania seems to have the best economic position across the Balkan region. According to the European Commission, Romania has one of the faster GDP growth rates across the EU. The unemployment and inflation rates are low enough. Moreover, the forecasts are positive for the Romanian economy (European Commission, 2016). The GDP was about 199 billion USD (World Bank, 2016), while the GDP per capita achieved 22319 USD in 2016 (International Monetary Fund, 2016). The average monthly salary was 740 USD in 2015 (Butnariu, M., 2016).

Finally, Slovenia is characterised as a country with solid, broad-based growth ahead (European Commission, 2016). The GDP was 45.9 billion USD in 2016 and the GDP per capita achieved 33279 USD in the same year (International Monetary Fund, 2017).

The biggest economy in term of GDP is Romania, followed by Greece (see Figure 1).

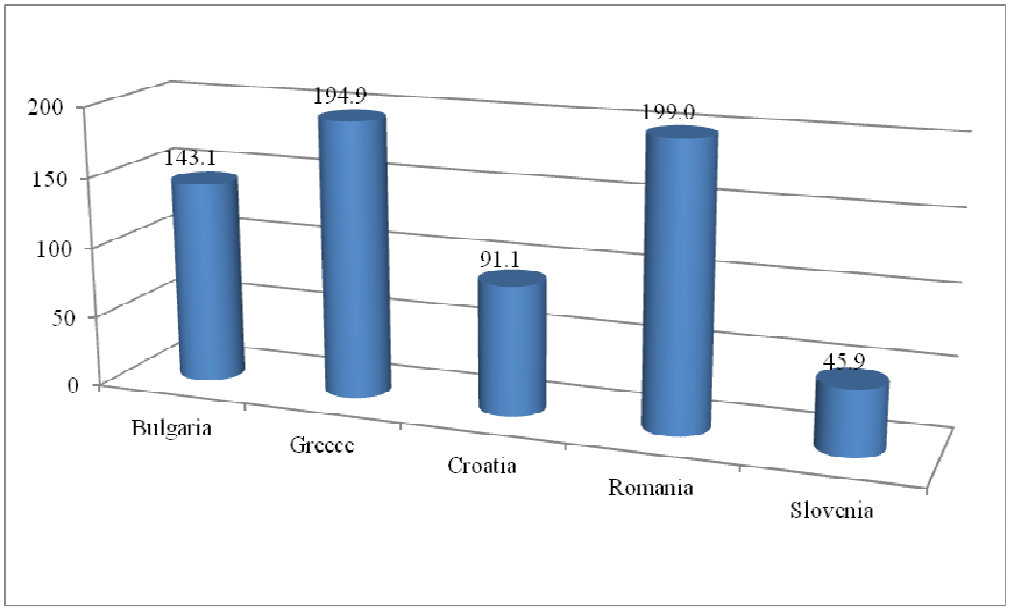


Figure 1. GDP in 2016 (billion USD)

On the other hand, the most developed economy in the region is Slovenia, followed by Greece (see Figure 2).

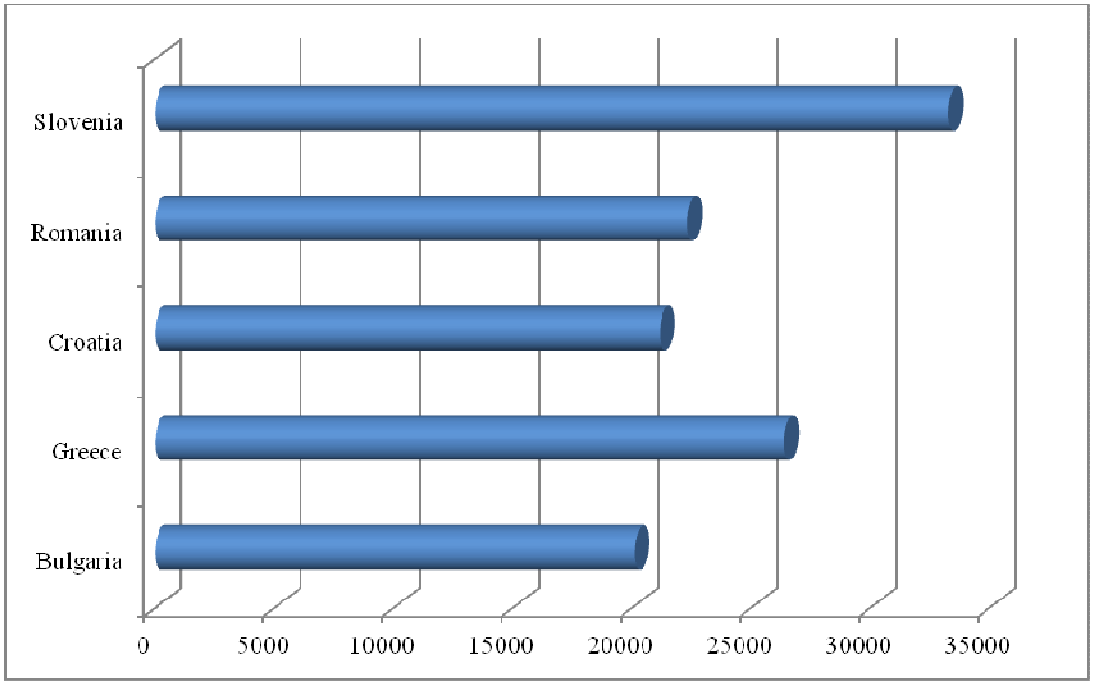


Figure 2. GDP per capita in 2016 (USD)

Both above figures lead to the idea that the Balkan Member States have two development levels: an average one and a less than average another.

3. Economic development under increased regional disparities

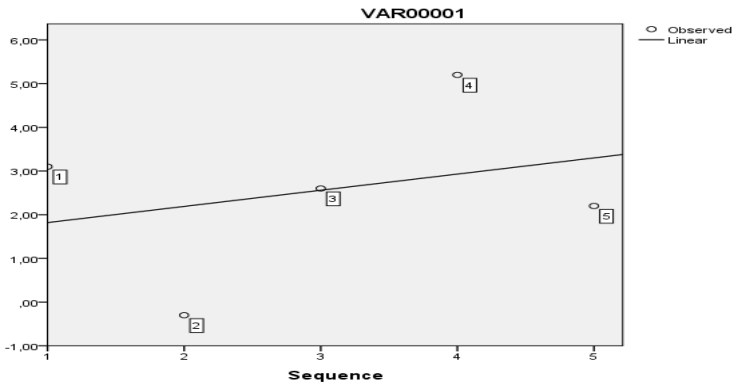
The last official statistic data cover forecast during 2017-2018. The analysis in this paper proposes five economic indicators: GDP growth rate, gross fixed capital formation, unemployment rate, inflation rate and general governmental gross debt. The analysis covers three steps: a comparative analysis between the five countries, a regression analysis in order to point out the regional economic disparities and a cluster analysis, as well.

The trend of the GDP growth rate is presented in Table 1.

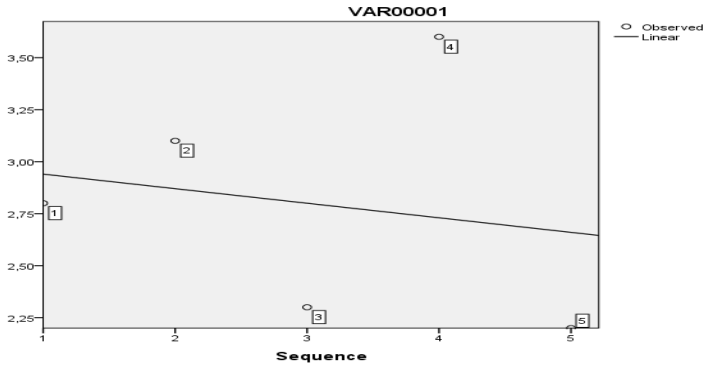
Table 1: GDP growth rate's trend (%)

Country	2012	2013	2014	2015	2016	2017	2018
Bulgaria	3.0	0.9	1.3	3.6	3.1	2.9	2.8
Greece	1.0	-3.2	0.4	-0.2	-0.3	2.7	2.8
Croatia	2.1	-1.1	-0.5	1.6	2.6	2.5	2.3
Romania	2.5	3.5	3.1	3.7	5.2	3.9	3.6
Slovenia	2.6	-1.1	3.1	2.3	2.2	2.6	2.2

The data in Table 1 support the analysis of the disparities related to this indicator, as in Figure 3. The analysis covers 2016 and 2018. The dependent variables are the Member States rates and the independent variable is time. The analysis respect ANOVA conditions.



2016

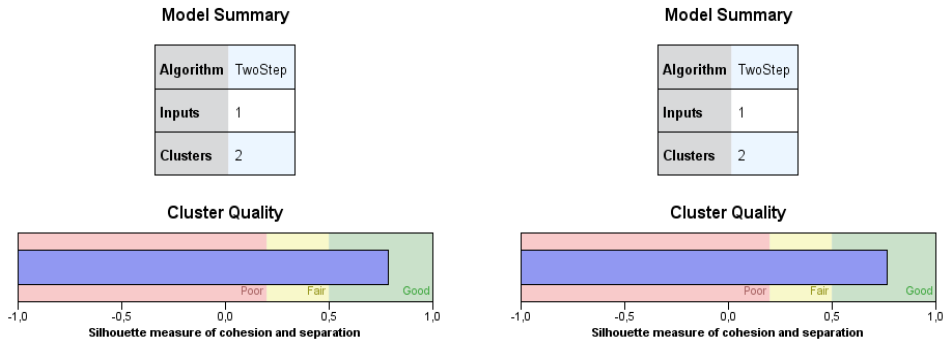


2018

1. Bulgaria; 2. Greece; 3. Croatia; 4. Romania; 5. Slovenia

Figure 3. GDP growth rate disparities in 2016 and 2018 (%)

A first intermediate conclusion is that the analyzed Member States will face to an increase in this kind of disparities in 2018 compared to 2016. Moreover, these Member States can be group into two clusters. As a result, the two step cluster analysis uses the GDP growth rates as continuous variable. The cluster quality is good (0.8) in 2016 and 2018. This result supports the above cluster approach under the GDP growth rate.



2016 2018

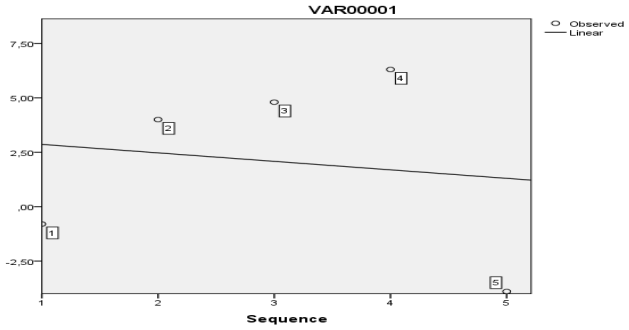
Figure 4. GDP growth rate clusters in 2016 and 2018

An important economic indicator which supports the economic trend is gross fixed capital formation. It led to high disparities across the analysed countries (see Table 2).

Table 2: Gross fixed capital formation's trend (%)

Country	2012	2013	2014	2015	2016	2017	2018
Bulgaria	12.4	0.3	3.4	2.7	-0.8	3.2	3.6
Greece	-1.1	-8.4	-4.6	-0.2	4.0	13.7	14.2
Croatia	3.5	1.4	-2.8	1.6	4.8	6.1	5.3
Romania	5.2	-5.4	3.2	8.1	6.3	6.4	6.5
Slovenia	1.6	3.2	1.4	1.0	-3.9	5.3	6.4

According to Table 2, the gross fixed capital formation will have a positive evolution during 2016-2018, excepting Croatia. On the other hand, the disparities in 2016 support two distinct clusters. The situation will improve in 2018 (see Figure 5).



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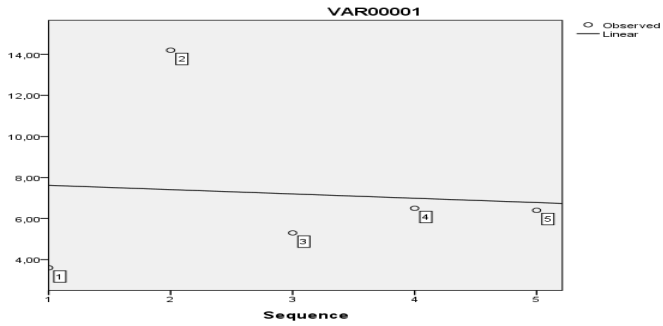
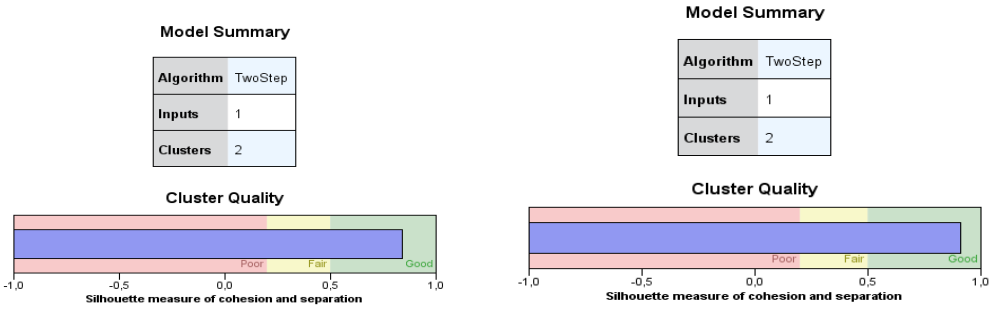


2018

1. Bulgaria; 2. Greece; 3. Croatia; 4. Romania; 5. Slovenia

Figure 5. Gross foxed capital formation disparities in 2016 and 2018 (%)

The quality of this new cluster approach is good for 2016 (0.8) and 2018 (0.9). As a result, the theoretical approach in this paper of dividing the five Member States into two clusters is demonstrated for the second economic indicator, as well (see Figure 6).



2016 2018

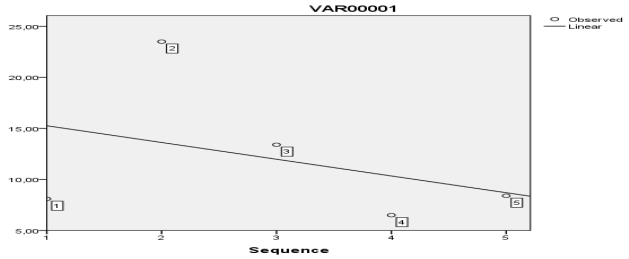
Figure 6. Gross fixed capital formation clusters in 2016 and 2018

The third economic indicator puts into discussion is unemployment rate. As general point of view, the unemployment rate decreased in all five Member States during 2014-2016 and will continue to decrease during 2017-2018 (see Table 3).

Table 3: Unemployment rate's trend (%)

Country	2012	2013	2014	2015	2016	2017	2018
Bulgaria	11.7	13.0	11.4	9.2	8.1	7.1	6.3
Greece	11.6	27.5	26.5	24.9	23.5	22.2	20.3
Croatia	-	17.3	17.3	16.3	13.4	11.7	10.3
Romania	7.0	7.1	6.8	6.8	6.5	6.4	6.3
Slovenia	6.6	10.1	9.7	9.0	8.4	7.7	7.2

According to Table 3, the disparities related to this indicator decreased, but they support the same "classic" two clusters in 2016 and 2018, as in Figure 7.



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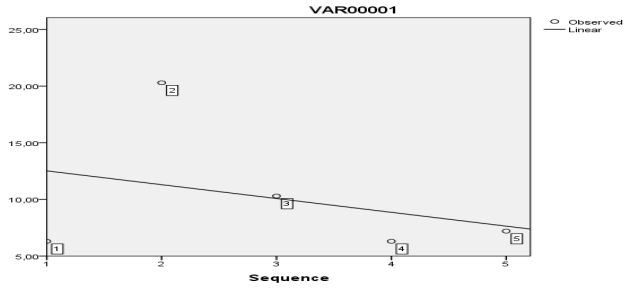
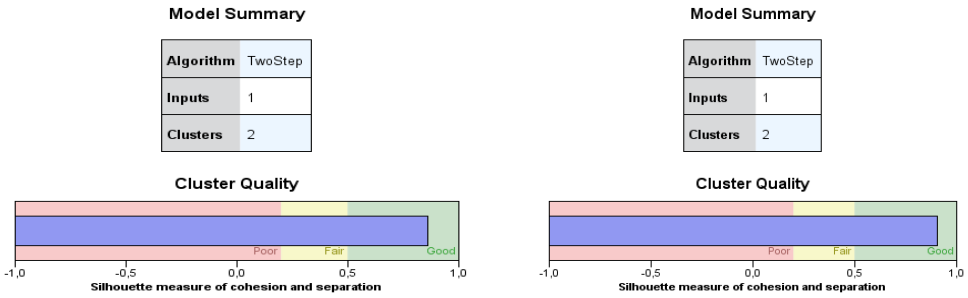


2018

1. Bulgaria; 2. Greece; 3. Croatia; 4. Romania; 5. Slovenia

Figure 7. Unemployment rate disparities in 2016 and 2018 (%)

Both components of the Figure 7 support the grouping of the five countries into two clusters. The viability of such approach is pointed out by Figure 8, as well.



2016 2018

Figure 8. Unemployment rates clusters in 2016 and 2018

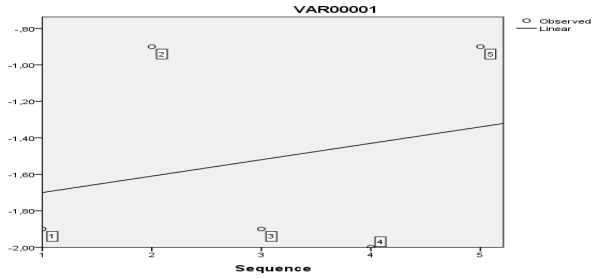
The cluster quality is very good (0.9) in 2016 and in 2018, and represents the third argue for a two clusters analysis.

All EU Balkan economies faced to negative inflation rates in 2016 and will achieve positive rates again in 2018, excepting Greece which will have a neutral inflation rate in 2018 (see Table 4).

Table 4: Inflation rate's trend (%)

Country	2012	2013	2014	2015	2016	2017	2018
Bulgaria	-	-0.6	-2.6	-2.1	-1.9	0	0.2
Greece	2.3	-1.9	-2.4	-2.1	-0.9	0.1	0
Croatia	-	1.3	-0.8	-1.3	-1.9	-0.2	0.5
Romania	22.6	2.2	0.4	-1.4	-2.0	0.8	1.8
Slovenia	3.9	0.9	-0.6	-1.8	-0.9	0.5	0.9

Using data from Table 4, the inflation disparities in 2016 and 2018 are presented in Figure 9.



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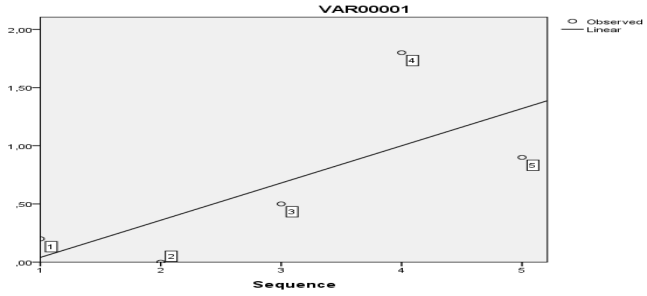
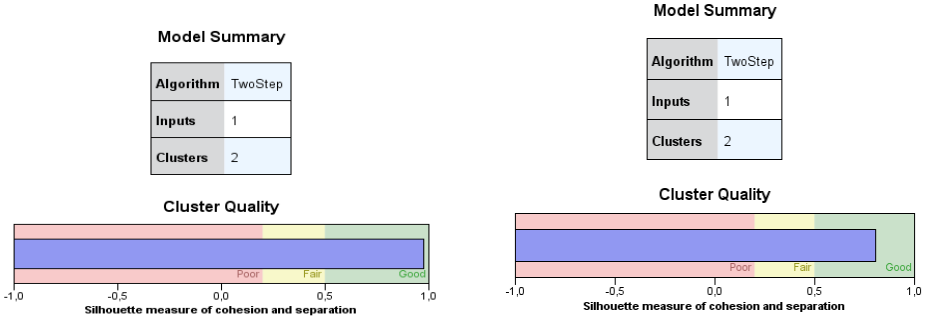


2018

1. Bulgaria; 2. Greece; 3. Croatia; 4. Romania; 5. Slovenia

Figure 9. Inflation rate disparities in 2016 and 2018 (%)

The inflation rates in Figure 9 support the splitting of the five Member States into two clusters. It is the fourth situation when these Member States can be analyzed under two clusters approach. In order to verify again this approach, the cluster analysis led to maximum quality value (1.0) in 2016 and good value (0.8) in 2018 (see Figure 10).



2016 2018

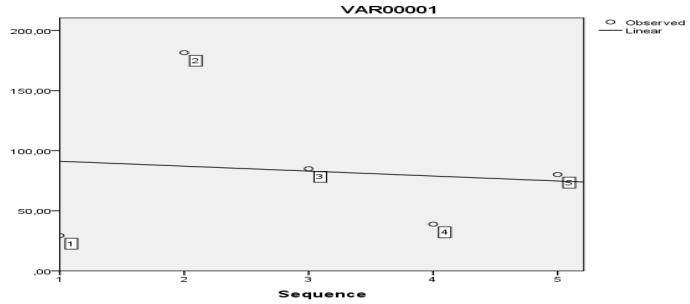
Figure 10. Unemployment rates clusters in 2016 and 2018

The last economic indicator took into consideration is gross governmental debt. It fluctuated in all five Member States during 2014-2016 (see Table 5).

Table 5: Gross governmental debt's trend (%)

Country	2012	2013	2014	2015	2016	2017	2018
Bulgaria	40.5	17.0	27.0	26.0	29.4	26.3	25.9
Greece	115.3	177.4	179.7	177.4	181.6	179.1	172.4
Croatia	-	82.2	86.6	86.7	85.0	84.3	82.8
Romania	21.5	37.8	39.4	37.9	38.9	40.2	51.5
Slovenia	29.5	71.0	80.9	83.1	80.2	78.3	76.6

According to Table 5, Greece faced and will face to the peak of the governmental debt, while Bulgaria achieved and will achieve the bottom (see Figure 11).



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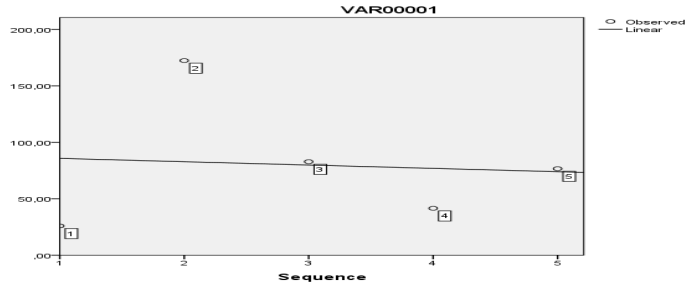
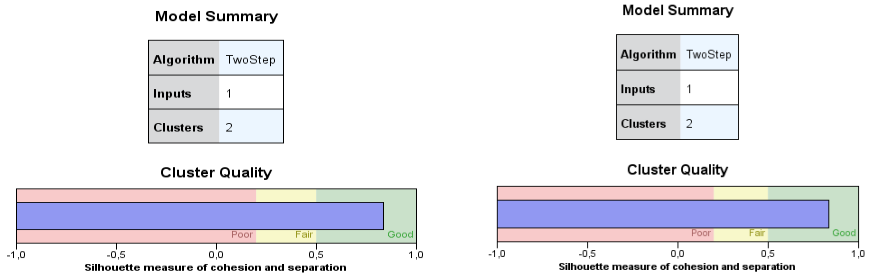


2018

1. Bulgaria; 2. Greece; 3. Croatia; 4. Romania; 5. Slovenia

Figure 11. Governmental gross debt disparities in 2016 and 2018 (%)

Is no doubt that the above cluster approach is available for the governmental gross debt's analysis. The clusters qualities are 0.8 for 2016 and 2018 (see Figure 12).



2016 2018

Figure 12. Government gross debt clusters in 2016 and 2018

4. The need for a regional leader

The analysis in the 3rd chapter pointed out a lot of economic disparities between the five Member States. Unfortunately, these disparities will not significantly decrease in 2018 according to the official forecasts.

On the other hand, it is the time for economic stability in the region. This is why finding an economic leader becomes essential. In order to realize it, a complex comparative analysis for 2016 and 2018 can lead to the truth.

This analysis uses the above five economic indicators for 2016 and 2018 (see Table 6).

Table 6. Economic synthesis of 2016

Country	Rank for GDP growth rate	Rank for gross fixed capital formation	Rank for unemployment rate	Rank for inflation rate	Rank for government gross debt	Total
Bulgaria	4	2	4	4	5	19
Greece	1	3	1	2	1	8
Croatia	3	4	2	4	2	15
Romania	5	5	5	5	4	24
Slovenia	2	1	3	2	3	11

The ranking system in Table 6 takes into consideration points for maximum values for GDP growth rate and gross fixed capital formation and minimum values for unemployment rate, inflation rate and government gross debt. The same procedure is used for 2018 (see Table 7).

Table 7. Economic synthesis of 2017

Country	Rank for GDP growth rate	Rank for gross fixed capital formation	Rank for unemployment rate	Rank for inflation rate	Rank for government gross debt	Total
Bulgaria	4	1	5	4	5	19
Greece	4	5	1	5	1	16
Croatia	2	2	2	3	2	11
Romania	5	4	5	1	3	19
Slovenia	1	3	3	2	3	12

A comparative analysis between the latest two tables points out that the economic disparities between the five Member States will decrease in 2018 compared to 2016. Bulgaria will maintain its economic position in 2018 as in 2016, while Slovenia will improve it in 2018.

Romania and Croatia will face to a decrease in their economic positions, but Romania will maintain its leader position in 2018 as in 2016. Greece will achieve the best increase in economic performance in 2018 compared to 2016.

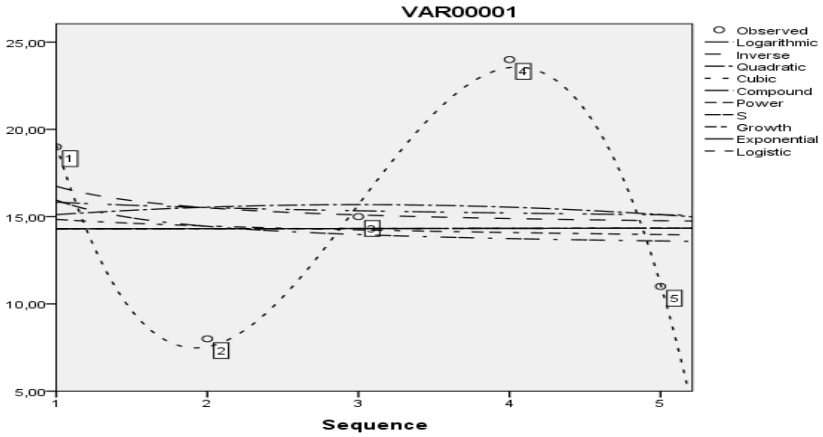
The final conclusion of the analysis in this chapter is that Romania has to assume its role of regional leader and to promote economic growth and stability in the region.

5. Conclusions

The Balkans can be an interesting target for the EU on medium term. All Balkan economies are connected to the EU as Member States or candidate states, as well.

Nowadays, EU faces to the challenge of redefining the European project for cohesion and prosperity. This is why a better support from the Balkan Member States will lead to a different approach of the center-periphery balance.

The economic disparities across the Balkan Member States will decrease in 2018 compared to 2016, but they will be still great (see Figure 13).



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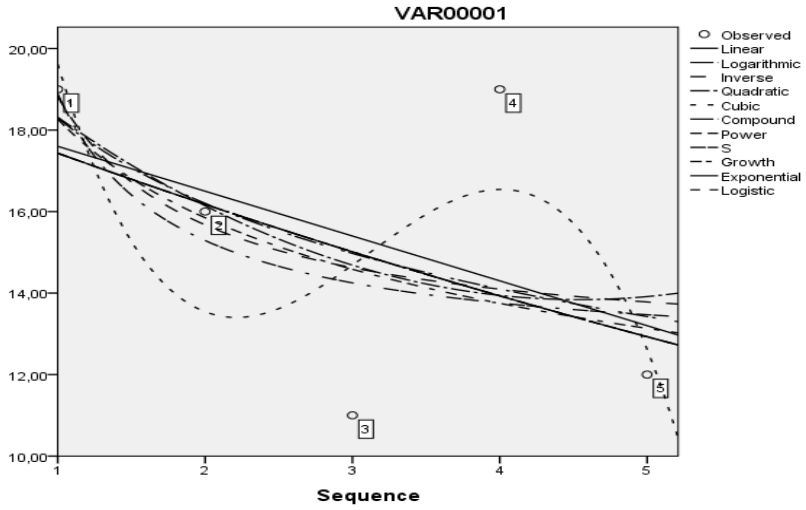

2018

1. Bulgaria; 2. Greece; 3. Croatia; 4. Romania; 5. Slovenia

Figure 13. Economic disparities in 2016 and 2018 (%)

On the other hand, Romania (nr. 4 in Figure 13) seems to have the best economic evolution at least on short term. This is why Romania can be a regional leader for these five Member States.

In the context of changing, Romania will be able to improve its position in the EU's management structures, as well.

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THE NEED OF REGIONAL LEADERSHIP IN ROMANIA, AFTER 10 YEARS OF EU MEMBERSHIP

Associate Professor, Gabriela MARCHIS, PhD.[1]

Abstract:

The shift from "government" to "governance", from traditional bureaucratic and hierarchical models of policymaking to the new models that are based on shared interests and cooperation that transcends various borders and takes many goals into consideration and involves active participation of different stakeholders that constantly evolve according to circumstances, has profound implication for the exercise of local and regional leadership.

After 10 years of EU membership, Romania is still learning new policy content and ways of implementation. Meanwhile, the rapid change of European socio-economic environment, characterized by the way network membership and relationships adapt to changing circumstances imposed by the dynamics of globalized world, requires to learn different thinking and behavioral patterns and values.

Regional development is a collective process that involves a wide range of networks of public and private actors. In order to achieve a cohesive and coherent regional development in Romania, it is very important to have the capacity of mobilizing different stakeholders for sustainable development. This requires to have the ability of building trust among different actors, developing new systems of cooperation and leading different kind of networks. In other words, it is necessary to enhance leadership in the context of regional development.

The central idea underpinning this paper is that Romania needs to learn the lesson of leadership in the context of multi-level governance, which implies a more realistic and sensitive view of the complexity of local and regional development.

Keywords: multi-level governance; sustainable development; leadership.

JEL Classification: R50; R58; R59.

Introduction

Romania joined European Union on January 1, 2007. Since then, the policy of regional development was designed as an answer-option to the EU financial assistance available for Central and Eastern Europe Countries. Meanwhile, the complexity of EU policy for regional development increased due to the large number of members and the wide range of patterns of development, but also because of the lack of financial resources, that was strongly felt during the crisis.

After 10 years of EU membership, Romania needs to redefine its approach regarding the policy of regional development. The world is changing, EU is changing and in this context, Romania needs to evolve and permanently adapt, in order to become a net beneficiary of these opportunities cropped up around demographic change, technology shifts, food security, and energy security and so on.

In order to achieve a sustainable regional development, Romania has to understand that these new forms of governance require for a new type of leadership both, at local and regional levels.

Meanwhile, it should also be clear that "*one of the major aims of the process involved in accession to the EU is to ensure that* ***the rule of law, equality before the law*** *and* ***non-discrimination*** *are firmly entrenched in the legal framework and practices of the countries applying for entry. These conditions for membership continue to apply after accession and all governments are expected to make sure that they do so*" (6th Report on Economic, Social and Territorial Cohesion, 2014).

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This paper intends to investigate who are the main actors that has an important influence on regional development and who are the most relevant stakeholders, together with sustainable regions can be construct.

A good governance is a "must" for sustainable regional development

The link between good governance and economic and social development is highly recognized by the scientific community and it is investigated by scholars from different perspective.

For instance, Acemoglu and Robinson in their masterpiece ***Why Nations Fail: The Origins of Power, Prosperity, and Poverty*** have made an important contribution explaining the main reasons why similar-looking nations differ in their economic and political development: *institutional developments*; *the openness of the society* and *politics*. Among these factors, can be distinguished: "*the rule of law [that] appear to be decisive for economic development*" (Kenneth J. Arrow, Nobel laureate in economics, 1972), and *"an open pluralistic political system with competition for political office; a widespread electorate, and openness to new political leaders"* (Gary S. Becker, Nobel laureate in economics, 1992).

A ***new mode of governance*** is required in this fast-changing world and it calls for a better understanding of **informal interactions and interconnections** beyond the traditional frameworks of formal and hierarchical mode of cooperation. With this regard, Frans J. G. Padt (2012) argues that 'Managerial State'[1] tends to consider the regional policy as a tool for national policy delivery and this approach is inappropriate because regional leaders, in order to be successful at national level tend to be very 'governmentalized' and this behavior is "*fatal for achieving sustainability*" because it does not take into account the voice of citizens (community groups, individuals, local politicians, local entrepreneurs, and so on). Therefore, managerial leader, as in 'Managerial State' approach, will be efficient only on short-term in achieving regional development, frustrating sustainable development of the region. Consequently, "*a new form of leadership, that transcends the typical managerial approach*", is needed.

"***Sustainable development*** *is a normative concept referring to the responsibility to make short-term decisions from a long-term perspective on sustainability, taking the effects on future generations and a range of geographical scales into account*." (Horlings L., 2012)

A successful governance structure involves a strong cooperation and partnership between ***local government*** and ***the community***. Sustainable development entails the improvement in the quality of citizens' life and also contributes to the global environment protection.

The OECD emphasized that a successful governance of a region has three dimensions: "***economic*** (e.g. growth and competitiveness in the broad economy, fostering innovation, efficiency and effectiveness in government services), ***social*** (e.g. promoting citizens' self-empowerment, social participation and public engagement in policy making and service delivery), and ***public*** (e.g. accountability, transparency, responsiveness and democratic control)." (Ubaldi B., 2013)

The central idea is that ***a good governance***, together with ***legal certainty and high quality regulations*** are essential for a sustainable development at local and regional level.

Leadership – a driving force for sustainable development.

[1] The term "Managerial State" was defined by Clarke J. and Newman J. (1997) as "a state that delegates – through a variety of means – its authority to subaltern organizations that are thus empowered to act on its behalf".

Regional development is a complex and collective process that includes a wide range of networks of public and private actors. The role of leaders consists in building trust between these actors and mobilize them in order to develop different systems of cooperation and networking.

Sustainable development of a region is a multi-scalar process, by its very nature, incorporating the relations between the economic, social, ecological, political and cultural dimensions of development. (Pike A. *et al.*, 2007)

This concept become a central theme in regional development, and includes a broad set of notions like: *social inclusion*, *health*, *wellbeing* and *quality of life*.

The academic and policy literatures (Hirschman, 1958; Storper, 1997; Haughton and Counsell, 2004; Morgan, 2004; Pike, 2007, Horlings, 2012) point up that ***sustainability*** is potentially progressive if it prioritizes the *values* and *principles of equity* and *long-term thinking* in access to and use of resources within and between current and future generations. Moreover, sustainable development, refers also to *human development*, including *human rights*, *good governance* and *solidarity*. (Quental et. al., 2011).

Leaders have to have a value system that convince people to quest the sustainability. Furthermore, regional leaders are not responsible only for their regions but also for other people 'downstream and upstream' of their decisions, and of course for future generations.

The key role of regional leaders is to promote ***development*** and ***good governance*** with the aim of building social capital that enhances sustainable regional growth.

The complex and rapidly changing social and economic circumstances of the modern world requires that regional leaders, besides being visionary, to have the ability to deal with different institutional contexts, even at international level. Recent contributions in the academic literature (Peters K., 2012) show that "*international leaders, who purposely use their social capital networks to develop and maintain strong group norms, are more likely to produce sustained behavioral change […] that leaders who have an arbitrary approach to networks and information exchange*". As it may be observed, leadership plays a crucial role in building and maintaining the human capacity to act in order to face the fuzzy situations that arise from complex social, economic and technological transitions and moreover, from the need to better accommodate the social cohesion and economic sustainability agendas.

Nowadays, knowledge-based economy assume the development of ***creative-knowledge regions***, which are characterized by high technology corridors, competitiveness poles, clusters, Digital Cities and Science Cities. This process of economic change is possible to increase the intra and inter-regional disparities, if some of 'traditional' industries, places and communities remain behind and do not align to the new technologies. Under these circumstances it is obvious that the human dimension in sustainable regional development cannot be ignored. In a rapidly changing world, the role of ***regional and local leadership*** is "*to respond to external competitive shocks while at the same time, exploiting new development opportunities around environmental challenges, demographic change and technology shift*". [Gibney J., 2012].

In this context of policy networks, a shared-leadership approach may be the solution in order to find strategies that turn external stimuli into internal responses. Horlings (2012) highlights that **sustainable regional development** is based on "***share-leadership****, where collective values, feelings, trust, commitment and energy forms the basis for mobilizing private and public actors around a joint agenda in regional networks*".

Lessons for Romania

Romania needs to reinvent its regions, but these long-process involves knowledge, time and energy. Therefore, leadership capacity plays a central role in reinventing the regions so that these areas will be able to adapt rapidly to this changing world, working together at the European level in an integrative manner, in order to achieve social cohesion and economic sustainability as it was estimated in EC's 6th Cohesion Report from 2014.

After 10 years of EU membership Romania is still struggling 'to do things better' at regional level, but the real challenge, under the aegis of sustainable development is 'to do better things'. The 'human factor' plays a major role and leaders' duty consists in mobilizing all the important 'actors' by raising social awareness on regional well-being. Thus, new forms of leadership should emerge if we want to build citizens' awareness and engagement in local government.

In this light, besides leading networks, creating territorial branding strategies intended to attract investments, developing clusters and innovation systems, an effective leader should be able to influence the actions of other leaders and to identify and predict how the multitude of stakeholders will be influenced by or will influence the process of decision making. So, leaders need to be ***systems thinkers*** and also to be ***visionary*** in order to respond with promptitude to the politics of situations with a long-term perspective.

Taking all these into account, we can synthetize that a simple bureaucratic and hierarchical models of policymaking is no longer working because "*governance is concerned with cooperation that transcends various borders, takes many goals into consideration, and is based on constantly evolving combinations of teams that develop according to circumstances*". (Sotarauta M., 2012)

In order to boost sustainable development in all its complexity, a regional leader has to prove his ability to understand the complexity of ***modern governance*** and to be able to create new forms of cooperation and partnership that increase the capacity to act within the ***institutional context***.

Experts have demonstrated that "*regional institutions in Europe are key shapers of economic performance*" [Beugelsdijk and van Schaik (2005a, 2005b) and Tabellini (2010)]. Thereto, the pattern of V-spirals (circle) was extensively analyzed by Acemoglu and Robinson (2012) who have demonstrate that the key to sustained prosperity is a matter of ***institutions*** and ***politics*** (figure 1). The logic of V-spirals in sustainable regional development consists in promoting ***creative destruction***, and creating ***strong political institutions that share power***. Likewise, the World Economic Forum's Global Competitiveness report has '***quality of institutions***' as the first pillar of assessment. The 'quality of institutions' is measured based on set of key criteria: the absence of corruption, a workable approach to competition and procurement policy, an effective legal environment, an independent and efficient judicial system. According to the latest report (2016-2017 edition) Romania is ranked 92 from 138 countries, its score on institutions' performance being 3.6 on a scale from1 to 7.

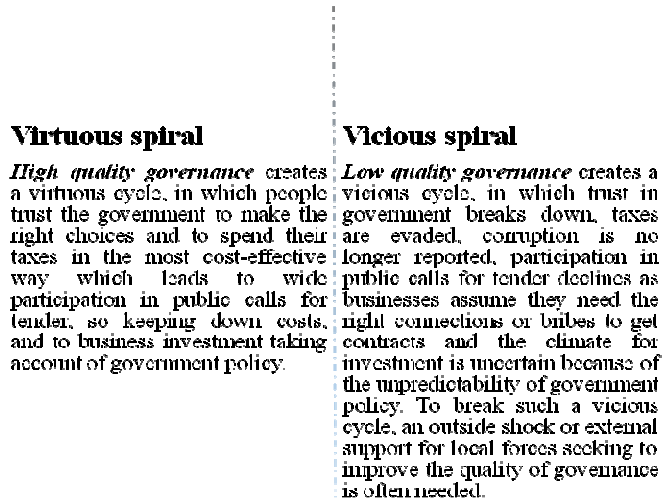

Figure 1. V-spirals in regional governance
Source: Inspired by and builds on the writings from *6th Report on Economic, Social and Territorial Cohesion* of European Commission (2014)

A Commission' Working Document {SEC (2010) 1272}, that had accompanied the document "An integrated Industrial Policy for the Globalisation Era Putting Competitiveness and Sustainability at Front Stage" {COM (2010) 614} list some **key elements that can promote regional development in Romania**: "*Upgrading productive capacities and processes, investing in environmentally friendly, eco-efficient technologies, increasing the innovative potential of enterprises, and addressing the shortage of highly skilled labour force available due to an inefficient high-education system not yet reformed and substantial brain drain and migration, will be essential for the competitiveness of the Romanian industry at 2020 horiz*on." (SEC/2010/1272, pp.172).

In order to succeed, Romania needs an ***adequate area*** for regional development, characterized by appropriate institutions, governance and planning. Undoubtedly, the 'human factor' plays the central role. Paraphrasing Simon Johnson[1], regions "*rise when they put in place the right pro-growth political institutions and they fail—often spectacularly—when those institutions ossify or fail to adapt. Powerful people always and everywhere seek to grab complete control over government, undermining broader social progress for their own greed. Keep those people in check with* ***effective democracy*** *or watch your nation fail*".

Conclusion

A good governance and efficient institutions are necessary conditions for a strong economic and social development of regions.

Effective reform of public administration at central and local level would be a key undertaking for Romanian economic structure. "*The* ***quality of the local government*** *becomes a vital factor in determining the extent to which the regional development investment is transferred into economic growth*" (Rodriguez-Pose A., Garcilazo E., 2013) The weak administrative capacity limits possibilities for reform, hinders the absorption of EU funds and is, in general, dissuasive for all economic investors.

[1] Co-author of *13 Bankers* and professor at MIT Sloan.

Moreover, ***transparency in the decision-making*** process and ***accountability of public resource mobilization and use*** are essential cross-cutting issues to consider. "*Simply throwing greater amount of funds at areas with inefficient and/or corrupt governments will lead to waste, unless the quality of government is seriously improved*". (Rodriguez-Pose A., Garcilazo E., 2013)

Improving the heavy regulatory environment and ***reducing the significant red tape*** in all sectors of the administration would contribute to unlocking the business potential and reducing costs of doing business. Furthermore, ***developing the weak transport*** (especially motorways) and ***communication infrastructure*** would be critical to improving competitiveness and attracting investments.

To conclude, "*if development policies are to be successful, they should build in an institutional component, including promoting transparency and accountability and dealing with corruption as ways to improve the quality of government, as an essential part of the strategic planning process. Otherwise the implementation of one-size-fits-all policies may not yield the expected results*." (Rodriguez-Pose A., Garcilazo E., 2013)

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THE TERRITORIAL EXAMINATION OF THE INCOME STATUS OF THE POPULATION IN HUNGARY

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The question that what kind of factors could influence the income status of a region have been occupying the researchers for a long time. The using of GDP or regional GDP by themselves is no longer satisfying to determine the development level of a region. In our study we try to collect basic data which are well representing the chosen topic, furthermore which are easily available and interpretable on smaller (for example settlement) territorial levels. In our research we would like to examine that what factors could affect the income status of a region. Within this framework we do our investigation in the programming period 2007-2013. We compare the sum of different subsidies, local taxes and the gross value added to the region's income status. Based on our previous hypothesis the received supports, the taxes paid by local people and the gross value added generated by local enterprises are showing a strong correlation with the formation of the income status.

Keywords: income, gross value added, subsidy, development

JEL classification: R11

Introduction

The topic of the population's income level has been discussed by many Hungarin and foreign scholars as well. The income level of the population plays an important role in making economic, financial, political and rural development decisions; therefore, the data required for its investigation is collected regularly and accurately by the central government. In Hungary, it is collected by the Hungarian Central Statistical Office (KSH); some of its international counterparts are the United States Census Bureau[2] in the USA, the Office for National Statistics (ONS)[3] in the United Kingdom, the Statistisches Bundesamt (Destatis)[4] in Germany. They collect data about the income levels of their respective countries. For European- and international level analyses the European Committee (Eurostat)[5] and the OECD[6] offer the most user-friendly and organised country- (and sometimes regional) level datasets, which are available for users. The most common indicator related to income levels in the abovementioned statistical systems is the household income level.

However, it is not sufficient to analyse only the households if we are to conduct a research from economic- and rural development approaches. Regional analyses must take into account many historical, economic and social theories and factors related to the topic of the investigation. When analysing the income levels, we must discuss the origin of differences between settlements (and settlement types), the urbanisation processes, competitiveness, business location theories, well-being, employment, social processes (migration), or even the effects of government support (Káposzta et al, 2014).

The unique characteristics of the Hungarian settlement network were established approximately in the 1860s. The urbanisation wave, thanks to the industrial revolution,

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[2] https://www.census.gov/
[3] https://www.ons.gov.uk/
[4] https://www.destatis.de/DE/Startseite.html
[5] http://ec.europa.eu/eurostat
[6] http://www.oecd.org/

resulted in only the capital city's growth, both in qualitative and quantitative sense. There have been many plans and laws from the 1960s to balance out the monopolistic role of Budapest, which resulted in the appearance and strengthening of many larger and medium-sized rural towns. This relative deconcentration process caused the capital city's population to decline, and the appearance of agglomeration areas close to larger cities and towns. (Enyedi, 1984).

The notion of relieving cities and designing suburban areas appeared in many countries in Europe after the industrial revolution, in order to reorganise cities in a way that their functions are taken more into account (Le Corbusier, 1923), and also to create idyllic suburban areas (Howard, 1902). After the suburbanisation, desurbanisation and relative deconcentration processes in Hungary and in Europe as a whole, we can observe a new phenomenon: the urbanisation of the globalised world, which marks the beginning of a new concentration process (Szirmai, 2011; Enyedi, 2012). The new urban systems meant the concentration of global capital in larger cities and the increase of population number (and the appearance of metropoleis) (Castells, 1972; Sassen, 1991).

In Hungary, the Economic Crisis also directed the economic and social processes in the agglomerations of Budapest and the rural cities towards a new type of concentration. Thanks to the changes in income levels, less and less people move to the suburban areas. Parallel to that, the number of people leaving those areas has increased. Increasing concentration can be observed during investigating income- and education levels and the language skills as well, because people with higher incomes and better education tend to live in the centres of cities.[1] (Schuchmann-Váradi, 2015; Péli-Neszmélyi, 2015).

Regionally differentiated population suggests regionally unequal income distribution. It is observable on an international level; that is why the European Union attempts to support convergence countries and regions by providing different subsidies, hoping that they would catch up with more developed countries. The development levels of countries are measured by their GNI, while regions are measured by using GDP (European Commission, 2015). Experts have been debating for decades about the usage and content of GDP, as an indicator measuring economic development. It is clear that it properly represents income levels; however, it cannot be applied for measuring competitiveness or social welfare, due to its lacking nature (Stiglitz et al, 2010).

Social Progress Index, published in 2015, is a suitable alternative to measure well-being (Csath, 2016; Porter et al, 2015). It investigates many indicators (e.g. ones related to basic services, health-care and human rights) within three categories (basic human needs, the bases of well-being and opportunities), which are beyond indicators illustrating economic development. The content of the index was changed (expanded) in 2016; therefore, now it examines even more countries with more indicators (Social Progress Imperative, 2016).

We can find new elements of development by approaching from country level towards local spaces, and investigating competitiveness using the Regional Competitiveness Index (Csath, 2016; Annoni-Kozovska, 2010). Beside the governmental, infrastructural, macroeconomic and human resources data, we can observe data related to innovation, which contains the technological readiness and innovation abilities of a region. Innovation activity and income levels show positive correlation, which means that in those areas, where intensive knowledge-based activities

[1] Ennek oka gazdaságtörténelmi okokra vezethető vissza, melyek között fontos megemlíteni a mezőgazdaság szerepének csökkenését, a szolgáltatások súlyának emelkedését és ennek következményeként a munkalehetőségek koncentrálódását a városi területeken.

are carried out, and the proportion of R&D spending is high, we can see higher income levels.

The increasing R&D spending and the expansion of innovation is generally more common in regions where we can find institutions of higher educations, or the concentration of companies (business clusters, business incubators, etc.). Companies provide 80-90% of the jobs in the developing countries; furthermore, they produce approximately 60% of the GDP. These proportions are very similar in Hungary, because the territorial inequalities (resulted by the first large wave of urbanisation) increased after the political transition in 1989-1990. The seven statistical regions created as a requirement for the accession to the EU do not cover homogenous territories, and that is one of the reasons why the development level of the capital city distorts the development data of the Central-Hungarian region in a positive way (Budapest produces approximately 40% of the Hungarian GDP[1]). In this case, despite the criticism mentioned before, GDP is a very meaningful indicator; Budapest would belong to the 25 best-performing regions in the European Union. The high level of regional disparities is well-shown by the fact, that four regions out of the seven belong to the 20 poorest regions of the EU: Northern-Hungary, Northern Great Plain, Southern Great Plain, Southern Transdanubia (Tóth, 2016).

The economic development and income level of a region can be indicated by illustrating the purchasing power of the local population. A company dealing with regional data collection and processing called GeoX Kft. created a map about the purchasing power of the Hungarian settlements, using data from 2014 (Figure 1.). The Települési Vásárlóerő Adatbázis (Settlement-level Purchasing Power Datbase) contains and applies basic data and calculated indicators for the income situation (income from work, social income, calculated gross and net income) and for consumption spending (e.g. food, clothing, home maintenance, transportation, health care, education, etc.) per capita, in Hungarian Forint (HUF), for every settlement, in a unified way (GeoIndex, 2016).

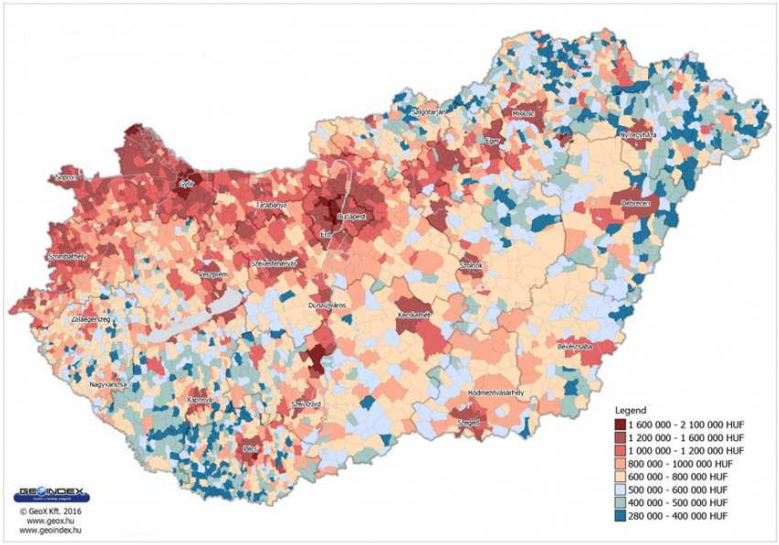

Figure 1.: Settlement level purchasing power 2014
Source: Települési vásárlóerő adatbázis, 2016

[1] A fejlettségbeli különbségek miatt a Pest megyei Közgyűlés 2016. január 29-én megszavazta Budapest és Pest megye különválását.

This paper discusses an index created by utilising knowledge from literature review and own experience, which is, similarly to the settlement level purchasing power, able to illustrate the income potential of Hungarian districts in a graphical way.

Materials and methods

One of the bases of our research is that income levels show correlation with many different factors. We would like to discuss the existence of these correlations not only theoretically – as we did in the introduction -, but also by using an analytic methodology.

As a first step, we chose datasets based on literature and on our own experience, and then they were selected based on their relevancy to the research topic. After the data-gathering process, the result was a dataset consisting of 30 indicators, which were collected from all years between 2007 and 2013. Due to the lack of data we experienced in the case of some indicators, the analysed time period was decreased to the years between 2009 and 2013. The chosen territorial unit for our investigation was the LAU-2 level (district, in Hungary). Our decision was encouraged by our wish to prove the applicability of our methodology and the need to establish an information system to support it. As a result of our efforts, we collected 30 (standardised) indicators for 175 districts and for 5 years, which is equivalent to 27,000 data analysed during the investigation.

After collecting the data, correlation analyses were conducted, focusing on the years investigated, in order to observe the relationship between income levels and other indicators (and if there are any, how strong they are), and to see whether the correlation can be observed in every year, or not.

Correlation analysis is the tool of analysing linear correlation between variables with high levels of measurement, and also to establish the existence, strength and direction of the correlation. During correlation analysis, in the case of dependent and independent variables, metric data can be used.

„The value of the linear correlation (or Pearson's coefficient, marked as: r) is calculated as follows:

$$r = \frac{\sum_{i=1}^{N}(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^{N}(x_i - \bar{x})^2 \sum_{i=1}^{N}(y_i - \bar{y})^2}}$$

where $\bar{x}$ marks the average of x_i, and $\bar{y}$ marks the average of y_i."(Sajtos et.al., 2007)

The value of "r" is measured on a scale from -1 and + 1. The stronger the correlation between the variables is, the closer the absolute value of the correlation coefficient gets to the 1. When r = 0, the relationship between the investigated variables is non-correlated, but it is not called independent; it means that there is no linear correlation between the two variables, but other type of relationship may be found between them. The direction marks not the direction of the dependent or independent variables, but the correlation's direction. During correlation analysis, it cannot be determined that which is the dependent and which is the independent variable. (Sajtos et.al., 2007)

The possible values of the correlation coefficient were set according to the evaluation criteria of Sajtos and Mitev, illustrated on Table1.:

The value of r	The direction and strength of the correlation
$r = 1$	Perfect positive correlation
$0{,}7 \leq r < 1$	Strong positive correlation

$0{,}2 \leq r < 0{,}7$	Moderate positive correlation
$0 < r < 0{,}2$	Weak positive correlation
$r = 0$	No linear correlation
$-0{,}2 < r \leq 0$	Weak negative correlation
$-0{,}7 < r \leq -0{,}2$	Moderate negative correlation
$-1 < r \leq -0{,}7$	Strong negative correlation
$r = -1$	Perfect negative correlation

Table 1.: The possible values of the correlation coefficient

Source: the authors' own editing based on Sajtos et.al. (2007)

Based on the values of the correlation the type of the linear relationship was categorised into a five-level scale, based on Huzsvai and Vincze, which categorisation is illustrated by Table 2.

The strength of the correlation	The value of r
There is no correlation between the variables	$0{,}25 < r < 0{,}25$
Weak stochastic correlation	$-0{,}5 < r < -0{,}25$ or $0{,}25 < r < 0{,}5$
Moderate stochastic correlation	$-0{,}75 < r < -0{,}5$ or $0{,}5 < r < 0{,}75$
Strong stochastic correlation	$-1 < r < -0{,}75$ or $0{,}75 < r < 1$
Perfect correlation	$r = -1$ or $r = 1$

Table 2.: The type of linear correlation between variables
Source: the authors' own editing based on Huzsvai et.al (2012

Since the direction of the relationship does not indicate the direction of dependent and independent variables, but the direction of the correlation, the classification of Huzsvai and Vince was used.

In order to expand the research, an index was created during the correlation analysis from the data - indicators - showing strong and moderate stochastic correlation, to find out which indicators influence the income levels in the districts. This index was called 'Income Potential Index'. During the creation of this index a simple indexing method, the minmax normalisation, during which the indicators are weighted by their correlation values. During the minmax normalisation different indicators with different units of measure are transformed to a certain range *(during which the distribution remains the same)*. The following formula was used:

$$X'_i = \frac{\sum_{i=1}^{N} r_x * \frac{x_i * min_x}{max_x * min_x}}{\sum_{i=1}^{N} r_x} * 100$$

where the $\mathbf{min_x}$ is the lowest, while $\mathbf{max_x}$ is the highest value of the indicator, and $\mathbf{r_x}$ marks the correlation value of income levels and the selected indicator.

The data gained by the analyses were illustrated on maps by using the QGIS software.

Results

The correlation analysis was carried out using Microsoft Excel. The results of the most important (moderate- or strong stochastic) correlations are illustrated by Table 3. As seen on the table, there are four strong (*local taxes, knowledge-intensive services, number of operating enterprises, the number of registered unemployed people)* and five moderate *(number of personal vehicles, medium high-tech processing industry, gross value added, high-tech processing industry, balance of migration)* kinds of stochastic correlation was found between the income levels and the other 29 indicators.

	2009	2010	2011	2012	2013
Local taxes	0,765	0,766	0,779	0,773	0,764
Knowledge-intensive services	0,792	0,797	0,799	0,772	0,757
Number of operating enterprises	0,804	0,786	0,796	0,768	0,751
Number of personal vehicles	0,727	0,705	0,741	0,717	0,710
Medium high-tech processing industries	0,670	0,631	0,682	0,693	0,695
Gross value added	0,573	0,626	0,641	0,648	0,673
High-tech processing industry	0,669	0,653	0,685	0,628	0,553
Balance of migration	0,596	0,567	0,601	0,548	0,537
The number of registered unemployed people	-0,799	-0,807	-0,803	-0,799	-0,761

Table 3.: The values of coefficients resulted by the correlation analysis

Source: the authors' own editing based on own analysis

As seen in the table, indicators show approximately the same level of stochastic relationship with income, with only small differences between them in different years. Therefore, we consider the basic hypothesis of our research proven**;** namely, that income levels show close correlation with many other indicators, and this correlation remains the same in later years.

Due to the fact that correlation analysis does not indicate the directions of the dependent and independent variables with the positive or negatives signs of the correlation, the cause-effect relationship cannot be explored. Therefore, the authors tried to identify cause-effect relationships in the case of the 9 indicators based on literature and own experience. As a result, 8 indicators were chosen as 'causes', meaning that they influence the income levels, and 1 indicator was chosen as an 'effect' *(the number of personal vehicles, based on the assumption that increasing income levels result the growth of savings, which may result in purchasing new cars).*

From the remaining 8 indicators we received normalised data weighted by their correlation value for district levels, by using the methodology discussed above. The results are illustrated on maps for every investigated year (Figure 2.). Based on the methodology the values could be varied on a scale from 0-100, which values can be categorised into five groups (Table 4.):

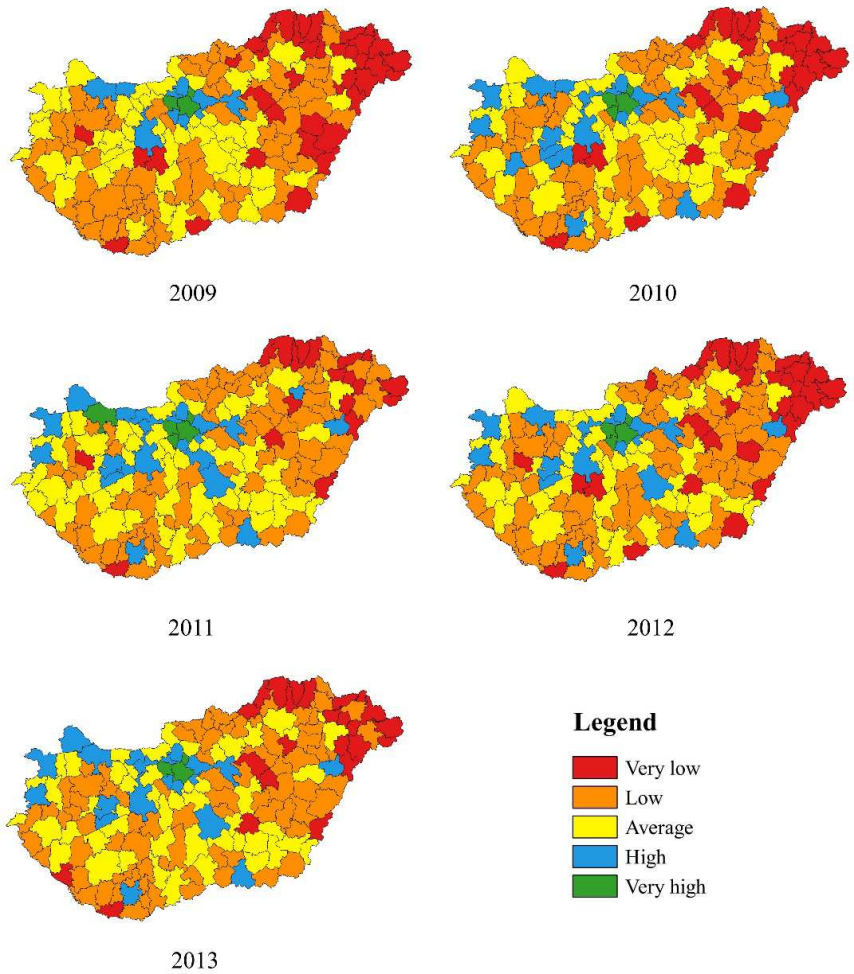

Figure 2.: The trends of the Income Potential Index throughout the investigated years

Source: the authors' own editing based on own analysis by using QGIS

Colour code	Name	Value
	Very low	0-14,99
	Low	15-29,99
	Average	30-44,99
	High	45-59,99
	Very high	60-100

Table 4.: The categorisation of normalised data weighted by correlation values

Source: the authors' own editing based on own analysis

Many common points were discovered during the comparison of the facts found in the literature and the results of the analysis. By examining the maps, we can see that the district level Income Potential Index shows changes from year to year. It was found, after investigating the dataset, that there was significantly positive change in 15 districts, positive change in 78, slight change in 70, negative change in 10 and significantly negative change in 2 districts in the investigated time period. The investigation found the districts with the worst income potential in Northern-Hungary, while the best ones in the three Transdanubian regions and in Central-Hungary. There was 77 index point difference between the Budakeszi district, the one with the best values[1] and the Cigándi district, the one with the worst values[2]. This result well illustrates the fact that there are significant regional differences in Hungary regarding to the factors affecting income levels.

We drew the following conclusions by analysing the maps and the datasets behind them:

- It is clear that **Budapest** (the capital city) **and its agglomeration** is the area with absolutely the highest income potential. Along with other very high potential districts *(Budakeszi, Dunakeszi, Érd)* and high potential districts *(Szentendre, Pilisvörösvár, Szigetszentmiklós, Gödöllő, Vecsés)* nearby, the form a very significant economic centre.
- By analysing the data we can find that the **Budapest – Győr- Bécs development axis** generates significant income producing potential. Beside Budapest and its agglomeration, the districts of this area indicate the highest Income Potential Index.
- When investigating the maps and the **motorway network** of Hungary, we could see that the districts with the highest income potential are almost the same as the districts situate along the motorways starting from Budapest.
- We can find districts with high Income Potential Index scattered, which have towns with county seat rights *(half of the towns with county seat rights belong to this category: the districts of Debrecen-, Érd-, Győr-, Kecskemét-, Pécs-, Sopron-, Szeged-, Székesfehérvár-, Szombathely-, Tatabánya, Veszprém)*. Some of these received extra support to balance out the Budapest, while others have industrial parks that contributed to their high potential.
- The Lake Balaton and its surrounding area has high and moderate Income Potential Index, which is most likely resulted by the fact that the regions is a top

[1] Közép-Magyarországi régióba tartozó járás
[2] Észak-Magyarországi régióba tartozó járás

tourist destination in Hungary. Furthermore, a main transportation route, the M7 motorway can also be found in the region

- The district level clusters of the **most lagging behind settlements**, which have been investigated on numerous occasions in Hungary, can also be easily found on the maps. These areas can be found mainly along the Northern-Eastern-, Eastern- and also at the Southern-Eastern border. These are the areas which lost their centres after World War 1.

Conclusion/ Discussion

Based on the literature review and the results of the investigation discussed in this paper we can establish that the traditional income-related territorial differences still exist in Hungary. We can observe both a West-East differences, and an Urban-Rural disparity as well. Also, the prominent role of Budapest still shows, as the most developed economic centre in Hungary. On the positive note, the regions with larger rural towns all show high income potential, which means that a certain 'spread' effect can be observed in those areas. Our study found that income potential is very high in those areas, where we can find many operating enterprises, which generate high amounts of local taxes (which contributes to the high income per capita). It is a novel aspect of the research to find that the presence of knowledge-intensive services and high-tech processing industry did influence the income levels of regions. To sum it up, we can establish that the index formed from 8 indicators proved to be appropriate for analysing the income potential of certain regions and to determine the main factors affecting income levels.

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THE ROLE OF HEALTH INEQUALITIES IN HUNGARY'S URBAN ECONOMIC DEVELOPMENT

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Abstract

Our study is about the economic inequalities of the Hungarian urban network, according to the health condition. Barro (1996, 2013) and Tompa highlight that the theories (new growth theories, Romer 1986, Lucas 1988) explaining the economic growth, the aspects of the knowledge and technology got basicly in the foreground in connection with the human capital. This trend can be felt in the territorial researches interpreting the development and competitiveness of Hungary, for example due to the territorial capital-, or competitiveness researches (Nemes Nagy-Németh 2003, Lukovics-Kovács 2008, Lengyel-Szakálné Kanó 2012, Jóna 2013). Even if the health appears in some kinds of shape, that refers rather to the availability of the infrastucture, in addition, the correct presence of the health conditions are really rare in the different modells.

That is why, the aim of our research is the health condition (with special regard to the premature mortality) as the discovery and review of human resource relating to the urban economy development. In this study the explanatory spatial data analysis (ESDA) is used for it. This method gives us the opportunity to show the spatial regularities and relations (uni- and bivariate territorial autocorrelation, regression models reflecting spatial characteristic). With the help of the spatial econometric methods we had been searching for the answer what influence have the the health condition and other control variables on the evolution of the city economy performance (income/capita, unemployment rate).

JEL code: I14, I15, R10

Introduction

Many theories and models have been devised for the purpose of explaining the socio-economic inequalities of health status (Preston 1975, DHHS 1980, Mackenbach 2012). According to literature discussing the inequalities of health status and socio-economic development, there is a synergistic interrelationship between these two phenomena coupled with a double cause-and-effect mechanism (WHO 2002). The socio-economic environment determines the health status of both individuals and society as a whole while, in exchange, health influences the socio-economic status of individuals as well as the socio-economic processes at macro level (Acheson 1998, EC 2005, Grossman 2000, Barro 2013, WHO 2001, OECD-WHO 2003, Sen 1998). This paper focuses on the latter concept, defining health status, based on Grossman (1972), as a production factor and examining its impacts on economic inequalities. The health condition of an individual affects not only his own social status but influences, through various channels, the economy and economic growth as well. The better health status of an individual has a direct impact on the supply side of labour market: if in good health, an individual participates in the labour market, does not apply for (possible) early retirement and does not absorb the capacities of a family member to take care of him and his illness. An individual in good health has higher productivity and, thus, higher wages and income. Health status also generates indirect educational implications: schoolchildren who tend to become ill more often or suffer from nutritional deficiencies will have higher absence rates and higher chances for dropout from school. In addition, health status has an impact on income distribution: healthy individuals show a higher tendency to accumulate savings, make investments and indulge in consumption.

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Improved health status also means intergenerational spill-over effects (OECD-WHO 2003), i.e. it leads to decreased fertility rates in the long run.

The testing of conditional convergence, an empirical approach applied to this subject by Bloom and Canning (2005), means an estimation of (macro) income growth per capita, involving the initial health status (life expectancy at birth, mortality rates) and keeping income levels and other factors under control. Such other factors may include e.g. political variables (institutional features, state of democracy, rate of inflation, government spending, exchange ratio, law and order, etc.), education ratios, population growth, technological progress, fertility, geographical features, natural resources, etc. (Barro 1996, Barghava et al. 2001, Bloom et al. 2004, Bloom-Canning 2005, Weil 2005, Barro 2013). Macro-level examinations confirm the general beneficial impacts of health status on economic growth for a time span of one or even more centuries (Fogel 1994, Arora 2001). Regional studies – just like the main macro-level analyses – describe the regional aspects of catch-up, level of development and competitiveness in the context of health status (Vanicsek et al. 2003, Malmberg-Andersson 2006, Noronha et al. 2010, Ana Pocas 2012, Annoni-Dijkstra 2013, Blázquez-Fernández et al. 2014). In general, the few regional studies confirm the results of macro-level analyses but, at the same time, numerous specificities and differences in findings are also evident. First, the health status variables cover a wider spectrum: age-specific mortality (e.g. perinatal, infant, premature mortality) is coupled with cause-specific mortality (cardiovascular diseases, cancer, infectious diseases, etc.) and lifestyle-related mortality (alcohol and smoking). Furthermore, hospital health status indicators (number of patients, number of cases, number of hospital days) and other proxy variables (number of persons receiving sickness benefits, rate of early retirement, number of medical prescriptions) are used for this paper. Second, the regional analyses involve a wider range of dependent variables – health status indicators have beneficial impacts (although at different levels) not only on economic growth but also on certain latent variables created through main component analysis and having some economic value (Vanicsek et al. 2003, Malmberg-Andersson 2006), as well as on wages, investments and GDP per capita. Nevertheless, opposite results also emerge in certain cases. For example, according to the findings of a conditional convergence test conducted by Noronha et al. (2010) for Brasil, cancer and diabetes mortality rates have a beneficial impact on growth prospects.

Study questions

It is clear from a series of complex mathematical-statistical studies that the abovementioned topic remains relatively neglected in the examination of health inequalities at subnational level. That is why our paper is aimed at mapping the direct impacts of health status in Hungary at subnational level. We have selected a special area level: urban areas. In fact, urban areas are considered as the priority constituents of regional economic growth, the privileged actors of regional development and the main determinants of national productivity, employment, education and innovation (ESDP 1999, EC-UN Habitat 2016).

Our first study question is as follows: what is the impact of aggregate health status on the urban inequalities of economic development in Hungary? According to our hypothesis, proper health status represents a major human resource input for the main urban-level output indicators of economic performance. In view of that, and on the basis of international literature findings, our aim is to create and test a model that focuses on the main indicators of Hungary's urban-level economic development and reveals the direct impacts of health status. Given that the subnational analyses available in

international literature have ignored spatial interactions so far, we wish to make up for this deficiency in our paper by assuming that spatiality plays an active role in the abovementioned interrelations. Accordingly, our second study question is as follows: what is the contribution of spatiality to the relationship between health status and economic development?

Materials and methods

Our cross-sectional base model is as follows:

$$CED_{i,t} = CED_{i,t-x} + H_{i,t-x} + HC_{i,t-x} + AS_{i,t,i,t-x}$$

where CED (*city economic development*) on the left means urban-level economic development, while CED on the right represents the former state of development, H means health status and HC (*human capital*) indicates additional human resource dimensions (which are relevant also in terms of health). AS (*active spatiality*) means such factors as accessibility, neighbourhood effects, economies of scale, etc., *i* refers to the unit of observation, while *t* and *t–x* indicate the time of observation.

Table 1 – Main features of the study database

indicator	minimum	maximum	average	std. deviation	Moran I
income per capita, HUF/person (log) (2014)	13.03	14.28	13.63	0.22	0.40
unemployment rate, % (log) (2014)	0.03	3.16	1.89	0.55	0.56
standardized mortality ratio (2005-2010)	246.00	806.60	470.2	98.52	0.20
proportion of higher education graduates, % (2011)	5.10	39.9	14.42	6.53	0.18
young age dependency ratio, % (2011)	17.13	41.42	24.53	3.87	0.25
proportion of roma population, % (2011)	0.00	25.11	3.54	4.08	0.28
convergence club (dummy) (2011)	0.00	1.00	0.36	0.48	0.75
peripherals (dummy) (2011)	0.00	1.00	0.17	0.38	0.19
proportion of industrial workers, % (1970)	1.91	83.08	35.96	16.97	0.32
population change, % (1970-2011)	65.68	385.6	110.7	38.94	0.20
unemployment rate, % (1990)	0.41	6.23	1.92	0.81	0.33

For Moran's I, the spatial weights matrix is based on a 60-km distance matrix with 999 permutations and a significance level of $p<0.05$. As $-1/N-1 = -0.0029$, no spatial autocorrelation can be seen here; however neighbourhood assimilation is positive above and negative below this value.

Our paper approaches the economic development of urban areas on the basis of competitiveness; this term overlaps with growth and development, and it is also synonymous with the latter. Competitiveness at subnational level is a complex and "more quality-focused" indicator: it indicates a type of sustainable development which is realised at a high level of employment (i.e. it incorporates a main indicator of social development), coupled with high and growing standards of living, valid for a longer time span and associated also with regional development (EC 2004, Lengyel 2012). By highlighting two categories of this term, we use income per capita and unemployment rate for the purpose of dependent variable.

Urban health status is expressed through the premature (0–64 years) version of the standardised death rate (SDR[1]). The selected age group is important as it has a direct effect on the state of economy (Vanicsek et al. 2003). The mortality rate applicable to the cohort can be considered relevant also because the region is affected by the Central and Eastern European health paradox (Kopp-Réthelyi 2004), a mortality crisis affecting the region's middle-aged population. Similarly to some studies concerning the direct impact of health status (Barro 1996, Noronha et al. 2010, Silva Alves Pocas 2012, Blázquez-Fernández et al. 2014), we use education and fertility indicators as primary control variables. The knowledge dimension is indicated by the proportion of higher education graduates, while fertility is expressed, indirectly, through young age dependency ratio which refers to the age structure. Furthermore, the proportion of Roma

[1] Eurostat (2012) crude mortality rate calculated as a weighted average of age-specific death rates for the European standard population.

population is involved in the explanation of unemployment and income position. Acting via various channels such as low education levels, disadvantaged areas or labour market discrimination, this indicator is considered important in Hungary (Németh 2008, Pásztor-Pénzes 2012). Due to the endogenous nature of our study, area is considered as an active player. This arrangement is facilitated through the incorporation of dummy variables (convergence clubs indicating the spatial structure features of Hungary's economy) and with the involvement of internal and external peripherals. A value of 1 is assigned to the regions in Central Hungary, Central and Western Transdanubia[1], while the remaining regions are indicated with 0. The boundaries of the internal and external peripherals are based on the districts to be developed through complex programme[2] as defined in Government Decree 290/2014 (XI. 26.). The towns of these districts are indicated with 1 and the remaining towns are marked with 0. We are aware of the fact that "area development cannot be explained with a single or just a few factors because it requires an effort to examine a whole series of elements and their combined interactions" (Rechnitzer 1998, p. 19), and that is why we employ the time-delayed version of the development variable or the relevant proxy variable. The former state of development is used to express the endogeneity of the complex phenomenon (long-term effects, determinations) and to eliminate the eventual distorting effects of other regressors from the equations (Acemoglu et al. 2001, Németh 2008). For the purpose of handling the endogeneity of income level in our models, we use the proportion of industrial workers – it is a development indicator, based on the studies of Győri (2007) and Németh (2008), characteristic of the socio-economic conditions of the 1970s. In addition, we use the indicator of population change (1970–2011). Also, we use the indicator of unemployment rate (1990) in order to describe the former state of development. It is assumed that these indicators are able to eliminate the endogeneity of the current state of development.

The remaining explanatory variables are used in their time-delayed form. The reason behind this decision is to avoid the simultaneity between response and explanatory variables (in the specific case of health status and economic development), and that is why we apply this solution proposed by Noronha et al. (2010).

The subnational level of our study affects all Hungarian towns with a population of more than 2 000 persons. We have decided to omit six towns in order to reduce the statistical uncertainty of the data. Our data source is the National Regional Development and Spatial Planning Information System and the tabulated (mortality) database compiled by the Central Statistical Office upon individual request.

In addition to various spatial parameters, the applied method i.e. ESDA (explanatory spatial data analysis) is also linked to the expression of spatial interactions. We use maximum likelihood regression models (Anselin 2005), which offer spatial lags and spatial errors, to display the relationship among the current and former state of economic development, health status, education and other variables. Wald (W), Likelihood Ratio (LR) and Lagrange Multiplier (LM) tests are used to verify asymptoticity and spatial dependence. According to Anselin (2005), their sequence should be W > LR > LM. Any failure to reach this sequence may lead to specification errors: the residuals fail to show normal distribution, the variables feature non-linear relations, the range of regressors is insufficient and improper or the spatial weights

[1] We have selected this method in view of the divided nature of Hungary's (income and unemployment) spatial structure. The north-western and central regions, which can be considered the winners of the process of Hungary's transition to a market economy, now account for almost 70% of Hungarian GDP, while the remaining regions are hit by exclusion or stagnation (Lőcsei 2010, Pénzes 2013).

[2] It is the category of the most backward districts.

matrix is inadequate. The Breusch-Pagan test is used to test for heteroskedasticity, while multicollinearity is measured with MCN. Model effectiveness is verified with pseudo R-squared, Akaike's Information Criterion (AIC), Log likelihood and Schwarz's Bayesian Information Criterion (Anselin 2005).

Results

For each development indicator we have conducted two cross-sectional regression analyses – one model is based on ordinary least squares (OLS) and another (spatial maximum likelihood) model is based on the Lagrange multiplier. Here we describe only the final or best matching models meeting the diagnostic requirements.

Table 2 – Regression models for the economic performance of towns (income per capita)

	OLS	ML SEM
constant	13.562* (225.809)	13.704* (183.978)
mortality	-7.798e-005 (-0.891)	-0.0002** (-2.005)
qualification	0.016* (12.511)	0.015* (11.845)
convergence_club	0.143* (9.125)	0.079* (3.401)
industrial traditions	0.002* (4.145)	0.001* (2.928)
young age dependency	-0.009* (-3.911)	-0.011* (-5.593)
roma pop.	-0.008* (-4.378)	-0.008* (-4.041)
lambda	-	0.835* (10.511)
R-squared	0.731	0.754
Log likelihood	257.165	265.987
Akaike info criterion	-500.329	-517.974
Breusch-Pagan test	10.555	12.066
Wald-test	-	110.481
Likelihood Ratio Test	-	17.645*
Lagrange Multiplier (error)	13.266*	-
Lagrange Multiplier (lag)	10.009*	-

Note: * significant at 0.01, ** significant at 0.05, *** significant at 0.10. The spatial weight matrix is based on 80 km distance based contiguity. See the t- (OLS model) and z-score (ML model) values in parentheses. N=340. Source: own calculation, editing (2017)

It is advisable to use the spatial error model, based on Lagrange multiplier, for income per capita (Table 2). Almost all explanatory variables make a significant contribution to the different values of economic performance in Hungarian towns. The only exception is found in the OLS model, where the standardised mortality rate cannot be considered reliable. However, it becomes reliable in the spatial model. In general, regressors behave according to preliminary expectations. Towns with higher income per capita have a population with a higher level of education, older age structure and better health status, and less Roma people. Towns in the north-western and central regions outperform those found in other regions of Hungary. The proportion of industrial workers (1970) (industrial traditions) – a time-lagged proxy expressing the endogeneity

of income performance – is shown with positive sign in the regression equation, which confirms former Hungarian literature findings. (Győri 2007, Németh 2008) In other words, the long-term impact (dating back to more than four decades) of the former development spatial structure can still be felt and plays a determinant role. The lambda parameter (neighbourhood relations) proves to be a significant and strong player in the ML equation, and this fact means spatial interactions. Having passed the diagnostic tests, the spatial model explains the inequalities of urban economic development with a fairly high efficiency (pseudo R-squared: 75.4%, Log likelihood and AIC values are better than in the OLS model). In view of z-score values indicating the stability of individual variables, one of the weakest (but significant) predictors is early mortality, while qualification is the strongest player in spatial regression.

Table 3 – Regression models of urban unemployment in Hungary

	OLS	ML SEM
constant	1.416* (8.824)	1.555* (5.760)
mortality	0.0007* (2.869)	0.0005** (2.277)
qualification	-0.014* (-3.709)	-0.016* (-4.589)
convergence_club	-0.505* (-12.605)	-0.345* (-6.063)
unemp90	0.155* (6.085)	0.112* (4.492)
young age dependency	0.014** (2.532)	0.010*** (1.866)
pop_change	-0.001** (-2.279)	-0.002* (-3.135)
complex_backwardness	0.150* (2.936)	0.137* (2.838)
lambda	-	0.923* (19.070)
R-squared	0.672	0.701
Log likelihood	-86.055	-74.199
Akaike info criterion	188.11	164.398
Breusch-Pagan test	17.719**	15.980**
Wald-test	-	363.665
Likelihood Ratio Test	-	23.712*
Lagrange Multiplier (error)	22.170*	-
Lagrange Multiplier (lag)	20.298*	-

Note: * significant at 0.01, ** significant at 0.05, *** significant at 0.10. The spatial weight matrix is based on 100 km distance based contiguity. See the t- (OLS model) and z-score (ML model) values in parentheses. N=340. Source: own calculation, editing (2017)

Parallel with economic performance, the spatial error model describes, in a more or less correct way, the relationship between health status and unemployment (Table 3). In addition to health status, the independent variables include young age dependency, qualification, convergence club dummy, population change, the Bernoulli variable of peripherals and the former (autoregressive) value of independent variable. Towns with an above-the-average unemployment rate show higher early mortality rates and youth percentage and below-the-average rates of university diploma holders. Spatiality in ML regression is expressed not only by the space-lagged residuals (lambda parameter) of the

OLS model but also by convergence club and peripheral dummy variables. The regions in Central Hungary, Central and Western Transdanubia have been traditionally performing better, while the complex crisis phenomena of the internal and external peripherals are also present in the unemployment rate, clearly increasing its level. The time-lagged (1990) version of the independent variable can be considered as a significant regressor (not causing multicollinearity) in the differentiation of urban unemployment after almost a quarter of a century. Population change, expressing the endogeneity of economic development, is also associated with changes of the unemployment rate: towns with higher unemployment rates show significantly higher population growth rates. The health state indicator still cannot be considered as a major regressor (it is slightly higher than the z-score value expressing the age structure); the lambda parameter proves to be the most stable explanatory variable in this model. With a Nagelgerke R-squared of 0.710 and an AIC of 160.40, the spatial model shows a better matching. However, spatial regression cannot be considered fully perfect in terms of diagnostics: the Breusch-Pagan test shows heteroskedasticity, although its asymptotic tests correspond to the sequence published by Anselin (2005).

It should be noted that it would be justified to use different spatial weights matrixes for the two economic development indicators (80 km distance based for income and 100 km distance based for unemployment) in order to adequately comply with the diagnostic tests. It indicates different ranges for the spatial differentiation of the two phenomena; the urban-level spatial inequalities show different neighbourhood patterns in terms of the studied phenomena.

Summary

Our paper carries out a special examination of health inequalities at subnational level and studies the direct impact of aggregate health status, as a production factor, with regard to Hungary's economic performance. Our paper focuses on towns i.e. the priority actors of economic development in the region.

Our study is based on international findings. We have created a mathematical-statistical model which takes into consideration the diverse approaches to economic development, the endogeneity of development indicators, the special (adapted) dimension of health as well as the spatial interactions not managed so far. According to our assumption, health status is an adequate determinant of urban income position and unemployment. In our opinion, this assumption has been confirmed: the applied spatial regression models effectively indicate the positive impact of health on development indicators and supplement the traditional explanatory factors such as knowledge, age structure and spatiality. Our studies affect the endogeneity of urban development as well. We have demonstrated that economic performance, unemployment and income show a significant relationship of various strength (without multicollinearity) with their own (or with their proxies') former spatial inequality. Furthermore, spatiality is a reliable player of major importance in the explanation of the inequalities of urban-level economic development. It should be noted that the spatial patterns affecting urban income and unemployment are different and that the studied phenomena are described by neighbourhood relations of different distances.

Under the current study conditions, health status cannot be considered as a major actor in the explanation of economic development; in fact, knowledge, spatiality, contiguity or the "past" are seen as stronger explanatory factors. However, according to Sen (1999), "good health is considered as an integral part of good development". It is particularly important for a CEE country which is characterised by significant excess mortality (WHO 2013, Vagero 2010).

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INTEGRATION, MACROECONOMIC DYNAMICS AND INSTITUTIONS IN CENTRAL AND EASTERN EUROPEAN COUNTRIES, 1995-2015

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Abstract:
Central and Eastern European Countries (CEECs) have undertaken wide-ranging processes of economic restructuring generated by the integration into the European Union, an overall nominal as well as a structural convergence having taken place, differentiated from one country to the other in terms of performance and potential for long-term growth and development. First, the paper provides an analysis of economic dynamics of the CEECs during 1995-2015 using both general macroeconomic indicators, such as GDP/capita, economic growth rate or productivity, and also indicators which reflect specific aspects of the integration of markets(FDI intensity, trade integration of goods). In the second part of the paper, the authors provide an interpretation of the role of the institutions in the dynamics of transformations ocurring in the CEECs and in supporting the process of convergence as result of integration into the EU system. The main conclusion reached by authors is that the institutions and the quality of governance system can sustain and amplify the tendencies towards convergence and compensate the tendencies towards divergence generated by the market, and undergoing economic cyclicals.

Keywords: *European Integration, Central and Eastern European Countries, convergence, institutions*

JEL Classification:*F15, O11, O47*

1. Introduction

Since the 90s, Central and Eastern European (CEE) Countries have undergone a major turn in their development, with a troublesome change-over within an unstable institutional framework promoting structural reforms that largely ended in contradictory effects on the economy. The major challenge for CEECs was to create core institutions, able to efficiently react to mechanisms ensuring dynamic microeconomic and macroeconomic stability (Gros and Steinherr, 2004; White and Batt, 2007; Nahtigal, 2008; Wolchik and Curry, 2010). Transition"pioneers"that undertook radical move toward market economy (shock therapy) included Poland, the Czech Republic, Slovakia, Hungary and Slovenia which subsequently won from adopting this approach. Latvia, Lithuania and Estonia also had a rough start on the path of high inflation. Bulgaria and Romania experienced the most ineffective reforms accompanied by hyperinflation and corruption. These are essentially the main reasons explaining why a number of issues still linger in developing economies after so many years of transition, among which the adoption of coherent rules and reforms sustaining the reform. Moreover, the 2008 crisis occured and affected all countries, to a greater or lower extent, slowing down not only the pace of reform but also the process of growth and convergence of the CEE countries, some of the actions undertaken by them added value to the economy, while others did not (EC, 2009): certain countries opted for a high tax adjustment mainly driven by dramatic cuts in public expenditure (including health and education); other countries opted for increased taxation (radical tax rises occurred in Romania, the Baltic States, Bulgaria and Hungary –2009); some preferred to cut down

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on production costs (significant payroll contractions, especially in the public sector, but also in the private industry) (unpopular measures– the average wage in late 2009 decreased by11% in Latvia, by 9% inLithuania and by6.5% in Estonia; as for Romania, public wages and pensions were cut down by 25% and 15%, respectively); "domestic devaluation" prompted a lowering of wages and public expenditure that turned current account deficits into substantial surpluses: Latvia, Lithuania, EstoniaandBulgaria (Agnello and Sousa, 2013; van Treeck, 2009); market deregulation: the Baltic States mostly liberalized their goods, services and capital markets and removed flexible work restrictions on the labour market and unemployment figures shrank with the EU-funded employment support programmes;VAT increased in Latvia, Lithuania, Hungary and Romania (19%-24%). Also, apart from Estonia and Poland, all CEECs saw a change in the government during the turmoil: political and social instability worsened.

The literature points out that the European economic integration and the framework of EU policies have been inevitably complex and uneven (Feng, 2001; Sirimaneetham and Temple, 2009; Knedlik and von Schweinitz, 2012). Most EU Member States in Central and Eastern Europe paid a lot of attention to economic restructuring (based on common rules and principles – "Europeanization process") as compared to defining locally-adapted efficient policies, with negative long-term impact on the economy and society. Moreover, lack of capital, know-how and traditions deeply rooted in communism made these states advance quite slowly; for this reason and considering the lack of resources, these states cannot be said to have encouraged general wealth (Zahn, 2013). These arguments urge the need for a complex and multidisciplinary approach to the evolution of CEECs in the integration process and for finding out to what extent the involvement in this process is likely to translate into a sustainable growth and convergence process.This paper provides an analysis of economic development dynamics of the Central and Eastern European countries in the integration process, with a specific focus on the institutional challenges, highlighting the obvious risks which can be due to inadequate structure of institutions and limitations of governanance system reforming process.

2. An overview of the CEEC's economic dynamics

It should be noted that there is no universal pattern to follow in terms of economic development but only specific models determined by history, geography, current state in certain countries and conditions favouring the subsequent advancement. The change needs to be oriented towards sustainable development and be used as an upgrade generator. Changes may be slower or faster according to the pole positions in the transition process. Various studies support the idea that the most successful transition economies implemented comprehensive and stable reforms (Dimitrakopoulos, 2001; Tsarouhas, 2005; Greif; 2006). Other studies focus on the fact that the role of initial conditions in explaining growth variations should not serve as an excuse for lack of action (Arthur, 1994; Magnusson and Ottosson, 1997; David, 2005). *Firstly*, their negative impact becomes loose over time and may be overcome by a not so rapid breakthrough in reforms (North, 1990; Redek and Susjan, 2005). *Secondly*, the most important thing comes indirectly: unfavourable initial conditions arise from weaker political will and reform capacity and less reform is less growth (Bridges, 2000). Anyway, Central and Eastern European economies entered the process of transition having as a point of departure relatively similar institutional foundations and, in time, the competitiveness gap resulted from the extent to which each government dealt with suggesting and implementing the appropriate structural reforms in each field of activity. The quality of these reforms was reflected in the dynamics of GDP and, at the end, as an aggregated variable reflecting the level of development of a country, in the tendencies towards convergence of the GDP/capita compared to the more developed

coutnries of the Union. The process of European integration favoured a superior economic dynamics to the EU average in the CEE countries (Figure 2), a reduction of the GDP/capita gaps having taken up (Table1, Figure 1), the so-called catching-up process. According to data presented in Table 1, CEECs had different starting positions in the pre-accession process, two big groups of countries being dinstinguished: Romania, Bulgaria, Estonia, Latvia, Lithuania, Slovakia, Poland and Hungary, on one hand, with a lower GDP/capita (20-45%) of the EU15 average and the Czech Republic and Slovenia, on the other hand, with a GDP/capita closer to the value found in the southern periphery of the EU (65%, compared to 68% in Portugal or 73% in Greece, for example).

Table 1. GDP/capita dynamics, 1995 -2015 (EU15=100%), current prices

	1995	2000	2005	2008	2011	2015
EU15 most developed countries						
Austria	112	112	112	112	117	118
Belgium	107	107	107	104	109	109
Denmark	108	109	109	113	117	117
Finland	93	102	103	109	107	101
France	99	100	98	96	99	98
Germany	113	105	104	106	112	114
Italy	106	103	96	96	95	89
Luxembourg	188	212	216	234	240	243
Netherlands	110	120	119	125	121	118
Sweden	108	112	109	114	115	114
United Kingdom	96	99	103	99	96	100
EU15 less developed countries						
Greece	73	74	82	84	69	63
Ireland	90	115	130	121	120	163
Portugal	68	72	45	73	59	71
Spain	77	82	89	91	84	83
CEECs						
Bulgaria	28	24	33	39	41	43
Czech Republic	65	61	70	76	76	81
Estonia	30	36	53	62	65	69
Hungary	43	45	55	56	60	63
Latvia	26	31	44	53	52	59
Lithuania	28	32	47	57	60	69
Poland	37	41	45	50	59	63
Slovakia	41	43	53	64	68	71
Slovenia	65	69	77	81	76	76
Romania	26	22	31	45	48	53

Source: authors' presentation based on Eurostat database (2017)

Benefiting from more rapid and more efficient reforms (Poland, Hungary, Slovakia), and/or from a higher quality of the system of institutions (Estonia, Hungary, Latvia, Lithuania), together with a higher performance level of government effectiveness (Hungary, Estonia) Estonia, Latvia, Lithuania, Slovakia, Poland and Hungary got closest to the Czech Republic and Slovenia and implicitly to the EU average (Pascariu and Tiganasu, 2017). Romania and Bulgaria recorded the lowest levels of performance, not only due to delays in the implementation of the acquis

communautaire, the delay of the reforms and their later accession to the EU, but also due to a lower quality of the system of institutions correlated with poor government effectiveness. The data in table 1 also confirm a process of beta-convergence, the first group of countries of the CEECs, with a relatively lower GDP/capita level, recording a stronger economic growth than the relatively more developed countries of the same group (Czech Republic and Slovenia), the disparities thus being reduced to measure up to the intensification of the economic integration and the increasing role played by the European policies in the new member states.

The process was more wide-ranging before the 2008 crisis and slowed down afterwards (Figure 1), even reversed in some countries (Latvia, Lithuania, Slovenia), the convergence being slowed down following the economic recession and the degrading of the system of governance in some of the new member states (particularly in Hungary,Slovakia, Slovenia). The 2008 crisis also generated the association of some processes of convergence (reduction of disparities) with processes of divergence (increase of disparities), in the context of an unfavourable evolution of some of the old EU member states, mainly the economies of the south (Greece, Spain, Portugal but also Italy), confronted with negative average growth rates during 2005-2015 as a whole or at least close to zero (Spain). The result was growth in disparities compared to the EU average, but at the same time the convergence with the eastern periphery of the EU. Other developed EU states, members of the EMU, also recorded a reduction of governmental efficiency (Austria, Belgium, Finland, France, the Netherlands, Denmark), translated into lower economic dynamics in the EU17 rather than in CEECs (Figure 2), thus a process of sigma intra-EU convergence occurred during the period analysed as a whole.

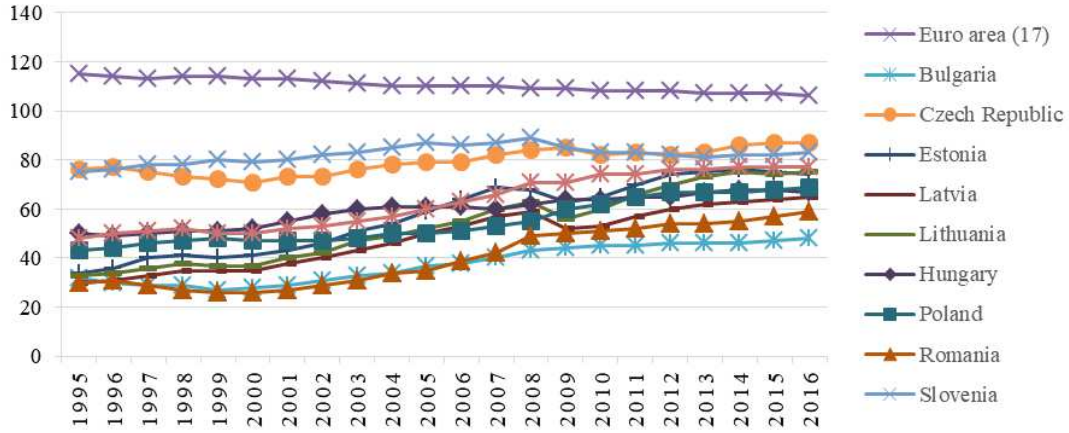

Figure 1. Convergence trends, CEECs vs. Euro area, EU27=100% (GDP/capita, in PPS)

Source: authors' presentation based on Eurostat data, 2017.

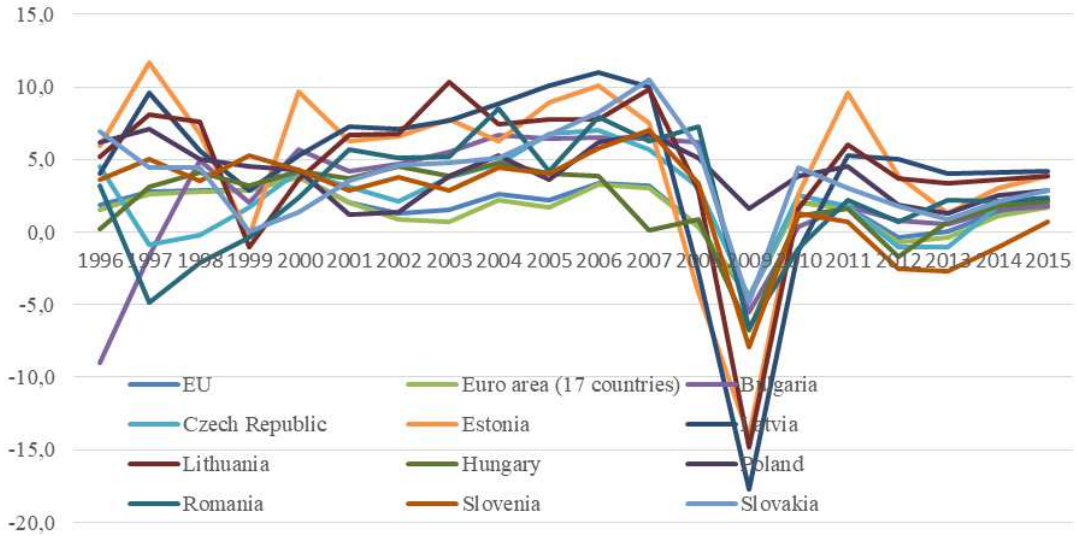

Figure 2. Real GDP growth (% change of previous period)
Source: authors' presentation based on Eurostat database (2017)

The process of nominal convergence of the GDP/capita was first of all the result of a structural convergence, reflected among other aspects in the reduction of productivity disparities. For example, the CEECs have experienced a process of substituting the labour factor (L), with the capital factor (K), above the EU average, resulting in a convergence of production patterns. It may be easily noted that the L-K substitution before 2004, when the EU's enlargement to the East took place, was below the average level and that the integration process featured a number of challenges that the new Member States had to cope with by stressing on the production factors that provided a faster multiplication effect. The replacement of L by K is gradually acknowledged, all considered countries having figures above the average (Figure3).

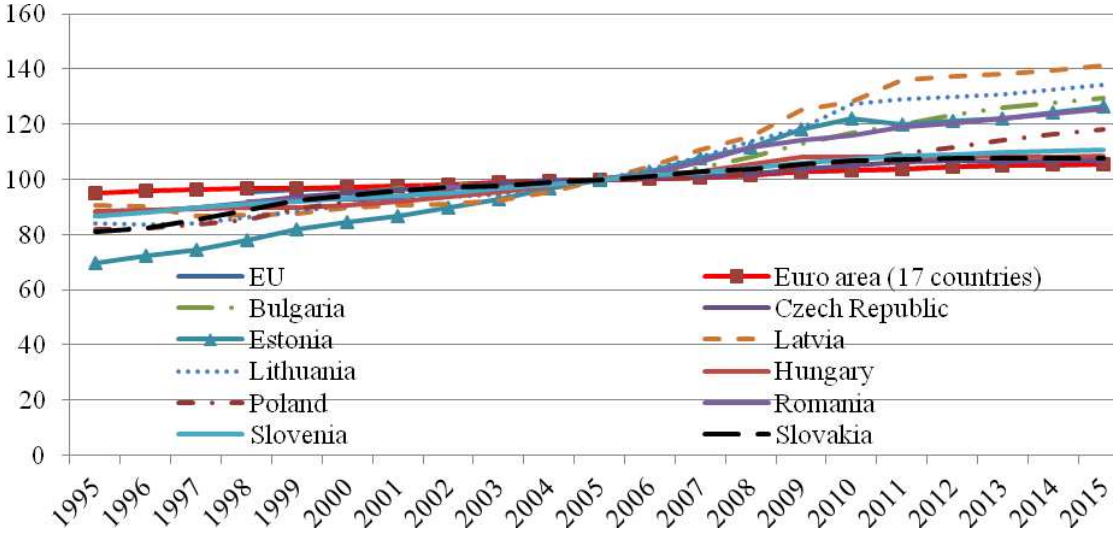

Figure 3. Labour-capital substitution: total economy (2005=100)
Source: based on EC, Economic and Financial Affairs, AMECO database, 2017

In addition, the K by L substitution capacity during 1995-2013 in the Euro Zone gradually decreased from above the average (107 points in 1995) to below the average (93 points in 2013), a further reduction for the years to come being anticipated. This may be due to high competition that boosted technological innovations across the EU's developed states rich in K which ended in the partial replacement of labour by technological equipment.

Structural convergence of production factors occurred mainly due to intensification of trade and investment flows among new and old member states also associated with increase of production and economic competitiveness. In general, the productivity of factors within CEECs started to grow with integration and faced a slight downturn in 2009 when the crisis deepened (Figure4). Although the phenomenon may be explained by transfer of know-how and technology to the East, it also attests additional innovation capabilities in Western countries (Ciobanu and Mocan, 2007).

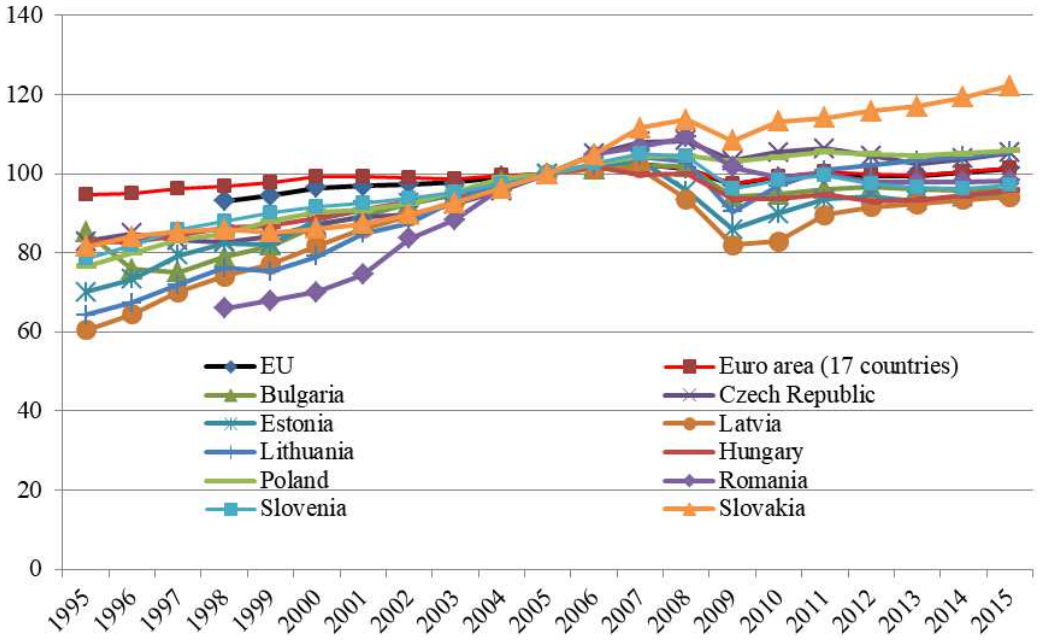

Figure 4. Total factor productivity: total economy (2005=100)
Source: based on EC, Economic and Financial Affairs, AMECO database, 2016

After 2005, Slovakia, Poland and also Romania faced the highest boom in the factor productivity (Figure 4). Although the Euro Zone was the most competitive in terms of factor productivity before 2004, over time it significantly and gradually lost leadership in an overall convergent trend. A possible explanation is that the governments of underdeveloped states understood that success in liberalization required protection of property and freedom in starting private business and therefore succeeded in creating a stronger private industry strengthening competition and streamlining resources for fruitful capital investments. Another factor relates to the opening of international trade (Belloc, 2006). In the short term, the possibility to do business with the West ensured immediate competition and greatly narrowed the local monopoly of giant state companies. In the long term, international trade is the key for economic restructuring and the increase of competitiveness, and implicitly for achieving

structural intra-EU convergence. The Internal Market processes may help multiply industry concentrations and spatial aglomerations and reduce disparities by sustained investments, also via the European Cohesion Policy on improving the attractiveness of the less developed countries or regions. But, these concentrations of economic activities do not necessarily and automatically generate the reduction of development gaps, especially at regional level. Convergence is essentially conditional upon elements like factor mobility, spatial spread of technology and innovation, specialization patterns, inter-regional trade flows, quality of public policies, etc. The European integration dynamics rather confirm the concentration of innovating industries (high and medium tech) in developed countries, thus mostly generating intra-industry specialization, while developing countries draw concentration into the primary and labour-intensive sectors and into industries with little added value (low and medium tech), mostly with low dynamics and inter-industry specializations. The differences in the specialization patterns of production and trade generate a widening of disparities, which carries with it important economic, social and political risks for the integration process as a whole. The convergence of the specialization patterns can though result in an increase of the degree of integration of markets as an effect of the intensification of flows of goods and production factors in the internal market. In dynamics, it may be noted in Figure 5 that the degree of openness and trade integration of the CEECs has increased constantly during the analysed period, with a short fragmentation at the peak of the economic crisis. The highest ranked country by trade integration is Slovakia followed by Slovenia, Romania, Poland and Hungary. These states have a relatively high catching-up capacity resulting from the advantages created by the Single Market; their deep integration providing competitiveness and higher ability to reduce disparities.

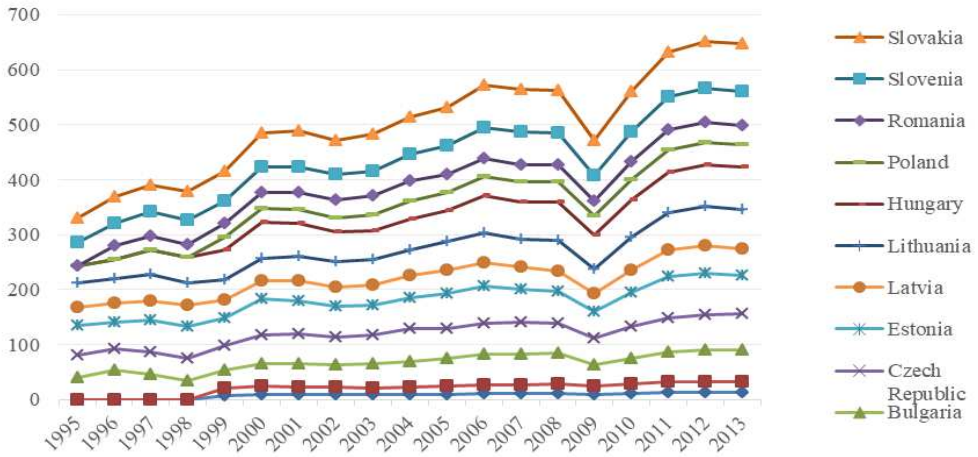

Figure 5. Market integration - trade of goods as % of GDP
Source: authors' presentation based on Eurostat data, 2017

The CEE countries have also concentrated their priorities on growth policies attracting forein capital, most of them facing low level of accumulation and implicitly reduced capacity of local capital to participate in the process of economic growth. The internal market has also played a significant role

The 2012 Ernst & Young study indicated that regions including the Czech Republic, Hungary, Poland, Slovakia, Estonia, Latvia, Lithuania and Slovenia are considered to rank second in terms of FDI attractiveness after Western Europe and that this is the most preferred position for industrial investments (30%). The CEEC performance in attracting FDI also derives from the interest manifested by multinational companies to expand sales markets, delocalize production due to lower costs, especially labour costs (L), extend the

privatization process and infrastructure development. All these resulted in market integration at the FDI level (Figure 6).

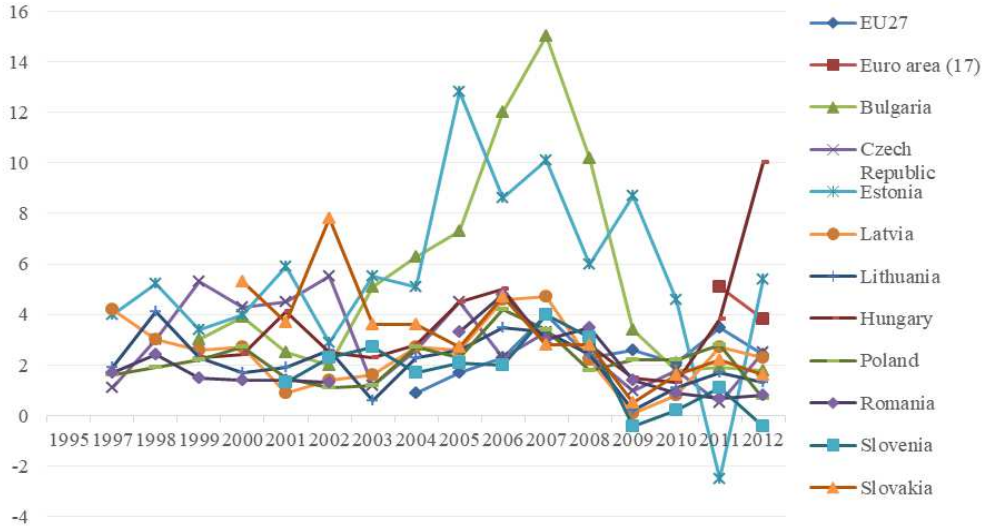

Figure 6. Market integration - FDI intensity as % of GDP
Source: authors' presentation based on Eurostat data, 2017

When refering to the two phases of EU enlargement to CEECs, it was found that country which attracted most FDI from the cluster of 2004 admissions was Estonia, which subsequently lost ground in favour of other states with a similar potential for development. In 2011, Estonia recorded negative figures and this highlighted its vulnerability to external shocks and to exchange rate fluctuations. As it is well-known, Estonia's adhesion to the Euro Zone on January 1st of 2011 determined, at least in the short-term - the period when the Euro and the national currency were simultaneously used - a high inflation rate which triggered higher interest rates, as well as an increase in imports and a fall in exports, which ultimately ended in capitals migrating towards the exterior. Among the 2007 integrated states, the one winning against FDI was Bulgaria. The sector which benefitted the most from FDI was the real estate followed by coal, oil and natural gas, transport, alternative energy, food and tobacco industries, with investments, tourism and communications found at the bottom of the list. Essentially, the decrease in FDI due to the crisis is directly linked to the GDP dynamics.The statistical data show however a relatively modest contribution of the FDI to economic integration of TECE and, as a result, a reduced potential for sustaining the process of structural convergence. Moreover, the impact of "the longest, deepest and broadest recession in the EU's history", as the European Commission called it in its 2009 fall economic forecast (European Commission, 2009), precipitated a decline of cross-border transactions within and beyond the EU borders, both in the field of goods and services and in investment flows, the decline which is in close correlation with the dynamics of GDP.

3. Institutional challenges

The studies on transition to market economy highlight that the decline of socialism triggered an institutional vacuum in Central and Eastern Europe (Polanyi, 1994; Havrylyshyn, 2001; Kornai, 2007). In this area, the transition process essentially stood for the search of a new body of institutions. Leaders faced two issues: 1) how to choose new institutions and 2) to what extent the new rules of the game should replace

the old ones (Pejovich, 1994). The laws, the institutions and the property structure underwent gradual reform, rather slowly, to allow the implementation of private property. To be effective, such transformation should rely on market relationships fostering a stable and responsible competitive environment. As a matter of fact, how can the industry be upgraded, privatized and restructured without market signals to guide the process? Furthermore, if developing countries are poor because their current institutions anticipate a weak basis for growth incentives, what kind of institutions should they set up? And can we get there? The essential answer to these questions resides, according to the views shared by most contemporary ecoomists, in encouraging private incentives and initiatives towards growth of modern economy by capital accumulation and capital and labour conversion in market production (Ratajzcak, 2005; Pranab, 2005). Rodrik (1999) distinguishes two approaches to the "acquisition"of institutions. *Under the first approach*, it is possible to "borrow the institutional plan"from developed countries. Following the same line, the privatization of undertakings should be accompanied by a set of administrative reforms including legal enactments (often at the same level as developed countries), the creation of an impartial judiciary system, etc. *The second approach* puts emphasis on the idea that local conditions will, in many cases, require a unique plan that fits into the institutional context. The significance of this approach may be understood and appreciated through a real warning launched by North (1994): "and economies that adopt the formal rules of another economy will have very different performance characteristics from the first economy because of different informal norms and enforcement. The implication is that transferring the formal political and economic rules of Western market economies to third-world and Eastern European economies is not a sufficient condition for good economic performance". Although institutions are crucial in supporting growth, the latter, in order to get to considerable levels, must not wait until a large-scale institutional transformation is triggered. The different performance of transition economies is therefore explained by efficiency in reacting to the demands of market and the newly-created institutions (Knack and Keefer, 1995). Even though most views relate to the fact that only the institution of private property may induce market democratization, the experience of CEECs is special. At the end of 1989, these countries enjoyed special institutional/economic features: state ownership was overwhelming; the economic structure was biased and stressed on developing the industry to the detriment of services and of traditional sectors; the financial system was underdeveloped; the trade with developed countries was almost zero (Rostowski, 1998; Popov, 2007).

The transition process urged structural changes in CEECs that were mostly reflected at the level of formal institutions (adjustments in relation to the free market functionality, contractual relationships, the compliance with the dominance of law and of ownership rights). Obviously, some changes also manifested in informal institutions (organizational culture, area-specific traditions) and even if their impact is not reflected to a lower extend in the economic development, the evolution of informal institutions is to a greater proportion influenced by the dynamics of formal ones (Khalil, 2012). Despite the fact that the start was from different positions, in the context of European economic system adaptation to market demands, a Europe in which law and legislation prevail, as the experience of CEECs shows that the elaboration and implementation of most reforms can be dictated by political interests, should be a priority. It was not sufficiently well understood that formal institutions are indispensable to building market relationships, pricing and performing exchange based on mutual benefits. It is often too easily disregarded that mindsets, deemed to hinder economic success, are maintained and furthered with the state's intervention in economy. Institutions are therefore

important for economic growth because they influence investmentin the physical and human capital, in technology and in the organization of production. Even if cultural and geographical factors may also be crucial for development, the differences between the economic institutions trigger most welfare disparities among countries. These determine a number of actions linked to the future distribution of resources (fortune, physical capital, human capital, etc) and not only the global potential of economic growth.

As it is known, Eastern Europe developed a specific type of capitalism. In the 1990s, institutional frameworks were unstable and easily shifting and this triggered dramatic behavioural changes in individuals: opportunism, bribery, favouritism, etc. As one could expect, all these resulted in quite different development paths from those of Western Europe, which was translated into economic divergence. Hence, it is not by chance that in 2017, according to *The Global Competitiveness Report 2016–2017,* the World Economic Forum ranked Romania and Bulgaria in the stage 2 of development (efficiency-driven), Hungary, Latvia, Lithuania, Poland and Slovakia in the transition from stage 2 to 3, and only Estonia and Slovenia in stage 3 (innovation-driven) (WEF, 2017). For 7 out of the 10 CEE countries (Bulgaria, Romania, Czech Republic, Latvia, Hungary, Poland and Slovak Republic), the institutions are listed among the three most important aspects affecting deficits of competitiveness, except for market size. In 2015, Hungary (3.3), Slovakia, Bulgaria (3.5) and Romania (3.6) had the lowest institutional index. The best placed among the CEECs was Estonia (5.1), followed by Slovenia (4.1), compared to a maximum of 6.1 for Finland among the EU member states (on a scale of1:7). In the cases of Estonia and Slovenia, the relatively high quality of institutions correlated with a high level of government effectiveness, which explains in fact the ranking of the two countries in stage 3 of development. The crisis affected the CEECs also from this perspective, the quality of institutions decreasing or maintaining itself very close to the levels reached in 2008.

Significant disparities are recorded in the CEECs also in terms of *governance indicators*, weighting the degree of the voice of government and accountability, political stability and absence of violence, government efficiency, regulatory quality, the rule of law and control of corruption, according to the methodology of the World Bank (Kaufmann, Kraay and Mastruzzi, 2010). Over 200 countries and territories were analysed starting with 1996 and the indicators were measured on a scale from– 2.5 (weak governance) to + 2.5 (strong governance). Since governance is a key factor for development, the review of indicators highlights areas which CEECs must try to improve. As to the extent to which the nationals of a country can participate in government elections and choose the freedom of expression, the freedom of association and a free media (voice and accountability), the indicator for the CEE region did not exceed 1.2 points, which means that governments are deficient and lack involvement in supporting the institutions that drive the economy. After the 2004 enlargement, Estonia, Poland, Czech Republic, Lithuania and Slovenia, recorded relatively similar governance levels and a clear differentiation became apparent between earlier accessions and 2007 accessions (Figure 7).

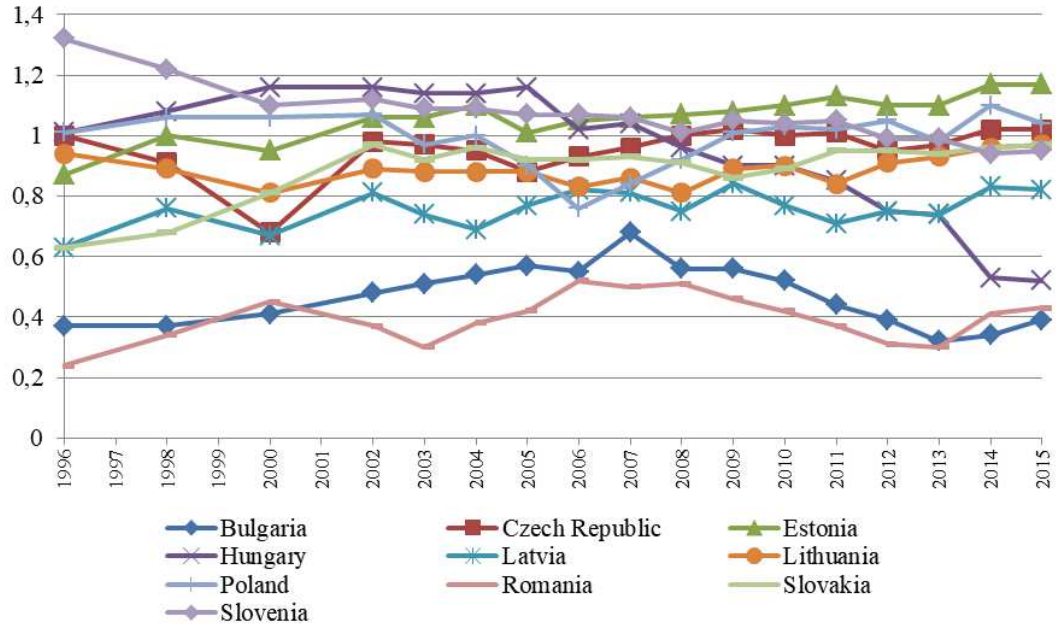

Figure 7. Voice and accountability

Source: after World Bank data, 2017

It should be noted that the governance system in both Romania and Bulgaria (with 0.30-0.60 values) is extremely frail and faulty, which entails severe deficits in the economy, fed by the instability caused by the turmoil and political disputes in the two states. In their case, it was not understood that any nation should defend and strengthen its institutions in order to achieve prosperity (Beyer and Fening, 2012; Srivastava, 2004). Hence, a natural question arises: do institutions guarantee the development itself by merely being there or a constant synergy and practical complementary actions are needed for their protection and respect? This question may get various answers, but the identification of institutions and their differentiation from one country to another is the first step towards understanding the manner in which economy grows, stagnates or declines. The simple process of Europeanization through the transfer of institutions from the EU to the new member states is not a guarantee of their effective contribution to a process of growth and development in the long term. For example, a key role in the efficient action of the institutions has been played by the extent to which the *rule of law* is respected. According to the World Bank database, the rule of law indicator reflects the extent to which agents trust and respect the rules of society and the quality of contractual performance, ownership rights, police and courts of law (Figure 8).

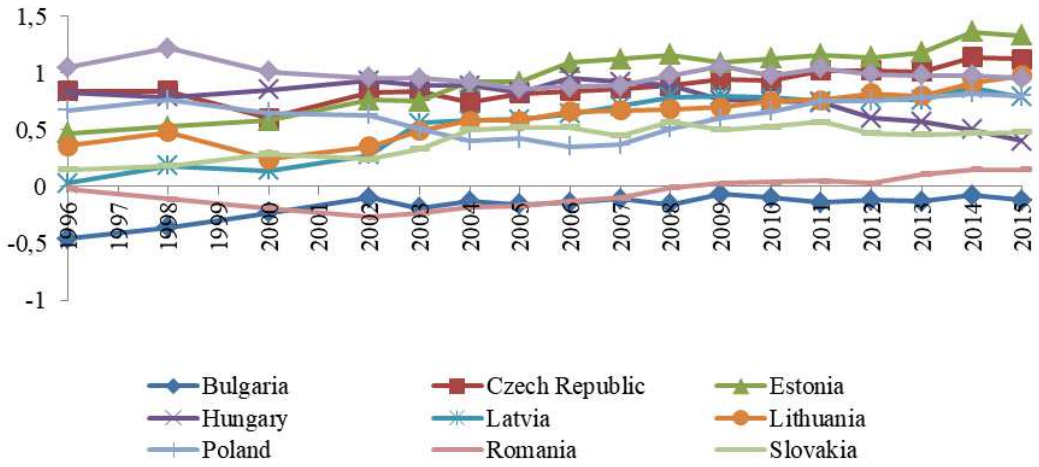

Figure 8. Rule of law
Source: after World Bank data, 2017

Between 1996 and 2015, Romania and Bulgaria recorded a slight improvement in the rule of law, but the indicator values remained negative or around zero, the countries being ranked at the bottom of the CEECs list. The highest performing countries were, as was the case for the rankings related to voice and accountability indicator, Estonia, Czech Republic, Slovenia, Lithuania and Poland, with a strong progress of Estonia and Slovenia, countries which, as we have seen above, recorded also the best performances in terms of evolution of competitiveness. The same correlation can be observed in the control of corruption and political stability and absence of violence indicators (Figure 9 and Figure 10).

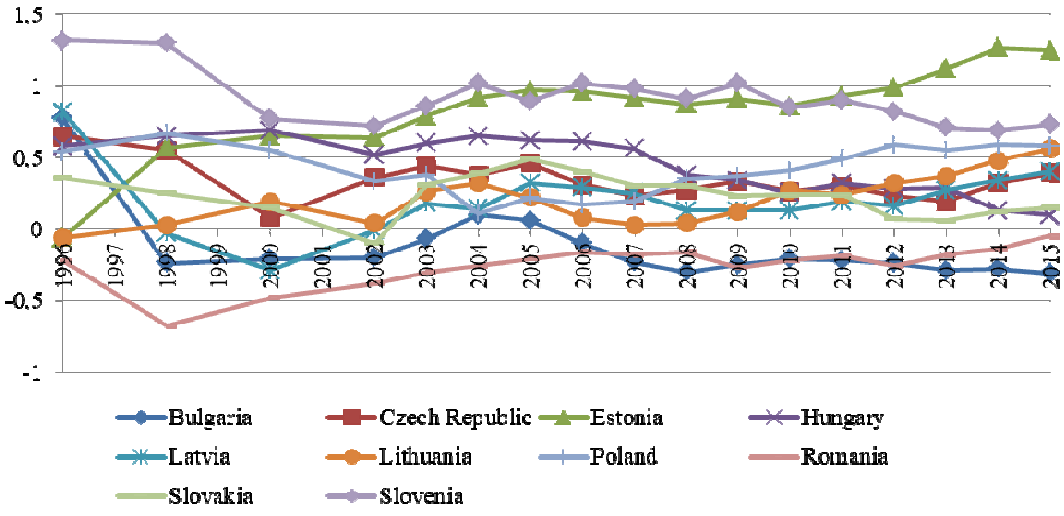

Figure 9. Control of corruption
Source: based on World Bank data, 2017

Until 2007, Romania had been among the first countries in the corruption top in Europe and, despite adhesion, the situation did not change dramatically: from -0.17 in 2007 to -0.16 in 2008, -0.27 in 2012, with a slight improvement in 2015. In the analyzed period, it was only Bulgaria that generally followed the same pattern, except for the 2004-2005

period, when a slight improvement in terms of corruption wasd recorded, reaching a -0.24 value in 2012 (Figure 9). It is not accidental that Estonia (1.29), followed by Slovenia (0.77), holds the top position, followed, although at a considerable distance, by Lithuania (0.62), Poland (0.56) and Czech Republic (0.43); all these countries holding higher positions in the CEECs hierarchy of competitiveness (with the exception of Slovenia, which holds its position due to the relatively low level of innovation and development of its financial markets and reduced size of its market, and not due to poor quality of its institutions (World Economic Forum, 2017). Furthermore, with some exceptions, the hierarchies of political stability have been maintained (Figure 10), showing a high level of interdependence among the institutional determinants of good governance.

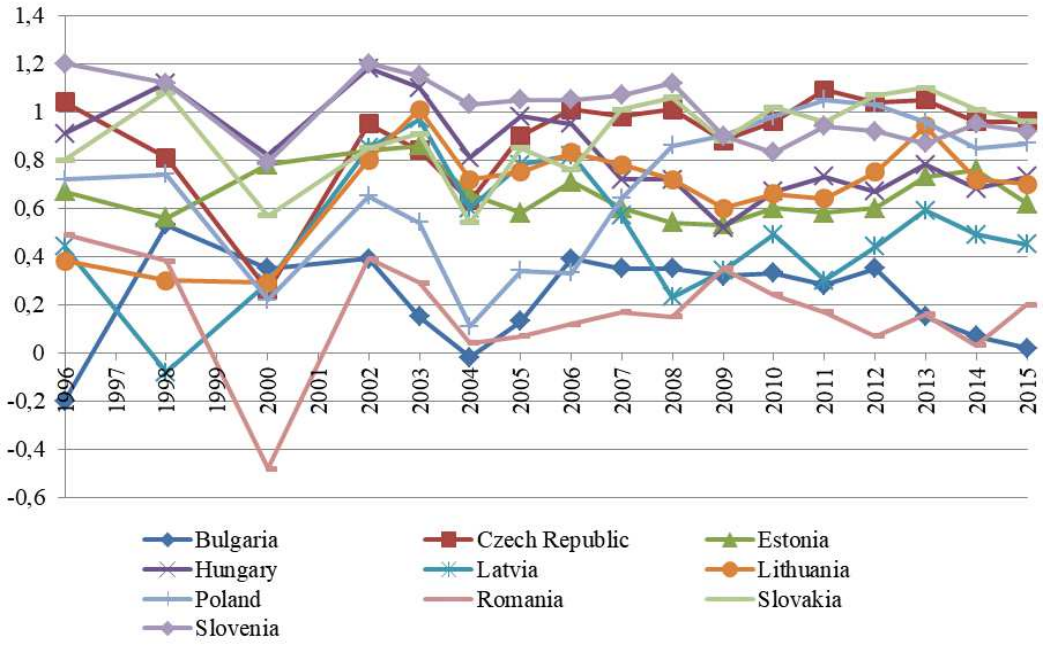

Figure 10. Political stability and absence of violence
Source: based on World Bank data, 2017

Political stability eliminates the possibility for the government to be destabilized or overthrown by using unconstitutional means, including the use of politically motivated violence or terrorism. This is the reason why political stability and governmental effectiveness are strongly connected.

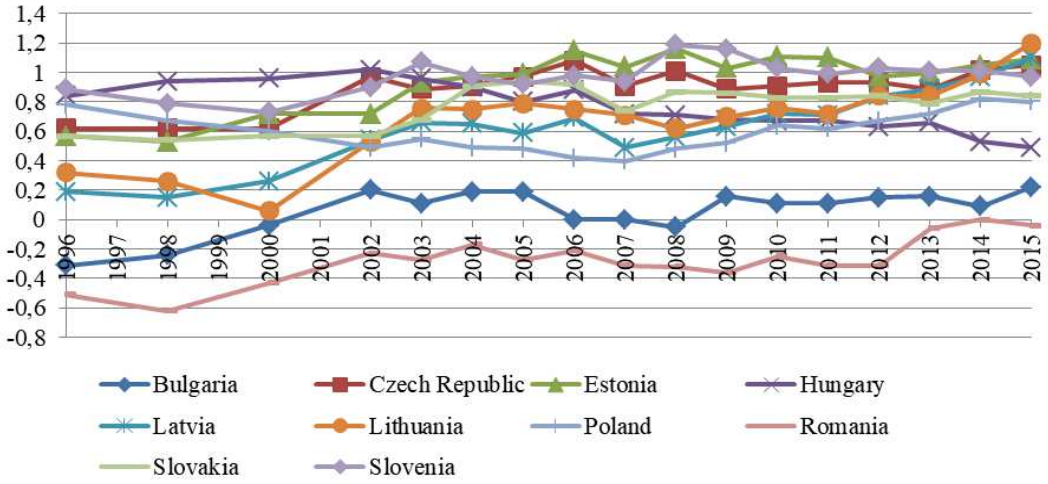

Figure 11. Government effectiveness
Source: based on World Bank data, 2017

Governance effectiveness is the lowest in the case of Romania and Bulgaria (Figure 11), with reduced progress recorded over the entire period, and this is the reason why serious question marks are put over their capacity to adopt and implement some efficient policies for macroeconomic stability and sustainable development and implicitly for the prospect of institutional modernisation. In 2015, in terms of governance effectiveness, the top positions in the CEECs were held by Lithuania (1.19), which recorded the most remarkable progresses over the entire period, followed by Estonia (1.07), Czech Republic (1.06), Latvia (1.00), Slovenia (0.97) and Poland (0.80), with much higher levels than in some of the old member states, such as: Greece (0.21) or Italy (0.52). The high level of governance effectiveness is reflected in a relatively better positioning in the competitiveness index rank (35 Lithuania, respectiv 30 Estonia, 36 Poland) and/or in the superior institutional index (5.1 Estonia; 4.2 Lithuania and Czech Republic; 4.1 Slovenia; 3.9 Poland and Latvia), or in a better quality of the regulations (Figure 12) that strengthen the efficiency of the markets and stimulate the investments' trust as engines of economic growth. Quality is ensured, among others, by the government's ability to draft and implement solid policies and regulations aimed to allow and promote development in the private sector. Obviously, in the case of the states where the rule of law does not function optimally, the citizens'trust in politicians, poor quality of regulations, corruption control, and other negative aspects are interconnected, all problems esentially deriving from flawed governance.

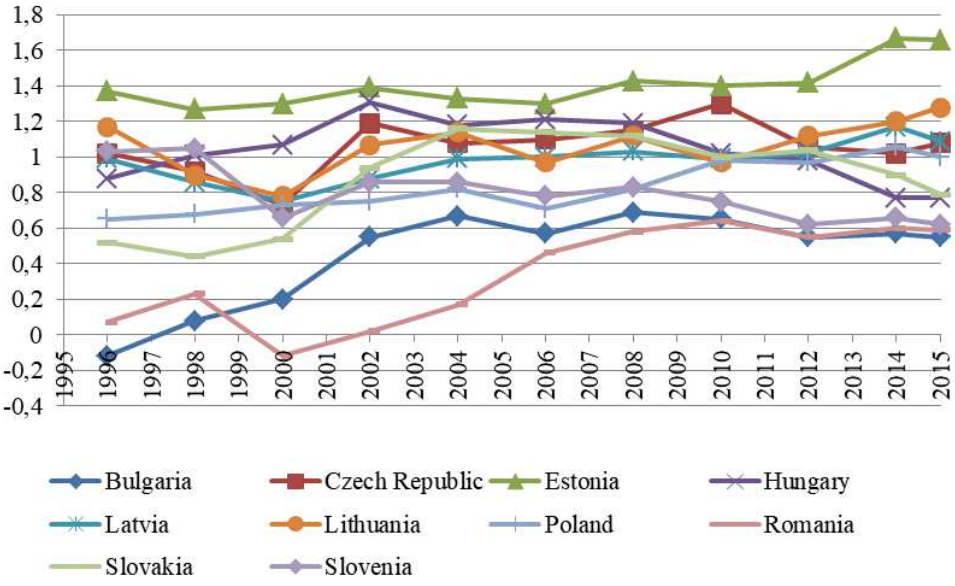

Figure 12. Regulatory quality
Source: based onWorld Bank data, 2017

The two states which were integrated in 2007 (Romania and Bulgaria) do not match the evolution of the other CEECs, Estonia clearly having a different status (interval +1.37 to +1.40). If the political system in a country is perceived as unstable and subject to accidental law change, private incentives will be weakened (Persson and Tabellini, 2003; Grindle, 2004). Moreover, a clear, coherent and stable legislation generating the so-called "state of development" has a major contribution (Rodrik et al., 2002; Skelcher and Torfing, 2010). Also, the government has an important role since it must have the capacity to establish and defend the institutions of economic competition, eliminate corruption and promote public-private partnerships (Kaufmann, 2005; Elmke and Levitsky, 2004). Consequently, the governance quality in a state, as well as the attention paid by its decision-makers to society needs, in general, represent some options which should be permanently taken into account by any nation striving towards economic competitiveness.

4. Conclusions

Generally, the European integration process had positive effects on macroeconomic dynamics in CEECs.When a sustainable balance between economic, social, institutional and governance objectives is desired in this area, then the EU should strengthen and develop European integration and cohesion measures. The institutions and the governance system quality play a key role. It was believed that the establishment of institutions similar to those in the West would be a relatively simple process and that it would consequently take a short period of time to solve the problems related to technological delay and economic inefficiency. But the last years have proved that these are far from being simple tasks and that development and essential structural change in CEECs have divergent results. It is the institutions which are mainly held responsible for explaining what has actually happened and, then, what has to be done in order to accelerate the recovery process of these states.

The weaknesses in the rule of law and in respecting the property right are the major obstacles for economic progress in the case of emergent European societies. These economies need functional markets, which represent both a result and a condition for development. Institutional changes, which may be implemented in a country with

the purpose of improving the level of development need long time in order to become efficient. The pace of change in formal institutions turned to be more rapid than in informal ones, which are characterized by a profound cultural inertia. It refers to what institutionalists call "the path dependence". Moreover, the dependence mentality, seen as an obstacle in the way of economic success, is maintained and perpetuated by the state's intervention in the economy and is often overlooked. Although, in the short and medium term, no miraculous solution seems to be available for the gaps recovery of European economies, we consider that a general institutional consolidation could be the key for providing stability in the European Union by creating the necessary conditions for catching-up processes of the CEECs.

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EMPLOYMENT AND DECENT WORK: A REGIONAL APPROACH FOR ROMANIA

Patache Laura[1]

Abstract

This study is focused on Romanian employment evolution and challenges at regional level. The concept of decent work is highlighting the change of status in employment. Based on core objectives of the Decent Work Agenda: creating jobs, guaranteeing rights at work, extending social protection and promoting dialogue and conflict resolution we considered some of the indicators which measure decent work in the Romanian development regions. Decent work and economic growth are some of the Sustainable Development's goals of the United Nations Development Programme that promotes full and productive employment and decent work for all women and men; these goals must be achieved until 2030. In the last few years labour resources decreased nationwide, accompanied by a decrease in employment and unemployment, too. The decrease in the number of employed population should be viewed in terms of migration of a significant part of the workforce with increasingly more skills. The low unemployment itself is not a real indicator of efficiency as long as many economic sectors could not hire enough staff or a properly qualified/ skilled one. It is obvious that the extend of mismatches between supply and demand has increased the risk of losing productivity and the education and training system; thus, the most important lever to counter this phenomenon is to work with many shortcomings. Finally, we have made a classification of the Romanian regions in terms of decent work indicators.

JEL Classification: J28, R23

Keywords: decent work indicators, development regions, quality of employment, remunerative employment, job satisfaction

1. Introduction

Vulnerable employment (about 46 per cent of total worldwide employment) (ILO, 2016, p.3), associated with *precarious work*: own-account work and contributing family employment, employment of women, ethnic minorities, long term unemployment, underemployment, secondary and informal labour markets, summarized in low pay jobs and poverty is still the main concern for international and national organizations. (ILO, 2016; Williams and Green, 2016; Tesliuc et al, 2016; Davidescu (Alexandru), 2016; Lee and Ofreneo, 2014; Patache et al, 2012; Jayaweera and Anderson, 2008 and others)

The European Union (EU) promoted the *quality of jobs* through Lisbon Treaty 2000's strategic goal for the next decade: 'to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion.'(European Council, 2000)

Based on Europe 2020 objectives, EU is focusing on economic growth and employment but its measures are accompanied by deterioration in the quality of jobs all over Europe and long term mass unemployment in the South of Europe. (Lundvall and Lorenz, 2014, p.80-81)

Since 1999, International Labor Office (ILO) has promoted *decent work* for all, regardless of race, creed, sex or country of origin. Decent work sums up the aspirations of people in their working lives as "opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity". (ILO, 1999, p.3)

The decent work definition mentioned above can be understood as such: *freedom* summarizes the right for all persons to work and to be able to find work encompassing all forms of economic activity, including self-employment, unpaid family work and wage

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employment in both the informal and formal sectors, and also workers can choose their work without being forced and they are free to join workers organizations. Regarding *productive work* is essential for workers to have acceptable livelihoods for themselves and their families and to ensure sustainable development and competitiveness of enterprises and countries. *Equity* in work aims workers' need to have fair and equitable treatment and opportunity in work. *Security* at work is mindful of the need to help safeguard health, pensions and livelihoods, and to provide adequate financial and other protection in the event of health and other contingencies; and *dignity* at work requires that workers be treated with respect and be able to voice concerns and participate in decision-making about working conditions. (Anker et al, 2002, p.2)

The five Millennium Development Goals indicators related to employment and decent work are: growth rate of labour productivity (GDP per person employed), employment ‑ to ‑ population ratio, proportion of employed people living below the poverty line, proportion of own-account and contributing family workers in total employment (vulnerable employment rate) and share of women in wage employment in the non-agricultural sector. (ILO, 2009)

The *Goal 8* which aims to 'promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all' is one of the 17 *Sustained Development Goals* of 2030 Agenda adopted in September 2015.

An overview on literature, both academic and institutional, regarding the quality of employment revealed the confusing terminology, expressions such as 'quality of working life' (predominantly linked to workers' own evaluations of one's job), 'job quality' or 'quality of work' (often focusing on the job content and work environment) and 'quality of employment' and 'Decent Work' (which include all of the above as well as other issues such as: labour relations, rights, gender gaps and work-life balance) are often used interchangeably and without clear definitions. (Burchell et al, 2014, p.463)

According to Romania's National Strategy for Employment 2014-2020, until 2020 the national labour market will be an efficient, dynamic and flexible one and at least 70% of people aged between 20 and 64 years will have access to a quality job, complies with their capacity and competence, and an income that ensure them a decent living. (Romanian Government and Ministry of Labour, 2014, p.43)

2. Measuring decent work on development regions of Romania

The three most used indicators used to analyze the employment opportunities for decent work are: the labour force participation rate (activity rate), employment-to-population ratio and unemployment rate (Anker et al, 2002, p.9; Ghai, 2003, p.115), even if 'decent work remains a very broadly defined concept, which is impossible to measure across countries' (Burchell et al, 2014).

At national level, during 2008-2015, we can observe that activity rate decreased from 66.6 in 2008 to 62.8 in 2011 as a consequence of the economic crisis, and it rose to 70.7 in 2014. A higher activity rate is registered in Bucharest-Ilfov region, with more than 10 p.p. than the second placed North West region. The worst activity rate is registered in the North East region, the largest region of Romania but with a population predominantly located in rural areas and first in terms of economic international migration. (table 1).

Based on a study regarding informal employment at regional level, the regions with highest ratio of informal employment during 2000-2013 were the North East (42.6% in 2013), the South East – Oltenia, (28% in 2013) the South – Muntenia (23% in 2013) and the South East (24% in 2013). (Davidescu 2016, p.68)

Table 1. The employment dimension of decent work in Romania by development regions

(%)

INDICATORS		2008	2009	2010	2011	2012	2013	2014	2015
Activity rate	AVG	66.6	65.7	64.1	62.8	64.6	64.6	70.7	70.3
	MAX	86.2	82	80.4	81	81.9	83.8	82.9	84.6
		B-I	B-I	B-I	B-I	B-I	B-I	B-I	B-I
	MIN	56.6	56.1	54.9	52.8	54	53.1	62.9	61.5
		NE	NE	NE	NE	NE	NE	NE	NE
Employment rate of labour resources	AVG	63.6	60.6	59.6	59.6	61.1	60.9	66.9	66.8
	MAX	84.8	80.1	78.5	79.5	80.3	82.1	81.3	83.1
		B-I	B-I	B-I	B-I	B-I	B-I	NW	B-I
	MIN	53.6	51.3	50.6	49.7	50.8	49.6	58.7	57.6
		NE	NE	NE	NE	NE	NE	S	NE
Female employment rate	AVG	60.9	58.9	57.9	58.4	59.6	59.1	66	64.7
	MAX	80.3	76.2	77.3	77.4	77.8	80.6	79.2	80.1
		B-I	B-I	B-I	B-I	B-I	B-I	NW	B-I
	MIN	52.5	51.1	50.2	50.4	51.2	49.7	59.9	57.8
		NE	NE	NE	NE	NE	NE	W	NE
Unemployment rate	AVG	4.4	7.8	7	5.2	5.4	5.7	5.4	5
	MAX	6.9	10.4	9.2	7.7	8.2	8.7	8.2	8.2
		SW	SW	SW	SW	SW	SW	SW	SW
	MIN	1.6	2.4	2.4	2	2	2	1.9	1.8
		B-I	B-I	B-I	B-I	B-I	B-I	B-I	B-I
Female unemployment rate	AVG	4.4	7.1	6.3	4.9	4.9	5.1	4.8	4.6
	MAX	6.8	9.3	8.4	7.1	7.2	7.7	7.2	7.3
		SW	SW	SW	SW	SW	SW	SW	SW
	MIN	1.9	2.6	2.3	2.1	2.2	2.1	2	2
		B-I	B-I	B-I	B-I	B-I	B-I	B-I	B-I

Note: NW - North-West Region, C - Centre, NE - North East, SE - South East Region, S - South Region Muntenia, B-I - Bucharest-Ilfov Region, SW - South West Region Oltenia, W -West
Source: Romanian National Institute of Statistics (NIS), TEMPO Database, 2017

The study of employment rate evolution placed Bucharest Ilfov region in first place, except in 2014 when the North West region took its place, while the last ranked, the North East was replaced by the South region Muntenia, a region characterized by mono-industrial and rural areas. (table 1)

Female employment rates are lower than male employment rates. The maximum female employment rate is in Bucharest Ilfov, and the lowest in the North East, except in 2014 when the highest rate is registered in the North-West and the lowest in the South West Oltenia.

The unemployment rate increased during the crisis period and decreased in the last years.

Bucharest Ilfov seems not to be so affected by the crisis, the general and female unemployment rates being lower than the natural unemployment rate. The highest level is registered in the South-West Oltenia region.

The South-West region is characterized by: mainly rural, precarious employment in agriculture (more than 30%), a low number of small and medium enterprises, the presence of some mono-industrial areas, serious problems with poverty and poor social

services. (Association for Development and Socio-Economic Promotion Catalactica, 2016)

The low unemployment itself is not a real indicator of efficiency as long as many economic sectors could not hire enough staff or a properly qualified/ skilled one (such as medical services, tourism).

In the majority of EU countries, employers reported that difficulties in filling their vacancies fell during the period of the economic crisis; nevertheless, there are some countries, namely Austria, Germany, Greece, Hungary, Italy, Romania, Sweden and the United Kingdom, where firms experienced increasing challenges in finding suitable talent in the post-crisis era. (European Commission, 2016, p.22)

The low Romanian unemployment rate can be explained even by the fact that people cannot afford to stay unemployed, in spite of the developed country status of our country. The unemployment rates are generally low in most developing countries because people cannot afford to stay unemployed, unlike the situation in rich countries. (Fadda and Tridico, 2013, p.118)

In terms of quality of employment, the 8 development regions are divided in medium-high and low quality of employment. The North-East, South-East, South and South-West regions form the low part, summarizing the following differences: unemployment and occupancy in agriculture are higher, the general employment and the share of employees per total employed persons are lower; the structure of the employed population by economic activity sectors is different, but negative compared with Romania's structure (the manufacturing and tertiary sectors employ fewer persons than the national average). The medium-high quality of employment pattern includes the Centre, West, North-West and Bucureşti–Ilfov development regions. In these regions the general rate of employment, employment in non-agricultural activities, and the percentage of employees registered higher values than the national average. (Mocanu, 2016, p.124)

Youth neither in employment nor in education and training (NEET) rates is higher and got worse in 2015; the Centre region standing out with the highest values of the indicator. (table 2)

Table 2. Youth neither in employment nor in education and training (NEET) rate, age group 15-24

(%)

INDICATORS	2011	2012	2013	2014	2015
Total	17.5	16.8	17.0	17.0	18.1
North – West	14.1	12.5	13.1	12.3	14.8
Center	28.4	24.5	22.3	25.1	28.2
North – East	13.6	13.3	11.9	11.1	10.4
South – East	22.2	21.1	22.1	22.4	25.4
South – Muntenia	22.9	22.6	23.3	22.5	23.5
Bucharest – Ilfov	11.1	12.7	14.2	15	12.6
South – West Oltenia	14.2	13.5	15.3	14.4	18.3
West	12.4	14	13.9	14.8	12.7

Source: NIS, TEMPO Database, 2017

In the analyzed period, in all regions we can observe an increase in labour productivity (indicator calculated as a report between Regional gross domestic product and Civil economically active population at regional level), except for Bucharest Ilfov

region in the first year of economic crisis. Productivity growth is most often a consequence of staff cuts and not a more efficient economic activity. (Figure 1)

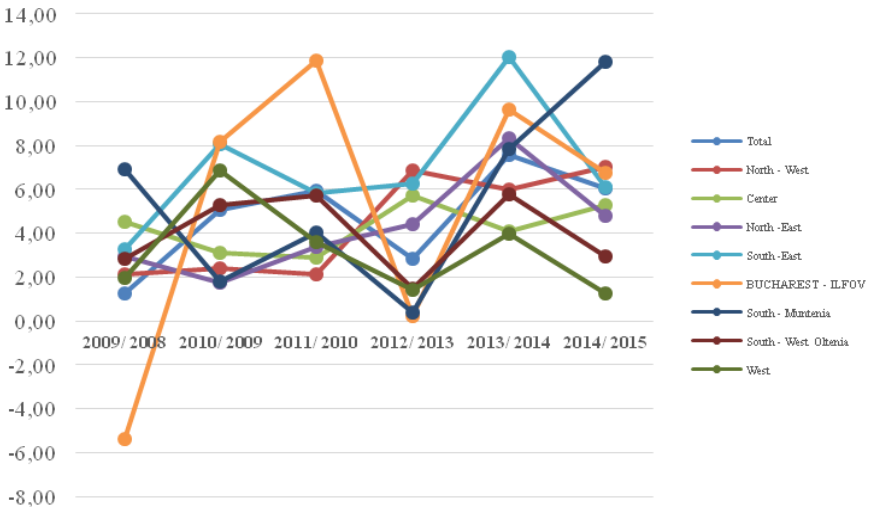

Figure 1. Increase in labour productivity by development regions

Source: Author based on NIS, TEMPO Database, 2017

An important attribute of decent work is that workers should benefit from "remunerative" employment, which is one element in the "quality" of work. The poverty indicators are used to underline this issue. (Ghai, 2003, p.119)

To create an image concerning poverty at regional level we took 3 indicators into account: AROPE, relative at risk of poverty rate and severe material deprivation rate. (table 3)

The AROPE indicator is defined as the share of the population in at least one of the following three conditions: at risk of poverty, meaning below the poverty threshold; in a situation of severe material deprivation; or living in a household with very low work intensity. (NIS definition)

If the AROPE and severe material deprivation rates have improved in the analyzed period, the relative at risk of poverty rates rise at average from 23.6 to 25.4; the highest level is registered in South–West Oltenia and North East regions (more than 30%) and the lowest in Bucharest Ilfov region. The differences between maximum and minimum values of the indicator are significant. (table 3)

Table 3. Poverty indicators by NUTS regions

INDICATORS	u.m.	2008	2009	2010	2011	2012	2013	2014	2015
AROPE-at risk of poverty or social exclusion rate	%	**44.2**	**43**	**41.5**	**40.9**	**43.2**	**41.9**	**40.3**	**37.3**
MAX	%	56.6	53.2	52.4	51.7	54.1	53.9	53.2	46.2
	Region	SW	SW	NE	NE	SE	SE	SE	NE
MIN	%	34	31.8	31.3	29.7	31.4	30.7	25.1	20.5
	Region	B-I	W	C	B-I	B-I	B-I	B-I	B-I
Relative at-risk-of-poverty rate	%	**23.6**	**22.1**	**21.6**	**22.3**	**22.9**	**23**	**25.1**	**25.4**
MAX	%	37.6	37.3	30.8	32.1	31.9	34.5	36.1	35.9

INDICATORS	u.m.	2008	2009	2010	2011	2012	2013	2014	2015
	Region	SW	SW	NE	NE	SE	NE	NE	NE
MIN	%	5.6	6	3.4	3.5	2.6	4.1	4.8	5.9
	Region	B-I	B-I	B-I	B-I	B-I	B-I	B-I	B-I
Severe material deprivation rate	%	**32.7**	**32.1**	**30.5**	**29.5**	**31.1**	**29.8**	**25.9**	**22.7**
MAX	%	40.5	41.9	40.3	38.6	37.5	38.7	34.4	32
	Region	NE	NE	NE	NE	NE	SE	SE	SE
MIN	%	22.8	20.6	19.7	18.9	22.7	21.9	18	13.7
	Region	W	W	C	C	NW	NW	NW	B-I
In-work at-risk-of-poverty rate	%	16.9	17.2	17.6	18.9	18.9	18.1	19.5	18.6

Source: NIS, TEMPO Database, 2017

3. Conclusion

Based on the concept of decent work, Romanian regions can be ranked in this order: in first place Bucharest Ilfov region, followed by the North West, the West, the Centre, the South East, the South, the South-West Oltenia and the North East.

Even judging by the formal employment dimension of decent work, the regions with lower rates have recovered faster after the economic crisis; certain domestic issues still unresolved (informal activities, mono-industrial areas, large proportion of employment in agriculture with low productivity, high rates of poverty, migration, etc.) generate an increase in disparities across the Romanian development regions and the situation is getting worse.

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TRENDS AND RESULTS IN ROMANIAN SOCIAL POLICY – THE CASE OF CHILD PROTECTION SYSTEM

Zoltán Elekes

Abstract

The following paper is proposed to be a case study which show the main developments of Romanian social services system, including through a deeper analyse of the child protection systems evolution in the last 25 years. In the first part of the study the author make a short overview of the European and Romanian historical evolutions in field of social services, ending with the main problems faced by Romania at the start of the new democratic construction. Evolutions of the last two decades and the present situation show an important effort for reforming the residential care system, and despite official social policy declaration and legislation a much weaker development of basic communitarian social services. The study try to find also if economic arguments, or efficiency arguments had or not a role in the design of the reformed child protection system.

Key words: social policy, child protection, social services

Introduction

Social protection is one of the most important attribution of the modern state. Development of social protection institutions is strongly linked to the development of secular modern administration. Is also an evidence that we can find different forms of social solidarity during the whole history of mankind, but the intensity and manifestation forms of this solidarity varying very much from period to period and society to society. The most important change in this history seems to be the modernization of society, a process which affect directly the traditional forms of communitarian cooperation and implicitly the traditional community rules and "institutions" of social protection. Technological revolution and industrialization created everywhere in Europe, a fast urbanization and an explosion of number of people living together is urban areas without real communitarian feeling. Destroying the communitarian roots of people took so many persons and families in a severe deprivation and hopeless situation that became an evidence that these people can't be controlled anymore, and if the state want to keep control and assure social order, must act in the sense of taking an more important role in assuring a minimal welfare for the majority of its citizens. The situation showed also the strong link which exist between economy and social situation of population. Even if at a first sight this link could be seen as a one direction relationship (in a strong and growing economy are less social problems, and in critical economic situation are more) the reality is much more complicated, social situation of majority of the population has strong influence on the economic situation (internal consumption market, presence of qualified and educated labour force etc.) A first movement in the direction of solving social problems appeared as a consequence of industrialization was realized as normal in the first industrialized country – England where "The Poor Relief Act" passed 1601 by Queen Elizabeth I, was one of the most important answer. The Poor Relief Act even if was in fact a continuation of the older poor laws of England contained many elements which are subjects of debate in actual social policies too. An important dilemma is around the role and responsibility of the person in his own situation. From this point of view the Elizabethan Act deal with 4 categories of poor:

- The **impotent poor** who are not able to look after himself or go to work (ill, infirm, elderly, and children)

- The **able-bodied poor** who are able to work but they don't find work (today's unemployed people)
- The **idle poor** able but unwilling to work.
- **Vagrants or beggars**

For all these categories the law established different measures and modalities to help from residential care (indoor reliefs) to social benefits (outdoor reliefs) or in some cases stated that there is no need to help (idle poor). In common speak, public debates, but also in social policy debates we have nowadays the same themes. Do social excluded people worth the help of society or they are totally responsible for the situation in which they are? Does these services and benefits really help them or just keep them in a passive way of life? Another important choice made by this Act was the level of intervention in solving the social problem. Subsidiarity was the key element already from this historical period of England's administration, and the system was built on today almost everywhere accepted principle of local and communitarian responsibility and competence in social assistance. Even if the question of more appropriate level for decision making in fields of regulating, financing and controlling of the social assistance system is still actual, almost every social professional agree that the best efficiency of social intervention have the family and community level approach.

Materials and methods

The research work made for the elaboration of this study had two main lines. On the first instance I try to find descriptions from historical, ethnographical and social policy studies, books, of what social assistance meant in the past and which were the main evolutions in European and Romanian contexts. I found important information in social policy history studies about the first steps of the European social services and benefits. Ethnographical literature but also, some officially unedited studies about customs and social conventions showed me that social assistance in an unofficial way was present in traditional rural communities too. I found also many references in bibliography about the evolution of Romanian social assistance system between the two world wars and during the communist period. This theoretical bases is completed by analysing and highlighting the main legislative and strategy documents of the Romanian social assistance system. The second direction in my study is the finding and analysing the main statistical data. Depending on data type I make a national, but also NUT II regional or NUT III county level analyse. The main input data were obtained from the National Child Protection and Adoption Authority (a specialized authority of the Romanian Ministry of Labour and Social Protection) which publish detailed report in every three months. For this study I used the actual data for 30 of June 2016. To obtain comparable data about how the poverty (and implicitly the need for child protection services) influence or not the number of children beneficiaries of special protection I used county level data of a World Bank study on poverty, but also data on population of counties as a result of the last census made in 2011. Even if there is a difference between time of Child protection authority data and census, I consider more relevant to use the census data than the recent statistical reports on population. The last years report shows that there are important differences between data of periodical statistical report on population and census data, the first one is around 10% higher than census data, because calculate only with the official changing of population (birth, death, official migration). In reality between 1.5 million to 3 million Romanian people are living outside the country in the majority of cases without reporting this to the Romanian authorities. This reality was showed by the data obtained by recension in 2011, when based on the first results there were counted 2.5 million persons less in comparison with

annual statistical report. After a second round the data were completed with another 1 million persons but the difference remained still very big at the end. Trying to find if financial efficiency criteria is taken in to consideration in designing and functioning of child protection system, I made different calculations based on county level data od National Child Protection and Adoption Authority. Based on number of assisted children and data on number of employed persons in child protection system I compared rata of assisted children per employer in different counties show the extreme variation of this item.

Historical development of Romanian social assistance system

Romanian history of social assistance is in its major lines similar to the continental European developments. In medieval period the most important role was played by the churches. It was well known the habit of monarchs of Romanian principalities that after victorious wars as a sign of gratitude to God they established monasteries and in many cases poor houses (for elderly, sick or disabled persons) beside them. The Transylvanian monks also has important social activities for poor people. Due to this situation Romanian Principates state authorities considered for long times that social protection is not their responsibility. The first regulations which have also social aspects appeared at the end of 18th century and the first part of 19th century and they referred to the child protection. The real implication of Romanian state in social assistance was produced only in the first part of the 20th century, when in 1920 Labour, Helth and Social affair Ministry, and inside of this Social Assistance Department were created. County level responsibilities were included in the new system, in every county were founded social offices and social councils. The most important development was realized by the Romanian social scientist Dimitrie Gusti, based on the surveys realized by the Social Surveys Institute which was founded by him. In this way he established a real pragmatic relationship between surveys and social intervention. Unfortunately this kind of direct relationship is a rare bird even in today's social policy. If at the start the survey and the intervention was focused on the rural communities, after 1928 the Institute pay more and more attention to the new urban trends, disintegration of traditional communities an social problems caused by this process. As result of this work, a modern European level health and social assistance law was adopted 1930, and through this was created a social assistants network which covered all the Romanian territory. In the same time social activities of churches were developed and NGO sector took an important part in social assistance too. About the role of local communities in traditionally rural areas we can find many oral history sources, because some of the established customs and social convention or mark of these are still existing in the rural communities. Even if a traditional rural community couldn't find very good solution for every social problem, in majority of cases poor families or people with special needs had no any other possibilities to get help from outside. In this situation it was commonly accepted that the community is responsible for their "fools", "crippled", elderlies, orphans, and poor. In the Hungarian communities of Romania we found many customs with a strong social component, which probably has their roots in the wider European culture, took here through the Christian churches. This development was broken by the new communist government starting from the early fifties of the 20th century, when social assistance universities were transformed in lower level school and social worker profession was totally eliminated from educational and from professional system too. The communist regime even if declared that they want to create equality, social justice and a fair social wealth for everybody, in fact destroyed many of functional parts of the social assistance system and as a specific social policy, they try to hide some of the social problems in the idea that what is not visible is not exist anymore. As local

communities and churches were seen as potential enemies and reactionary social entities, the communist state had a systematic ambition to eliminate all the civil sector from the social assistance system. Social assistance services of NGOs, churches were closed or nationalized, religious orders were dissolved and prohibited. The communist ideology tried to suggest to the people that the state is the only one responsible for the wellbeing and happiness of the persons and families, they can trust the social system erected by the state and they have no any role from now in helping their fellows. Hiding of social problems took various form during this period. One method was to declare that the problem is not exist anymore. A good example for this attempt was the question of unemployment. Concept of unemployment did not exist in the legislation and social policy of communist period. The concept of employment for everybody took in some cases even the form of forced labour in work camps, or in many cases people were hired in the state owned companies without any efficiency considerations, and normally persons were maintained in their jobs even if their activity was unprofitable. This ideology was one of the reasons of the falling of Romanian economy in the last years of the communist period and first years of new democracy. The total employment policy had as normal positive aspects too. Some categories of persons with disabilities (eg. Persons with visual impairments) had access to an organized form of employment, in contrast with today's situation when a very small part of persons with disabilities are active in the labour market. Another method to hide problems was to run big, closed residential care institutions instead of open local social services. These institutions were placed in many cases in isolated rural areas and had no any relationship with the local communities where they were placed or from where their beneficiaries came. Child care institutions for example had their own school inside the institutions, residential centers for elderly or for persons with disabilities functioned as closed, unknown institutions for outside world. Probably this isolation conduct to the situation, when after 1989 western mass media but also Romanian public opinion discovered horrified the extreme life conditions of the Romanian residential social services. So these were the starting conditions of Romanian social services reform process: totally lack of basic communitarian social services, missing of any involvement of local communities, civil organizations and church in social assistance, big closed residential facilities with very bad life conditions underqualified and unmotivated caregivers. The sympathy with Romanian revolution, but also the above mentioned media campaign started a helping wave toward Romanian social services directly to the institutions or through churches and the new born social NGOs. Churches and church related organizations were the most trustful partners for western churches and small local communities, so the first development of social NGO's was in this area. The very first help came in food, second hand clothes and other goods, but year to year more and more new social services were established in Romania with the know-how and money provided by Western European organizations and governments. These social services responded usually to very urgent and real needs of Romanian persons, families, or communities but in the same time were pilots, know-how providers, and good examples for development of the whole Romanian social services sector. Even after 25 years of development of the governmental social services NGO's play a same innovative role and provide social services which are absolutely necessary but missing from the state system. An important new and systematic approach in the Romanian social assistance system was bring by the Social Assistance Law 292/2011 which regulate also the participation of other actors in social service providing. Due to this a wide range of organizations can act as social service providers like: Specialized structures or institutions in subservience of local authorities, or local executive authorities themselves; Central authorities or other

institutions in their subservience; Educational, health care or other public institutions which develop integrated social services; Nongovernmental organizations – associations, foundations; Officially recognized churches; Authorized persons; Local branches of international organizations; Economical entities (firms)

An obligatory condition to be considered as social service provider is to get an accreditation for this status from Ministry of Labour, Family and Social Protection. In the second phase every social service provided has to be licensed by the same Ministry based on conformation to the existing quality standards for the specific services. This licensing process is a two-step procedure again. In the first phase the provider can get an short term license (to maximum 1 year) based on a self-evaluation of fulfilling standards, and during this time is inspected by the Social Inspection and it is proposed or not to get the definitive license.

Developments in child protection system

In the history of Romanian social services development, process of accessing European Union constituted a key moment. Just like in case of many other fields (economy, justice, administration) important changes and development was started as a result of constant pressing of international organizations toward Romania. A first condition erected by European Union for starting negotiations for integration of Romania was to reform the child protection system. This condition put serious pressure on Romanian government and child protection system so became a key priority at the end of nineties', start of 2000. Child protection activity and institutions was took from the education and health systems and was placed on county level. This was one of the very first real decentralized responsibility. According to the Romanian Constitution the Romanian administration is organized in communes, towns and counties. The 41 counties represent the European NUTS III level as well as the special status Bucharest, the national capital. The counties are grouped in 8 development regions (NUTS II) but these regions are more statistical units and used for management of European funds, they have no own administration and institutional network. County child protection departments were created in the subservience of county councils, and several financing programme were started with the help of European Union, targeting closing of the big children homes. As results of these programmes in the first decade of 2000 a professional maternal assistants (fully employed foster parents) network was created and hundreds of family type children homes were opened. These development bring important changes in the daily life and integration chances of many assisted children and youths.

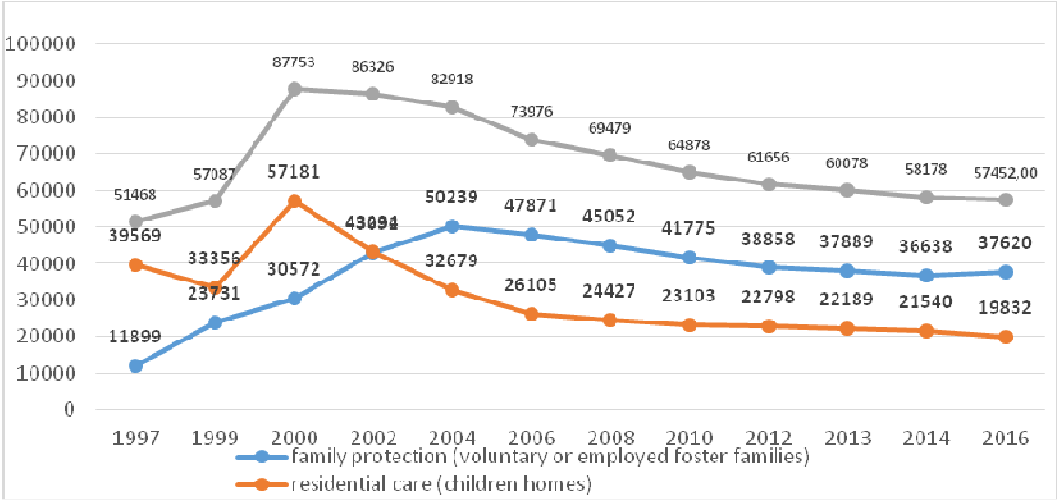

Chart 1. Evolution of number of children assisted in different forms of special protection in Romanian child protection system

Source of data: Romanian Child Protection and Adoption Authority

As we can see on the chart an important growing of assisted children was produced at the late nineties due to the takeover of child protection institutions form the health and education system to the new child protection departments, but after this period a continues degrees of the total assisted children's is visible. Is also visible that the family protection play a more and more important role in the system and less children are growing in children homes. In 2016 only 34,5% of totally assisted children were in residential care, and the percent is continue decreasing. From the absolute number of 57.181 children in institution in 2000, today less than 20.000 are in children

homes. We have to mention also that an important part of these children house are also small family type units.

In generally needs for social services and benefits are strongly linked to poverty in communities. Romania is considered one of the poorest country of European Union with the second highest rate of population at risk of poverty (percentage of population with incomes below 60% of national median income after social transfers). In daily case work of social workers and in several studies is clearly showed that in most of the cases children are placed in foster families or placement centers because of several reasons linked to poverty, even if poverty of a family is not considered itself an enough reason for authorities to take the placement decision. In this logic the counties with highest poverty rate has to have the highest percent of special assisted children. The highest poverty rate regions in Romania are North East and South East regions but these are not uniforms. In both are existing very poor but relatively rich counties too. Due to EU statistics and to the World Bank study the highest rates of population living at risk of poverty are in Calarasi and Teleorman counties (South region), Vaslui, Botosani and Suceava counties (North-East), Vrancea (South Easth) all of these with rates between 30-42%. The lowest rates have Bucharest, Ilfov, Cluj, Arges, Brasov, Hunedoara. To have a comparable data in field of assisted children at county level, starting from number of assisted children and Romanian census data I calculated the number of assisted children / 100.000 inhabitants in each county. At national level 285 children/100.000 inhabitants are assisted in foster families or placement centers. This number is very high in one of the poorest county -Vaslui (732 children/100.000 inhabitants) but is lower than national average in case of Teleorman county and even lower than Hunedoara and Brasov counties which are among the less affected countries by risk of poverty.

Table 1. Rates of children assisted in special protection system (foster families, placement centers) by group of counties.

High risk of poverty counties	Calarasi	Teleorman	Suceava	Vrancea	Botosani	Vaslui
Assisted children/100.000 inhabitants	**354**	**226**	**269**	**349**	**364**	**732**
Low risk of poverty counties	Bucuresti - Ilfov	Cluj	Arges	Brasov	Hunedoara	
Assisted children/100.000 inhabitants	**159**	**125**	**178**	**248**	**317**	

Source: calculated by author based on 2011 national census data and Romanian Child Protection and Adoption Authority data.

As we can see the number of assisted children is not linked directly to the variation of poverty in Romania. It is confirmed by territorial analyse showed above but also by the temporal evolution (we had no a rising number in the years of economic crises when the rate of poverty grove). As a researcher who see the functioning of the system also from an interior point of view I think that generally the evolution of number of the beneficiaries of different social services is linked more to the existing capacities and less to the social needs in a community.

As we mentioned above the majority of the children houses are small, family type units.

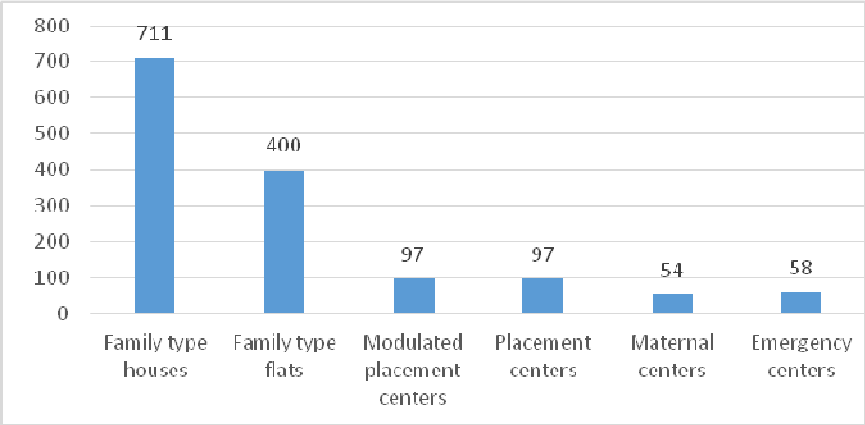

Chart 2. Number of residential child protection services in Romania

Source: Romanian Child Protection and Adoption Authority data)

State participation in this system remained very strong, due to the fact that the reform was initiated and administrated by the state authorities. Even if also in this case many innovative services appeared created by NGO's before or during the state system reform, the majority of the child protection institutions are state owned today. From the total number of 19.832 children in residential care institutions only 3913 (19,73%) are assisted in NGO owned institutions. At June 30, 2016 a total number of 1469 services offered residential care for children. 1127 of these were state owned institutions 342 private accredited organism.

From the total number of 37.620 children in foster families 18.912 were placed in professional foster families (maternal assistants – due to the Romanian specific term), 14.157 in relatives families (up to IV. Grade) and 4551 in other voluntary families. Professional foster care is an important part of the Romanian child protection. The political decision of create this alternative was theoretically based on a longitudinal research made by three American researcher (*Nelson, Charles A.; Fox, Nathan A.; Zeanah, Charles H. (2014). Romania's abandoned children: deprivation, brain development, and the struggle for recovery. Cambridge, MA: Harvard University Press.)* The research showed very clearly that children grown in institutional care in their first years suffer psychological, intellectual, sentimental and even physical damages which can't be recuperated even with the most performant rehabilitation services are used. In this sense the new law of child protection approved in 1997 which started reform of the child protection system, contained also the prohibition of placement of children up to 2 years in institutions. In present this limit was raised to 3 years. As in Romania one of the most frequent reason for taking a child protection measure is child abandon in maternities right after born, a big number of babies entry every year in the system. For them, and at the start of the reform for children living in special institutions for small children (0-3 years), development of the maternal assistants services was absolutely necessary. Because of the necessity of continuity in care for abandoned children usually they are not moved after fulfilling 3 years from maternal assistants. Probably this is one reason why we can observe continues grove of the percent of children living in family care alternatives. Professional foster parenting is an important source of income for many families in Romanian rural areas. Even if this system has relatively high cost there were no any political or social policy attempts to analyse and/or reform this system. In many villages and counties maternal assistants and their families could constitute a good voting group for one political party of for other. Significant differences existing county to county in the average number of assisted children by a maternal assistant. The differences are observable also form the regional

level. The worst cost effective report is in the Bucharest – Ilfov capital region where one maternal assistant take care of an average of 1,17 children. In the opposite in the Central region this average is 1,89 children/maternal assistant. The national level average is 1,57 children/maternal assistant.

Table 2: Children – maternal assistant ratio by development regions of Romania

Region	North-East	South-East	South	South-Vest	Vest	North-Vest	Central	Bucharest	National
Number of children in maternal assistance	5314	2278	2355	1816	2027	2128	1800	746	18.912
Number of maternal assistants employed	3749	1464	1503	1122	1347	1266	951	633	12.035
Children/assistansts	1,41	1,55	1,56	1,61	1,50	1,68	1,89	1,17	1,57

Source: calculated by the author based on Romanian Child Protection and Adoption Authority data

The differences are even bigger if we analyse the county level data. As the administration of specialized child protection system (including maternal assistant network) is a county level responsibility these data are more relevant how the system and financial resources are managed on this level. In one of the poorest counties of Romania – Vaslui a maternal assistant is hired to take care for an average of 1,16 children, but this number is very close as we see to the Bucharest situation (1,17) which is the richest region of Romania. Anyway the extreme situation is Caras Severin county where the average is 1,09 children/hired maternal assistant. On the another side of the balance Harghita county is the most "efficient" from this point of view, in average there are placed more the 2 children to a maternal assistant (2,11), Hunedoara county (1,97) and Covasna county (1,92) are near to this. As also Hargita county is considered a relatively weak county from economical point of view (in most of the years had the lowest salary levels in national statistics) we can conclude that there are not existing any correlations between financial power of a county and the cost efficiency of child protection activities. Even if the situation is looks to be a paradox, the explanation is very simple. Due to the strong implication and commitment of Romanian government to reform the child protection system the financial resources are still allocated from national level to counties, and these are allocated by considering also the number of maternal assistants existing in a county, not only the number of children assisted. Starting from here the counties has no any interest to try to push maternal assistants to work with more children and in this way to decrease the number of employees. Anyway if we look to the cost effectiveness of different form of special care we can see that the material and administrative costs of maternal assistants network are lower than in case of family type houses or placement centers. The affirmation is even more correct if we look the the number of employees implied in institutional care. In the 1127 state owned institutions 12.631 employees taking care of 15.919 children which mean an average of 1,26 children/employee. Here also the proportion employees/children variate between wide range, but in some cases is clear that there are some reporting mistakes too. In case of Vaslui and Suceava counties with 10 or 5 children/employee in residential care institutions clearly we have an error. On regional level the proportion is between 0,83 children/employees in the South-Vest region and 1,42 in Central region (excluding North-Vest region containing the two upper mentioned counties which distort the regional average too.

The situation of basic social services in child protection

Even if the social policy debates generally pay more attention to residential social services, in fact the child protection law and generally the social assistance legislation clearly pronounce that basic services organized in communities with the aim of keeping the beneficiaries in family and community and prevent their social exclusion are more desirable than specialized services, which imply changing residency of beneficiaries. All the implied specialists, policy makers, state institutions and NGO's agrees that using basic, communitarian services is a much cheaper, efficient and human way to help persons or families than moving them in residential services. All with these unison the reality of social services look very different. The best example here is case of child protection system. Communitarian, basic services network is strongly underdeveloped in majority of the regions in Romania. If we are looking to the statistics delivered by Romanian Child Protection and Adoption Authority it is easy to see that the total number of children beneficiaries of communitarian services are less than a half of number of children beneficiaries by residential care. Due to the specific of these prevention services (day care and rehabilitation) in the situation of existing a good service network the number of beneficiaries has to be multiple of the number of beneficiaries of residential services. Local authorities which are the first competent institutions to develop, administrate and finance basic social services based on social and child protection legislation, offer this facility only for less than 5000 children. In contrast as a showed above more than 57.000 children are placed in foster families or placement centers. The situation is ameliorated in a way by NGO's and counties Child Protection Departments even if these last institutions are responsible firstly for creation and administration of specialized services with residential component.

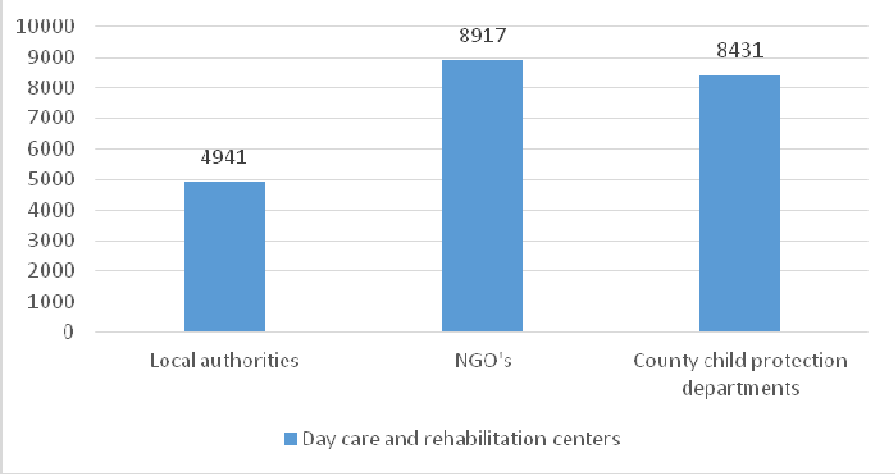

Chart 3: Number of children beneficiaries of communitarian social services by public and private service providers.

Source: Romanian Child Protection and Adoption Authority data)

The underdevelopment of these services is caused beside other motives also by the missing of funding from the central budget to local budgets with this destination. As a showed specialized services of county Child Protection Departments (foster families network, placement centers) are funded through County Councills even in 90% by the central budget allocation from VAT. In contrast local authorities (communes, towns) are called to sustain their social services totally from their own incomes, which in many cases, specifically in case of poor communities are very low. The political pressure of European Union existed in case of reforming the placement centers was stopped on that level, and the reform automatically stopped there too. As a revival of this process in the

new 2014-2020 EU financing programmes there will be no funds for the creation or renovation of big residential centers but only for measures which make possible closing of these. The proposed measures are family reintegration, placement in foster families, or in family type houses all these accompanied by creation and supporting of functioning of day care, rehabilitation and counselling services. Even if in fact the long term funding of these new basic services is not resolved, a two years project financing could constitute a strong enough reason for some local communities to start these developments.

Conclusions

Evolution of social services in Romania is similar with evolution on general European level. An exception could be considered the communist period when development of social services known a regress, but many symptoms of this period were present in other Eastern-European countries too. In the last 25 years the Romanian social services system had an important development in quality, new approaches, innovative services, civil participation and accessibility. If in the case of other fields (elderly car for example) the development were made mostly by the nongovernmental sector, in case of child protection the main reformer was the state authority pushed from back by the European Union. In this process but also today financial efficiency was not key criteria and we can find now very different systems from this point of view county to county. It is also an evidence analysing the data that in many cases not the real social need determine how much children benefit by social services but the capacity of social services. This enounce is truth in case of residential services too but much more evident in case of basic, communitarian services. The underdevelopment of these last type services network create a major dysfunction in the child protection system and even if the social policy state from many years the necessity of basic communitarian services, the development will be much longer and harder than it was in the case of specialized services.

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CREATIVE KNOWLEDGE NETWORKS – A ROMANIAN PERSPECTIVE

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Abstract

The advanced economies are continuously pursuing economic restructuring, moving further from manufacturing and services towards the creative sectors with high value added, and the more recent economic recessions and crises seem to speed up such a trend. However, according to specialists, creativity itself does not act and does not sustain on its own, but needs to be cultivated (Mokyr J., 1990). It has to be constantly encouraged and reproduced within the companies, at local/regional level and in the entire society, especially in circumstances of a continuously changing environment where all the economies have to coexist and develop. A key role in this respect has the creative class and, especially, the "creative professionals", who work in a series of knowledge-intensive industries. The involvement of universities in order to ensure labor penetration on the creative job market requires from their part to promote innovative educational methods, in the sense of merging the business education with the creative education. Investing in R&D, enforcing adequate educational policies, ensuring collaboration between universities and business companies in both drawing up curricula and adequately integrating the creative professionals in the labor market are but a few of the priorities of a modern society.

The main research question of our paper[5] is focused on the dynamics of creative industries in Romania and on the possibilities of interconnection between the economic agents and academia in order to promote networks in the creative and cultural industries. In this respect, based on the method of creative industries mapping and on domestic and international economic and business statistics, the paper attempts a first analysis of the share, development and spread of creative sectors in the national economy and, especially, in the regional economies. Though the results reveal certain positive trends regarding the development of creative sectors at national and regional level, there are also signs of stagnation or volatility of activity, and of high concentration in certain regional centers and low spillover power of the current creative networks and clusters. Thus, eventual unreasonably high policy expectations must be adjusted to the Romanian realities, requiring, among others, a realistic approach regarding the evolution of the creative workforce and the need of functional connections of the creative and cultural activities within and outside their local headquarters.

Keywords: creative class, creative economy, creative industries, sustainable regional development, cluster, Romanian regions

JEL Classification: L80, O18, R11, R12

Theoretical issues and literature review

The advanced economies are continuously pursuing economic restructuring, moving further from manufacturing and services towards the creative sectors with high value added, and the more recent economic recessions and crises seem to speed up such a trend. However, according to specialists, creativity itself does not act and does not sustain on its own, but needs to be cultivated (Mokyr J., 1990). It has to be constantly encouraged and reproduced within the companies, at local/regional level and in the entire society, especially in circumstances of a continuously changing environment where all the economies have to coexist and develop. In recent times, researchers

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[5] The paper presents some results of research theme "Industriile creative si dezvoltarea regionala in Romania", coordinator Carmen Beatrice Pauna, Institute for Economic Forecasting, 2016, manuscript.

interested in studying the growth of cities and regions have focused on other kinds of capital, namely, *creative* and social capital. The concept of creative capital was popularized by Florida (2002) in *The Rise of the Creative Class*. According to Florida, the *creative class* - comprising professionals such as doctors, lawyers, scientists, engineers, university professors, and, notably, bohemians made up of artists, musicians, and sculptors - possesses *creative capital* and this group produces ideas, information, and technology and it is these outputs that are increasingly important for the growth of cities and regions. Consequently, cities and regions that want to succeed must attempt to attract members of this creative class who, according to Florida, are the wave of the future (Batabyal and Nijkamp, 2010; Crociata *et al.*, 2015).

Consequently, in the past few years, the issue of culture-led and creative-led development has become increasingly present in the economic debate, the basic assumptions being that the *creative economy* can contribute to a substantial degree to the shaping of a competitive knowledge-based economy, possibly conducive to a sustainable economic growth with more and better jobs and greater social cohesion. Especially at the local level of analysis is possible to appreciate in to a greater detail the different channels through which culture and/or creativity have an impact on the long-run growth trajectories at regional and/or urban level (Scott, 2004; Pratt, 2004; Santagata, 2002; Stam *et al*., 2008; Piergiovanni *et al*., 2012; Sacco and Crociata, 2013; Crociata *et al.*, 2015). The *cultural and creative industries (CCIs)* have recently become highly relevant with regard to creative economy research (Cho *et al*., 2016); the interest in their economic impact being also raised by some evaluations of the economic dimension of CCI in Europe and elsewhere (KEA, 2006, 2009; UNESCO, 2013). They have increasingly been considered as drivers of local economic development and innovation and as able to provide excellent opportunities to exit the economic crisis (UNESCO, 2013). In fact, they represent a strategic priority sector on the European Union (EU) agenda, and an important instrument of regional and urban innovation policies, as well as of economic growth (UNCTAD, 2008).

The definition of the CCI sector boundaries and the measurement of its economic impact is, however, not simple. Regarding the former, the difficulties involved in the fuzzy and multidisciplinary nature of creativity were largely addressed in the literature (see, for instance, Markusen *et al*., 2008). The most widely extended definition of creative industries is that of the DCMS (2009) which defined creative industries, as "those industries that are based on individual creativity, skill and talent. And which have the potential to create wealth and jobs through developing intellectual property". The DCMS (2009) definition of creative industries includes advertising, architecture, art and antiques markets, computer and video games, crafts, design, designer fashion, film and video, music, the performing arts, publishing, software, television and radio within these activities, although it excluded the heritage sector, archives, museums, libraries, tourism and sport (De-Molina *et al.*, 2011). Empirical studies are many, either including a more wide-ranging definition and, thus, expanding any policy implication to a greater number of sectors (EC, 2010) or sticking to the core and comprising only the activities with a predominantly creative workforce (DCMS, 2013; Bakhshi *et al*. 2013).

The complex relationship between creative industries and place competitiveness was deeply influenced by Florida's findings (2002, 2005, 2008) on the United States (Crociata *et al.*, 2015). In that sense, the relationship of each creative business with its location is a complex balance of factors. According to Comunian *et al*. (2010), four interrelated dimensions seem to determinate the potential of certain location to support the growth of creative economy: infrastructures, governance, soft infrastructures,

markets, while Pratt (2008) suggests that in addition to studying the location of cultural and creative industries it could be suitable to analyze closer the operation of these industries with the rest of the economy. Some studies focused on the localisation and clustering of creative industries and services (Lazzaretti *et al*., 2008; Power and Nielsen, 2010; Branzanti, 2015; De-Miguel-Molina *et al*. 2012); others attempted to outline the geography of the creative sector in European countries, highlighting national peculiarities (Bertacchini and Borrione, 2013; Trippl *et al*. 2013; Cruz and Teixeira, 2015; Bobirca *et al*., 2009, Bobirca and Draghici, 2011). Among the EU regions that were considered as the most dynamic regions of creativity in Europe in the first decade of 2000s, researchers found most of the Polish and Czech regions, Romania and Croatia, large parts of continental Greece and Turkey, and the three Baltic countries, and it may be argued that the strategic orientation of structural funds available to these regions throughout the 2000s toward the development of Small Medium Enterprises (SMEs) in creative and knowledge-intensive sectors has been one of the main drivers of this leverage (Crociata *et al.*, 2015).

Recent studies on the association between the growth in CCIs and general economic growth, as measured by per capita gross domestic product have revealed certain trends among the EU regions: the European regions with above-average concentrations of creative industries were generally characterised by higher economic prosperity, the wealthier regions having a higher share of creative workers among their active population and the CCIs being important components of, and contributors to, the economies of such regions (Power and Nielsen, 2010; Crociata *et al.*, 2015); the growing places attracted symbolic workers, while places experiencing an economic downturn tended to lose them, triggering a ‘‘global competition for talent.’’ (Crociata *et al.*, 2015), CCIs play a pivotal role in and have been acknowledged as a crucial element for, culturally-led local development and employment growth, as well as for the innovation and creation of new firms (Lazzaretti *et al*., 2017); the causal effect between creative work and growth was not direct and simple, but complex and strongly mediated by policy and governance conditions, the cultural and creative attractors did not cause a multiplier effects by boosting local economy in a sort of post-industrial Keynesianism; it was more likely that large cultural and creative attractors would have a positive impact on the local economy if the latter was already highly productive and efficiently organized (Crociata *et al.*, 2015); the creative industries do not appear to represent a panacea for ending the crisis, as argued by many critics; rather, they may generate important trajectories of growth and development as a result of their high degree of related variety (Lazzaretti *et al*., 2017); the creative services are the most important to explain the differences in GDP per capita across the EU regions, some creative services being more important in the wealth of regions than others; there is evidence of a powerful association between the effects of creative services and medium-high- tech manufacturing on the GDP per capita (De-Molina *et al*., 2011, 2012).

The creative industries in Romania at national and regional levels

In earlier studies on the dimension of creative economy in Romania, by expanding the methodology proposed by Florida and Tinagli (2004), Bobirca *et al*. (2009) and Bobirca and Draghici (2011) have built a creativity index able to assess both the creative potential of Romania and of the other EU countries. The results showed that for some of the European countries the percentage of people employed in creative occupations is constantly over 30% (Sweden, Denmark, the Nederland’s, Finland, Germany), demonstrating their orientation towards an occupational structure that favors the development of the creative sector. Romania registered the highest average growth

rate of creative class, but also a very low value of the index itself, close to other EU countries such as Bulgaria, Latvia, the Czech Republic and Lithuania. The creative class represents only 17% of the working class in Romania, but the Romania was placed on the top position with respect to the growth potential of the creative class, suggesting an important development potential of creative activities (Bobirca and Draghici, 2011). However, the relevance of their findings remains questionable.

A national network of creativity poles may play an important role in augmenting the capacity of creative activities to attract other economic activities; aspect highlighted in other researches on emergent territorial systems in Romania (Peptenatu *et al*., 2012; Stoian *et al*., 2014; Pintili *et al*., 2015). Based on an extensive bibliography regarding individual development activities included in the category of creative industries, as well as on theoretical studies on the development of creative activities, Stoian *et al*. (2014) and Pintili *et al*. (2015) analyzed the creative industries in Romania also at territorial level. The results revealed the increasing share of creative economic activities, and the strong negative impact of the 2008-2010 economic crisis. The entrepreneurial profile of the creative sector of the national economy shows significant changes in the number of firms. Growth was recorded in the production of software, advertising, film production, consulting activities, architecture, etc. (Pintili *et al*., 2015). At territorial level, the findings showed that creative activities have developed in territorial systems with the highest polarizing capacity. Thus, Bucharest revealed as the most important creative pole in Romania, followed by Cluj, Timisoara, Iasi, Oradea, Constanta and Sibiu. These cities registered a considerable growth in the number of companies and turnover (Stoian *et al*., 2014).

The current paper also attempts a mapping of the creative industries in Romania, based on the most recent (crisis and post-crisis – 2008-2014) domestic and international economic and business statistics, and an analysis of the share, development and spread of creative sectors in the national economy and, especially, in the regional economies. Data were collected from the Eurostat (SBS and Innovation databases). However, the chosen databases do not provide a very detailed detailing of the creative sectors; consequently, the data available regional (NUTS2) data on more aggregated creative services sectors were used, namely: i) retail sale of cultural and recreation goods in specialized stores, ii) publishing activities, iii) motion picture, video and television programme production, sound recording and music publishing activities, iv) programming and broadcasting activities, v) architectural and engineering activities; technical testing and analysis, vi) advertising and market research. Also, some results pertaining to the most creativity-related side of innovation indicators (designs and trade marks) are also presented for the Romanian NUTS2 and NUTS3 regions. Although such indicators are usually analyzed in connection with innovativeness, their higher content-related features may also reveal useful insights regarding creativity and CCIs at national and territorial levels.

The dynamics of both number of companies and number of employees in the selected sectors[1] were generally positive in all the Romanian regions during the crisis and post-crisis period (2008-2014), except for the programming and broadcasting activities, which revealed a significant decline until 2011 (Appendix 1). Smaller declines were also revealed until 2011 by retail sale of cultural and recreation goods in specialized stores, architectural and engineering activities; technical testing and analysis, advertising and market research, while the publishing activities showed strong

[1] Due to text limitations, only results for the number of employees are presented. Rest of results are available on request.

advance, especially in the number of companies. However, the dynamics of the number of employees were more regionally-specific in the case of all analyzed sectors, except for the architectural and engineering activities; technical testing and analysis, where closely resembled the dynamics of the number of companies. A greater variability in the employees' dynamics may signal different regional business environments, a situation that is not analyzed here.

However, if companies' dynamics were mostly similar for the creative sectors in the regional economies, the shares of regions in total number of companies and total number of employees varied largely, revealing a very strong trend towards concentration of activities, mostly in the Bucuresti-Ilfov Region and to a lesser extent in other regions (Nord-Vest and Vest, where the Cluj and Timisoara creative hubs are located – see the European Creative Industries Alliance Platform)[1]. Thus, the Bucuresti-Ilfov Region concentrated in 2014 over 68% of the number of companies and over 74% of the number of employees of the motion picture, video and television programme production, sound recording and music publishing activities, over 53% of the number of companies and over 64% of the number of employees of the advertising and market research activities and over 44% of the number of companies and over 53% of the number of employees of the publishing activities. Also, in the case of programming and broadcasting activities and architectural and engineering activities; technical testing and analysis, the concentration of employees in the Bucuresti-Ilfov Region was much higher than the concentration of companies, revealing a possible strong size bias in favor of the most developed region of Romania. Coupled with the higher variation in the regional dynamics of creative services employees, it may signal a higher vulnerability of the creative sectors companies in the other regions of Romania, especially in the less developed ones.

The strength of the creative industries companies in the Romanian regions and the high concentration of creative activities in only a handful of creative poles is also revealed by the county and regional shares of community designs (CD) and European Union trademarks (EUTM) applications (without commenting the very low, though increasing, shares of such Romanian applications in the EU total - Appendix 2). Thus, the Bucharest Municipality has the lion's share in both the Romanian CD and EUTM applications, though recording a declining trend in the case of the former. The other "creativity" poles in Romania also reveal a fluctuating trend - (Bihor, Cluj, Satu Mare, Brasov, Mures, Bacau, Iasi, Constanta, Prahova, Ilfov, Dolj, and Arad counties in the case of CD and Bihor, Cluj, Brasov, Iasi, Prahova, Ilfov, Arad and Timis in the case of EUTM). Lower, but quite constant shares in the Romanian EUTD applications also reveal most of the counties of the Nord-Vest, Centru, Nord-Est and Sud-Est regions, while in the case of CDs, the applications originating in other counties of Romania are quite sporadic. However, one must also take into account the specific features of the CDs and EUTMs, the former being more complex in nature and also partly related to manufacturing, while the latter are more related to wording and imagery and IT.

Though the results reveal certain positive trends regarding the development of creative sectors at regional level in Romania, there are also signs of stagnation or volatility of activity, and of high concentration in certain regional centers and low spillover power of the current creative networks and clusters. Thus, eventual unreasonably high policy expectations must be adjusted to the Romanian realities, requiring, among others, a realistic approach regarding the evolution of the creative industries and workforce and the need of functional connections of the creative and cultural activities within and outside their local headquarters.

[1] Data available on request.

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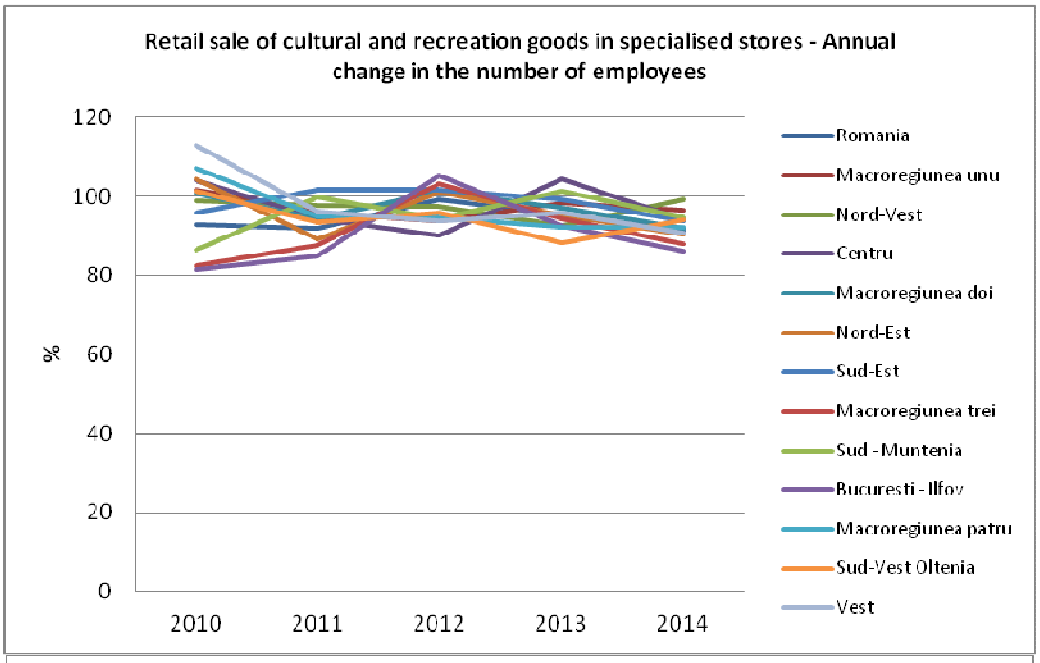
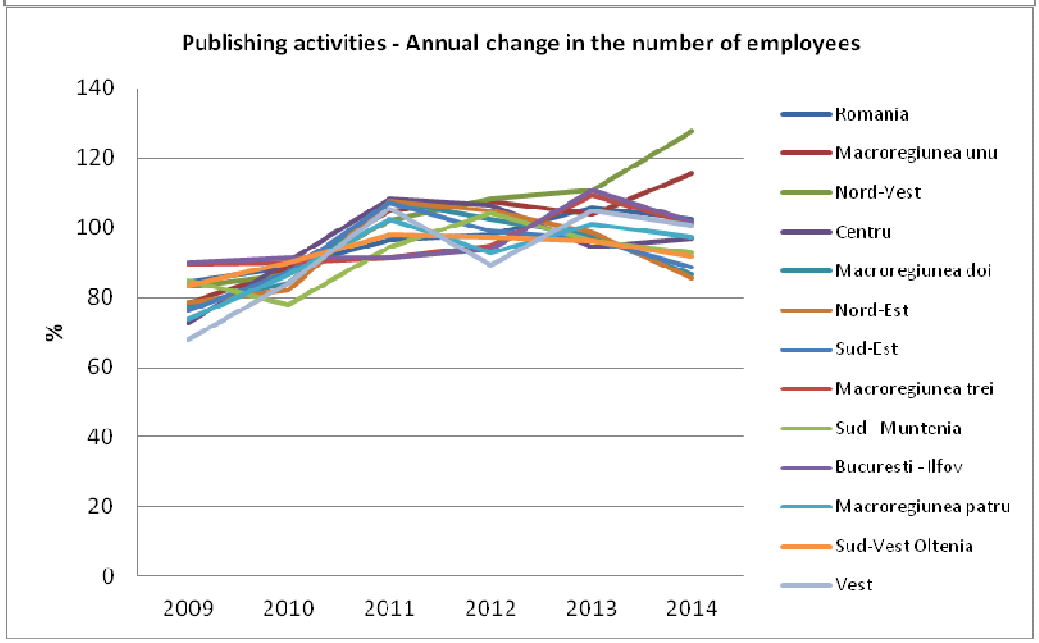
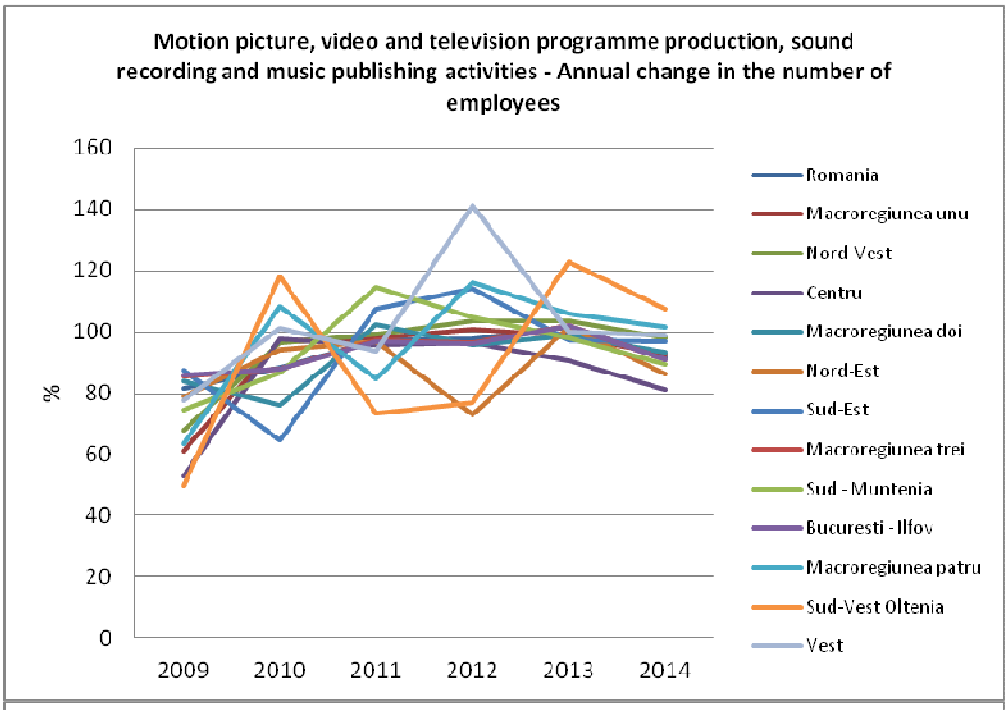
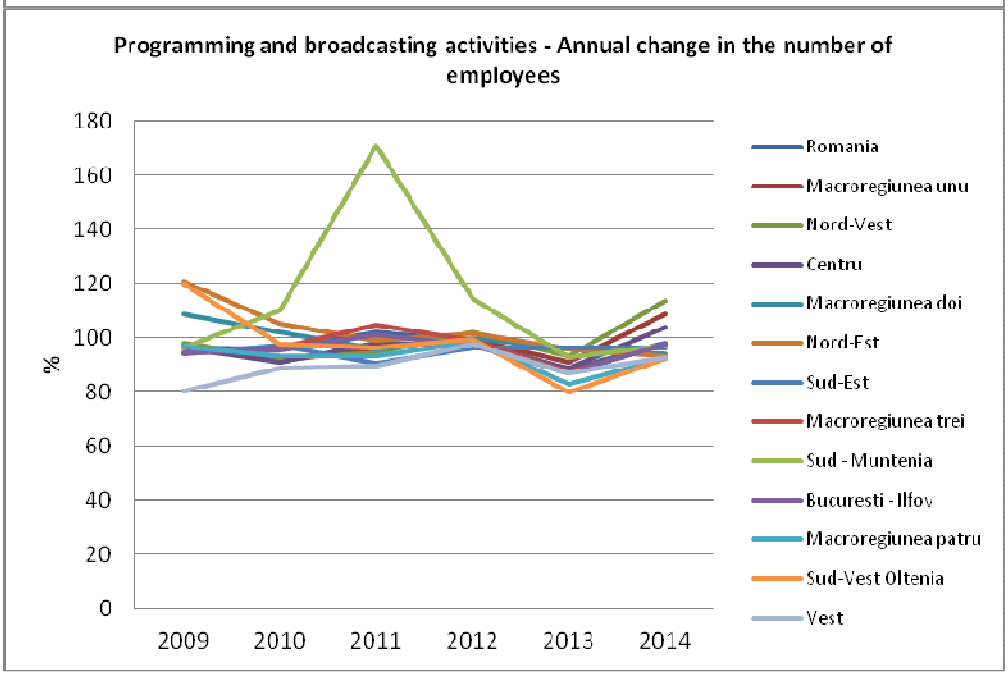
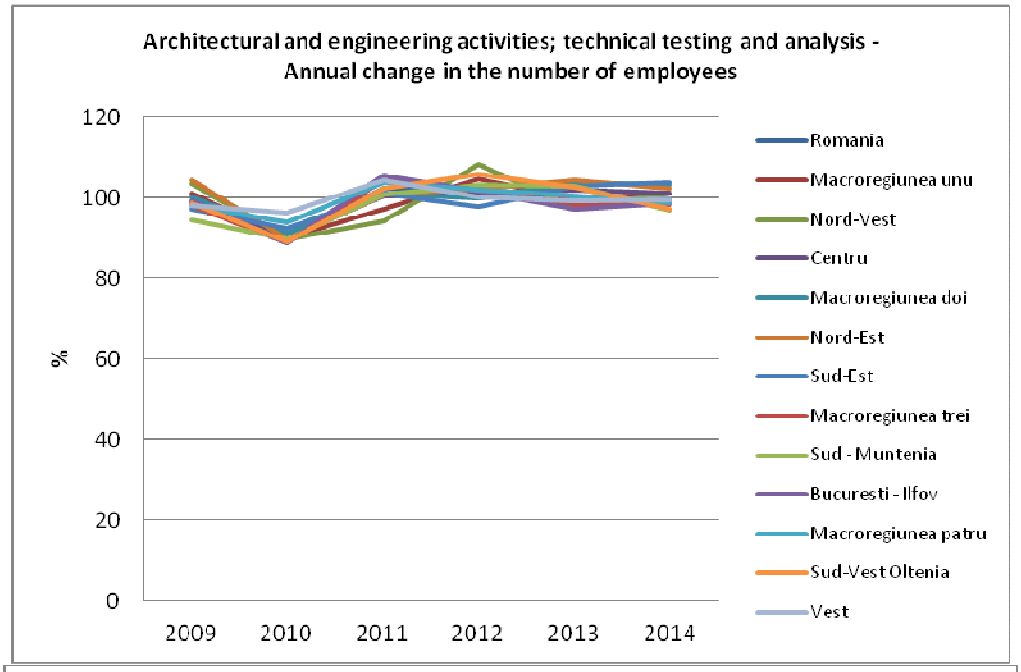
Appendix 1. Creative services sectors in the Romanian regions – Annual changes in the number of employees

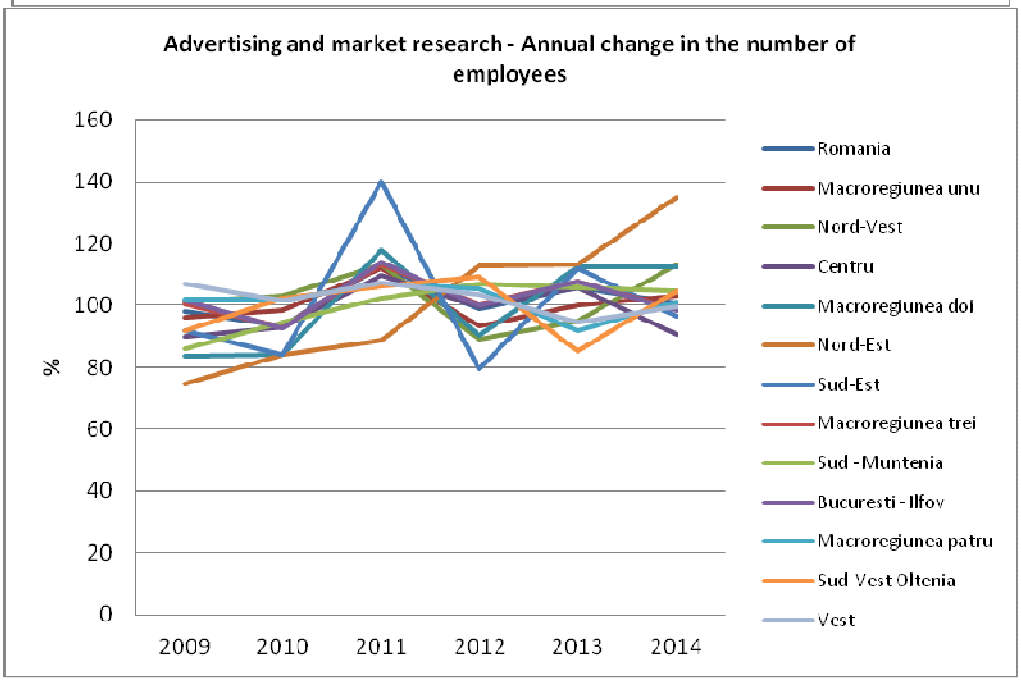

Retail sale of cultural and recreation goods in specialised stores - Annual change in the number of employees
120
100
80
60
40
20
0
%
2010
2011
2012
2013
2014
Romania
Macroregiunea unu
Nord-Vest
Centru
Macroregiunea doi
Nord-Est
Sud-Est
Macroregiunea trei
Sud - Muntenia
Bucuresti - Ilfov
Macroregiunea patru
Sud-Vest Oltenia
Vest


Publishing activities - Annual change in the number of employees
140
120
100
80
60
40
20
0
%
2009
2010
2011
2012
2013
2014
Romania
Macroregiunea unu
Nord-Vest
Centru
Macroregiunea doi
Nord-Est
Sud-Est
Macroregiunea trei
Sud Muntenia
Bucuresti - Ilfov
Macroregiunea patru
Sud-Vest Oltenia
Vest


Motion picture, video and television programme production, sound recording and music publishing activities - Annual change in the number of employees
160
140
120
100
80
60
40
20
0
%
2009
2010
2011
2012
2013
2014
Romania
Macroregiunea unu
Nord Vest
Centru
Macroregiunea doi
Nord-Est
Sud-Est
Macroregiunea trei
Sud - Muntenia
Bucuresti - Ilfov
Macroregiunea patru
Sud-Vest Oltenia
Vest


Programming and broadcasting activities - Annual change in the number of employees
180
160
140
120
100
80
60
40
20
0
%
2009
2010
2011
2012
2013
2014
Romania
Macroregiunea unu
Nord-Vest
Centru
Macroregiunea doi
Nord-Est
Sud-Est
Macroregiunea trei
Sud - Muntenia
Bucuresti - Ilfov
Macroregiunea patru
Sud-Vest Oltenia
Vest





Source: Authors' computations, on the basis of Eurostat data.

Appendix 2. Community design (CD) and European Union trademarks (EUTD) applications by NUTS 3 regions in Romania - Share in national total, %

CD	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Macroregiunea unu	33.33	50.00	39.13	50.00	29.63	30.56	30.00	31.48	16.36	16.39	23.64	25.25
Nord-Vest	16.67	50.00	30.43	50.00	29.63	25.00	26.00	24.07	7.27	4.92	20.00	11.11
Bihor		*50.00*	*30.43*	*44.44*	*18.52*	*11.11*	*18.00*	*12.96*	*3.64*	*1.64*	*3.64*	*6.06*
Bistrita-Nasaud					3.70			3.70				1.01
Cluj	*16.67*				*3.70*	*5.56*		*1.85*	*1.82*	*1.64*	*5.45*	*2.02*
Maramures							4.00	1.85	1.82		1.82	1.01
Satu Mare				*5.56*	*3.70*	*8.33*	*4.00*	*3.70*		*1.64*	*7.27*	*1.01*
Salaj											1.82	
Centru	16.67		8.70			5.56	4.00	7.41	9.09	11.48	3.64	14.14
Alba										1.64		
Brasov	*16.67*					*2.78*	*2.00*	*1.85*	*1.82*	*1.64*		*5.05*
Covasna									3.64	4.92		
Harghita			8.70			2.78			1.82	1.64		3.03
Mures							*2.00*	*5.56*		*1.64*	*1.82*	*6.06*
Sibiu									1.82		1.82	
Macroregiunea doi			4.35		14.81	11.11	4.00	5.56	3.64	6.56	3.64	12.12
Nord-Est			4.35		14.81	2.78		1.85	1.82	4.92	3.64	12.12
Bacau					*7.41*							*10.10*
Iasi			*4.35*						*1.82*	*4.92*	*1.82*	
Neamt								1.85				2.02
Suceava					3.70	2.78						
Vaslui					3.70						1.82	
Sud-Est						8.33	4.00	3.70	1.82	1.64		
Braila								1.85				
Constanta						*5.56*		*1.85*	*1.82*	*1.64*		
Galati						2.78						
Vrancea							4.00					
Macroregiunea trei	66.67	50.00	52.17	27.78	29.63	19.44	58.00	42.59	58.18	67.21	49.09	43.43
Sud - Muntenia			13.04					1.85	1.82	4.92	3.64	9.09
Arges										1.64		2.02
Dâmbovita								1.85				
Giurgiu											3.64	3.03
Prahova			*13.04*						*1.82*	*3.28*		*4.04*
Bucuresti - Ilfov	66.67	50.00	39.13	27.78	29.63	19.44	58.00	40.74	56.36	62.30	45.45	34.34
Bucuresti	**66.67**	**50.00**	**34.78**	**27.78**	**18.52**	**16.67**	**40.00**	**37.04**	**43.64**	**54.10**	**34.55**	**28.28**
Ilfov			*4.35*		*11.11*	*2.78*	*18.00*	*3.70*	*12.73*	*8.20*	*10.91*	*6.06*
Macroregiunea patru				11.11	7.41	8.33	4.00	1.85	12.73	6.56	12.73	5.05
Sud-Vest Oltenia						8.33	2.00	1.85	1.82	3.28	5.45	
Dolj						*8.33*			*1.82*	*3.28*	*5.45*	
Olt								1.85				
Vâlcea							2.00					
Vest				11.11	7.41		2.00		10.91	3.28	7.27	5.05
Arad									*3.64*		*5.45*	*1.01*
Caras-Severin					7.41					3.28		2.02

CD	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Hunedoara				11.11			2.00				1.82	
Timis									7.27			2.02
Unknown NUTS			4.35	11.11	18.52	30.56	4.00	18.52	9.09	3.28	10.91	14.14
EUTD	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Macroregiunea unu	35.71	16.67	5.26	17.01	22.67	23.66	17.51	19.44	24.60	17.19	21.72	21.97
Nord-Vest	35.71	16.67	4.21	10.31	15.56	15.52	9.79	9.72	13.42	11.83	11.15	15.56
Bihor	*28.57*	*13.89*	*1.05*	*4.64*	*6.67*	*6.87*	*2.37*	*2.56*	*1.92*	*2.23*	*2.94*	*3.89*
Bistrita-Nasaud					0.89	2.04	0.89	0.51	1.92	0.22	0.39	0.46
Cluj	*7.14*	*2.78*	*3.16*	*3.61*	*5.33*	*3.82*	*5.34*	*3.58*	*4.79*	*6.47*	*4.70*	*6.41*
Maramures					0.44	0.76		2.56	1.92	2.01	1.57	1.83
Satu Mare				2.06	1.78	2.04	0.89	0.51	2.88	0.89	1.37	2.52
Salaj					0.44		0.30				0.20	0.46
Centru			1.05	6.70	7.11	8.14	7.72	9.72	11.18	5.36	10.57	6.41
Alba						0.51		1.02	0.32	0.45	0.39	0.69
Brasov			*1.05*	*5.15*	*3.11*	*2.54*	*2.37*	*3.07*	*4.15*	*2.46*	*5.28*	*3.43*
Covasna				0.52	0.89	0.51	0.59	0.77	0.32	0.22	1.76	
Harghita				0.52	0.89	2.04	1.19	0.77	1.60	0.22	0.39	0.92
Mures				0.52	2.22	1.27	2.08	2.05	1.60	0.45	1.96	0.92
Sibiu						1.27	1.48	2.05	3.19	1.56	0.78	0.46
Macroregiunea doi		13.89	14.74	13.92	13.33	11.20	12.76	6.39	9.27	8.48	8.61	7.32
Nord-Est		13.89	11.58	10.31	8.00	6.62	8.31	3.07	5.43	4.24	4.89	5.49
Bacau			1.05	3.09	3.11	3.05	4.45	1.53	2.24	1.56	0.78	0.69
Botosani					0.89							
Iasi		*13.89*	*10.53*	*5.15*	*2.67*	*1.27*	*1.48*	*0.77*	*1.92*	*1.56*	*2.15*	*3.43*
Neamt				2.06	1.33	0.25	0.89	0.51	1.28	0.22	0.78	0.46
Suceava						1.78	1.48	0.26		0.89	1.17	0.92
Vaslui						0.25						
Sud-Est			3.16	3.61	5.33	4.58	4.45	3.32	3.83	4.24	3.72	1.83
Braila						1.27			0.32	0.45	0.20	0.46
Buzau					0.44		0.30	0.51	0.96	0.45	0.39	0.23
Constanta			2.11		2.22	1.27	1.48	0.51	1.60	2.23	0.59	0.46
Galati				1.03	1.33	1.53	1.78	1.79	0.64	0.45	1.76	0.46
Tulcea				0.52	0.44							0.23
Vrancea			1.05	2.06	0.89	0.51	0.89	0.51	0.32	0.67	0.78	
Macroregiunea trei	35.71	33.33	73.68	51.03	42.22	37.40	45.10	57.54	47.60	50.67	48.92	48.74
Sud - Muntenia		11.11	5.26	5.15	3.56	3.56	2.37	4.09	2.56	2.90	3.52	5.03
Arges				0.52		0.76					0.20	0.46
Calarasi		8.33										0.23
Dâmbovita								0.51			0.39	
Giurgiu					0.44	0.25						0.69
Prahova		*2.78*	*5.26*	*4.64*	*3.11*	*2.54*	*2.37*	*3.32*	*2.56*	*2.90*	*2.94*	*3.66*
Teleorman								0.26				
Bucuresti - Ilfov	35.71	22.22	68.42	45.88	38.67	33.84	42.73	53.45	45.05	47.77	45.40	43.71
Bucuresti	**35.71**	**22.22**	**65.26**	**41.75**	**36.00**	**28.50**	**39.76**	**49.62**	**39.30**	**36.83**	**38.55**	**35.01**
Ilfov			*3.16*	*4.12*	*2.67*	*5.34*	*2.97*	*3.84*	*5.75*	*10.94*	*6.85*	*8.70*
Macroregiunea patru	14.29	8.33	2.11	7.73	5.78	4.83	4.45	4.35	4.79	3.57	4.11	6.41

CD	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sud-Vest Oltenia	7.14		1.05	1.55	0.44	2.29	1.19	1.02	0.64	1.12	1.57	1.83
Dolj	7.14			1.03	0.44	0.76	0.30	0.26	0.32	0.45	1.17	0.46
Mehedinti										0.45		
Olt						0.76			0.32		0.39	0.23
Vâlcea			1.05	0.52		0.76	0.89	0.77		0.22		1.14
Vest	7.14	8.33	1.05	6.19	5.33	2.54	3.26	3.32	4.15	2.46	2.54	4.58
Arad	*7.14*	*8.33*		*2.58*	*3.11*	*1.27*	*0.30*	*0.77*	*0.96*	*0.45*	*1.17*	*1.37*
Caras-Severin										0.22	0.20	
Hunedoara						0.25		0.77	1.60	0.67		1.37
Timis			*1.05*	*3.61*	*2.22*	*1.02*	*2.97*	*1.79*	*1.60*	*1.12*	*1.17*	*1.83*
Unknown NUTS 1	14.29	27.78	4.21	10.31	16.00	22.90	20.18	12.28	13.74	20.09	16.63	15.56

Source: Authors' computations, on the basis of Eurostat data.

THE ROLE OF ENTREPRENEURSHIP IN REGIONAL ECONOMIC DEVELOPMENT: CHALLENGES IN MEASURING REGIONAL ENTREPRENEURSHIP

Raluca Robu[1]

Abstract:
This paper is a review on entrepreneurship, considered an important source of growth at regional level, as the theoretical literature concludes. However, empirical research results show an unclear contribution of entrepreneurs to economic development. The challenge for the empirical literature is to find the right proxies for entrepreneurship in order to capture the main features of entrepreneurial behavior that drive the success of business and have the potential to impact the regional economy. The paper reviews methodologies developed in the empirical literature focusing on indicators that measure entrepreneurship and on their capacity to include information about cultural background, risk attitude, innovative potential and other aspects that might influence the role of entrepreneurship on regional economic development. Based on the theoretical background, we make a critical evaluation of the efficiency of the synthesized indicators to capture the essential aspects of entrepreneurship.

Keywords: SME's, entrepreneurship, regional economic development.

JEL codes: R10, O10.

1. Introduction

The emerging interest in entrepreneurship and its capacity to influence economic growth appears in a context in which the development of information technology and communications has determined the occurrence of new business ideas, products and services. The connection between innovation and new small and medium enterprises and the fact that they positively influence each other's growth has become more evident and captured the attention of an increasing number of economists.

The focus on entrepreneurship as a key factor for economic development is becoming increasingly important because „individuals rather than large firms are the leading factor in new knowledge creation" (Szerb, et. al., 2013). Innovation is not anymore a characteristic of oligopolistic markets with high budgets for research and development, but rather a characteristic of small enterprises. Entrepreneurship develops and spreads innovation due to its flexibility, fast growth capacity, knowledge-transfer capacity and competitive environment. This can only be possible on free markets that do not limit the entry of new firms and allow unrestrained and consequently efficient allocation of resources.

The subject is of primary interest in the context of the Europe 2020 economic growth strategy, which includes complex measure to stimulate the dissemination of the valuable assets and growth potential embedded in regions towards the national level. The most efficient carrier of these benefits is entrepreneurship.

The purpose of this paper is to outline the advantages and disadvantages of the most widely used indicators that measure entrepreneurship based on the following criteria: the capacity to cover the most aspects mentioned in the acknowledged definitions of entrepreneurship, the capacity to attract benefits from the regional environment and the capacity to influence economic growth starting at regional level.

We begin by comparing the most commonly accepted definitions of entrepreneurship, we continue by explaining why the regional dimension is the

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appropriate dimension for analyzing entrepreneurship, tracing the most important components of the environment in which entrepreneurship is formed. On this ground we classify indicators for entrepreneurship and we outline their most prominent advantages and disadvantages. Finally we extract conclusions regarding the most important qualities that an indicator must have in order to include the majority of features that compose a class of growing, innovative, value creating and impact determinant entrepreneurship.

2. Defining entrepreneurship in the economic literature

Defining entrepreneurship is the first step in finding the right indicator to asses regional entrepreneurship.

Since the concept of „entrepreneurship" first appeared, it continously evolved and started to have different senses in economic literature. Starting with the most simple meaning, an entrepreneur is someone who owns a business. But most economists add several qualities needed by someone who would be included in this category: risk takers in the perspective of profit making, uncertainty bearers (Knight, 1921), dynamic innovators (Schumpeter, 1934), anticipators of uncertain events such as demand (von Mises, 1949) or opposingly, spontaneous learners who identify and take advantage of new opportunities as they appear, innovators as developers of new products or new markets or methods of production (Hébert and Link, 2006) or creators of new combinations of ideas and resources (Landström, 2005). In most cases the concept of entrepreneurship is defined according to what it creates: value creation, job creation and knowledge spillovers (Szerb et. al., 2015).

Our purpose is not finding the most accurate definition of an entrepreneur, but the that of entrepreneurship as a dynamic economic phenomenon that determines economic growth.

Baumol (1990 and 1993) attributes a societal value to entrepreneurship because he considers that productive entrepreneurship together with human creativity are needed to combine resources in a profitable way. This results into economic growth and its catalysts can only be developed in a good institutional environment. Other authors attribute special attention to businesses with a completely different scope: those which do not aim at making a profit, but rather at making a social impact (Shockley and Frank., 2011).

In the view supported by this paper, entrepreneurship as a determinant of economic growth is not only the result of the activity of entrepreneurs as individuals, but also the impact of the institutional environment on the activity of entrepreneurs together wih their capacity of adapting to this environment (find market opportunities).

The social networks in which entrepreneurs take part have a defining role for the success of the entrepreneur (Kloosterman and Rath 2001, p. 192), who, through these social networks, has access to key resources such as capital, knowledge, supplier and distribution networks, human resources. Combining these resources in a skillful way creates added value. This ability belongs to the entrepreneur. Moreover, certain authors believe that entrepreneurship developes better in an entrepreneurial culture (Andersson and Koster, 2011). Stough (2016) considers that governance and institutions together influence economic development through the impact that they have on entrepreneurship because they "define a county or region's culture".

Sousa (2013) classifies two types of definitions for entrepreneurship: functional and ocupational, with the purpose of identifying the indicator that best includes firms that bring important economic value. Whereas the ocupational definition comprises individuals that have small firms or who starts a new business, the functional definition

refines this category to small business owners that have an impact on economic development. The last definition is based mainly on several bibliographic references from the Autrian school of economics and retains only business owners that follow profit by taking market opportunities, are risk takers and innovative.

From a perspective that separates businesses that produce growth from those that do not, Baumol (1990) distiguishes between productive, unproductive and destructive entrepreneuship. Productive entrepreneurship creates new jobs, non-productive improve the income of the entrepreneur comparing to the situation when the same person was an employee. Destructive entrepreneurship happens when a business gains monopoly when the market is in a difficult situation, taking advantage on the consumers' lability (for example in conflict areas or areas that are recovering after natural disasters).

In the author's opinion, only productive entrepreneurship as defined by Baumol (1990) is the entrepreneurship that is consistent to the functional definitions characterized by Sousa (2013) because it is the only one that can produce economic growth based on innovation, improvement of business processes, creation of new products, introducing new business models, etc. Moreover, the increase in entrepreneurship and especially entrepreneurship that determines economic growth is mostly presented on free markets that allow business people to express creativity and where public investments are directed to stimulating innovation.

Resuming the definitions in the literature, we find that there is a general preoccupation for identifying the class of entrepreneurs who are more than business owners, having a positive impact on economic development. For that entrepreneurs need production factors, both tangible and intangible (R&D, human capital, knowledge, etc.), several personal qualities and a good environment to develop their businesses. Due to the variety and complexity of the factors, using a good indicator that best describes entrepreneurship remains a big challenge in the empirical literature.

3. The environment and its role in the development of entrepreneurship

Starting with Porter's (1990) diamond model that outlines several factors which determine the competitive advantage in geographic space and Marshallian agglomeration externalities, the focus moved on the environment in which entrepreneurship development increased. The access to specialized resources plays an important role for the success of a business. Creating the right environment to increase resource availability and quality and to ease the mechanisms for accessing these resources has become an important preoccupation in the regional policies of the European Union.

The European Commission defines two concepts related to the environment of entrepreneurship in the REDI (Regional Entrepreneurship Development Index) Report: (1) Entrepreneurship Ecosystems represents "entrepreneurship support policies and initiatives from policy perspective" and (2) Systems of Entrepreneurship means "entrepreneurial dynamic that ultimately drives productivity growth in regions" (Szerb, et. al., 2013).

These concepts, which complete each other, serve in the design of the entrepreneurship policies which are taken at regional level.

However, there are several economists that attribute a lower importance to the environment in which entrepreneurship develops, considering that innovation has a leading role and the capacity to innovate belongs to the entrepreneur him/herself.

The adaptability and flexibility of individual entrepreneurs is, in the author's opinion, by far higher than that of any institution (university or research center in case of innovation). This is in essence what entrepreneurship means: immediately allocating

resources where productive opportunities appear. Consequently, concerning measures taken to increase innovation, the establishment of the research direction in a very organized framework is too restrictive and might lead research results in a wrong direction or might simply limit them. In the author's view, the role of institutions in providing the available and specialized resources is to assure the freedom of entrepreneurial activity and the main setting that form the specialized education and public infrastructure in the same direction in which entrepreneurs tend to develop because they identify market opportunities. So institutions must act as private entities that respond to the customers' needs. For example Turkish Airlines realized the importance of the geographic position of Istanbul and identified the opportunity of an airline hub. So Turkey developed existing airports and built new airports which helped Turkish Airlines to follow its expansion strategy based on airport transfers/flight connections that could take place in Istanbul. So public spending was directed in investments that overlapped the development strategies of private companies based on productive opportunities identified by entrepreneurs. Henrekson and Johansson (2011) have a similar opinion about the role of the institutional framework. In the case of a protectionist environment which builds entry barriers of new firms or postpones the exit of underperforming firms, there are important delays in efficiently reallocating resources, which contradicts entrepreneurial behavior and damages the entrepreneurial activity.

4. The regional dimension used in assessing entrepreneurship and its impact on economic development

In the EU Commission entrepreneurship is not a phenomenon that evolves based solely on the actions of individuals, but also based on the context and the environment that the individual evolves in (Szerb, et. al., 2013) The EU Commissions studies regional entrepreneurship, considering the region to be the most specific environment. Variables at regional level are not only more precise – smaller then country level and reflect to regional externalities, agglomeration and spillover effects.The region is the administrative dimension where specific regulations exist, EU policies are designed, EU funds are directed, being also a territorial unit for which statistics are widely available and harmonized. Szerb, et. al. (2013) analyze the following categories of determinants of a high-quality entrepreneurs: (1) Spatial externalities (agglomeration economies, population growth, region size and market potential, industrial specialization, (2) Clustering, network and capital, (3) Education, human capital and creativity, (4) Knowledge spillovers, universities and innovation (knowledge spillovers, innovation, protection of property rights, finance) and (5) The state (government size, regulations, corruption).

All these determinants are important for the evolution of entrepreneurship and for the way it impacts economic growth. But the challenge regarding available statistical data is to find the right indicators that show how environment adapts to the specific needs of the entrepreneurs regardless of their origin and nationality: eliminating market barriers and also easing the access of entrepreneurs to specific resources (through regional policies that develop these resources).

Identifying the features of entrepreneurship that are regionally specific is important for finding the right indicator for entrepreneurship taking into consideration its potential to provoke economic growth starting at regional level. In the next paragraph we outline some of the main features of entrepreneurship that are regionally specific. We aim at providing arguments that the regional level is the most appropriate for

analyzing entrepreneurship because, in the author's opinion, it is the level where the impact on economic development first appears, ultimately spreading at national level.

The specification is that administrative divisions of regions (subnational level) are only tools to obtain statistical information and implement policies. However, the role of regional institutions is entirely relevant because their impact takes place at the same level where they act.

We identify the following components of regional entrepreneurial environment:

a) The firm density is an evidence that the environment is dynamic and it shows if the environment is developed or not. It belongs more to the occupational definition, without showing anything clear about the quality of the entrepreneurial environment.

b) Developed networks and the firm belongingness to a network or several networks brings market opportunities closer and speeds up reactions. They also allow a more efficient diffusion of resources. Networks are more likely to form at regional level because the embeddedness of an entrepreneur takes place in the immediate proximity, according to personal experiences, family relations, previous workplaces, etc.

c) The industry that is mostly developed in the region is more likely to release entrepreneurs in the same industry. Partly because of the knowledge that he/she has accumulated and partly due to the networks that he/she has embedded in. Herein adds the availability of specialized resources.

d) But because launching a business in the same industry means working in a competitive environment, the entrepreneur is stimulated to come up with a new business model, new type of strategy, new product, etc. In short, entering a well-known but competitive market allows success only to innovators. This is how innovation is also created in agglomerations which are spread on small geographic surfaces, generally belonging to regions.

e) The cultural affinity towards entrepreneurship is a factor that appears and develops at mostly at regional level. Its roots are in the historical background and the specific characteristics of people and communities of people. Risk attitude is also part of culture and a personal characteristic of the individual in the same time. The propensity and the personal skills for entrepreneurship develops in communities where small businesses are part of tradition. In time, some communities gained more sophisticated skills which drove to the development of larger businesses. Some entrepreneurial communities are newer, especially in businesses based on innovation, and young people evolve and are educated in such an entrepreneurial culture. It is important to mention that the cultural feature is the one that takes less into account the regional administrative borders.

f) The regional institutional framework shapes the entrepreneurial in a remarkable way through a wide range of channels which depend on the functionality of institutions and how public spending is channeled: education, infrastructure, level of bureaucracy, tax administration, functionality of public administration, cooperation projects between public and private entities, cross-border cooperation projects, etc. Nevertheless it is the national institutions and regulations that matter mostly, at regional level only secondary policies are developed, especially in the case of non-federal countries. For example: general taxes, the level of corruption, labor laws and regulations, bankruptcy legislation, and the openness of the economy is determined at national level (Acs et. al., 2013).

Due to these factors, the way that regional entrepreneurial climate forms over time tends to be perpetual and self-reinforcing. The influence goes both ways: entrepreneurs influence the environment and the environment impacts the future development of entrepreneurship.

The next section synthesizes the main indicators usually used to measure entrepreneurial environment. Afterwards we outline their advantages and disadvantages.

5. Indicators that measure entrepreneurship

The indicators that we outline in this section are different options to show either the level of entrepreneurship, the quality and dynamism of the entrepreneurial environment and they can also represent determinants of the development of future entrepreneurial initiatives. We classify these indicators according to the components of regional entrepreneurial environment that we identified in the previous section. We associated each indicator to one of the definitions of entrepreneurship formulated by Sousa (2013): occupational (*) and functional (**). Indicators that are not marked with stars measure the environment rather than entrepreneurship and, in the author's view, do not enter in any of the definitions of entrepreneurship.

Components of regional entrepreneurial environment	Indicators	The use if the indicator
Density	Number of small businesses (Malecki, 1994)*	Individual occupation, level of entrepreneurship, number of risk-takers
	Share of small businesses (Lee et al, 2004)*	Individual occupation, level of entrepreneurship, share` of risk-takers
	Number of new jobs created by small firms**	Job creation by entrepreneurs
Networks	Number of contracts of small firms (both suppliers and clients) or number of clients and suppliers**	How well connected firms are
	The number of new clients per year**	Dynamics of networks expansion
	Average employment period	The shorter the period, the employee makes new connections. This can also create difficulties for firms.
Industry	All the other indicators applied to a certain industry or the share of this industry on the whole*/**	A high number of firms in a certain industry indicates a competitive industry and can show a high differentiation of the products/services and a high innovation rate.
Innovation	Number of business (new or old) which entail innovation (Malecki, 1994)**	Filters and retains only innovative firms
	Number of firms that introduced product and/or process innovations**	Filters and retains only innovative firms
	Number of new products per small firm in a certain period of time**	Innovation frequency in small firms
	Number of new firms that have export activities**	Highly innovative firms are also export competitive. It also shows networking.
Culture	Average firm size – (Lazear, 2005)*	In what extent employers have been prepared for entrepreneurship because in small firms, employees are acquainted to diverse activities of the whole business organization
	Start-up rate (Canever et al, 2010)*	Shows that entrepreneurship is self-reinforcing and draws the culture of a community
Institutions and regulations	Firm entry: either completely new firms or branches or subsidiaries of existing firms (native from another region of the country or from another country)*	Free market or low entry barriers
	Average time to start a new firm	Bureaucracy that directly impacts firms
	Number of cooperation projects between small firms and public institutions**	How much are institutions acting as economic agents. It also shows the network embeddedness.
	Share of small firms as private providers of traditionally public services: health, insurance, public transportation, utilities,	The higher the number, the more liberalized the economy is and a less oligopolistic market.

	etc.**	

Source: the table was compounded by the author.

The first observation is many of these indicators cover several categories of components of the entrepreneurial environment. This is an advantage because they express more than one characteristic of entrepreneurship, from those expressed in the definitions.

Some indicators belong more to the occupational definition of entrepreneurship (Sousa, 2013). They have the following advantages: easy to measure, easy to find in statistics, very clear what they include. Moreover, if the number of new companies grows, it means that the market conditions are favorable, more entrepreneurs anticipate success. Their disadvantages are: they do not distinguish between the types of firms from the perspective of their potential to influence economic growth, cannot distinguish between firms with different capacities to innovate and different results of their innovative activities, they do not show the dynamics (the growth potential).

The indicators included in the functional definition (Sousa, 2013) have the following advantages: they show the quality of entrepreneurship, in the analysis one can retain only the sample above a certain level that is expected to have the capacity to influence economic growth, they capture the innovative capacity and the capacity to take opportunities taken from the market, the institutional flexibility and the background. Their disadvantage is the short statistical data availability, the dependence on firm level data collected through surveys.

Even though the indicators relevant for the functional definition are more adequate for describing the entrepreneurial activity that has a substantial influence on economic development, it is hard to comprise all the characteristics and influences from the environment in one indicator.

6. Conclusions

Entrepreneurship has been measured in several ways in the economic literature in the attempt to evaluate its impact on economic development. First we explained why the regional dimension is the right level for such analysis. Then we established that the challenges come from the conditions that the indicator of entrepreneurship must meet: to include only small firms, with high growth potential and value creation potential and to include characteristics of the entrepreneurial environment because it provides the incentives for growth.

Synthesizing the most common indicators used in the literature we conclude the qualities of an indicator which captures regional entrepreneurship:

- It must comprise only entrepreneurial initiatives so it should exclude recently opened subsidiaries of large multinational companies. For example Fritsch and Mueller (2006) eliminate new businesses with more than twenty employees in the first year of their existence.
- Any indicator that is used must take into consideration as many as possible from the environment determinants of entrepreneurship: density, networks/connectivity, industry, innovation, culture, institutions and regulations.
- Stressing once again the importance of the environment, the start-up appearance and growth must be related to the size and economic potential of each region. So the entrepreneurship rate is preferred to absolute measurements.
- Even if the indicator takes into consideration the determinants, they must be carefully chosen to avoid misinterpretation. For example, there are significant limits when only small firms with R&D activity are used to prove innovation. The European Community Innovation Survey (CIS) shows that it is not mainly

the investments in R&D that determine innovation in small firms, but capital equipment and input-embodied innovation and design innovation. [1]

- Connectivity is a key factor for the impact. If the entrepreneur is not well connected in environment the impact of his/her activity will be limited.

Finally, to capture more of the effects from the environment and to decant the entrepreneurship that determines growth, a composite index might be the most appropriate because even if, the outlined measurements meet several conditions at a time, none of them is thorough. To continue the research we plan to empirically test the impact of entrepreneurship on regional development using different alternatives of indicators, including composite versions, taking into consideration the conditions concluded by this paper.

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THE GAP BETWEEN WHAT WE TEACH AND WHAT STUDENTS UNDERSTAND. WORK IN PROGRESS - A SURVEY BASED APPROACH OF ACCOUNTING CONCEPTS

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Abstract

The Economic Higher Education has become at the core of the Romanian Higher Education after 1990, with a significant inflation in the number of specializations across the country. Being a good economist became the key of getting a quick insertion on the labour market.

One of the most difficult courses taught in the first year of study by all the economic faculties in Romania is accounting, a discipline equally recognized as challenging as useful. Accounting is not only about understanding the basic stuff in economic education, but also about being able to look deeper into the more profound economic features of a job. Previous research documented that academic courses could help the students towards entrepreneurship, through an integration of process approach, illustrating business operations with real accounting documents and bookkeeping.

Despite its valuable contribution in practice, Accounting is however rejected by students most of the time, arguing that learning accounting is boring, and being an accountant is not a matter of high social status.

Based on a teaching experience of 15 years, the authors first emphasise the difficulties the students face when confronted with terms like *share capital, fixed capital, working capital, double registration and double representation, reserves,* in the sense of associating them with the right category. The study has been conducted with the final aim of improving the teaching of such concepts and eventually raising the quality of the educational process.

Based on a sample of 150 students affiliated with the Faculty of Administration and Business, University of Bucharest and methodologies previously implemented by Saemann & Crooker and Svenson & Nilsson, we measure the differences between what an accounting teacher expects students to know after introducing a number of basic concepts and what students receive as meaning as those concepts.

Keywords: accounting, mental representations, improving teaching of accounting, improving businesses and competitiveness, entrepreneurship

JEL Classification: M41, M13

1. Introduction

One of the most difficult courses taught in the first year of study by all the economic faculties in Romania is accounting, a discipline equally recognized as challenging as useful. Accounting is not only about understanding the basic stuff in economic education, but also about being able to look deeper into the more profound economic features of a job.

The Economic Higher Education System was subject to a lot of challenges in the last decades. We could mention the implementing the Bologna Process and the fast development of the technology, that influenced the education process (Manea, Pitulice, 2015).

The accounting education usefulness is not new debate. Once, the narrow, technical approach in teaching accounting was deeply criticized. Nowadays, the things have changed, so that the accounting academics are accused by the business environment that it focuses largely on preparing students at a conceptual level to the detriment of practical training (Diaconu et all, 2011). Also, since the way we do business in the new century seems to be very different, there is a need for a discussion

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of changes in education; in the light of expected changes in business, what skills will be required by the accountants of the future? And what are the implications for accounting education (Howieson, 2003)?

2. Literature review

SMEs, entrepreneurship and regional smart specialization

Previous studies have established that mismanagement of the accounting and finance function is a cause of small business distress (Burke and Jarratt, 2004; McMahon, 2001; The Beddall Report, 1990). Governments have advocated and research has determined that the accounting profession is ideally positioned to provide the kind of advisory services that are required by financial management deficient small business owner-managers (SBOMs) (Carter and Van Auken, 2006; Jay and Schaper, 2003; The Beddall Report, 1990).

The literature suggests that the accountant is one of the leading sources of business advice (Bennett and Robson, 2004; Blackburn et al., 2010). The small business management literature identifies three broad objective sets: growth-oriented economic goals, primarily personal non-economic objectives and an emerging cohort of SBOMs who target achieving a balance between business and personal objectives (Morris et al., 2006; Peacock, 2004; Walker and Brown, 2004; Greenbank, 2001). Research on small business goal setting and success factors has found that SBOMs most commonly cite achieving non-economic objectives as measures of their success (Morris et al., 2006; Walker and Brown, 2004; Greenbank, 2001). Achieving these objectives may require little or no accounting knowledge and information and neglecting the management of accounting is a major cause of small business failure (McMahon, 2001; Reynolds et al., 1994; Williams, 1987).

There was general agreement among the practitioners that owner-managers who are primarily motivated by achieving personal objectives have generally low levels of interest in using accounting information for business planning or performance evaluation.

An increasing number of owner-managers wish to achieve a balance between business and personal goals (Stone, 2011) and accounting communications which demonstrate a connection between business and personal objectives facilitates SBOMs' willingness to understand and utilise accounting information. The same study shows that growth-oriented SBOMs who are motivated by achieving economic objectives are likely to exhibit a high level of interest in using accounting information.

Related research has determined that most user groups from a non-accounting background would prefer to receive accounting information that utilises descriptive language that is clear and straightforward (Sun, 2007; DuPree, 1985).

Accountants are in the vexed position where judgements between clarity and precision of the language they use may be necessary. There is a challenge inherent in conveying complicated information in an understandable form. Framework for the Preparation and Presentation of Financial Statements, paragraph 25, AASB, 2007 states that "information about complex matters . . . should not be excluded merely on the grounds that it may be too difficult for certain users to understand".

The generally low readability of financial statement narratives (Li, 2008; Courtis, 2004), technical nature of the language used to construct them (Sun, 2007) and SBOMs' generally lesser knowledge of accounting discourse (Dyt and Halabi, 2007) suggest that the messages being communicated are potentially confusing and difficult for SBOMs to

understand. While numeric language is suitable for conveying quantifiable information, natural language may transmit a range of meanings and facilitate understanding a broader set of concepts.

Previous researches documented that academic courses could help the students towards entrepreneurship, through an integration of process approach, illustrating business operations with real accounting documents and bookkeeping (Białek–Jaworska and Gabryelczyk, 2015). The papers underline the need to implement specific educational programmes in order to direct the students towards entrepreneurship, through an integration of process approach, illustrating business operations with real accounting documents and bookkeeping using ERP and IT modelling and process analysis tools.

Some papers explored the impact of small business managers' objectives and preferred methods of communicating on the communications aspect of accountants' advisory relationship with small business. Through exploring and reporting on these issues, the paper seeks to contribute to understanding of accounting's capacity to satisfy the communication needs of its users (Stone, 2010). Small business managers prefer direct forms of contact with their accountants and the richness of verbal communications.

Stereotypes about accounting profession and accountants

Being an accountant is considered as an important profession and as a major employment destination for graduates in many countries. There are, still, some preconceptions regarding the content of the accounting jobs and the image of the accountancy profession, as well as the status of accounting as an academic discipline. There is an extended list of papers which aimed to explore the students' perceptions of the work of an accountant and the accounting profession, the key factors influencing students' perceptions of the profession, as well as the students' perceptions of society's regard for the profession.

A stereotype can be defined as "…a collection of attributes believed to describe the members of a social group" (Dimnik & Felton 2006), and accounting, like other professions, has its own stereotypes. Stereotypes are a mirror of a social reality (Dimnik & Felton, 2006), and the understanding of the accountant's image is important for capturing the role of accounting within a social context (Carnegie & Napier, 2010). Also, literature review suggested that often, parents and students make decisions regarding careers based on the image they hold about professions (Albu, Calu & Guşe, 2016). For this reason, the stereotypes play an important role in creating a certain public attitude.

The literature on the popular perceptions of accounting identifies two major accounting stereotypes (Carnegie & Napier 2010), and these are the dull and grey attributes of accounting profession.

Previous studies focus on the image of accountants as it is perceived by students, accountants, managers and businessmen (Marriott & Marriott, 2003; Dimnik & Felton, 2006; Carnegie & Napier, 2010). The general stereotype associated with accounting in the literature is that of "bookkeeper" or "bean-counter". At the same time, the accountants are (and these are the positive aspects) "…honest and trustworthy, careful with money, reliable, polite and well-spoken" (Carnegie & Napier 2010). An accountant is usually characterized by objectivity, attention to fine detail and emotional detachment (Baldvinsdottir et all, 2009).

Some of the negative stereotypes associated with accounting or accountants are: accounting is boring, uninteresting, it involves only numbers, and communication skills are not important (Marriott & Marriott, 2003), and this is the commonly held stereotypical image of accounting. Other major accounting stereotypes have been referred to as the 'business professional' (Carnegie & Napier 2010) and the 'colourful accountant' (Jeacle 2008). In this regard, the 'business professional' has the "…characteristics of the executive, the manager and even the entrepreneur…a thrusting, proactive and much more creative being" (Hopwood 1994). However, the modern stereotype of accountants as 'business professionals' carries its own stigma of dishonesty and lack of respectability (Jeacle 2008). Despite a transformation in the scope of the accountant's role from 19th century clerk to 21st century expert, the shadow of the stereotype still appear (Jeacle, 2008).

Several sources have contributed towards this negative image. Among all majors, impressions are formed from exposure to movies, television, and accounting courses. "It seems that these impressions were more negative than impressions based on relationships with accountants whom people knew in real life" (Wells, 2013). In the fictional literature accountants are portrayed as uninteresting, monotonous, boring, sombre and expressionless and their work is described as mundane, repetitive and boring (Cory, 1992).

Accountants being implicated in major corporate collapses such as Enron and other financial scandals which have occurred since 2000 have exposed the fragility of the accounting profession's public image, despite the various attempts to project the 'business professional' stereotype in a positive light (Carnegie & Napier 2010).

Accounting competes with other fields and occupations, and for this reason it is important that it has a good image, respectable, to provide challenges and rewards in order to attract the best people to the profession. Some authors (Wells, 2010) consider that this image persists, despite the transformations undergone by the role of accountants and the changes in the business environment.

In this context, it is necessary that universities understand students' perceptions of accounting and accountants and help them become informed about what it really means to be an accounting professional.

Other researchers have investigated differences in the perceptions of accounting held by accounting and non-accounting students. Unsurprisingly, these studies reported that accounting students generally hold a positive view of accounting, while non-accounting students have a more negative perception (Fisher and Murphy, 1995).

These researchers (Fisher & Murphy 1995) have studied the perceptions of groups of accounting and non-accounting students in UK, which suggested that there are some negative stereotypes of accountants. The surveys undertaken indicated that within the two groups there was an apparent co-existence of high status and low esteem in their perceptions of accounting and accountancy. The study led to the conclusion that the profession of accountancy continues to attract a high proportion of graduates, even there are still negative views regarding the nature and role of accounting. Other studies showed that students who are studying accounting in school have less negative views than those not studying the subject (Baldvinsdottir, Nørreklit, Scapens, 2009).

Perceptions play a critical role in career decisions, and different studies have explored this issue within accounting (Baldvinsdottir, Nørreklit, Scapens, 2009). Unfortunately, many of these students may have limited information about careers in the different fields of business. Instead, they are forced to rely on other sources of information, one of which is their own perceptions of different occupations and professions (Cory, 1992).

In Romania, previous research investigates the role of stereotypes about the profession and the work of accountants held by students (Albu et al., 2011), the accounting competencies and the changing role of accountants in emerging economies (Albu at all, 2011), and how the stereotype of the accountant could be changed through accounting education (Albu et al., 2011). Research in accounting education in Romania is increasing in the last years (Pitulice & Manea, 2015), even many accounting studies are mainly focused on the teaching methods. The accounting job market is well developed in Romania, with many opportunities for accounting and non-accounting students as well. However, getting a job is often influenced by the existence of previous practical experience (Diaconu et al., 2011).

Difficulties in learning accounting by the students

Students should have the potential to become technically competent professionals with well-developed analytical abilities, communication and interpersonal skills as well as a cultural awareness of the expanding business environment (AICPA, 1991). Unfortunately, many students may be unfamiliar with the work demands of contemporary accounting firms leading to a mismatch between students interested in accounting and the type of person most suited to the profession.

Cohen and Hanno (1993) used the theory of planned behaviour to predict and explain the choice of accounting major. They concluded that students chose not to major in accounting because they perceive it to be too number-oriented and boring.

In two US studies, Saemann and Crooker (1999) and Geiger and Ogilby (2000) reported that traditional perceptions of precision and order in the profession discouraged more creative individuals from specialising in accounting. Similarly, Jackling (2001) confirmed that negative perceptions of accounting and the perceived emphasis on number crunching dissuaded students with creativity and people-oriented attributes from a career in accounting. This view that accounting is primarily numerical was also highlighted by Mladenovic (2000) in an Australian study of tertiary students. She observed that students tend to perceive accounting as numerical, objective and non-controversial with an affinity with mathematics and statistics.

This suggests that the course being followed positively impacts on students' perceptions of the profession or that the course attracts those who have a more positive view.

3. Entrepreneurship education and accounting - the goal of the study

Providing entrepreneurship education at higher educational institutions is a mean to increase the number of entrepreneurs (European Commission, 2012). Entrepreneurship education aims to encourage innovative business start-ups as well as improving the entrepreneurship mind-set of young people to enable them to be more creative and self-confident in whatever they undertake and to improve their attractiveness for employers.

In entrepreneurship education with elements of practical accounting, students should be aware that the information obtained from the financial and accounting system may help the entrepreneur to reduce business risk, highlight bottlenecks, signal critical inventory levels and identify any actions needed to be taken.

An increase in the number of start-ups run by creative well-educated people who understand the role of market and risk analyses, tax law and accounting in successful business activity and who are equipped with the entrepreneurial capabilities necessary to create value derived from the commercialization of innovative research is required for sustainable growth based on innovation and excellence. Expanding students' key entrepreneurial competence is crucial, as it increases the individuals' readiness for risk-

taking and the ability to turn ideas into action despite the associated risk as well as the capacity to plan and manage projects in order to achieve aims and/or realise profit.

The accountant's role in SMEs

Previous studies have highlighted the extensive use of external accounting services by small and medium enterprises (SMEs) (Doving and Gooderham, 2008; Carey and Tanewski, 2009; Blackburn et al., 2010), with a number of studies indicating that accountants are the most frequently used source of external advice, ahead of banks, solicitors and government providers (IFA, 2010; Jay and Schaper, 2003; Berry et al., 2006; Bennett and Robson, 1999; Blackburn et al., 2010).

With accountants having expertise in a range of areas (e.g. taxation, financial management/ budgeting, succession planning, human resource management, salary administration and strategic management), studies have highlighted the valuable role that they can play as external sources of advice for SMEs (Devi and Samujh, 2012; IFA, 2010; Jay and Schaper, 2003; Bennett and Robson, 1999; Blackburn et al., 2010).

The literature also highlights that SMEs prefer to obtain advice and support from parties they presently deal with and trust (Blackburn et al., 2010; Gooderham et al., 2004; Hoevenagel and Wolters, 2000), but with the current study's results highlighting that accountants are not being utilized as much as they feel they could be, this highlights that accountants need to be more pro-active in their business advisory offerings.

Accountants are not traditionally seen to be good at communication and marketing their business services (Blackburn et al., 2010), but if SMEs prefer to obtain support and advice from their existing trusted business dealings, accountants need to be able to prove to their clients that they have the necessary competencies in providing these additional business advisory services.

The need for learning accounting terminology

The shortfall in graduate capabilities creates problems also for the profession/industry which the students are seeking to join as graduates (Birrell & Healey, 2008; Jackling, 2007). The underlying aim of university education is to prepare students to operate on equal terms with other members of their professional community and to 'talk (and write) its language'. In linguistic terms, this means becoming a fully-fledged member of the relevant discourse community (Candlin, Bhatia, & Jensen, 2002). The terminology of the community is a key element.

The related concept of blended learning, that is, using combinations of face-to-face teaching and electronic resources (Graham, 2005), is particularly pertinent in providing both scheduled and unscheduled learning spaces for students. The electronic environment can thus promote distributed learning, at times chosen by the learners themselves when they are most focused on a challenging question. The electronic environment can also provide those enriched contexts in which students can best learn and retain new vocabulary, with audio-visual support (Lemke, 1998).

4. Research hypotheses

Based on our literature review, we could say that the students' attitude towards the accounting work and accounting profession is influenced by many causes, such as their conceptions based on stereotypes, their sources of information and the way accounting was taught to them during school (high school, continuous training or academic courses).

By observing the reaction of students in our teaching activity, and after evaluating them at the end of the courses, we could issue some hypotheses concerning the students' attitude towards accounting.

In carrying out our research, we aim to test the following hypotheses.

H1: Students often use interchangeable accounting concepts, microeconomics and macroeconomics concepts, in trying to explain economic and accounting phenomena.

H2. Students often use trivial, ordinary explanations for accounting terms they are not familiar with, instead of proper accounting terminology.

H3. Students having a bad reaction to accounting work and accounting profession have more difficulties in learning accounting.

5. Research methodology

In order to test our hypotheses, we use a questionnaire, to be applied on the Faculty of Business and Administration students. The students are enrolled in Business Administration, Public Administration and Marketing programmes. They all attended the Accounting courses prior to our research.

First of all, we employ the methodology developed by Saemann & Crooker (1999) to assess students' perception about accounting and accountants. The model is based on personality studies applied in accounting. The tool used to measure the perception on the accounting profession includes pairs of adjectives that represent opposite opinions. Initially, the authors have included 34 pairs of adjectives. Many authors (Alev et al., 2010; Saemann & Crooker, 1999; Wessels & Steenkamp, 2009, Albu et all, 2016) have tested different pairs of adjectives on students.

The instrument consists of 36 pairs of adjectives that represent opposing views. Approximately half of the pairings are reverse coded. Some examples of pairs of adjectives are: abstract/concrete; new ideas/pre-set rules; extroverted/introverted; beneficial to society/profit-oriented; boring/interesting. The distance between the two adjectives is measured on a 5-points Likert scale, and respondents are asked to use the scale to evaluate their perception of accountants.

For the next step, we measure the differences between what an accounting teacher expects students to know after introducing a number of basic concepts and what students receive as meaning as those concepts. The research instrument is Svenson & Nilsson methodology, in order to catch the mental representations of students towards accounting concepts. The questionnaire will include questions asking students to find the meaning they think is appropriate for a number of accounting concepts.

Also, the questionnaire will refer to students' perception of accounting courses, the usefulness of accounting knowledge and their career perspectives.

6. Expected results

The results of our survey will be the starting point for developing new ways of approaching accounting teaching in our faculty.

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INTERCONNECTIONS BETWEEN TOURISM AND ENVIRONMENT. SPECIFIC RESPONSES

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Abstract

This paper proposes a discussion on the interractions between tourism and environment, emphasizing both favourable and negative impacts. They are addressed from the perspective of natural and built environment, followed by a review of the indicators employed in order to highlight these impacts. Further on, various responses and possible actions are identified, accompanied by a look forward, in the 2020 perspective.

Keywords: tourism, environment, impact, indicators, solutions

JEL Classification: Q54, Q56

Introduction

Many research papers and practical works address tourism and environment as complementary and interdependent areas. According to Murphy (1985), Papapavlou-Ioakeimidou and Tarani (2008)) and Simao and Partidario (2012), tourism is recognized as an industry that relies and depends on natural resources, both physical and cultural ones, as well as on local heritage. The environment is the most valuable element underlying the development of tourist activities (Nijkamp, 1999). An unpolluted environment having a particular landscape, fauna and flora is a conducive factor to the development of tourism activities. On its turn, tourism activity helps turning to good account specific components of the environment. However, even if the favorable impact of tourism on the environment can support the sustainable development, tourism show a negative impact on the environment as well (Pascariu, 2006). In addition, various studies point to the fact that tourism is a driver of environmental changes (WTO, 2008; Papapavlou-Ioakeimidou and Tarani,2008), with highly pronounced consequences on environmental sustainability (UNEP, 2001; Scott et al., 2005; Cracolici, Cuffaro and Nijkamp, 2008; Skavanis and Sakellari, 2011; Olivar, 2016).

This paper aims to investigate the impact of tourism on the environment and to identify indicators that can be used to highlight this impact. It also studies the possible courses of action to reduce the negative effects and amplify the positive ones. Finally, positive and negative determinants are highlighted within the 2020 time frame.

Categories of tourism impact on the environment

The literature highlights various impacts of tourism on the environment - both natural environment and built environment. In the first case, it refers to the exploitation of natural resources, changes in the structure of biodiversity, soil erosion, pollution, etc. In the latter, it refers to aesthetic and visual impact, infrastructure, changes in urban structure, forms of conservation and restoration, competition. Table 1 shows a breakdown of these categories of impact in the two cases.

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Table 1. Categories of tourism impact on the environment

Categories of tourism impact on natural environment	
Exploitation of natural resources	Water resources scarcity, due to overloading and overexploitation
	Depreciatoin of underground water, due to excesive exploitation
	Drainage and underground aquifer structure changes due to excesive drillings
	Reducing classic fuel resources used to obtain energy to support tourism activities
	Increased risks caused by natural disasters such as fires, landslides, floods, earthquakes, avalanches, etc.
Changes in the structure of biodiversity	Destruction of natural habitat
	Killing animals for hunting purposes, for gastronomic curiosity, for souvenirs etc.
	Influencing intern and extern animal migration
	Destruction of valuable plant species for souvenirs or for timper explotation
	Rare plants destruction by tourists
	Reduction of natural flora for setting up tourism facilities
	Natural reserves expansion
	Vegetal cover destruction
Soil erosion	Soil compaction increases the rainwater runoff and erosion of surface soil
	Increased soil exposure to landslides
	Increased risk of avalanches
	Caves and potholes damages
	River banks and sea shores damages
Pollution	Watter pollution caused by waste dumpings
	Crude oil accidental situations
	Air pollution caused by exhaust gases and fuel burning for energy production
	Noise pollution caused by transport and travel activities
	Chemical pollution of soil and waste pollution caused by the full range of travel services
Aestetic changes	Constructions and tourism facilities that are not respecting local tradition
	Garbage and waste unauthorized sites
Categories of tourism impact on built environment	
Aestetic and visual changes	Increasing the density of new construction and concrete surfaces
	Acceptance of new architectural styles discordant with the old ones
	Increasing population density and real estates
Infrastructure	Overload with elements and infrastructure equipment
	Building new infrastructure investments
	Poor environmental management when using and marketing of cultural resources in historical settlements
Urban structure changes	Expanding urban areas, such as industrial residential, commercial, etc.
	Changes in volume, concentration and quality of facilities and urban furniture
	Contrasts between the tourist and residential landscaped areas
Conservation and restauration	Reusing old buildings for tourism and trade
	Preservation of old historic centers at urban or rural level
	Using old buildings for cultural purposes and as a second residence
Competion	Replacement of attractions in human settlements with new ones, less known but more attractive
	A new orientation of cultural attractions in the light of changing travel motivations.

Source: compilation based on Cândea et al., 2003; Sava, 2007.

It is noted that, for example, in tourism activities natural resource exploitation leads to reducing water resources and impairment of groundwater by overexploitation, changes in the underground structure as a result of drilling activity, reducing classic fuel resources, increasing natural disasters risks, etc. Tourism can also cause changes in the structure of biodiversity and destruction of habitats, changes in internal and external

migration of animals, destruction of plant species and rare plants, reducing natural vegetation, and expanding nature reserves. In terms of the built environment, investment in tourism infrastructure, for example, can lead to improved transport infrastructure in certain areas where it was deficient, but also to an overloading with specific elements in other areas.

Indicators of tourism impact on environment

To assess the impact of tourism on the environment, in particular to highlight the degree of sustainable development of tourism in the destination region , authors such as Denman et al. (2007a and 2007b) propose the use of a wide range of indicators, among which are: total number of tourist arrivals and overnight stays per month; number of beds (type of accommodation); average expenditure per tourist; local spending generated by tourism; percentage of beds available throughout the year; percentage of annual use of beds and rooms; average occupancy rate among the busiest three months and three months the least occupied; number of beds per 1,000 inhabitants; ratio between the number of tourists and the local population; average length of stay; percentage of active tourism enterprises accessible by public transport; percentage of visitors who arrive by other means of transport besides car and airplane; percentage of use by means of transport within the destination region; percentage of seasonal employees in tourism; percentage of employees with professional qualifications in tourism; percentage of residents who consider themselves satisfied with local impact of tourism; percentage of residents who say that they directly benefit from local tourism; percentage of enterprises with recognized environmental certificates; percentage of firms stating that take measures to protect the environment; percentage of waste recycled by active companies in tourism; amount and proportion of waste sent to discharge; rejection of treatment plants; total water consumption; percentage of recycled water by active companies in tourism; water quality; total energy consumption by tourism equipment; air quality; environmental condition in selected areas; name and size of protected areas; percentage of active tourism enterprises participating in quality certification systems; percentage of visitors who claim to be completely satisfied with their experience; visitor satisfaction level with physical or sensory disabilities; percentage of active tourism businesses that are part of the local tourism associations; number and percentage of businesses promoted by various media vectors; number of tour operators which serve the tourist destination; existence of a sustainable tourism development strategy and action plan, etc. Such indicators are able to offer a relevant image on tourism sustainability in terms of economic viability, local prosperity, employment quality, social quality, visitors' satisfaction, physical integrity, resource efficiency, environmental quality, etc.

In a different register, Tanguay et al. (2013) reveals the difficulties created by the possible interpretations of the sustainable tourism and sustainable development concepts, proposing various sets of selection criteria, able to generate indicators recognised by both scientific and political environments. In principle, they start from indicators recognized by experts and filter them in accordance with real experiences and possibilities to be employed at various destinations.

Elements of response to the impact

To limit, reduce or even eliminate the various negative effects of tourism on the environment, Denman et al. (2007b), Sava (2007) and other authors bring into discussion a number of solutions and actions, such as: development and implementation of a strategy for tourism exploitation since the social side of tourism must prevail in relation to the economic one; development of legislative measures to protect tourism

resources and landscape; sustainable modern setting up of the objectives or tourism areas, toward an organized and controlled development; tourism education of the tourism actors and potential tourists.

In addition, taking into account the impact of tourism on the environment, Cândea et al. (2003) argue that tourism activities should be developed based on impact studies previously conducted. Thus, these studies should describe the activities proposed in the implementation, to present the current situation of the environment, to analyze the impacts of both general and particular perspective, to describe alternatives to the proposed activities, to make proposals solving concrete problems arising from the impact of the environment and to develop a plan for monitoring the performance of tourism activities and their impact on the environment.

Also, in physical tourism planning related programmes of a region, Pascariu (2006), in line with Coccossis and Constantinoglou (2006), suggests a number of elements to be taken into account as follows: "acceptable level of agglomeration for each component of the tourism product in part: cities, parks, museums, etc .; maximum acceptable loss of natural resources without degradation of ecosystem functions and biodiversity; acceptable level of air pollution, sound, water and soil, based on the assimilation capacity of ecosystems;• intensity of use of transport infrastructure and services; use of public services, such as water networks, electricity, telecommunications, waste management and sewage; availability of other infrastructure and public services related to health, public security, etc. " (Pascariu, 2006, p. 186, translated from Romanian).

A look forward

As mentioned before, tourism has impacts on a region from various perspectives such as economic, social, environmental, etc. A question directly related to this issue refers to the determinants that have positive or negative impact on tourism activity itself. Thus, according to Kester (1999), Surugiu (2009), Shepherd and Slusarciuc (2014) a series of determinants of tourism activity are expected to occur by 2020, such as:

• economic determinants: maintaining an overall moderate growth rates or even better; economic performance above average recorded in the strong Asian economies; increasing the importance of new strong economies such as China, India, Brazil, Russia, etc .; emphasis the gap between rich and poor countries;

• technological determinants: development of information technology; development of advanced technologies in transport;

• political determinants: reduction or even elimination of barriers related to the international travel; transport and other forms of deregulation;

• demographic determinants: aging population and labor contracting in industrialized countries which will lead to a deeper migration from south to north; degradation of traditional western households;

• determinants associated with globalization: increasing the power of the international economic and market forces and, consequently, reduced control of individual states and non-global corporations;

• determinants associated with location: conflict in developing countries in relation with identity and modernity; request from the various groups made on the basis of ethnic, religious or social recognition of their rights;

• determinants associated with awareness of environmental and social issues: an increase public awareness on of social, cultural and environmental issues; an increased involvement of the media in carryover major global problems (e.g, reductions in water);

• determinants associated with living and working environment: an increasing urban congestion in industrialized countries and especially in the developing ones;

• determinants associated with the transition from a service to an experiences economy: a particularly focusing on providing unique experiences involving the consumer personally;

• determinants associated with marketing: using electronic technology to identify and communicate with segments and niche markets;

• determinants associated to the safety of travel: tourism will not be developed in war areas, civil unrest or where the health and safety of tourists are threatened.

Moreover, in line with United Nations World Tourism Organisation predictions for 2020 (UNWTO, 1999), Dwyer et al. (2008) highlight five trends that characterize the evolution of tourism: globalization trends and economic developments related to long-term trends of social change, trends related to political changes, trends related to developments on the environment, energy and natural resources, trends related to changes in technology. In determining changes with relevant implications for the evolution of tourism in 2020, the authors also stress the following key ideas: none of these trends will exercise absolute domination in the world; every trend will have a variable impact according to regions and countries will occur; trends to support each other and act for multiple purposes. They will provide a systemic context in which tourism development will take place in the coming years, if addressed correlated and interdependent.

Conclusions

Tourism development depends on the potential of natural and built environment, which is in close interdependence with maximized positive influences and minimized negative influences. In this respect, it is necessary to devise strategies that take into account environmental and social considerations to an extent at least as great as the economic ones. It also requires an integrative vision of the determinants of tourism development, taking into account that they will act in combination at different intensities depending on the geographical area in which occur.

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CONCEPTUAL MODELS FOR SUSTAINABLE DEVELOPMENT AT REGIONAL LEVEL

Catalin Ioan Nechifor[1]

Abstract

The research undertaken at national and international level shows the the spatial approaches induce a series of specific aspects in tackling with the concept of sustainable development, wich have an important influence on the content of regional policies. This paper discusses these aspects and entailed influences based on a couple of conceptual models proposed by leading scholars in the field (e.g. van Veen-Groot,Nijkamp, Baggen, van der Knapp, Hansen). The conclusions point to useful lessons for environmental management in relation to regional development.

Keywords: sustainable development,space,regional policies, conceptual models

JEL Classification: Q01, Q56, R11

Introduction

Nowadays there is an ever increasing concern with ensuring sustainable development at regional level and with investigating this phenomenon, shown by both public authorities and academia. A major document defining this orientation is the "Green Paper on Territorial Cohesion", stating: "Policies related to ensuring territorial cohesion are centered on the sustainable use of specific features of the different regions that have the potential to reduce disparities and increase competitiveness" (European Commission, 2008, p.3). It was followed in by the Territorial Agenda 2020 (European Commission, 2011), explicitly entitled "Towards an Inclusive, Smart and Sustainable Europe of Diverse Regions". It addresses the territorial cohesion as "a set of principles for harmonious, balanced, efficient, sustainable territorial development" (p.3), requiring "more sustainable and resource efficient economic structures" (p.4). The document underlines that "the well‐functioning ecological systems and the protection and enhancement of cultural and natural heritage are important conditions for long‐term sustainable development" (p.8). At country level the regional operational programmes and environment sectoral operational programmes of the member countries reflect these goals in a correlated manner.

In accordance with this vision, there is a particular increase in the interest and involvement of local government, civil society and business community in order to transform regional economies into sustainable, "green" ones (Hansen, 2013).

On its side, the fundamental scientific research dedicated a lot of studies to the conceptualisation of the complex real world of sustainable development, aiming to contribute to its proper understanding via system representations, with specific concepts, terms and investigation instruments. Further on, a plethora of applied studies concentrated on well-defined components of these systems and on systems as a whole from a practice oriented perspective.

This paper proposes an inquiry into some relevant conceptual models for sustainable development at regional level proposed in the international arena, discussing their relevance and implications for developing and implementing competitive policies for sustainable spatial development.

Conceptual models

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Sustainable development in space refers basically to socio-economic development compatible with environmental criteria of a space-based system, taking into account specific objectives of the component areas. All key elements of sustainability - "equity (the achievement of widespread social justice in the distribution and accessibility to resources both in space and time), environment (acknowledgement of nature's rights and values), development (economic development able to guarantee both the quality and quantity of natural resources)" – are taken into consideration in this respect (Barbanente et al., 1994, p.1), the ultimate goal of sustainable regional development being "the integration of sustainable development principles into regional development practice" (Clement et al., 2003).

In association with the regional approach to sustainable development literature highlights a number of types of sustainable development, such as strong and weak sustainable development, or internal and external sustainable development. The first concept involves improving all components of welfare function, while the second implies an increase in welfare, but trade-offs between positive and negative changes in some components are allowed. Internal sustainable spatial development refers to sustainable development in a given area, while the external one relates to sustainable development in adjacent areas; both internal development and the exterior can be both weak and strong (Nijkamp et al., 1996).

Sustainable development of a region depends on the strength and capacity is has to attract and develop various economic activities (Koufodontis et al., 2007).

Achieving socio-economic and spatial sustainable development implies to ensure adequate quality of life and access to all necessary services and requires the action and interaction of many factors, as evident from Figure 1.

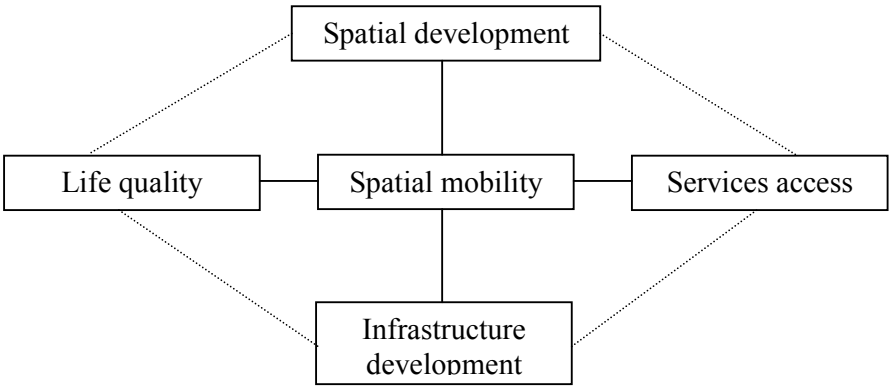

Figure 1. Spatial mobility – involved forces
Source: Nijkamp et al., 1996, p.504

Also, taking into account the interactions shown in the Figure 1, it is very important that the company be organized in a way that enables achievement of sustainable development. A conceptual model associated with the previously set which can be easily converted into an operational one, to be tested, is shown below (Figure 2).

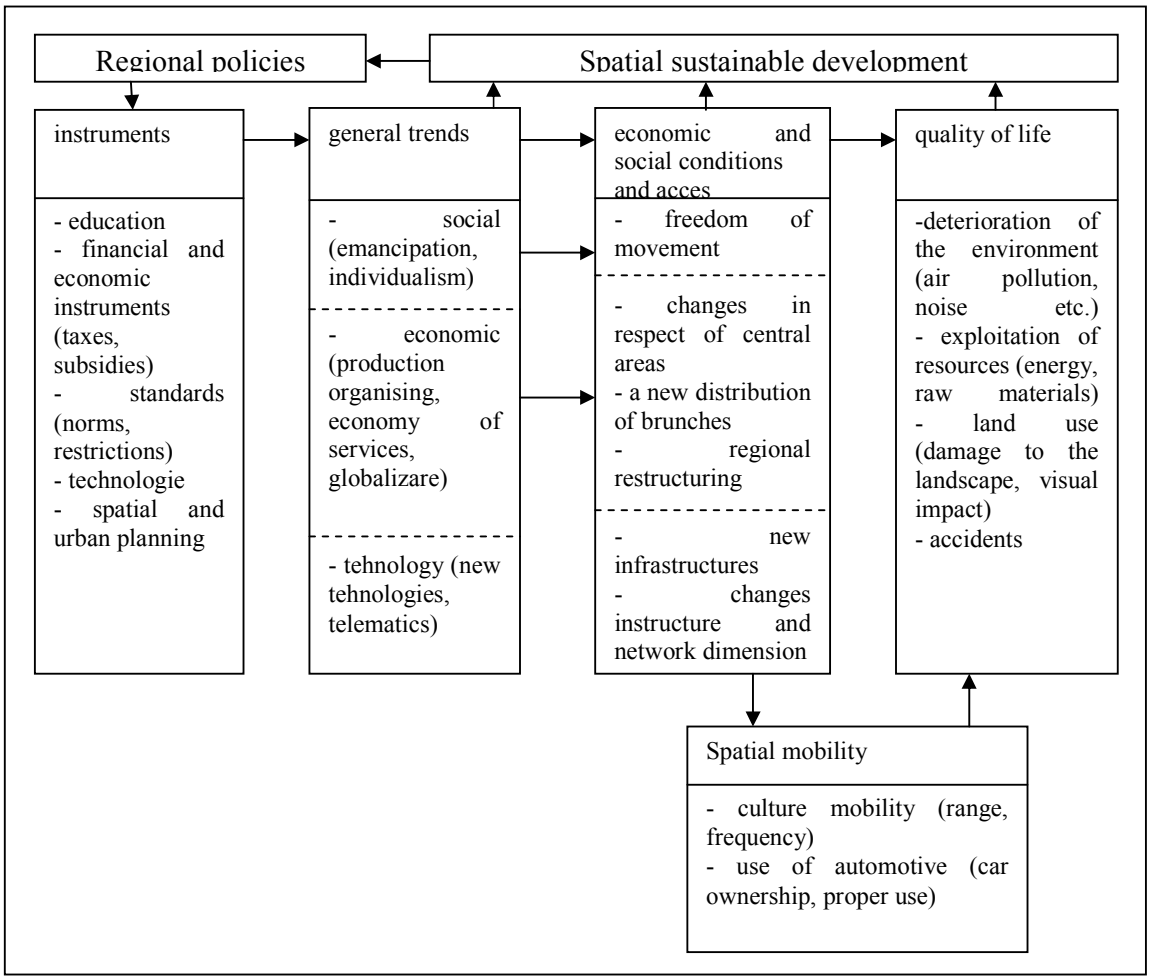

Figure 2. Conceptual model for spatial sustainable development
Source: based on Nijkamp et al., 1996 cited in Constantin, 1998, p. 196

Ensuring a high level of sustainability of natural resources, cultural, human and infrastructure is considered a strategic objective (Oreja Rodríguez-López Parra Yanes-Estévez, 2008). In order to implement a strategy of sustainable spatial development, along with explicit criteria for protecting the environment are taken into account various criteria, as highlighted Masser et al. (1992) cited in Sava (2007): external conditions, aimed at population dynamics, macroeconomic development and international developments; spatial distribution of economic activities and urban, suburban, peripherals areas; types of mobility of people and goods distribution; technological change; scale transport systems; intervention policies on transport.

Scenario representations

Developing and implementing competitive policies for sustainable spatial development requires an assessment of the situation beforehand and evaluation of possible future situations; for the latter case, the most commonly used method is the formulation of scenarios. According to Nijkamp et al. (1996) and Masser et al. (1992) there are some basic criteria to be taken into account when drawing up scenarios associated sustainable spatial development, namely:

• external circumstances (demographic changes, migration, changes in the level of employment in the participation rate, lifestyle etc.; macroeconomic development and international developments, including dynamic power blocs, alliances);

• spatial distributions (change in the concentration / diversification of economic activities in space; complex changes in the patterns of urban, suburban or peripheral areas);

• mobility patterns (change in behavior on commuting, recreation, travel frequency, etc.; qualitative changes in the distribution of goods (e.g. high value, low volume, etc.));

• technological changes (technology development in manufacturing vehicles (e.g. electric cars); improved infrastructure networks; introduction of telematics for management of shipping, etc.);

• scale transport systems (national or local interest roads; trans-European networks);

• intervention policies on transport (price and tax regulations (e.g. fees for traffic on highways); organizational and institutional rules on transport systems).

Accordingly, a wide range of scenarios have been developed. For example, considering the globalization context, van Veen-Groot et al. (2001) proposed four scenarios, namely: first, based on "high growth and strong technological development"; second, envisaging "polarization and migration"; third, considering "dynamic economies and instability" in the OECD area; fourth, based on "environmental awareness and low growth" (p.24). In such scenarios a defining starting point is represented by the expected effects of globalization: scale, structural, technology and product effects (van Veen-Groot and Nijkamp, 1999). As a response, quality development should prevail over quantity, with a strong emphasis on "more environmentally conscious consumption patterns, energy efficiency, product durability and a more efficient spatial distribution of activities" (Lonergan, 1993, p. 337).

In addition, the objectives of sustainable spatial development are supported by measures, instruments and reflected by appropriate indicators. Environmental policy instruments aimed at pursuing transformation processes in society to become compatible with sustainable spatial development can be represented, for example, by fines or surcharges, the transmission of information, etc. Indicators are selected for planning and communication, and for identifying problems, resource allocation, policy evaluation, etc. Also, along with value indicators, specialised literature is promoting the use of physical indicators, such as "pressure" indicators, in order to highlight the evolution of pollution, impact indicators that show changes in the quality of environment and sustainable development indicators, linking the first type of indicators with criteria for sustainable use of resources (van den Bergh, 1996, cited by Constantin, 1998).

Conclusions

Considering the above, it can be appreciated that there is a major concern for development and, especially, the implementation of environmental management based on policies that provide solutions for environmental protection, to maintain or even improve the environment for economic growth, economic efficiency, i.e. to achieve a sustainable spatial development. In addition, environmental management should be addressed as a basic component of macroeconomic management. Such an approach should be applied not only at national level, but also at cross-country level or regions. For example, cross-border pollution is a problem that must be managed in all affected countries. Thus, it is necessary to adopt environmental policies that are based on a series of calculations, evaluation and

exploitation of resources, determining the value of services provided by the environment, internalization of costs, determination of damage on the environment and their recovery from the guilty, waste management, resource allocation necessary for environmental protection, the commensuration of influences on prices, national accounts and on macroeconomic indicators, etc. (Gradinaru, 2000).

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MANAGEMENT PLAN FOR THE ROSPA0135 „NISIPURILE DE LA DĂBULENI" NATURE 2000 SITE ANALYSIS WITH A VIEW ON ECOTOURISM DEVELOPMENT OPPORTUNITIES

Mariana-Denisa DAN[1]

Abstract

Promoting a quality, sustainable tourism which focus on regional touristic attractions as local and regional development vectors is one of the sustainable development principles of the Council of Europe. Moreover, the European Union Strategy for the Danube Region reinforces both biodiversity, landscapes and air and soil quality conservation as well as promoting culture and tourism for the entire Danube watershed. The present paper aims to evaluate the compliance of the recently published Management Plan for the ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site with the criteria established by the National Tourism Authority for the designation of new Romanian Ecotourism Destinations. Using GIS technologies, the paper provides insight on the recommendable investments the municipalities in the area can undertake in order to help certificate the „Nisipurile de la Dăbuleni" Nature 2000 site as an ecotourism destination, while maintaining the appropriate concern for the conservation of the unique landscapes.

Keywords: Danube region, Nature 2000, Dăbuleni, management plan, ecotourism, GIS

JEL Classification: Q57 Ecological Economics: Ecosystem Services • Biodiversity Conservation • Bioeconomics • Industrial Ecology

1. Introduction

Conservation efforts and ecotourism have often been treated simultaneously, more often than not in a problem and solution binomial. Administrations all over the world have committed to reconcile income needs and ecosystem conservations pressure and one of the solutions seems to rely in ecotourism. In Romania, ecotourism activities are regulated by the Ministry for Tourism. The designation of new Romanian Ecotourism Destinations has to meet certain criteria, which have been elaborated based on the European Ecotourism Labelling Standard (EETLS) as well as the Global Sustainable Tourism Council's Sustainability Criteria as per the recommendation of the World Tourism Organization.

The Dăbuleni sands have been the subject of numerous management strategies proposals as national and local administrations struggled to manage flood risk, arid weather, acidic sand-derived soils and regional development needs. In 2011, a Government Decision has been made in order to conserve the Dăbuleni sands as a bird protection site under the name of Integrated ROSPA0135 „Nisipurile de la Dăbuleni" and 2.667 „Casa Pădurii din Pădurea Potelu" protected area of national interest. An integrated management plan for the aforementioned protected sites has been approved by the Romanian Government in 2015 with six specific goals, one of which referenced sustainable tourism through natural and cultural resources.

Ecotourism is the type of tourism that promotes sustainable visiting activities in protected areas, vowing to maintain the integrity of the natural landscapes and the ecological biodiversity while still accommodating certain tourist demographics and communities' local development needs. The less altered the natural conditions are, the more valuable the ecotourism resources are. The December 19th 2014 UN resolution on promotion of sustainable tourism, including ecotourism, for poverty eradication and

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environment protection[1] recalls the positive impact that ecotourism has on income sources, work and education opportunities as well as community development projects and, therefore, on the fight against poverty, without failing to acknowledge that it also supports conservation, protection and sustainable use of biodiversity and natural areas through encouraging host communities and tourist to conserve and respect natural and cultural heritage.

In Romania, in spite of the pre-existing potential for ecotourism activities, results and achievements in this area have been few and far in between. Moreover, policy makers have been known to include ecotourism in their proposals as an easy theoretical resolve to local development and nature conservation questions, without taking the time and effort to properly identify resources or engage and involve local administrations in the process. Therefore, more often than not, ecotourism development opportunities are left without ownership and not given much consideration past the policymaking process, which together with underdeveloped infrastructure, low promotion, migrating workforce and lack of highly skilled personnel in this field of expertise contributed to the under-achievements of the country in this regard.

The ROSPA 0135 „Nisipurile de la Dăbuleni" Nature 2000 site's Management Plan[2] elaborated as a part of the SMIS CSNR 43265 project features the 4.2.6. General Objective „Creating opportunities for sustainable tourism", which is promoted in the Activity Plan as a high importance objective to be managed by the custodian, with an implementation period stretching from the 1st quarter of the 1st year to the 4th quarter of the 5th year, meaning that activities with a focus on creating ecotourism opportunities should be carried out throughout the entire length of the Management Plan period.

The current analysis aims to provide further insight into the motivation to include ecotourism related objectives into the management plan, its compliance with the national standards for ecotourism destinations designation as well as highlight possible improvement areas and investment recommendations in order to help certificate the „Nisipurile de la Dăbuleni" Nature 2000 site as an ecotourism destination.

2. The ROSPA 0135 „Nisipurile de la Dăbuleni" Nature 2000 site

The ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site is an integrated part of the European Nature 2000 network designated with the scope of helping conserve the populations of 16 bird species. It is shared by the Olt and Dolj counties of Romania, stretching over an 11.000 ha area in the Gura Padinii, Grojdibodu, Ianca, Dăbuleni and Călăraşi municipalities. The protected area is ruled and managed in accordance to a number of laws and law power acts such as the National Territory Planning Act – Section III Protected Areas, the Hunting and Hunting Stock Protection Law, the Birds Directive, the Government's Emergency Act on Protected Natural Areas, Natural Habitats, Flora and Wild Fauna Conservation, the Government's Decision on Declaring Special Bird Protection Areas as Integrated Part of the Nature 2000 Network in Romanian, etc.

[1] United Nations, A/RES/69/233, Resolution adopted by the General Assembly on 19 December 2014, Promotion of sustainable tourism, including ecotourism, for poverty eradication and environment protection, http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/69/233

[2] Integrated management plan for the ROSPA 0135 „Nisipurile de la Dăbuleni" Nature 2000 site and 2.667 „Forest House in the Potelu Forest" protected area of national interest, http://www.mmediu.ro/app/webroot/uploads/files/2015-12-07_Plan_management_ROSPA0135_versiunea_2.pdf

The protected area has been designed with the purpose of conserving 16 bird species, while the nearby Forest House in the Potelu Forest protected area of national interest aims to protect and additional 3 bird species, an insect species, four amphibian species, two reptile species and six mammal species, most of which are dependent on wetlands and forest environments, which were common in the Danube floodplain before the massive embankment works took place in the 1960's. Today, only very limited areas of these environments have survived the installation of embankment and irrigation ditches, which caused for populations of certain flora and fauna species to become rare, very rare and even almost threatened, with certain species accounting for as few as only 1-2 brooding pairs.

The protected area's host communities are not equally developed, with larger, better equipped and wealthier communities in the west and smaller, more rural communities towards east. More specifically, while all villages and even Dăbuleni town have a predominantly agricultural profile, in the western Călăraşi and Dăbuleni, the residents enjoy facilities such as central water supplies, plumbing, national roads, highschools, a research facility on plant crops on sandy soils and several secondary and tertiary businesses in fields of constructions, pharmaceuticals and even web services. At the same time, advancing towards east, in Ianca, Grojdibodu and Gura Padinii, all activities are related to crops and zootechnics.

3. Methodology

In order to determine the compliance of the recently published Management Plan for the ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site with the criteria established by the National Tourism Authority for the designation of new Romanian Ecotourism Destinations[1], a two step methodology has been applied, based on a thorough analysis on both documents.

First of all, a table was created to grade the ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site' Management Plan in accordance to the National Tourism Authority 100 criteria and the proposed scores for each criterion. Analyzing the criteria set guidance, an objective has been set to determine how many of the requirements are met by the ROSPA 0135 Management Plan and, in case of lack of information, by other public documents regarding the protected natural areas as well as any or all of the host communities. Taking into account the ecotourism destinations' evaluation indicators, all programmes, plans and activities relevant to the ecotourism destination designation process which are mentioned in the ROSPA0135 Management Plan have been graded with a maximum of 2 points, in accordance to the National Tourism Authority evaluation chart.

Secondly, based on the deficiencies that the aforementioned table easily highlighted in the ROSPA0135 Management Plan, as well as in the development efforts that local administrations have carried out. In order to maximize the access level to services and supply networks throughout the host-communities of the ROSPA0135, the data collected in the first step of the analysis has been processed using ArcMap 10.1 software so as to generate maps which pinpoint the most urgent investment needs so as to meet as many of the ecotourism destination designation criteria.

[1] National Tourism Authority, Criteria for the designation of Ecotourism Destinations in Romania, elaborated based on the European Ecotourism Labelling Standard (EETLS) as well as the Global Sustainable Tourism Council's Sustainability Criteria, available at http://economie.gov.ro/images/transparenta-decizionala/Anexa_2_HG_Strategie_ECO.pdf

4. Results

The first step of the analysis as described above shows that a serious 55 of the 100 ecotourism destination designation criteria are not met by the ROSPA0135 Management Plan (Annex 1), which can indicate that, in spite of it being assumed as one of the six general objectives of the Management Plan, the information comprised covers a mere half of the topics relevant to becoming an ecotourism destination. However, most of the unmet criteria refer to policies, regulations, programmes and reports, which require minimum resources to elaborate and implement. In this regard, regulating visitation regulations, codes of conduct, interpretation plans, procurement procedures or artificial lightning as well as keeping record on aspects such as customer feedback, tourism employees, tourism related offenses by local businesses, waste volume and research/monitoring capture activities could dramatically improve the score that ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site would receive as an ecotourism destination candidate. Given that the Nature 2000 site stretches over 5 municipalities, the abovementioned regulations and analyses could be coordinated by the Nature 2000 site custodian, by the largest municipality in the area, which would be the town of Dăbuleni, or by an association of the five towns and villages which would be constituted specifically to decide on and promote public policies regarding the Nature 2000 site.

One of the key factors which can enhance the attractiveness of an ecotourism destination is the existence of the cultural, man-made objectives. From this point of view, in order to create a full-experience, diverse tourism products offer, the ROSPA0135 „Nisipurile de la Dăbuleni" site benefits from the presence of an 18th century church, registered in the national list of historic monuments which could be promoted as a complementary landmark with the aim of attracting tourists with a length of stay as extensive as possible.

As per the principles comprised in the definition of an ecotourism destination, the destination supports the local communities and businesses with a sustainable management. There is no reference to these principles in the ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site Management Plan, pointing to a very narrow, short-term understanding of the sustainability of protected area management efforts. By educating, engaging and stimulating residents and local businesses to protect and promote the protected natural area, the custodian can save important resources that would otherwise be allocated towards enforcing rules and penalizing those who break them. In the current form, the Management Plan places the entire responsibility of the Nature 2000 site's good management on the custodian, rather than on the entire community and stakeholder network.

With regards to tourism public services and infrastructure, figure 1 clearly shows how they are concentrated in the Western half of the ROSPA0135 area. Not only is Dăbuleni the town with the most diverse offer of services, complemented by the city of Bechet, which is not in the Nature 2000 site, but both the median and the mean distance between service providers are situated in or immediately nearby Dăbuleni, leaving four other villages in the foreground. Moreover, the standard deviation analysis shows that out of the five towns and villages that host the ROSPA0135 site, two, more specifically Grojdibodu and Gura Padinii, are completely of the area of average services provision. Given that the standard deviation shows how much the members of a group differ from the mean value of a group, figure 1 concludes that Grojdibodu and Gura Padinii villages should be the target of important investment projects with the aim of eliminating the gap between the living standards they provide and those of other municipalities in the Nature 2000 site. Therefore, infrastructure investments in Grojdibodu and Gura Padinii villages would elevate the level of technical infrastructure, especially in regards to tourism and emergency infrastructure, with the aim of providing uniform service quality across the ROSPA0135 site.

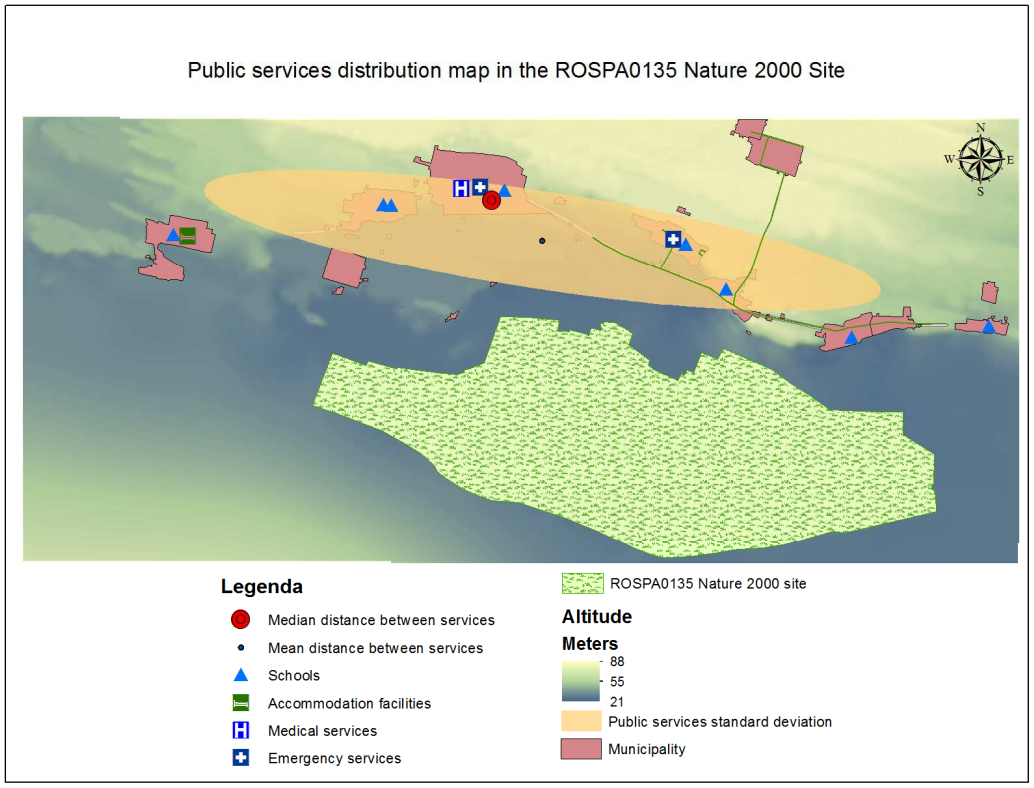

Fig. 1. Public services distribution in the ROSPA0135 Nature 2000 site

As for the promotion of existing tourism sources as well as the conservation activities, the Management Plan mentions the site http://www.nisipuridabuleni.ro, which has been set up as part of the SMIS CSNR: 43265 „Elaborarea Planului de management pentru situl Natura 2000 ROSPA0135 Nisipurile de la Dăbuleni", with European funding through POS Mediu – Axa 4 and managed by the Environmental Protection Agency Dolj during 17.06.2013 – 16.06.2015. The site is no longer available (fig. 2) as the hosting server is not available, which shows a concerning lack of interest towards attracting tourists and informing both internal and external publics of the importance of protecting natural objectives and the role of sustainable, responsible tourism in their management and local development efforts.

Fig. 2. Unavailability of the www.nisipuridabuleni.ro website

5. Conclusion

The ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site's Management Plan threats its' ecotourism development opportunities very lightly, covering less than half of the criteria requested for it to become a relevant source of eco-currency. Most of the actions needed to dramatically improve the compliance of the Nature 2000 site with the ecotourism destination designation chart reference better analyses, statistics, policies and regulations in

fields and domains connected to both tourism and environmental protection. Only a few of the measures needed to achieve the ecotourism destination status target large scale infrastructure investment projects.

The quality of living standards and, therefore, the touristic attractiveness of the five municipalities which host the Nature 2000 site consistently drops from the Western half of the area towards East, where two villages fall out the average service provision area. This analysis pinpoints the most urgent investment necessities in the ROSPA0135 destination, with the aim of offering tourists basic public services access all across the site.

The site's promotion efforts are underdeveloped at the moment. The Management Plan announces a website where the activities from an European funds project destined to enhance conservation efforts should be found, but it is unavailable. The Dăbuleni town hall website features a Tourism section, but it is also void of content. Most basic information about the site is only available on the Research-Development Centre for Sand Crops Dăbuleni's webpage, but it does not reference conservation activities or tourism opportunities.

The custodian or an association of the five municipalities which share the ROSPA0135 site or both should take leadership on transforming the area into a tourism hub, on educating and empowering residents to take up green business ventures and on enhancing the quality of public services offered to both locals and visitors.

Annex 1. Compliance of the ROSPA0135 „Nisipurile de la Dăbuleni" Nature 2000 site's Management Plan with the criteria established by the National Tourism Authority for the designation of new Romanian Ecotourism Destinations

Criterion		ROSPA0135 Management Plan	Other information sources	Points awarded
0.1. Attractiveness	0.1.1. Existence of a protected natural area in the destination	ROSPA0135		2
	0.1.2. Existence of man-made tourism resources to boost the attractiveness of the area	No information available	Saint George Church - DJ-II-m-B-08255	1
0.2. Accessibility	0.2.1. Roadway with specific indicators to area access point	DN 54A Bechet-Călăraşi		1
	0.2.2. Public transportation means to the area	No information available	Rovalini Tour SRL	1
	0.2.3. Existence of information on area's accessibility	No information available	Available on the internet	1
0.3. Minimum tourism services	0.3.1. Existence of accommodation facilities for minimum 50 persons	No information available	Nearby, in Bechet	2
	0.3.2. Existence of small sized accommodation facilities (maximum 15 rooms/facility)	No information available	Nearby, in Bechet	2
	0.3.3. Existence of a plan to create a network of accommodation facilities which will implement a good practices in ecotourism system	Activity 6.1.12. Training and support for locals in developing economic initiatives based on ecotourism		1
	0.3.4. Existence of tourism programmes majorly based on nature	No information available	No information available	0
	0.3.5. Existence of accommodation facilities with food functions, preferably based on local products and organic farming systems	No information available	Smiley Terrace	1
	0.3.6. Existence of a network of tourism routes for various visitors	Activity 6.1.4. Creating ecotourism routes		1
	0.3.7. Existence of destination specific emergency services for tourists	No information available	No information available	0
0.4. Minimum public services	0.4.1. Existence of medical services for the area	No information available	„Aşezămintele Brâncoveneşti" hospital in Dăbuleni	2
	0.4.2. Existence of an education unit for the area	Dăbuleni Theoretical Highschool, „Petre Baniţă" Technological Highschool, etc		2
	0.4.3. Existence of a waste collection system for the area	No information available	HCL nr. 36/2015 - Dăbuleni City Hall	2
	0.4.4. Existence of a bank or an ATM for the area	No information available	BRD, Patria Bank	2
A.1. Destination management	A.1.1. Building a partnership between stakeholders (local administration, protected natural area administrator, business environment) to coordinate tourism development plans and programmes	Activity 6.1.10 Developing partnerships with relevant persons and institutions		1
	A.1.2. Clear geographical and administrative definition of the destination by the partnership	HG 971/2011 http://www.mmediu.ro/articol/arii-naturale-protejate/33		2
	A.1.3. Existence of a sustainable development plan/strategy with an accent on ecotourism	No information available	No information available	0
	A.1.4. Existence of a custodian/administrator for the protected natural area	Grupul de lucru Natura 2000		2
	A.1.5. Existence of a visitor management plan for the protected natural area in accordance with the sustainable development plan/strategy	Activity 4.2.6.1. Creating and implementing a Visitor's Management Strategy		1
	A.1.6. Existence of a management plan for the protected natural area (or is currently in development/in approval)	ROSPA0135 Management Plan		2
	A.1.7. Existence of visitation regulations for the protected natural area (or is currently in development/in approval)	No information available	No information available	0
	A.1.8. Existence of an action plan to protect local communities in case of natural or man-made risks	No information available	Dăbuleni Sustainable Development Strategy / Voluntary Emergency Service	1
A.2. Legal compliance	A.2.1. Natural protected areas and nature conservation laws are respected	No information available	No information available	0
	A.2.2. Tourism businesses respect laws	No information available	No information available	0
	A.2.3. The partnership is represented and involved in environmental protection regulations for plans, programmes, activities and projects with an impact on the destination	No information available	No information available	0
	A.2.4. Businesses have (integrated) environment licenses in accordance to the laws	No information available	No information available	0

A.3. Staff training	A.3.1. Staff of relevant institutions/organizations are periodically informed/trained on the sustainable development practices as well as the natural and socio-economical strengths of the area	Activity 4.2.3.5. Developing capacity of personnel involved in managing the site - custodian / Activity 6.1.12. Training and support for locals in developing economic initiatives based on ecotourism		2
A.4. Customer satisfaction	A.4.1. Implementation of a system to periodically collect and analyse customer feedback and undertake corrective actions	No information available	No information available	0
A.5. Responsible marketing	A.5.1. Marketing to promote the destination is responsible and correct and offers practical information	Activity 6.1.7. Creating guides and promotional materials: post cards, flyers, brochures, etc		1
	A.5.2. Accomplishment of an unified image of the destination and existence of a common marketing programme	Activity 6.1.9. Creating digital resources - interactive website, mobile apps, digital maps		1
	A.5.3. The defining elements of the destination has to include nature elements, if applicable local culture elements and ecotourism activities	No information available	No information available	0
A.6. Buildings and infrastructure designing and constructing	A.6.1.1. Investment projects are in accordance with the functional zoning stated in the approved urbanism documents, historical monuments protection laws, the sustainable development strategy	No information available	No information available	0
	A.6.1.2. Investment projects in the destination are in accordance with the specific regulations of the protected natural area's management plan	No information available	No information available	0
	A.6.2.1. Execution of a local urbanism regulation to detail rules on the type of materials, construction techniques, and general aspect of buildings in accordance to the local natural and cultural heritage	No information available	General and zonal urban plans at http://primariadabuleni.ro/index.php?rewriteparam=urbanism	1
	A.6.2.2. The buildings' facades is in accordance to the traditional architecture and fits the landscape	No information available	Some elements of traditional architecture are present in the area	1
	A.6.2.3. Visual analysis of the investment projects as part of the environmental impact assessment	No information available	No information available	0
	A.6.2.4. Ensuring access for the visitors and residents to the tourism infrastructure of public interest	No information available	No information available	0
	A.6.3.1. Existence of an informative system in the destination, with information on bio-climatic principles and construction techniques, materials and construction techniques usage, bio-energy harvesting, water consumption reduction, waste collection	Activity 6.1.12. Training and support for locals in developing economic initiatives based on ecotourism		2
	A.6.4.1. Disabled friendly tourism services in the destination	No information available	No information available	0
A.7. Interpretation	A.7.1. Existence of an interpretation plan for the destination, made and implemented by the partnership	No information available	No information available	0
	A.7.2. Creating themed routes	Activity 6.1.4. Creating ecotourism routes & Activity 6.1.8. Creating ecotourism maps		1
	A.7.3. Interpretation is done by skilled or authorized personnel	Activity 6.1.12. Training and support for locals in developing economic initiatives based on ecotourism		2
	A.7.4. Information sources used for the interpretation are credible	Activity 6.1.12. Training and support for locals in developing economic initiatives based on ecotourism		1
	A.7.5. Existence of information and interpretation materials in the destination	Activity 6.1.5. Installing billboards and indicators in main interest points & Activity 6.1.7. Creating guides and promotional materials - post cards, flyers, brochures & Activity 6.1.8. Creating ecotourism maps & Activity 6.1.9. Creating digital resources - interactive website, mobile apps, digital maps		2
	A.7.6. Existence of a visiting and/or information points in the destination	Activity 6.1.6. Developing an educational centre dedicated to protected areas and local traditions		1
A.8. Activities conformation with the special rules of protected natural areas	A.8.1. Visitation regulations for the protected natural area are known and respected by businesses	No information available	No information available	0
B.1. Community development	B.1.1. Destination presents educational activities to raise awareness among youth on nature and local culture appreciation	General Objective 4: Raising awareness - improving knowledge and changing attitudes and behaviours for interested groups with an impact on biodiversity		1
	B.1.2. Destination presents activities that encourage active involvement of local communities in planning as well as tourism development, nature and cultural heritage conservation decision making	No information available	No information available	0

B.2. Work force employment	B.2.1. At least 50% of work force employed in tourism comes from the destination	No information available	No information available	0
	B.2.2. At least 50% of tourism businesses' headquarters are in the destination	No information available	No information available	0
B.3. Local economy	B.3.1. One programme to support local traditional/ecological products and services manufacturers	4.2.5.6. MG Promoting manufacture and distribution of traditional products labelled with ROSPA0135 and RN Casa Pădurii din Pădurea Potelu labels		1
	B.3.2. One programme to support local ecological products (including production, approvals and markets)	No information available	No information available	0
	B.3.3. Initiatives to support quality of local traditional/ecological products and services and their certification	No information available	No information available	0
B.4. Local products and services utilization in tourism	B.4.1. Destination promotes the usage of local products and services for tourism activities	No information available	No information available	0
	B.4.2. Destination promotes manufacturers and providers of local products/services through its or through its partner tour-operators marketing tools	No information available	No information available	0
B.5. Basic services	B.5.1. Tourism activities (particularly in main season) does not cause problems in water and energy supply for local communities	No information available	No information available	0
	B.5.2. Tourism activities (particularly in main season) does not cause problems in waste and sewage management for local communities	No information available	No information available	0
	B.5.3. In the destination, tourism activities do not endanger personal safety of residents and visitors	No information available	No information available	0
C.1. Cultural heritage capitalization	C.1.1. Destination has trained personnel for field trips/visits to historic monuments as defined by H.G. 422/2001	No information available	No information available	0
	C.1.2. Destination has a touristic information system on historic monuments restriction and other rules and visitors behaviour is monitored	Activity 6.1.13 Monitoring tourism impact on the species and habitats conservation state		1
	C.1.3. Local culture elements are included in tourism products	No information available	No information available	0
	C.1.4. Destination promotes local cuisine	No information available	No information available	0
C.2. Cultural heritage protection	C.2.1. Existence of active measures for the protection of historical and cultural heritage elements	No information available	No information available	0
	C.2.2. In the destination, residents are encouraged to visit local historic monuments	No information available	No information available	0
C.3. Stimulating traditions and local customs	C.3.1. Destination presents support measures for traditional events and festivals	Activity 4.2.5. Organizing local events & Activity 6.1.11 Organizing local events to promote tradition diversity		1
	C.3.2. Destination presents support measures for traditions and local customs	No information available	No information available	0
	C.3.3. Residents are encouraged to share the cultural heritage with visitors	No information available	No information available	0
C.4. Respect for local communities' values and traditions	C.4.1. Destination developed a code of conduct for the visitors and their behaviour is monitored for the activities sustained in local communities as well as in culturally, architecturally and historically sensitive areas	No information available	No information available	0
	C.4.2. Destination developed an agreement to respect the community's needs through accepting a physical and social support capacity of the area	No information available	No information available	0
D.1. 1. Ecological procurement policy	D.1.1.1. Destination enacts a procurement policy which prioritizes local ecological products/services	No information available	No information available	0
	D.1.1.2. Destination enacts an ecological procurement policy, meaning that it prioritizes reusable, returnable and recyclable products	No information available	No information available	0
D.1.2. Consumables	D.1.2.1. Destination adopts a policy to reduce the utilization of single use products (in public and private sectors)	No information available	No information available	0
	D.1.2.2. Existence of a single use products recycling programme	No information available	No information available	0
D.1.3. Energy use	D.1.3.1. Destination adopts a policy to reduce and improve energy efficiency (in public and private sectors)	No information available	No information available	0
D.1.4. Water use	D.1.4.1. Destination adopts a policy to reduce and improve water efficiency (in public and private sectors)	No information available	No information available	0
	D.1.4.2. Destination monitors drinking water resources in correlation with local consumption	No information available	No information available	0

	D.1.4.3. Destination records balanced water use, without a significant negative impact on water resources in local communities and natural ecosystems	No information available	No information available	0
D.2.1. Greenhouse gas	D.2.1.1. Destination promotes alternative transportation means	No information available	No information available	0
D.2.2. Sewage waters	D.2.2.1. Public institutions and tourism facilities are connected to the local plumbing and water treatment network or have their own sewage collection/treatments systems	No information available	No information available	0
D.2.3. Waste management plan	D.2.3.1. Destination implements a waste reduction programmes	Activity 6.1.2. Rehabilitating/improving tourism infrastructure		1
	D.2.3.2. Destination collects and monitors data on waste volume	No information available	No information available	0
	D.2.3.3. Destination adopts a waste management programme for organic, recyclable and non-recyclable waste	No information available	No information available	0
D.2.4. Dangerous substances	D.2.4.1. Destination implements a dangerous substances reduction programme, particularly for agriculture	Activity 1.2.1. Limiting the usage of biocides, hormones and chemical substances		1
	D.2.4.2. Destination implements an ecological cleaning substances usage programme	No information available	No information available	0
D.2.5. Other pollution sources	D.2.5.1. Destination implements a pollutants emission, noise, luminous emissions and soil pollution reduction management programme	Activity 1.1.4. Banning/limiting sound pollution associated with leisure fishing	No information available	1
	D.2.5.2. Destination implements a policy to reduce excessive artificial lightning	No information available	No information available	0
D.3.1. Wild species	D.3.1.1. Existence of concrete measures to stop harvesting strictly protected flora and fauna species, to monitor and sanction illegal activities	Activity 1.1.5. Regulating hunting for aquatic bird species & Activities 1.1.6. /1.2.4. / 1.3.6. / 1.4.8. Banning hurting and capturing of protected bird species, except for those scientifically approved		1
D.3.2. Wild animal species in captivity	D.3.2.1. Zoo parks respect national and European legislation and only carry autochthonous species	No information available	No information available	0
	D.3.2.2. Lack of existence of farms and hunting ranges	No information available	No information available	0
D.3.3. Landscape design	D.3.3.1. Unique landscape elements as well as threats to them have been identified for the destination and owners/administrators are informed and encouraged to avert and stop activities that can modify the landscape	Activity 1.2.3. Maintaining structural landscape elements - solitary trees, clumps of trees, trees on the edge of farmlands & Activity 1.3.4. Banning/limiting changes in land use & Activity 1.4.5. Banning reforestation using allochthounous species uncharacteristic to the natural fundamental type of forest, as well as reforestation control using a single species		2
	D.3.3.2. Destination uses local species for landscape design and takes measures to avoid the introduction of exotic invasive species	Activity 1.4.5. Banning reforestation using allochthounous species uncharacteristic to the natural fundamental type of forest, as well as reforestation control using a single species		1
D.3.4. Biodiversity conservation	D.3.4.1. Protected natural areas are highlighted in development and urbanism plans in the destination	No information available	http://primariadabuleni.ro/download.php?id=838&securityhash=03ee8a495987ce4e52b64b6dc06af130	2
	D.3.4.2. The public sector supports implementation of measures to conserve nature, particularly in protected natural areas	No information available	http://primariadabuleni.ro/download.php?id=838&securityhash=03ee8a495987ce4e52b64b6dc06af130	2
	D.3.4.3. Private tourism sector directly contributes to supporting measures to conserve the nature through financial or in kind	No information available	No information available	0
	D.3.4.4. Conservation activities are communicated to the personnel, visitors and local community	4.2.3.5. MG Developing capacity of the personnel involved in managing the site - custodian & General Objective 4: Raising awareness - improving knowledge and changing attitudes and behaviours for interested groups with an impact on biodiversity		1
D.3.5. Visitors' interaction with wild animal species	D.3.5.1. Destination recommends that hunting activities aim to manage populations so as to maintain/improve their conservation state	Activities 1.1.6. /1.2.4. / 1.3.6. / 1.4.8. Banning hurting and capturing of protected bird species, except for those scientifically approved		2
	D.3.5.2. Destination strictly monitors fishing and hunting activities, as well as research/monitoring capture activities	No information available	No information available	0
	D.3.5.3. Destination developed a code of conduct for tourism activities which can influence or interact with wild animals	No information available	No information available	0

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PUBLIC AND PRIVATE CO-FINANCING OF EUROPEAN PROJECTS AND ITS CORRELATION TO REGIONAL DEVELOPMENT IN ROMANIA

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Abstract

The co-financing from public and private sources of the financial support from the European Union in the Member States is an expression of the public-private partnership. The private sector involvement is a factor favouring the effectiveness of the use of financial resources altogether, considering the direct incentives given to beneficiaries, who take the benefits and risks with the EU and the Member State. In Romania, given the lack of implemented standard public-private projects (PPP), the typical partnership of this kind relies on the Partnership Agreement Romania – EU, which identifies the development priorities. The paper provides an analysis of the structure of payments for projects with European support, by financial sources, in the period 2007-2016 in a regional distribution. The focus is on the assessment of the beneficiaries' financial contribution to European projects and its correlation to the regional economic development.

Keywords: co-financing, public-private partnership, regional development

JEL Classification: H54, R11, R12

1. Introduction

Since 1990 there has been a change of paradigm regarding the development model by shifting to the sustainable development. In the UN Conference on Environment and Development of Rio de Janeiro in 1992 the Local Agenda 21 became a starting point for the reorientation of the governance system. The change in paradigm observed by researchers in the field of regional development (Stimson, Stough and Nijkamp 2011) consists in the transition to the principles of sustainable development that emphasize an integrated approach to development strategies. These strategies could stimulate the capacity of regions to us their own resources. The new approach involves encouraging the collaboration between the public and private sectors.

This paradigm shift is reflected also in the objectives and means of implementing the cohesion policy in the European Union. The traditional cohesion policy concentrated on providing financial aid for poorer regions to support the process of catching-up, but the new policy envisages support for identifying new investment opportunities for exploiting the existing development potential in various types of territories. In addition, the cohesion policy should support explicitly the more general EU objectives formulated in the Europe 2020 strategy.

Essential aspects that have been discussed since 2013 and meant to redefine the cohesion policy were: a more strategic approach, rather territorial than regional; renewal of the strategic partnership principle; improved co-ordination of the European and national funds; increase of cohesion policy's efficiency (Zuber, 2013). Making strategic partnership in the new form assumed a closer cooperation between the European institutions, on one hand, and governments as well as representative internal structures of the Member States, on the other hand. The result of the agreement was a political contract, respectively the Partnership Agreement EU – Member State. In the Romanian case was signed the Partnership Agreement Romania (Ministry of European Funds, 2013). Regarding the co-ordination of funds, the cohesion policy has to identify ways to allow various policies using different funds to cooperate in order to reach all the general objectives of the Europe 2020 strategy.

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During the preparation of their partnership agreements the Member States and the regions scheduled the funds within the Common Strategic Framework (CSF) by taking into account the latest EU recommendations for each country, as well as their national reform programmes. The partnership agreement for each Member State had to establish the way in which various financial flows from the EU and national sources could respond to the specific EU recommendations. Joint financing of projects of national interest is a concrete manifestation of partnership within the EU.

The additionality of European funds requires that funds granted by the EU should be complementary to national funds. This co-financing rule is expected to generate new projects and to stimulate the economic development of the country. The actual contribution rates for each operational programme and for each priority axis are established by the authorities and are subject for approval by the European Commission.

In the post-crisis context expectations have grown regarding the contribution of private investment to the achievement of European goals. The World Bank considers that the recovery of private investment, the higher efficiency in using public resources and the public-private partnership (PPP) are critical for the recovery of economies in Europe (World Bank Group, January 2017). The Central and East European Countries could benefit from the EU experience in the field of investment done in public-private partnership before the last two waves of the EU enlargement, which was even richer compared to the U.S.A. (Engel, Fisher and Galetovic, 2011). Beside the standard PPP, there could be other organization forms of the cooperation between stakeholders able to allowing private fundraising for objectives of public interest and/or for supporting European goals (Dheret, Martens and Zuleeg 2012).

The general absorption rate is undoubtedly an important measure of success or failure of the European programmes. However the own contribution of the beneficiaries from the private and public sectors providing financial support to these programmes is an issue that was insufficiently researched in this context.

2. Research objective and method

The paper aims at estimating the own financial contribution of private and public beneficiaries to the implementation of European funds in Romania at regional NUTS3 level during the programming period 2007-2013, by considering also the grace period of three additional years.

The analysis refers to the change of financial indicators related to projects financed from structural and cohesion funds in the period 2009-2015. The analyzed period is shorter than it should be because of objective reasons. Thus, during the first two years of the multiannual financial period 2007-2016 (including the additional period) the absorption of European funds was almost inexistent, while available data for 2016 were not complete at the date of their collection.

The data source is the data base of the Ministry of European Funds in Romania available at 10.05.2016 regarding the formal submission and approval of projects, the signing of contracts and the payments made to the beneficiaries. The breakdown of the total financial support for projects by three sources (EU contribution, co-financing from the state budget and co-financing from the beneficiaries) refers only to final financing decisions and to internal payments made to beneficiaries of projects.

In the paper, the national co-financing from the state budget was delimited from the national co-financing from other sources, which were private or local public sources. These co-financers are generally referred to as “European project beneficiaries”. Since the available data did not allow the strict separation of co-financing from private sources, the study uses the term “own co-financing of beneficiaries” as bringing together the own financial contribution of both private and regional/local public institutions which have signed contracts with European funding.

The analysis at NUTS3 level used the SMIS data regarding the status of the contracted projects[1] by summing for each county all projects by financial sources. The paper highlights the ineligible expenditures of the projects, which is the part of the total budget covered by the beneficiaries. The calculation method was as follows:

Ineligible co-finance of beneficiaries = Total budget − (total EU payments + payments from the state budget + eligible payments of beneficiaries)

The co-financing by the beneficiaries has been taken into account as the amount spent by project beneficiaries until the projects were finalized, therefore it is not the amount reimbursed. The data was collected at the moment of submitting the requests of reimbursement, which marks the completion of the projects. Starting with this moment the results of the projects produced economic effects.

3. The co-financing of European projects in Romania

Granting EU non-reimbursable loans consists of transfers based on allocations from the EU budget. The Community transfers must be complemented by the national public co-financing of Romania. This relies on the principle of additionality and the co-financing effort is determined by applying co-financing rates to all public expenditures for the operational programmes.

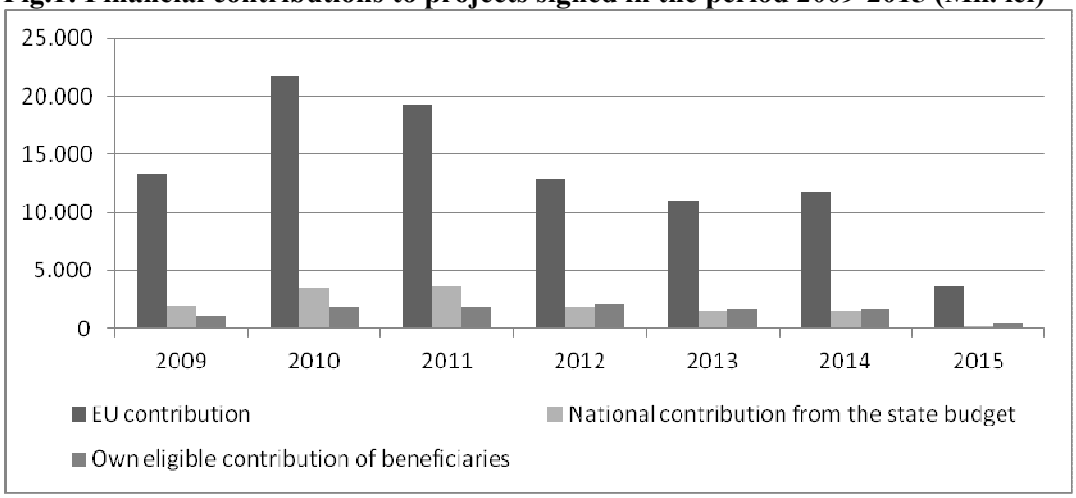
The ceiling rates for the EU contribution in the period 2007-2013 for Romania were the following (European Commission 2006):

- Objective „Convergence": 85% of the public spending co-financed from the Cohesion Fund (CF);
- Objective „Regional competitiveness and employment": 85% of the public spending co-financed from the European Regional Development Fund (ERDF) și European Social Fund (ESF),
- Objective „European Territorial Cooperation": 85% of the public spending.

The calculation of actual co-financing rates from the EU budget relies on several criteria: the rates should be higher in disadvantaged areas, in poor areas which face difficulties in finding sources for co-financing, as well as in sectors having the potential to produce high value added and contribute to the economic recovering.

The absorption of funds in the programming period 2007-2013 started in fact in 2009. Fig.1 shows an upsurge of allocated funds in 2010, then a gradual decline until 2015.

Fig.1: Financial contributions to projects signed in the period 2009-2015 (Mil. lei)



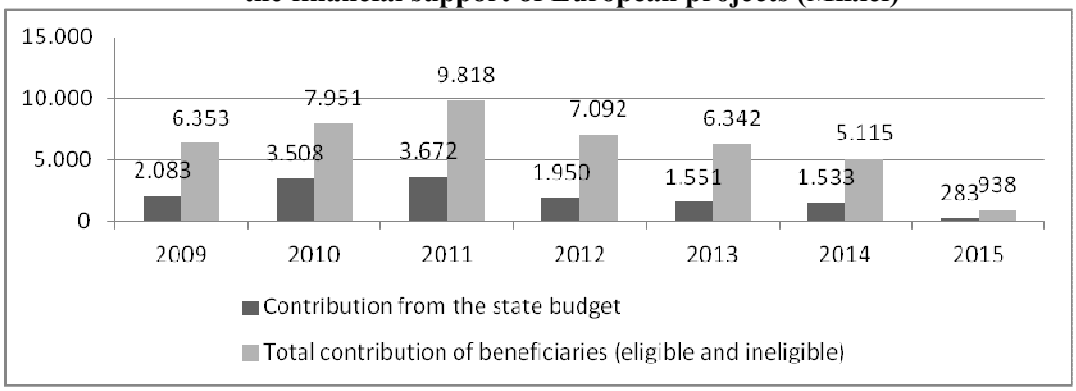
Source: own calculations based on the cumulative data from the Ministry of European Funds, http://www.fonduri-ue.ro/

[1] Ministry of European Funds, http://old.fonduri-ue.ro/baza-de-date-proiecte-contractate

Fig.2 highlights the significant effort of private and public beneficiaries of European projects in Romania. The total contribution of beneficiaries (eligible and ineligible contribution) has been higher than the financial support from the state budget. Even if part of the amounts spent by beneficiaries were subsequently reimbursed and implicitly were not own effort, the beneficiaries behaved like entrepreneurs by paying money in advance and by assuming the risk of failure to fulfil the reimbursement conditions.

Certainly the predefined contribution rates within the Common Strategic Framework EU-Member States have shaped the similar trend of payments from the three sources. Thus, the contribution from the state budget, as well as the contribution of beneficiaries peaked in 2011 and then dropped to the minimum in 2015.

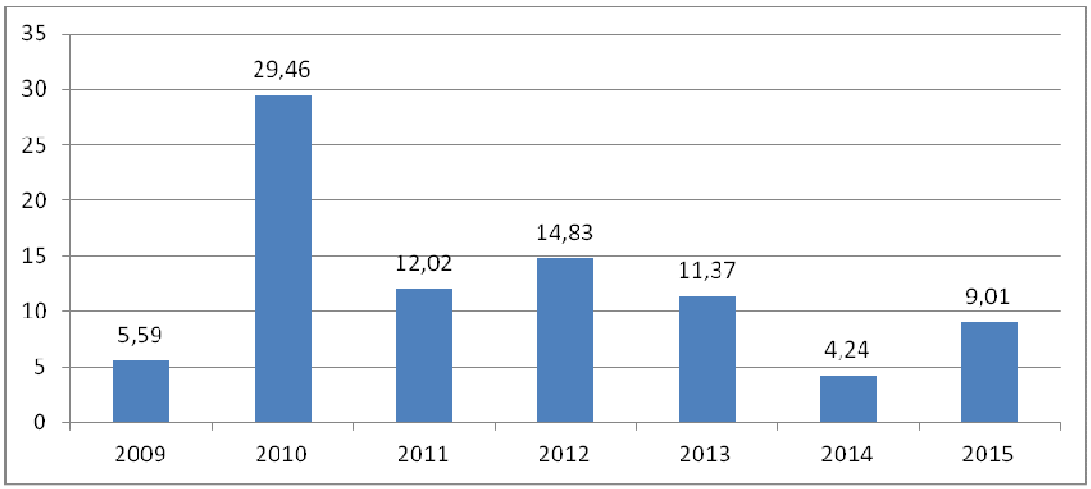
Fig.2: National contributions from the state budget and contributions of beneficiaries to the financial support of European projects (Mil.lei)



Source: own calculations based on the cumulative data from the Ministry of European Funds, http://www.fonduri-ue.ro/

The average value per project was highest in 2010 (fig.3), while in 2011 a much higher number of projects associated with a more important total contribution of beneficiaries led to a lower average value per project.

Fig.3: The average value per contracted project, 2009-2015 (Mil.lei/project)



Source: own calculations based on the cumulative data from the Ministry of European Funds, http://www.fonduri-ue.ro/

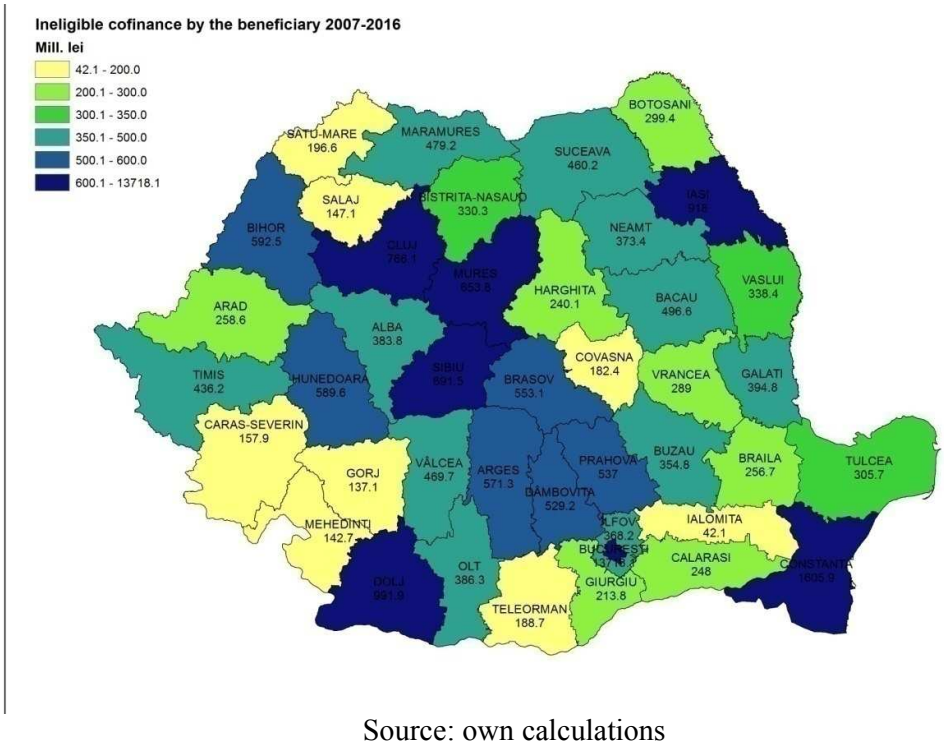
4. Assessment of the ineligible co-financing of beneficiaries in the period 2009-2015 – a regional analysis

Starting from the partnership and additionality principles, the assessment of the national effort has a higher relevance if both public and private sources are studied. The actors involved have to make certain expenses before getting the funds from the European Union on the base of the reimbursement principle. After submitting the requests of reimbursement they have to wait sometimes weeks or month until the documents have been checked, which induces a high pressure on the beneficiary's budget. The beneficiaries' lack of financial capacity is a significant hindrance in accessing European funds and keeps at low level the chance of development in some regions. The co-financing capacity of the local public authorities has been considered as a weak link in the process of EU funds' absorption since the pre-accession period (Oprescu et all, 2005).

Since there are important regional differences in economic development, firms located in richer regions have more chances to be able to access European funds compared to those in poorer regions. This is the research hypothesis used in this paper when analysing the ineligible financial effort of the beneficiaries of European projects at NUTS3 level.

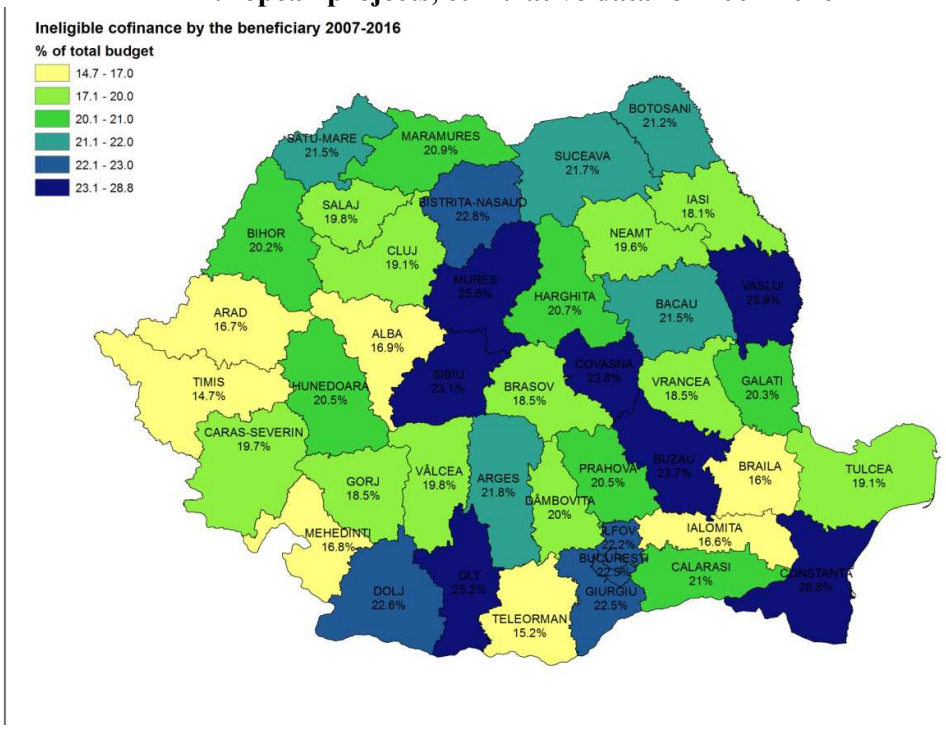
The level of co-financing is measured by the ineligible amount spent by private economic agents and regional/local public institutions. The highest level is in Bucharest and in counties such as Constanța, Dolj, Iași, Cluj, Sibiu and Mureș (fig.4). The capital city Bucharest together with the counties Cluj, Constanța and Sibiu were in top seven the most developed NUTS3 regions in 2016. But there are also less developed counties, such as Dolj or Iași, which are dynamic and host economic agents willing to use the opportunities provided by the European Union.

Fig.4: Own ineligible co-financing from beneficiaries, cumulative data for 2007-2016



Source: own calculations

Fig.5: Share of own ineligible co-financing from beneficiaries in the total budget of European projects, cumulative data for 2007-2016



Source: own calculations

The share of own ineligible co-financing from beneficiaries in the total budget of European projects is around 20% (fig.5). It is interesting to note that poor counties, such as Vaslui, Buzău, Olt and Covasna register a share of 23-25%, while well developed counties like Timiş, Arad and Alba have a share of about 14-17%. The deviations from the average at county level are quite various and data does not indicate a strict link between the level of development and the mobilisation of ineligible resources.

5. Conclusions

The application of the sustainable development's principles in the field of financing projects based on partnership agreements between the European Union and a Member State implies boosting the capacity of each region to use its own resources. A higher financial contribution of private economic agents and of the regional/local institutions provides a better chance to meet the real needs of the economy and to increase the effectiveness in using the resources.

In Romania, the total co-financing (eligible and ineligible) from the beneficiaries for European projects in the period 2009-2015 was larger than the contribution from the state budget, which reflects the significant effort of beneficiaries, associated with an entrepreneurial risk, even if part of the amounts spent were finally reimbursed.

Higher levels of the ineligible contribution have been found in more developed and/or dynamic counties, where more concentrated public investment becomes a support for private investment.

The component of ineligible expenditures of beneficiaries reaches an average of about 20% of the total budget for European funds, but at regional level this contribution has deviations from the average. These deviations are quite various and data does not indicate a strict link between the level of development and the mobilisation of ineligible resources.

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THE LANDSCAPE OF EU FINANCIAL ASSISTANCE FOR REGIONAL DEVELOPMENT DURING 2014 – 2020 PROGRAMING PERIOD

Gabriela Marchis[1]

Abstract:

The 2014-2020 programing period is characterized by a wide range of financial instruments that aim to produce social and economic cohesion between EU member states and among EU regions, as well. Together with the "classical" financial instruments, well-known as Structural Funds (which are divided into 5 main funds, for 2014-2020 – Cohesion Fund; European Regional Development Fund; European Social Fund; European Agricultural Fund for Rural Development; European Maritime and Fishery Fund) additional financing resources are assumed to support regional development in Europe, such as European Fund for Strategic Investments, JASPER initiative, Structural Programme Loans and so on.

This paper tries to identify the relations and linkages between different sources for financing regional projects of investments and also, to provide information about the integrated solutions of financing regions in order to achieve economic prosperity, social cohesion and environmental sustainability.

Keywords: structural programme loans; development strategies; ESI funds;

JEL Classification: R11; O18.

Introduction

With each stage of enlargement, socio-economic convergence in the EU has become an important goal but also a great challenge for each Member State. Just like in the previous programming periods, the strategy of cohesion policy for 2014 – 20 period is oriented towards solving the current problems of the Union, and the main challenge is to ensure a consistent approach manner of action of the European Structural and Investment Funds (ESI), so that all European policies converge towards reaching the targets set by the European strategy: 2020. One of the novelties of 2014 – 20 programming period refers to the possibility to receive funding through a *combination of financial sources*. This work intends to be informative and inspirational for those interested in using the EU financial assistance for 2014 – 20 programming period, because it will provide also practical know-how on the EU funding opportunities in different policy areas. Since the new financial assistance is aligned with *Europe 2020*' objectives, this paper tries to identify *the main funding themes* and also the *major potential beneficiaries*. Finally, this paper will offer a **synthesis on funding opportunities** available during 2014-20 programming period. Thus, it intends to be a useful toolkit for regional and local authorities, NGOs, businesses, professionals and citizens.

EU funding opportunities in different policy areas

In order to achieve economic, social and territorial cohesion in the European Union, each Member State has an obligation to ensure convergence with the European strategy "Europe 2020" – the EU strategy for **smart, sustainable** and **inclusive growth**. In this context, the wide range of EU financial assistance available for 2014 – 20 programming period can be classified in accordance with the main *policy areas of development*, such as: regional policy; agriculture and rural development; fisheries; transport; tourism; employment and social inclusion; environment; research and innovation, and so on.

EU regional policy is financed through a range of 5 instruments, 3 main instruments known as ESI funds (European Structural and Investment Funds), and 2 other instruments of common agriculture and fisheries policies.

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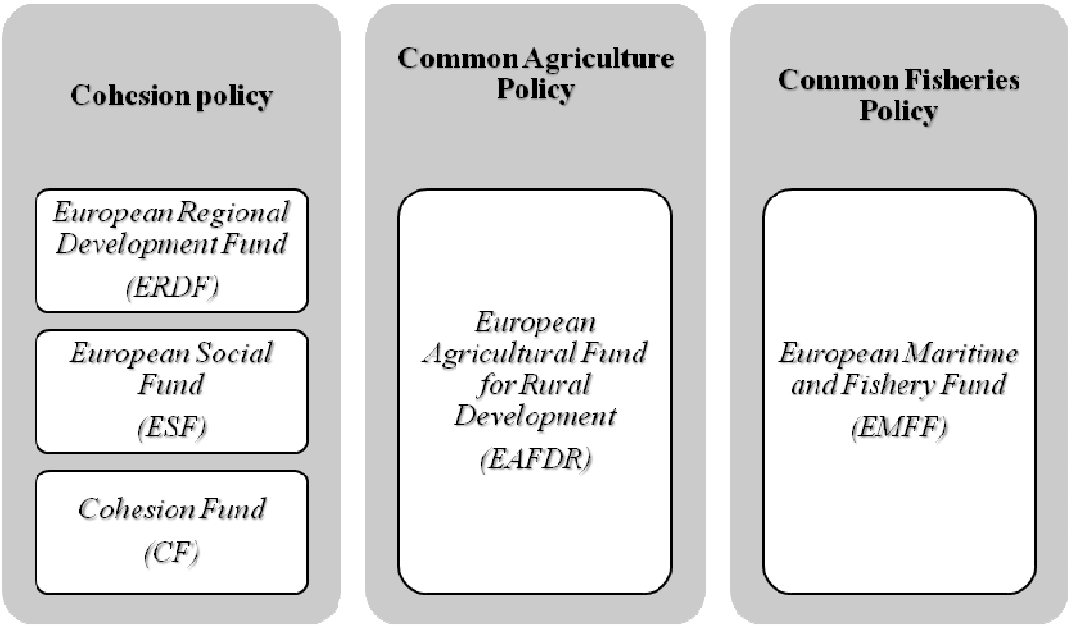

Figure 1 EU funding opportunities for regional policy

The main goal of EU regional policy is to improve citizens' quality of life by supporting the job creation, business competitiveness and economic and sustainable development.

The **11 investment priorities**, also known as thematic objectives, will receive EU financial assistance through ESI funds, as it is presented in table 1.

These "classical" instruments (ERDF, ESF and CF), developed along different periods of programming, were reconsider for 2014 – 20.

For instance, through ESF is funded ***Youth Employment Initiative*** (YEI) which provide support to young people aged below 25 that are living in regions where youth unemployment was higher than 25% in 2012. YEI is one of the main EU financial resources to support the implementation of Youth Guarantee schemes.

Another examples refer to ERDF and CF assistance which support regional policy development through a set of *facilitating instruments*, such as:

- ***JASPER*** (Joint Assistance to Support Projects in European Regions), that is a technical assistance instrument which provide specialized advice to those member states that want to submit the request for EU grant finance for major projects of infrastructure;
- ***TAIEX REGIO PEER 2 PEER***; ***Urban Development Network***; ***URBACT III***, ***ELENA*** (European Local Energy Assistance) and ***JESSICA*** (Joint European Support for Sustainable Investment in City) which were developed in order to set up integrated strategies for sustainable urban development;

Beside the investments for growth and jobs, the cohesion policy of 2014-20 programming period, is focus on enhancing European territorial cooperation, through the interregional co-operation programme (***INTERREG Europe***) and three networking programmes – ***URBACT III***, ***Interact III*** and **ESPON 2020** (European Observation Network for Territorial Development and Cohesion).

Table 1. The distribution of ESI funds in accordance with the 11 investement priorities

Investment priorities	Thematic concentration of ESI funds				
TO1. Strengthening research, technological development and innovation	ERDF	ESF		*EAFDR*	
TO2. Enhancing access to, and use and quality of information and communication technologies (ICT)	ERDF	ESF		*EAFDR*	
TO3. Enhancing the competitiveness of small and medium-sized enterprises (SMEs)	ERDF	ESF		*EAFDR*	*EMFF*
TO4. Supporting the shift towards a low-carbon economy in all sectors	ERDF	ESF	CF	*EAFDR*	*EMFF*
TO5. Promoting climate change adaptation, risk prevention and management	ERDF		CF	*EAFDR*	
TO6. Preserving and protecting the environment and promoting resource efficiency	ERDF		CF	*EAFDR*	*EMFF*
TO7. Promoting sustainable transport and removing bottlenecks in key network infrastructures	ERDF		CF		
TO8. Promoting sustainable and quality employment and supporting labour mobility	ERDF	ESF		*EAFDR*	*EMFF*
TO9. Promoting social inclusion, combating poverty and any discrimination	ERDF	ESF		*EAFDR*	
TO10. Investing in education, training and vocational training for skills and lifelong learning	ERDF	ESF		*EAFDR*	
TO11. Enhancing institutional capacity of public authorities and stakeholders and efficient public administration	ERDF	ESF	CF		

Funding for Agriculture and rural development is drawn from 2 funds: the *European Agricultural Guarantee Fund* (EAGF) and the *European Agricultural Fund for Rural Development* (EAFRD). In addition, there are various direct payment schemes such as: the ***Basic Payment Scheme***, the ***Small Farmers Scheme*** and ***Young farmers***, which are granted annually directly to farmers or measures in order to provide sector-specific support and to regulate agricultural markets. Moreover, there are many funding opportunities for research and innovation in agriculture, as follows: ***Horizon 2020***; ***LIFE+***; ***COSME Programme***; ***ESF***; ***EIP-Agri*** (the European Innovation Partnership for agricultural productivity and sustainability); ***LEADER***.

Funding for Fisheries comes from ***EMFF*** which on 2014-20 programming period will finance projects under 3 main axes:

- Environmentally sustainable EU fisheries
- A competitive EU fisheries sector
- Better social conditions

The major policy project for Transport, TEN-T receives EU grant support through the ***Connecting Europe Facility***; the ***CF*** and the ***ERDF***.

Tourism may be consider a privileged area because it receives financial support through a wide range of instruments: ***ERDF***; ***CF***; ***EAFRD***; ***ESF***; ***LIFE Programme***; ***Creative Europe Programme***; ***COSME***; ***Erasmus+***; ***Horizon 2020***; ***EaSI programme*** (Employment and Social Innovation).

Employment and social inclusion represents an important direction of development in accordance with *Europe 2020*. The main financing instrument is represented by ESF, but the novelty of this programming period is the ***EaSI programme*** which gather together 3 EU programmes from the previous programming period: PROGRESS, EURES and Progress Microfinance (and Social Entrepreneurship). Other instruments focused on employment and social inclusion are represented by ***COSME***; the ***Social finance guide***; ***European Globalisation Adjustment Fund*** (EGF) and the ***Fund for European Aid to the Most Deprived*** (FEAD).

Environment is supported by ***LIFE*** programme for the 2014 – 20 programming period, which is split in 2 sub-programmes, one for the environment and one for climate action. Also, funding opportunities for environment may arise from different sources, mainly from research projects which have an environment component; grants in the field of energy, rural development and agriculture, and in the field of education and training, as well. ***ERDF*** provides support to all EU Member States in the field of cohesion and risk prevention. Withal, the ***Civil Protection Financial Instrument*** has the responsibility for the protection of the environment. Moreover, ***CIP-EIP*** (the Competitiveness and Innovation Framework Programme – Entrepreneurship and Innovation Programme) supports projects in eco-innovation.

Research and innovation is another cross-field of EU funding scheme for 2014-20 period. Besides ***Horizon 2020*** which covers over 18 research areas, other important instruments are available, as follows: ***Marie Skłodowska-Curie Actions***; ***Erasmus +***; ***Euratom Research and Training Programme***; ***Galileo***; ***Copernicus***; ***Research Fund for Coal and Steel***; ***CEF grants*** (Connecting Europe Facility – CEF Telecom; CEF Energy); ***EEEF*** (European Energy Efficiency Fund); ***NER 300 programme***; ***ESI funds*** and ***EFSI*** (European Fund for Strategic Investment); ***COSME***; ***LIFE*** and the ***EU's Health*** programmes.

Table 2. List of the major potential beneficiaries depending on funding themes

Policy area	***Potential Beneficiaries***
Regional policy	↳ *Local, regional and national authorities and administrative bodies;* ↳ *Social, cultural and educational institutions;* ↳ *Workers' and employers' organisations, as well as organisations providing training, support for workers, labour market support;* ↳ *NGOs, associations and foundations;* ↳ *Public administrations and municipal institutions;* ↳ *Companies, SMEs including micro-enterprises and Social Economy Enterprises and associations;* ↳ *Civil society organisations;* ↳ *Research institutes.*
Agriculture and rural development	↳ *Administrative bodies;* ↳ *Local Regional authorities institutions;* ↳ *Institutes, educational institutions;* ↳ *NGOs;* ↳ *Companies, SMEs and associations.*
Fisheries	↳ *Professional fishermen;* ↳ *Regional, national and municipal institutions and administrative bodies;* ↳ *Institutions, associations;* ↳ *NGOs;* ↳ *Companies, SMEs.*

Policy area	***Potential Beneficiaries***
Transport	↳ *Bodies established in each Member State;* ↳ *International organisations.*
Tourism	↳ *Universities;* ↳ *NGOs;* ↳ *Tourism clusters;* ↳ *Companies, SMEs and associations.*
Employment and social inclusion	↳ *Social, cultural and educational organisations;* ↳ *Organisations of workers and employers and organisations providing training, support for workers, support on the labour market;* ↳ *NGOs;* ↳ *Government authorities and municipal foundations;* ↳ *Companies and associations;* ↳ *National, regional and local authorities;* ↳ *Employment services;* ↳ *National statistical offices;* ↳ *Higher education institutions and research institutes;* ↳ *Social partner organisations and other interested parties;* ↳ *Public bodies; Regional / local administrations;* ↳ *Welfare organizations.*
Environment	↳ *Public bodies;* ↳ *Private commercial organisations;* ↳ *Private non-commercial organisations (including NGOs).*
Research and innovation	↳ *Individual researchers in all domains;* ↳ *Research industries;* ↳ *Research institutions;* ↳ *Universities;* ↳ *Public and private entities;* ↳ *Municipal, local and regional authorities.*

Source: Synthesis from European Parliament. (2016). *Guide to EU Funding 2014-2020*. European Parliamentary Research Service - EPRS.

European Fund for Strategic Investments

Designed as a tool to accelerate investment in Europe, ***European Fund for Strategic Investments*** (EFSI) is not a "fund" in the traditional sense. It is a guarantee instrument, launched jointly by the European Commission and EIB in order to mobilize private financing for strategic investments and SMEs.

EFSI cannot be considered as the national co-financing contribution to any ESI funds and any part of the project that is supported by EFSI cannot be consider "eligible" expenditure for ESI grants. EFSI financial products are mainly loans, guaranties and equity investments. Any public and private promoter investing in Europe is eligible to apply for EFSI support. EFSI has no geographical or sectorial allocation or quotas, because it is demand driven instrument that finance projects across EU and beyond – cross-border projects. However, accordingly with Article 9 of the EFSI Regulation, there are some key sectors that EFSI is focused on, such as: transport, energy and digital economy; environment and resource efficiency; human capital, culture and health; research development and innovation; support to SMEs and mid-caps.

Structural Programme Loans

The *additionality principle* that governs the use of EU financial assistance, requires that the inflow from EU funds be complement to the domestic public funds.[1] Even if the amount from EU funds are higher than the domestic public funds for any investment, the co-financing of the local recipients may represent an important problem. In this context, it is necessary to find new resources of financing regional public investments, in terms of the compliance with the additionality principle. Accordingly, starting from 2000 – 06 programming period, European Investment Bank (EIB) offers financial support to regions and countries through these structural programme loans (SPLs).

As a matter of fact, SPLs represents additional financing for regional investments. An important feature of SPLs is that they ***support the entire programmes***, allowing smaller regions to finance one or several projects supported by EU funds. Another important characteristic is that SPLs are ***fundamentally multi-sector***, financing various sector of activity that promotes the objectives established by the Operational Programmes.

SPLs support regions to implement the EU co-financed programmes and other not EU co-financed eligible projects, as well. A total amount of 30% of the signed loan may represent the first disbursement and the limit size of disbursements are established in the contractual obligations approved by EIB.

Conclusion

The landscape of EU financial assistance for regional development, during 2014 – 20 programing period, is characterized by *complexity* and *diversity*.

In order to improve the *quality of investments* supported by EU funds, a large set of instruments (technical and financial, as well) are put into practice in this programming period. *Coordination*, *synergy* and *complementarities* between ESI funds and the other's EU funding opportunities represents the key to the right use of EU support for regional development.

The magnitude of EU financial support for reducing disparities and promoting economic well-being among EU regions, will reach the expected goals of **Europe 2020**, only if relevant economic and decisional-political factors from each Member State will understand the mechanisms and principles[2] on which EU funds are building on and will act accordingly.

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[1] The allocation mechanism of European Structural Funds is based on additionality principle, mainly because of the expected greater positive impact on convergence and growth in the recipients' economies. [(Becker, Egger, & von Ehrlich, 2010); (Dall'erba & Le Gallo, 2008); (Pellegrini, Terribile, Tarola, Muccigrosso, & Busillo, 2013)].

[2] Three main principles for 2014 – 20 programming period: *partnership*; *concentration* (of resources, efforts and spending) and *additionality*.

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INTEGRATING RENEWABLE ENERGY IN THE PROCESS OF DEVELOPING SMART AND SUSTAINABLE CITIES OF ROMANIA

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Abstract:

We have cities and we have energy. The interaction between energy sources and urban forms entails a fundamental relationship, which goes beyond the scenario where energy is used by the city to power daily life. The cities represent a complex form of human settlement, with multiple urban endowments, usually based on administrative, industrial, commercial, political and cultural dimensions.

Energy plays a crucial role in global economy, being one important pillar to provide wealth and security. We can all agree that, until recently, fossil fuels like coal, oil or natural gas were considered the most affordable and prevalent sources of energy. Besides cases of environmental damage during extraction or production, fossil fuels have also been a major source of carbon emissions. Alarming statistics show that, among European cities, high percentages of greenhouse gas emissions and energy consumption are recorded. Sustainability has become a national and international concern, rooted in many organizational processes.

This paper aims to focus on Romania's commitment to reduce the share of greenhouse gas emissions and other pollutants which can harm the environment or, worst, people's health. To accomplish this responsibility, Romania has assumed several measures and actions, like implementing smart technologies or increasing the use of renewable energy sources, which are in order to be taken.

In order to have a cleaner environment, a high level of energy security and to substantiate a sustainable future, Smart Sustainable Cities are becoming an imperative of our times. It represents a complex process, which can be materialized by adopting smart technologies. Also, an improved cooperation and a higher level of involvement by a variety of stakeholders would help in reaching the best results.

Smart Sustainable Cities will guarantee while still achieving the targets set by EU leaders (20-20-20 until 2020, for example), an integrated approach to climate and energy policy.

Several positive effects, such as better quality of life, jobs, and growth are just some of the consequences of implementing actions addressing energy systems, climate change, and air quality.

Keywords: smart cities, sustainability, greenhouse gas emissions, renewable energy systems

JEL Classification: O13, R11, Q42, Q55

1. The contribution of renewable energy sources to a sustainable future

Nowadays, people are facing a new kind of challenge, a pressure which gathers together governments, institutions and organisations aiming the same thing: to bring down energy resource reductions along with decreasing the amount of carbon emissions. The implementation of carbon offset strategies, which could lead to mitigation of impacts on climate change, and increasing the use of renewable energy sources through adopting specific measures represent only two important steps that must be taken on the path to a sustainable future.

Most of us know how big the importance of renewable energy sources is and how they contribute to the achievement of many national strategic objectives. Due to the major impact it has in achieving security of energy supply, while ensuring sustainable and competitive development, in saving primary energy resources and also in contributing to the reduction of the greenhouse gas emissions, the increased use of renewable energy sources represents a strategic objective in each national energy policy and it is mandatory to be improved. In order to reach the main national and European objectives in the field of energy and sustainable development, a series of measures are needed: increasing the use of renewable energy sources in terms of economic efficiency for electricity and heat production; facilitating access to the grid, in the investment phase; developing the green certificates (to attract private capital investment in renewable energy sources); promoting the mechanisms for supporting the use of renewable energy sources for the production of heat and domestic hot water; using Structural Funds.

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Romania has rich resources and diverse energy sources: biomass, hydropower, a big potential of geothermal, energy wind, solar and photovoltaic. They are distributed throughout the country and they should be exploited more widely as the technologies' performance-prace ratio will be improved through the development of new generations equipment and facilities.

In the past, the industry was the largest consumer of energy nationwide. During centralized economy, the development of the Romanian economy was based on the development of the branches of the heavy intensive energy industry. Restructuring the economy led to a major decline in final industrial sector energy consumption. These effects were enhanced by the economic crisis. Therefore, between 2009-2010, the industrial sector no longer occupied the leading position in terms of final energy consumption, the role being taken over by the household sector.

In the national energetic context, a sustainable development is based on ensuring energy needs, but not by increasing its use (excluding renewables), but by increasing energy efficiency, upgrading technology and restructuring the economy. The energy intensity is one of the main macroeconomic indicators to analyze the efficiency of energy use and it is included in the list of indicators by international organizations which support sustainable development.

At the EU level, European leaders set five goals for 2020, through the Europe 2020 Strategy. The targets proposed to the Member States on climate and energy dimensions are: 20% reduction of greenhouse gas emissions (or even 30%, under favorable conditions) compared to 1990 levels, increased share of renewables up to 20% and 20% increase of energy efficiency.

Romania has set the target of the renewable energy share to 24% for the year 2018. Surprisingly or not, today, Romania has already reached the threshold of 27%, already marking the initial proposed target in the EU2020 Strategy. Romania will be able, as well, to achieve the target for 2020 for the reduction of primary energy consumption by 19%, but not due to energy efficiency measures, but because of industry closure. The target linked to energy efficiency seems to be difficult to achieve in our country and, therefore, this requires an amplification of measures for the improvement of energy efficiency. Moreover, Romania will be facing new challenges on energy efficiency field, giving the fact that the European Commission is launching a public debate on the new Directive on Energy Efficiency.

The accelerated dynamics at the EU level in providing a policy framework that facilitates renewable energy, energy efficiency and the reduction of greenhouse gas emissions. Also, due to the reality of economic development, The European Commission has launched the framework for 2030 on climate and energy fields on January 2014. The framework proposes new targets and measures for 2030,in order to enhance competitiveness, safety and sustainability of the EU economy and energy system. It includes targets for reducing greenhouse gas emissions and increasing the use of renewable energy, but while also proposing a new system of governance and performance indicators.

In particular, it proposes a binding target of reducing EU greenhouse gas emissions by at least 40% by 2030 compared to 1990 levels, a mandatory objective at EU level on energy consumption from renewable sources by at least 27% in 2030 and an indicative target at EU level to improve energy efficiency by at least 27% in 2030.

The EU leads in terms of technologies for producing energy from renewable sources. It owns 40% of patents in the field of renewable energy worldwide and, in 2012, almost half (44%)[1] of the global capacity for producing electricity from renewable sources (excluding hydropower) are in the EU. The EU legislation on promoting renewables has evolved

[1] http://www.europarl.europa.eu/atyourservice/ro/displayFtu.html?ftuId=FTU_5.7.4.html

significantly in recent years. Transposition of EU legislation is a positive side providing a legal framework and also some specific new financing mechanisms.

The main ministries and institutions responsible in the field of energy in Romania act to promote renewable energy, to improve energy efficiency and to reduce emissions of greenhouse gases through enhanced dialogue with other EU leaders, but mostly through adopting the measures, recommended by the European Commission, that are also consistent with our country's specificities.

2. Smart cities are not just a trend

Lately, the label "intelligent" was designated to those cities which are able to find innovative solutions for the challenges they are facing. The increased need of infrastructure, jobs, clean energy and environment or the lack of other elementary goods are some of the reasons for which many citizens choose to move abroad, in search of a higher quality of their life. If until recently, the concept of „smart city" has been used by the companies promoting new technologies, nowadays the cities are looking for innovative solutions based on a more holistic vision, the needs and prefferences of citizens being placed on front row.

Unlike traditional communities and localities, the developed modern society is facing serious challenges, such as a major increase of the number of inhabitants and of territory occupied by them, increased consumption and volume of public services infrastructure, electronic communications services etc.

In terms of urban agglomeration, the trend is going up related to the number of inhabitants in urban areas and, according to the United Nations, it is estimated that, by 2050, in developed countries, the percentage of urban population will reach around 70%[1]. Large cities tend to expand encompassing the neighboring localities and the number of cities population exceeding 10 million might grow.

The emergence of "smart" cities requires intense collaboration between the municipality, the public and private sector, in order to facilitate decision-making and progress on how to initiate public policies at local level and to improve the relationship between citizens, business environment and government institutions. A "smart" city means a more inclusive city which offers equal opportunities for everybody. Technology is not necessary a luxury, but on the contrary, it has been proven that it simplifies our existence and makes it less expensive from many points of view. "Smart and tech" means more educated, healthier, less expensive, more opportunities for business and citizen benefits which can be translated through improved quality of life. The concept goes beyond the relationship between citizens and public service providers and offers tools that encourage citizens to be more active and participative in community life. A "smart" city is rather a continuous process that will take place with and for the citizen and it aims to turn every city into a community with a high standard of living as in all respects.

In the field of energy, "smart" grids represent a central pillar of a "smart" city. The European Technology Platform "Smart Grid" defines "smart" grids as "electricity networks which can intelligently integrate the behavior and actions of all users connected to it - generators, consumers and those which fulfill both roles – in order to ensure a sustainable, economic and secure process of energy supply"[2]. Perfect energy systems will ensure the availability of universal and absolute of energy in quantity and quality required to satisfy the requirements of every consumer. Government, along with community members, should focus on identifying modalities of implementing those solutions that target energy efficiency at consumer level, but also in the production area, in particular through the use of green energy,

[1] https://esa.un.org/unpd/wup/publications/files/wup2014-highlights.Pdf
[2] http://www.smartgrids.eu/

renewable (solar, wind and geothermal). The promotion of projects which involves the use of solar panels in each building in order to produce hot water and photovoltaic panels for the production of electricity is one of the more affordable methods for the gradual increase of technology usability for the production of green energy. If this approach is supported by the State, through the financing of the projects from national funds, community or other available funds, it creates the prospect of lowering energy costs and increase the momentum among travelers required to implement and use on a global scale, both green energy and "smart" technologies, as well as those for controlling interior and exterior lighting, environmental parameters control (temperature, humidity, etc.), the quality of air in premises, control of electricity consumption, locally or remotely, via the Internet. The widespread use of heat pumps and giving the great geothermal potential of Romania, the use of geothermal sources (where they are more easily accessible), may represent the proper solutions for the future. Cogeneration represents as well an effective alternative for the production of electrical and thermal energy that can be implemented and used by communities and cities where there are sufficient production capacities.

In terms of environmental protection, an increased use of electric cars will help to complete the framework for the "smart" cities of Romania. The reduction of polluting emissions, providing system services in electric network and guaranteeing energy security by decreasing dependency on fossil fuels and through supporting the integration of renewable energy sources represents the benefits of using such vehicles.

Reducing the general energy consumption and the materials by using "smart" technologies and data collected from the equipment used in the provision of "smart" services, intelligent design of the development of villages, are ways through which human communities under the auspices of an "smart" Administration, can achieve the synergy for a sustainable development.

3. Romania's commitment in implementing smart technologies

Decision-makers in Romania, next to the private sector and with the contribution of the Romanian Academy, is supporting the process of developing "smart" cities, already carrying out a series of concrete measures for the purpose of encouraging the development of a larger number of "smart" cities in Romania. The Government Decision No. 929 from 21 October 2014 approves the **National Strategy for Research, Development and Innovation 2014-2020**, which contains a section dedicated to the innovative solutions for public sector. The Romanian Academy published the **National Strategy in the field of research and innovation for the Romanian Danube Region** in august 2014**.** In the same year, the Ministry for informational society from the Romanian Government adopted the **National Strategy for Romania's Digital Agenda.** For its implementation in practice the **Agency for Digital Agenda** was created. In 2016, CNADNR signed a contract with Erns&Young for services the **Strategy for the Development of Intelligent Transport Systems** drafting. The examples mentioned above are accompanied by the activity of the various NGOs, where the civil society is involved. Market leaders such as IBM, Orange, Telekom, Vodafone, Teamnet, Luxten or Siemens are just some of the multinationals present in Romania which provide expertise and come with valuable "smart" solutions and initiatives. The business environment has a huge role in stimulating innovation and in providing smart solutions. The clusters, the innovative hubs, the structures for entrepreneurship, the internationalization (globalization) of the businesses are some of the ideas and solutions that have worked in associative cities considered as stories of success. Another decisive factor, and probably the most important one, is the civil society which has a crucial role in catalyzing the process. Without doubt, in any urban community, the main actors are the citizens. Even when using the highest Digital technology, a city will not be "smart" if its inhabitants are not the same in their turn (to make

this clear, when speaking about "smart" inhabitants I do not refer to the IT connoisseurs or erudite people, but to those who are sensitive to "smart" facilities available and who are using them for their own or of the community benefit).

According to Deloitte's vision addressed in the „Smart Cities Deloitte Technology Report„[1] - "a city can be termed as 'smart' when human and capital investments and as well the traditional infrastructure (transport) and modern communications (ICT) are fueling a sustainable economic development and a high quality of life, with a wise management of natural resources". In the National Strategy for Energy Efficiency, it is mentioned that Romania is at point to invest into implementing a low-carbon economy and also in projects dedicated to energy efficiency (buildings, lighting systems and smart cities). Talking about funding, the biggest EU funding program in the field of innovation and research is Horizon 2020 - the framework program for research and innovation of the EU, launched in early 2014, assumes that in the course of seven years (2014-2020), 80 billion euros[2] will be invested in research and innovation. In line with the Union Strategy for international cooperation in research and innovation, Horizon 2020 is open to researchers from all around the world. For 2016 -2017, through the Horizon 2020 Program, the European Commission allocates a budget of 16 billion euro, targeting a series of initiatives to modernize the European manufacturing industry (1 billion euro), automatic control technology and standards for motor vehicles (over 100 million euro), the Internet of things (139 million euro), digitization of EU industries and circular economy (670 million euro), smart and sustainable cities (232 million euro)[3]. If Europe expects to find solutions to societal challenges and to be able to stimulate growth and competitiveness, it needs a fully functional network of excellence in research - a European Research Area. This single market for knowledge, research and innovation is developed using EU funds and it helps the researchers, their knowledge and their results to circulate freely in Europe. Turning to the situation and stage of development of „smart" cities in Romania, almost every medium-sized city is more or less in the same situation: it has few applications of "smart" which are operating some future projects, but without a „smart" strategy or a concrete action plan. To be optimistic, an example of success in Romania is Bucharest due to the fact that it has been selected by IBM in 2013 and given a scholarship named "Smart Cities Challenge" (aimed at developing of an Integrated Operational Center). Another relevant example is Piatra Neamț where several progresses have been registered as well. Piatra Neamț has several functional components of a "smart" architecture such as waste management system which can be considered a component of the concept "green city", a video monitoring system (even if it's not very complex), which can be considered a first component of implementation concepts "security smart" and "intelligent traffic" or a system of online access to public services (including street offices) and online payments for the local taxes, which is a component of implementation concepts "smart government" and "smart public service".[4] Smart development is no longer just one option among many, but a manifestation of social responsibility. Active consultation and voluntary involvement of citizens and business environment in terms of citizens' comfort of the citizens and for establishing local conditions for developing businesses is the best option for local development, from within of human communities and creating opportunities for sustainable development thereof. The process in which a city becomes „smart" is continuous, and before being initiated, the process should be premeditated (organised). For that, you need leadership, planning and financing. You also need to anticipate potential obstacles that could stop or slow down this process and to be prepared with a back-up plan. It is our choice whether our local community keeps the pace with these changes, or we'll remain glued (as in so many other times) in a different world than that of the young, businessmen, tourists or of services providers (eg. social entrepreneurs) of public space that we share with.

[1] https://www2.deloitte.com/za/en/pages/public-sector/articles/smart-cities.html
[2] http://www.research.gov.ro/ro/articol/3285/programe-interna-ionale-orizont2020
[3] https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/H2020_RO_KI0213413RON.pdf
[4] https://www.primariapn.ro/misiunea-smart-city

4. Conclusions

The transition to an efficient economy with a perspective of resources use can be achieved through massive reduction in greenhouse gas emissions and moving towards eco-efficiency as well as a „smart" tech dimenssion. In this regard, we need new technologies to further improve energy efficiency and reduce CO2 emissions in the energy supply field. Just imagine what would the quality of our life be in the European Union in the absence of rigorous environmental measures, against a background of steady growth of the economies. It is obvious that without a solid policy agenda, as the one EU is proposing, there would be devastating environmental pressures, with impact on ecosystems and human health. Romania, as Member State, is rallied to all these policies. The results our country registered in recent years are also validated by the European Environment Agency. We managed a decrease in emissions of greenhouse gases by almost half, as we also managed to diminish the harmful effects of other air pollutants. Romania has set the target of the renewable energy share to 24% for the year 2018. Surprisingly or not, today, Romania has already reached the threshold of 27%, marking the initial proposed target in the EU2020 Strategy. Romania will be able, as well, to achieve the target for 2020 to reduce primary energy consumption by 19%. All these means progress for our country. But there are a lot of measures left untaken and many other efforts to be assumed in order to create as many "smart" cities in Romania as we can. The emergence of "smart" cities requires intense collaboration between the municipality, the public and private sector, in order to facilitate decision-making and progress on how to initiate public policy at local level and to improve the relationship between citizens, business environment and government institutions. A "smart" city means a more inclusive city which offers equal opportunities for everybody. The main ministries and institutions responsible in the field of energy in Romania acts to promote renewable energy, to improve energy efficiency and to reduce emissions of greenhouse gases. Romania has rich resources and diverse energy sources: biomass, hydropower, a big potential of geothermal, energy wind, solar and photovoltaic. They are distributed throughout the country and they'll be able to be exploited more widely as performance-price ratio of the technologies will be improved through the maturation of the related new generations of equipment and facilities.

Smart development is no longer just one option among many, but a manifestation of social responsibility. It is up to us to decide in which kind of society we would like to live in, as a "smart tech" society might mean a better life and a higher standard of living for all of us.

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THE TRANSPARENCY OF THE LOCAL STRATEGIC MANAGEMENT THROUGH THE MUNICIPALITIES OFFICIAL WEBSITE

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Abstract

The transparency of the strategic management of the Romanian county capital cities is constantly a topic of debate. It was discussed from the perspective of the public information access offered by the public institutions' official websites but also from the point of view of the openness of the administration towards the served citizens, bearing in mind the considerations on transparency provided by recent studies on the increasing access to information sources via the Internet.

Transparency was assessed not only from the perspective of mandatory legal obligations of the public institutions but also from the point of view of the need to design and implement into practice the strategic planning documents that would effectively involve the stakeholders as literature describes the area of strategic public management.

The study brings the supplementary argument of the more performing as well as more transparent administration theory, in historical regions once under Austrian domination compared to regions historically influenced by the Oriental empires. On the other hand, the transparency of the municipalities' strategic management closely relates to the importance awarded to stakeholders, on a second place being the size of the serviced community and the economic development level.

Key words: municipalities, transparency, e-governance, visibility, strategic planning.

JEL Classification: H70 State and Local Government - General

1. Transparency and citizen participation

Transparency aims to ensure a wider access of citizens as well as of other actors involved in the public life to information and documents owned by the State institutions, to ensure their participation in decision-making process and to ensure the legitimacy, efficacy and governance of the administration. Even more, concept of transparency of the decision-making process taking part in the institutions concerns insuring access of citizens and stakeholders to documents managed by the State institutions as well as their consultation in adopting regulations. On the other hand, the organisational capacity of local governance involves openness, participation, as well as a sustained effort to strengthen the visibility and the transparency of the managerial act. The literature mentions four dimensions of the enhancement of the local governance transparency (United Nations Project Office on Governance, 2009): the structural dimension (legislation, policies and programmes, resources, assessment systems, the right of citizens to information), the dimension of human resources (professionalism, competence, leadership), the political dimension (citizen participation, cooperation with the business environment and mass-media) and the symbolic dimension (culture of inclusion and diversity). The public servants' degree of opening, and implicitly the institutions' and public authorities' degree of opening, on decisions and adopted actions as well as their ability or willingness to clarify the reasons of the latter, is a mere first step in reducing the information restriction for the public. An enhanced visibility of the governance act has multiple positive implications, among them mentioning: availability of documents facilitating the functioning of evaluation systems; facilitated orientation serving citizens' right to information; efficiency in information and knowledge exchange among sectors and institutions; modern method of communication with citizens and local community; consolidation of trust in order to create a culture of the community ownership by citizens.

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Local public authorities adopt various ways in involving stakeholders in policies drafting and implementation processes, as a valuable mean of improving the public policy quality, also consolidating the legitimacy. The employed technics vary according to the level of citizen participation. Rowe and Frewer (2005) speak of three levels: citizens communication in case the information is sent from the public institution to the community; citizens consultation, in case information flows from the public to the institutions follow processes initiated by the latter; and citizens participation, in case the information exchange between public and institutions take the form of a dialog. Transparency International (2004) divides the degree of citizen participation on several levels, although essentially we speak of the same process: public information is the basic level of such participation, the following being consultation, their participation in project initiation, the vertical being finalised with the eventual sharing of the decisional power by the public authorities with the public ("co-decision").

The principles lying at the foundation of *Law no. 52/2003 on decision-making transparency* are harmonised will all citizen participation levels. Thus, the prior information, ex officio, is provisioned by the law for the public interest problems to be debated by the authorities of the central and local public administration as well as for the drafts of the pieces of legislation. For the second level is specified the consultation of citizens and of legally constituted associations in the process of elaboration of pieces of legislation. The active participation of citizens, in administrative decision-making is also well emphasised, requiring the fulfilment of several rules: the meetings of the public authorities and institutions making the object of the above-mentioned law are public, the debates will be recorded and made public, the meetings minutes being recorded, archived and published. The trend is to change the usual presumption of secrecy, and citizens are granted the legal right of access to documents without requiring to prove first a particular interest, the task of justifying the non-disclosure remaining with the authority.

The particularity of Romania regarding the local public administration traits is a result of the different background of the three historical provinces. The administration in Transylvania was strongly branded and radically changed during the Habsburg dominion. As Aurel Pop (2015), rector of the Babes-Bolyai University of Cluj-Napoca, a specialist in Medieval History, was mentioning in an interview, Austrians brought with them the order, the discipline, the cadastre form of property regulation, rules of cohabitation and sanction for violation of laws. Themselves were „disciplined, accustomed to obey authority and to fulfil their duty... They first imported a modern, bureaucratic administration such as it was in Western countries". This characteristic of today's public administration, in general, is still visible, and concerning the transparency issue, it is a question mark the present research is also trying to answer.

The means and techniques used by the administrations in order to connect to the citizens, to inform them, to consult them, or even involve them in the decision-making and respectively managerial act, must be modernised and consequently perfected in the "virtual", area of Internet. In Romania there is noticeable concern for transparency and citizen participation, at least in the legislator's perspective since 2003, when Law no. 52/2003 on decision-making transparency was adopted. Yet, as showed by recent studies, at least concerning the Romanian municipalities, the administration's transparency and visibility is still „in the bud".

2. Mayor's offices transparency assessed by their official pages

We consider important to reduce the number of the assessed administrations strictly at the level of the level of the county capital municipalities when analysing the aspects concerning the strategic management, considering that these cities represent poles of good practices for the county area they represent. Consequently, the optimisation of their visibility

will positively influence the administrations of other territorial administrations as well. The study aims to identify the factors influencing transparency in the local authorities communication with external stakeholders (including the served population), on issues regarding the locality's strategic management.

The purpose of research is to uncover the extent to which the transparency degree of the strategic management in local public administrations in county capital cities is influenced by a series of internal and external factors. The objectives aim to determine the transparency degree of the strategic management in local public administrations in county capital cities, from the perspective of their own internet page, to determine the influence of the degree of transparency on several external demographic and economic factors, and to determine the degree of transparency of factors from the institution's internal environment.

The research hypothesis are the following:

Hypothesis 1: The average transparency index of the development regions is higher in the central part of the country (within the Carpathian range arch) than the rest of the regions.

Hypothesis 2: The Mayor Offices of the municipalities have a higher transparency degree of their webpage as the community they serve is bigger and more economically developed.

Hypothesis 3: A higher degree of detail on their own site concerning strategic priorities, indicates an increased general concern for transparency on behalf of the municipalities.

The considered independent variables are: size of the served population, municipalities' geographical position, the economic development of the area of influence (GDP/cap.), and the degree of detail in strategic priorities.

The degree of transparency is a globalising index, subsequently named *the Transparency Index*, built based on indicators measuring various aspects of the transparency, namely: the existence of local development strategy; the existence of a section dedicated to publishing activity reports, announced activities, press releases, etc.; fulfilment of legal obligations regarding participation to the drafting of legislation; publication of the announcement regarding drafts normative acts projects; organisation and development of public debate (will be considered: publication on site of announcements regarding organisation of public debates; the form taken by the compliance required by the law to be brought to public knowledge concerning debates organisation; the ways citizens or associations may formulate suggestions or recommendations); existence of an annual activity report on authority's website; existence of a section destined to problems currently on the agenda of the institution; existence of a section for dialogue with the community; existence of data regarding local budget and budgetary execution account for more than 2 years. For index normalisation purposes, the interval 0-100 was chosen, values being calculated as sums of partial indicators, reported to maximum possible cumulated value, and expressed as percentage. In a similar way was constructed *the Index of Strategic Priority Degree of Detail,* based on the following items published on site: objectives, projects leading to objectives accomplishment, activities schedule, anticipated outcomes, resources, respectively methods of evaluation.

In order to obtain relevant data on the formulated hypothesis, and in order to cover an area of analysis as large as possible, quantitative and qualitative methods and instruments were employed. In a first phase we used documents analysis, in order to follow the phenomena of interest, meaning the direct traces left on the official sites of the public institutions included in the scope of the study. The method of choice advantages the research by facilitating a larger geographical coverage, allowing the inclusion in the study of all Romanian county capital cities. According to the information source, several categories of documents were considered: owned webpages (local development strategies, state institutions reports, public information provided by the institutions, correspondence with organisations and citizens, as well as institutions approach of official documents); The National Institute of Statistics – populations and habitations census, Volume I Population – demographic structure,

2011; and National Prognosis Commission: Projection of main economic and social indicators in territory until 2018, December 2015.

The second method, content analysis, allows transformation of documents in data. The employed technique aimed to identify the messages specific characteristics. If for the demographic and economic indicators the analysis was their mere record in the developed survey, the analysis content of official webpages of the municipalities and of the documents accessed in this area had a series of specificities. One of its forms applied the counting of the frequency at which are encountered the considered sizes and characteristics followed by a proper and suggestive coding of each aspect. Thus it was the case for the form used for informing on public debates results, allocating a number between 0 and 5, according to the multitude of the forms of communication used by the institution.in the case of items establishing superior and inferior positions, ordinal scales of coding were used with a maximum level varying from case to case. In most cases though in the documents were targeted the presence or absence of the considered aspects.

The quantitative instrument allowing the operationalisation of the content is the data analysis survey communicated by the authorities through their own sites, within the strategic management process. The analysis survey is structured in 5 main parts and comprises 16 items. The first part concerns aspects characterising the external environment of the institution, meaning the size of the served population, the geographical position, the welfare of the area of influence expressed as recent data of the GDP/capita indicator at county level. The following parts of the analysis survey are focused on the transparency concept, charted first from the point of view of the local development strategies for previous and present period. The third part refers to the data collection from external stakeholders (citizens, associated, private environment), in the process of drafting the legal documents. Fourth part targets the information collection through public debate for vision update, mission update and institution strategic plan update. The fifth part concerns the aspects regarding the authority's annual activity report (activity evaluation), institution's agenda, communication with the community (participatory democracy, participatory budgeting), as well as data regarding local Budget and Budgetary Execution Account for more than 2 years. As the research instrument uses only the online reading of documents by the researcher, the open answer items as found only in the section dedicated to municipality's external factors. Most aspects pertaining to transparency were inventories on a binary scale of Yes/No, to which filters were added and semantic differentiations on multiple choice scales.

The analysis survey was filled for each statistical unit by accessing the official webpages of the Mayor's Offices for county capital municipalities. Through this instrument a data base was created for quantitative research, statistically processed with Microsoft EXCEL software, in order to test the formulated hypothesis.

The mathematical and statistical research instrument uses the strength of the association between two variables and is expressed statistically by Pearson's correlation coefficient (r) which does not involve, though, a cause-effect type of relation.

The value of r is determined by the following equation:

$$r = \frac{\sum \square (x - X)(y - Y)}{\sqrt{\square \sum \square (x - X)^2 \sum \square (y - Y)^2}}$$

where x and y are the two variables, and X and Y, their respective averages.

The determination coefficient is the one showing the effect of the variation of the dependent variable on the independent variable variation (Popa, 2008): $R = r^2$. Regression may indicate a cause-effect relation, the most usual being the linear regression, in the form of: $y = ax + b; f(x) = y; f: R \to R$

The research results

From the analysis of the official webpages of the Mayor's Offices of county capitals municipalities we determined that 73% of them post information regarding activity reports, announces actions, press releases, significant for a transparent management process. These practices are often encountered for the Centre Region, where all 6 county capitals municipalities are careful in publishing the activity reports, in announcing next actions, in making press releases, etc. Regarding the publication of the local development strategies on the official websites, there is a progress of 10% in the number of municipalities having meanwhile adopted this practice. If, for the previous period 67% of the Mayor's Offices had published their strategy during the current period only 23 % of them don't have this strategic document posted online.

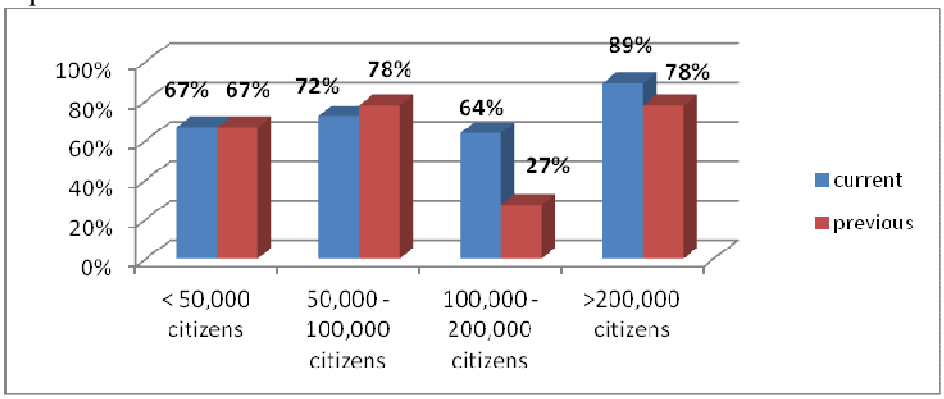

Figure no 1: Evolution of the local development strategies publication

The largest progress in the field of local development strategies was registered for county capitals municipalities serving a population of 100,000 – 200,000 inhabitants. Regarding the way Mayor's Offices use their sites in the strategic planning process in order to communicate and collect information from the external stakeholders, the most significant are the participation to the process of drafting of pieces of law and the organisation of public debate. Thus, 63% of the studied municipalities are communicating using their own website on a possible list of domains (priorities or problems) of local interest for which they intend adopting pieces of local legislation.

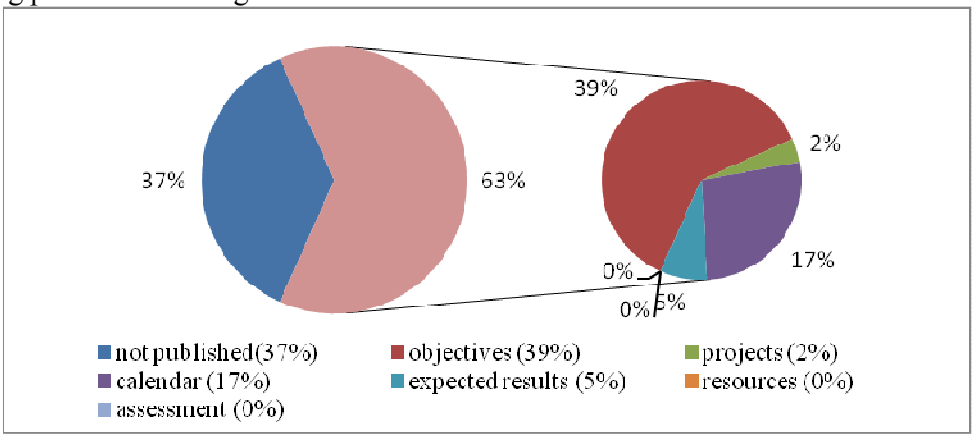

Figure no 2: Publication of the priority list and its degree of detail

Among these, 16 City Halls are limited to merely setting a list of objectives, while 7 municipalities take detail to the level of schedule. Only the city of Braşov refers also to the estimated results. Within the procedures of drafting of pieces of law, the situation is balanced, 56% of municipalities choose not to publish the announcement regarding this action on their

websites. A similar situation is present also in the case of the publication of announcements regarding the organisation of public debate (51%).

Regarding the ways used to make public the information required by the law following public debate, 24 of the studied municipalities do not publish the outcome on their website, 7 only publish the minutes, while Arad, Oradea, Braşov and Cluj-Napoca are also communicating the final version.

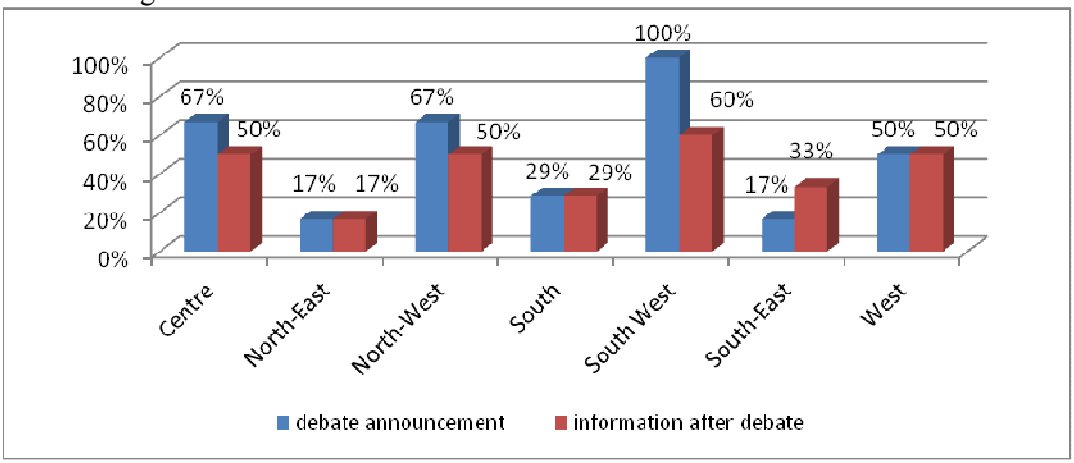

Figure no 3: Publication of information on public debate

From the point of view of their geographical position, the importance granted on the website to the organisation and development of public debate is manifested in a more important ratio by the municipalities of the South-West region, where all analysed Mayors' Offices are publishing online the announcements regarding debates. A particular situation is registered for the Mayors' Offices from the South-East region municipalities, part of them publishing only the ex-post debate information. Regarding the ways external stakeholders (citizens, associations, private companies, the academic institutions, etc.) may formulate suggestions or recommendations, 26 of the Mayors' Offices offer the possibility of transmitting information via website, while 3 of them only receive information at their headquarters. On the other hand, 61% of the studied municipalities have created a section of the website especially for community interaction. It has various names, among which we remind participative democracy, participative budgeting, community interactions. Regarding the ongoing problems, approximately 60% of the Mayors' Offices websites have a specially assigned section. Most sites contain the annual activity report of the Mayor/Local Council (83%).

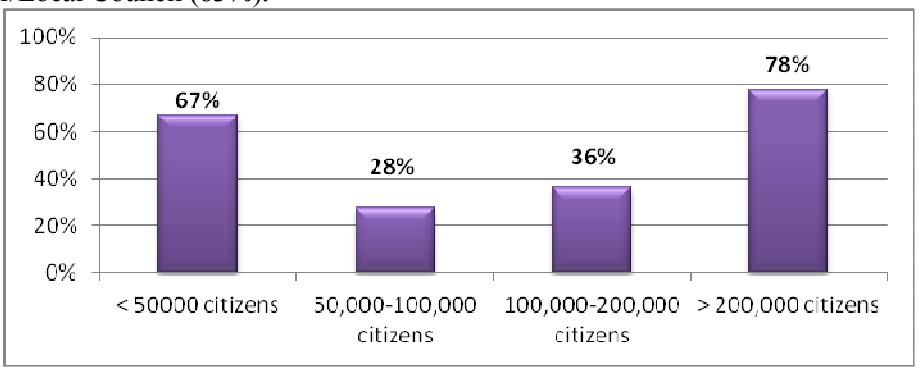

Figure no 4: Publication of the local budget for 2+ years

Regarding the resource component, in the case of 56% of the Mayors Offices there are data on the local budget for at least 2 years, an increased interest being registered in large localities, over 200,000 inhabitants (78%), as well as in the little ones, under 50,000 inhabitants (67%).

Hypothesis testing

Hypothesis 1: *The average transparency index of the development regions is higher in the central part of the country (within the Carpathian range arch) than the rest of the regions.*

This hypothesis wanted to test the continuity of appreciations comprised in the theoretical part regarding the fact that the Romanian local public administration varies from one region to the other, fact resulting from the different historical background of the three historical provinces. The local administration of the development regions within the Carpathian range arch is, in fact, the administration of the former Banat and Transylvania, regions marked historically by the Habsburg dominion, the latter implementing since the end of the XVIIth century a modern and bureaucratic western-like administration.

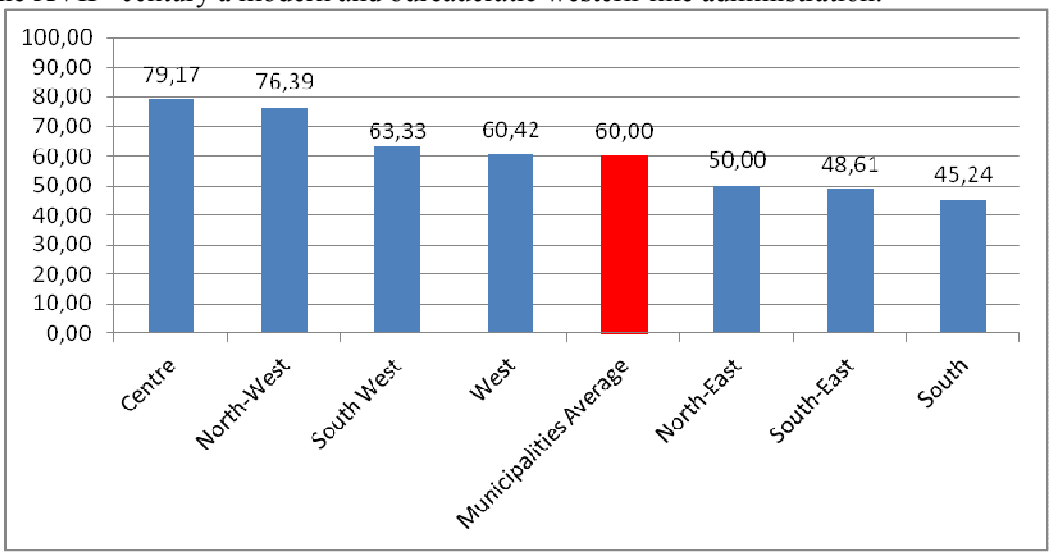

Figure no 5: Average transparency index of the development regions

The first hypothesis is only partially confirmed. Thus, all three regions, Centre, North-West and West, have a higher transparency index than the average county capitals municipalities, while three of the four outer regions, North-East, South-East and South, register an average index lower than the municipalities' average.

The only exception is the South-West development region comprising the counties Dolj, Gorj, Mehedinți, Olt and Vâlcea.

Hypothesis 2: *The Mayor Offices of the municipalities have a higher transparency degree of their webpage as the community they serve is bigger and more economically developed.*

For the *testing of the second hypothesis* the same *Linear Regression Method* was employed, the calculations being performed with the *statistical calculation informational instrument* of the EXCEL software.

a. The degree of association of the variable *number of inhabitants* of the city with *the Transparency Index* is low to moderate, the correlation coefficient **r** having the value of 0.29, and the determination coefficient **R** has a value of 0,09, which means that *the Transparency Index* is determined by the size of the community only in proportion of 9% (low effect). The regression curve is described by the equation:

$$Y = 8.91 \times 10^{-5} \times x + 48.38;\ Y{:}N \rightarrow [0{,}100]$$

b. The degree of association of the variable GDP/capita with the *Transparency Index* is moderated, the correlation coefficient **r** having the value of 0.32, and the determination coefficient **R** has a value of 0.10, which means that *the Transparency Index* is determined by the degree of economic development of the community only in proportion of 10% low effect). The regression curve is described by the equation

$$Y = 0.0053 \times x + 31.4;\ Y{:}R \rightarrow [0{,}100]$$

The second hypothesis is partially confirmed, the degree of association of the variables being in the moderate area and the influence's effect being low.

Hypothesis 3: *A higher degree of detail on their own site concerning strategic priorities, indicates an increased general concern for transparency on behalf of the municipalities.*

In order to *test the third hypothesis* the same *Linear Regression Method* was employed, the calculations being performed with the *statistical calculation informational instrument* of the EXCEL software. The degree of association of the variable *the Index of Strategic Priority Degree of Detail* with the *Transparency Index*, is high, the correlation coefficient **r** having a value of 0.63, and the determination coefficient **R** having a value of 0.39 (high effect), which means that *the Transparency Index* is determined by *Strategic Priority Degree of Detail on their own site* in a proportion of 39%, a dimension connected to the internal environment of the organisation, i.e. of the importance granted by the management to external stakeholders. The regression curve is described by the equation:

$$Y = 0.611 \times x \times 42.68; Y: [0,100] \rightarrow [0,100]$$

The third hypothesis is confirmed, the degree of association of the variables being high and the effect of influence as well.

3. Conclusions and recommendations

By studying the degree of transparency of the county capitals municipalities on their own webpage regarding the strategic management, a series of conclusions are drawn, lying the foundations for further recommendations on the issue at hand.

Thus, it was determined that, although the argumentation regarding a more modern, more bureaucratic and consequently more transparent administration, in the historical regions once under Austrian dominion during Middle Ages is generally confirmed, the exception of the South-West development region (Oltenia), shows that this historical discrepancy can be recovered or even obliterated by implementing modern models and programmes, suitable to the local specificities. The study also shows that it is not the size of the community or its economic development as external factors, who decisively influence the transparency regarding the strategic management of the local authorities at city-level, but the internal environment factors. Thus, organisations that granted an increased importance to stakeholder-like collaborators (including the population they serve), showing a larger degree of detail in information and open channels of communication in the on-line environment, have accumulated superior points in general transparency. In other words, it is a matter of attitude and respect to the other actors involved in the governance process, an attitude coming from and determined by the organisation's management policy.

The goal of increased transparency, as premise for successful cooperation between all parties involved in the sustainable development of localities, may be supported horizontally by experience exchange among city halls and vertically, by a central level elaborated handbook, inventorying good transparency practices at national level, but also at European or global level.

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EU AS A GLOBAL ACTOR IN A GLOBALIZED WORLD

JIANU (Dănilă) Maria Laura[1]

Abstract:

The European Union is a global actor, but confronted with internal crises and some are seeing it as a union trying to survive. There are some who believe that its strategy to spread the values that stud on its foundation in the entire world is not going to function. Since 1957 when 6 countries (Belgium, France, Germany, Italy, Luxemburg and Netherland) founded European Coal and Steel Community, the European Union has experienced a huge process of enlargement uniting now 28 states. At the beginning it was about putting together the resources for common good purpose, is it still the same, or is it about gaining/ maintaining the power of a few state? The Union's objectives are to offer its citizens freedom, security and justice, a balanced economic growth for a social progress, and for this the EU promoted social, economic and territorial cohesion, and solidarity within the member states. But if we consider the exit of Britain and the fact that Turkey is still a candidate state when it applied to join in 1987 and in 1997 it was declared eligible to join European Union, EU as success project still remains uncertain. So, issues as: EU position in a more and more globalized world and the level of economic, social cohesion among its member states remains topical. The paper aims to present a framework of EU foreign policy and its interregional relations in order to understand the EU roll as a global actor, using quantitative data from EUROSTAT on trade in good by main world traders, share of national exports in world exports; extra-EU28 trade by main partners, total products, share of exports by partner and extra-EU28 trade by member state, total products, share of exports. It will conclude that while the Union in an important international actor, a model of regional integration, a model of multi-level governance, if it's a successful model, if it is going to survive as a union as large as it is at the moment or as a smaller one remains questionable.

Key words: globalization, European Union, economic, social and territorial cohesion, foreign policy, trade

JEL classification: F02, F13, F42, F53

1. Introduction

Since 1957 when 6 countries (Belgium, France, Germany, Italy, Luxemburg and Netherland) founded European Coal and Steel Community, the European Union has experienced a huge process of enlargement uniting now 28 states. It is also true that since then, till the present, the entire world had changed. If we could talk about a bipolar world up till the Cold War, when United States of America and the Soviet Union were the two main global actors, we are now facing a globalized world, with interdependences and many challenges. There are several global organizations, on different area of interests that prove it: WTO (World Trade Organization), ILO (International Labour Organization), FAO (Food and Agriculture Organization), IMF (International Monetary Fund), ITC (International Telecommunication Union), OECD (Organization for Economic Cooperation and Development), UN (United Nations), UNCTAD (United Nations Conference on Trade and Development), WB (World Bank), WCO (World Customs Organization), WHO (World Health Organization), ASEAN (Association of Southeast Asian Nations), NAFTA (North American Free Trade Agreement), ACP (African, Caribbean and Pacific states), NATO (North Atlantic Treaty Organization). Where does the EU stand in this complex world? It clearly has an economic powerful position, but is it enough or not?

G8 is to be mentioned in the context, as it is an annual meeting of the 7 most advanced economies and EU's representative, to discuss world's economic and financial problems and policies. Initially G7, Canada, Japan, U.S.A., Germany, France, Italy and United Kingdom started their ad hoc meetings in 1975. In 1977 Roy Jenkins, the President of The European Commission at the time, joined the third summit of G7, and since 1981 EU was always represented at the group's summit.

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The G20 is also to be mentioned here. At the beginning it was a forum for few finance ministers and central bank governors to improve the international finance system. Since the financial crises of 2008, the meetings were lifted up to a higher level and since then 20 heads of states and government leaders are meeting regular to discuss about international economic cooperation. But who are the 20 members of the group: 19 countries and the European Union. The countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom and the United States of America. So, The EU is present in the group but there are also a few member states represented themselves.

The EU is a unique union of states, as it has to create a vision both at the European and national level. If we consider its main principles, at a European level, the sovereignty of its member states is recognize, but put aside for world peace, economic convergence, and better global governance. At a national level, the politicians are still fighting with the instinct to averse the sharing sovereignty. But if we consider the exit of Britain and the fact that Turkey is still a candidate state when it applied to join in 1987 and in 1997 it was declared eligible to join European Union, EU as success project still remains uncertain. So, issues as: EU position in a more and more globalized world and the level of economic, social cohesion among its member states remains topical.

The next section of the paper aims to present a framework of EU foreign policy in order to understand the EU roll as a global actor; how the other actors report to its roll and it is recognize as an important player or not.

2. EU foreign policy and its interregional relations

The European Union foreign policy and its interregional relations are very important factors regarding the Union image as a global actor.

If we consider the definition of foreign policy as a way of influencing the external environment and the comportment of the other actors in order to pursue your own interests, values and goals, than how the others actors sees you on the stage is an important issue.

Many studies were conducted on the subject of how the other actors report to EU's roll as a global actor and if it is recognize as an important player or not, and Simion Schunz in his paper *A Global Actor in Search of a Strategy*, offers a synthesis of the following conclusions: EU is a little known and little debated actor in countries like Australia, Brazil, Canada, Egypt, India, Japan and South Africa, the citizens do not seem to be informed about the Union, except Chinese citizens with a positive attitude toward EU; EU is often perceived as an economic and trade giant by the business elites and the press from Brazil, India, Mexico and South Africa; EU is regularly seen as a supporter of multilateralism, global governance and sustainability, more on African continent; EU is a model of regional integration, also a predominant perception on African continent; EU has a problem with lack of internal unity and a problematic Eurocentric attitude. (Simion Schunz, 2014)

Henrik Larsen, in his paper *The EU as a Normative Power and the Research on External Perceptions: The Missing Link* offers another synthesis of the EU's external perceptions through specific literature. He outlines the next main perceptions presented by Chaban et al. in the paper *Images of the EU beyond Its Borders: Issue-Specific and Regional Perceptions of European Union Power and Leadership, 2013* who talks about EU as an international actor on some issue, but not a great power in all fields. EU as an international economic power is a trade giant, huge market and a source of direct foreign investment, but in the south (Africa, India, China, Brazil, The Pacific) EU is perceived as an economic power negatively, in its relation with ACP the term of 'partnership' is seen as a false one, the 'neo-colonialism' term being considered more appropriate (Chaban et al., 2013). Chaban is also

reviling the perception of EU as a diplomatic power, with an important role in peaceful reconciliation or mediation and not such a power in the military field (Henrik Larsen 2014).

It is hard for European power to extend to fields like strategic military affairs regarding its history. And even if some have considered the possibility on creating a European military force, the process will take some time. NATO, on the other hand has some history on the field, and some serious contributions from member states of EU. It is a military force with significant experience and the input of a powerful global actor, USA. This alliance with the USA is important considering that Russia and Turkey are not member states of European Union.

Larsen takes in consideration the Elgström O. researches results: EU a great power on fields like commerce and environment, and also the 'false' partnership of EU with ACP. The EU's negative image on its relation with Africa, keeping Africa in a subordinate position was outlined also by researchers like Brantner (2010), Morini et al. (2010), Olivier and Fioramonti (2010), Fioramonti and Polletti (2010). Larsen points out that as a political global actor the south has a more positive image on Union versus U.S.A., but Morini et al. (2010) on the other hand presents an EU as a weak actor in the political field. (Henrik Larsen, 2014).

The EU foreign policy is a complex term as it involves multilevel and more then one system of governance. But it is also impossible to take it as a sum of the 28 member state's foreign policy or to reduce it on the policy conducted by EEAS (Simion Schunz, 2014).

Simon Duke in his book *Europe as a Stronger Global Actor: Challenges and Strategic Responses* (2016) consider that EU has to define more clearly its interest as a global player and "the vary act of defining the Union's interests demands some form of strategic dialog, both within the Union's institutions and with its members as well as significant third parties with whom there is much in common across the board (Australia, Canada, India, Japan, South Korea and the USA being obvious examples). Other actors, such as China and Russia, already have a keen sense of their interests. Even some of mid-size powers like Brazil, and South Africa (also strategic partners) and Turkey (a candidate for membership) appear to have a keener sense of their interests." (Duke, 2016, pp.60)

Gehring et al. concludes that the Union "constitutes a strong market power in its own right and a weak security power." They consider that the EU is "institutionally ill-equipped to purposefully mobilize its market power to pursue high-politics goals" (Gehring, Urbanski and Oberthür, 2017).

Along with its enlargement EU improved its legislations. The EU's based legislation, the treaties have been approved by the member states and sate out the Union's objectives, rules for its institutions. Along with the treaties are adopted regulations, directives and other acts that are then implemented by the member states.

All treaties are important but a main one is Maastricht Treaty entered into force in November 1993, because it introduced in EU legislation the Maastricht criteria in order to prepare for EMU and elements from the area of internal affairs policy, citizenship and common foreign. On the internal affairs policy it's legislating new forms of cooperation between member states on justice and defense.

Another important Treaty is the Lisbon one, as it is titled the Treaty Establishing a Constitution for Europe. It was a necessity regarding EU-27. Its main changes were: legal status for EU; establishing the area on which EU has the entire power to decide and the area which are shared with the member states; permanent presidency for European Council, the position High Representative for Foreign Affairs and Security Policy being held by the same person who is also a Vice-President of European Commission and helped by a European External Action Service. With this "merging'' position, in the wake of Lisbon, EU has become an international actor, with potential important power in a global grand bargain. (Jolyon Howorth 2010) But Herman van Rompuy who took the presidency for European Council and Catherine Ashton who took the position High Representative for Foreign Affairs

and Security Policy were two minor officials who were practically unknown in their own countries. (Jolyon Howorth 2010)

However Herman van Rompuy, the first on permanent presidency for European Council, was reelected for a second term from June 2012 till November 2014. Before being the President of European Council he expressed his opinion about Turkey joining EU. In 2004, he stated "An enlargement [of the EU] with Turkey is not in any way comparable with previous enlargement waves. Turkey is not Europe and will never be Europe." He continued "But it's a matter of fact that the universal values which are in force in Europe, and which are also the fundamental values of Christianity, will lose vigour with the entry of a large Islamic country such as Turkey." (https://en.wikpedia.org) It is also appreciated that thru his presidency he did not oppose to Turkish membership.

About Catherine Ashton the first High Representative for Foreign Affairs and Security Policy along with the position of Vice-President of European Commission, before she was a member of the Commission responsible with trade. She led negotiations on Free Agreement with Korea, contributed to the enforcement of European-ACP economic relationship and solved a number of high-profile trade disputes with major trade partners. (https://eeas.europe.eu) Regarding that EU is recognized as an economic power, most on the trade area, maybe it wasn't such a lack of wisdom in naming that the European Council made for above top-level positions, as Jolyon Howorth thought.

It is a fact that foreign affairs and security policy are more and more important on the EU agenda. There were lesson drown from the mandate of the period 2009-2014, and a correlation with the internal movements was impetuous. For EU to be stronger it has to be one voice speaking, and for one voice speaking has to be one internal venture who establishing the voice to speak. A proof of it is the statements of Jean-Claude Junker, on July 2014: "We need to be more effective in bringing together the tools of European's external action. Trade policy, development aids, our participation on international financial institutions and our neighbourhood policy must be combined and activated according to one and the same logic." It was the point when he was elected as President of European Commission, as a successor of Jose Manuel Barroso. The figures at the moment reviled an EU with: ¼ world's GDP (to the 56,246 billion euro global GDP EU contributes with 24%, fallowed by USA with 22% and China with 13%, Brazil, India and Russia with 3%); world's largest trading block, world's largest source and destination of foreign investments; world's largest aids donor with 58.2 billion euro contribution.

The areas on which EU is leading its foreign policy are: common foreign and security policy; terrorism, drugs, energy diplomacy, environment and climate changes; human rights and democracy; migration and nuclear safety. European Union has certain norms regarding the issues, and it is trying to propagate them through negotiation. "Europe has considerable economic and commercial leverage. It is through this that Europe managed to convince Moscow to sign the Kyoto Protocol in exchange for Russia joining WTO. But Europe's power does not go further…" (Zaki Laïdi, 2010).

The European norms are reliable but they can be spread on fragmentary bases, in fields like environment, international justice and sustainable development, rather then security and diplomatic issues. But this is normal, as EU is about managing 28 states with its own strategy on security and diplomatic issues. And a very important issue is that Europe is an example of global governance, a global power that has signed around 40 documents and texts that are the foundation of global governance at world level, and 34 of those are treaties and texts signed by member states, compared with 11 for USA, 16 for China and 15 for India. (Zaki Laïdi, 2010)

Regarding the fact that EU is perceived as a global actor on economic and trade levels we analyzed some figures on the issues.

Table 1: Trade in good by main world traders, share of national exports in world exports (%)

GEO/time	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EU-28	18,9	18	17,1	17,3	16,6	17,1	16	15,9	15,5	16,3	15,9
Canada	5,1	5	4,6	4,3	3,9	3,5	3,4	3,3	3,3	3,2	3,3
USA	13,1	12,4	12,2	11,9	11,2	11,8	11,4	10,9	11,1	11,1	11,4
China*	9,5	10,5	11,4	12,5	12,4	13,5	14	14	14,7	15,6	16,5
Japan	9,1	8,2	7,6	7,3	6,8	6,5	6,9	6,1	5,7	5	4,9
South Korea	4,1	3,9	3,8	3,8	3,6	4,1	4,2	4,1	3,9	3,9	4
Russia	2,9	3,3	3,6	3,6	4	3,4	3,5	3,8	3,8	3,7	3,5
Singapore	3,2	3,2	3,2	3,1	2,9	3	3,1	3	2,9	2,9	2,9
Mexico	3	2,9	3	2,8	2,5	2,6	2,7	2,6	2,7	2,7	2,8
India	1,2	1,4	1,4	1,5	1,6	2	2	2,2	2,1	2,4	2,2
Brazil	1,6	1,6	1,6	1,6	1,7	1,7	1,8	1,9	1,7	1,7	1,6

Source: EUROSTAT, http://ec.europa.eu/eurostat/tgm, *except Hong Kong

Looking at the trade in goods by main traders, as contribution to the world exports, it shows that EU-28 in declining, and China in the leader in 2014. EU-28 comes on the second place and it is followed by USA. If we consider ASEAN, in the table in only a part of it and it's already the leader. So, how can EU negotiate with China regarding human rights issues, and it is not the only example, as China is a power global actor on the same strategic field, trade. But here is important to mention that regarding EU's implication in WTO, European Commission, the EU's executive arm, is speaking for all European member states at almost all WTO meetings, even if the 28 member States of the EU are also WTO members in their own right.

The European Union is also negotiating a trade agreement with the four members of MERCOSUR –Argentina, Brazil, Uruguay and Paraguay, actually the founders of MERCOSUR. Since 1999 the EU and MERCOSUR trade relations is governed by an inter-regional Framework Cooperation Agreement. The EU exports in the region increased up to 46 billion euro in 2015 and EU is the biggest foreign investor in the region. But here there is a serious threat regarding NAFTA.

The Transatlantic Trade and Investments Plan was a proposed trade agreement between EU and USA, with the aim to promote a multilateral economic growth. The negotiations should have been completed in 2014, but the plan ultimately failed.

Table 2: Extra-EU28 Trade by main partners, total products, share of exports by partner (%)

Parteners/time	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
USA	24,9	23,9	23,2	21	18,9	18,6	17,9	17	17,4	16,7	18,3
China*	5,1	4,9	5,5	5,8	6	7,5	8,4	8,8	8,6	8,5	9,7
Russia	4,9	5,4	6,3	7,2	8	6	6,4	7	7,3	6,9	6,1
Switzerland	8	8,2	7,7	7,6	7,7	8,1	8,2	9,1	7,9	9,7	8,2
Norway	3,3	3,2	3,3	3,5	3,3	3,4	3,1	3	3	2,9	2,9
Turkey	4,3	4,3	4,3	4,3	4,2	4,1	4,6	4,7	4,5	4,5	4,4
Japan	4,6	4,2	3,9	3,5	3,2	3,3	3,3	3,2	3,3	3,1	3,1
South Korea	1,9	1,9	2	2	1,9	2	2,1	2,1	2,2	2,3	2,5
Brazil	1,5	1,5	1,5	1,7	2	2	2,3	2,3	2,4	2,3	2,2
India	1,8	2	2,1	2,4	2,4	2,5	2,6	2,6	2,3	2,1	2,1

Parteners/time	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Saudi Arabia	1,3	1,5	1,5	1,6	1,6	1,7	1,7	1,7	1,8	1,9	2,1
Canada	2,3	2,2	2,3	2,1	1,9	2	2	1,9	1,9	1,8	1,9
Algeria	1	1	0,9	0,9	1,2	1,4	1,2	1,1	1,3	1,3	1,4
U. A. E.	2	2,5	2,2	2,2	2,5	2,3	2,1	2,1	2,2	2,6	2,5
Singapore	1,7	1,6	1,7	1,7	1,7	1,9	1,8	1,8	1,8	1,7	1,7
Hong Kong	2	1,9	1,9	1,7	1,7	1,8	2	2	2	2,1	2
Mexico	1,6	1,6	1,7	1,7	1,7	1,5	1,6	1,5	1,7	1,6	1,7
Australia	2,1	2	1,9	1,9	2	2	2	2	2	1,8	1,7
Nigeria	0,6	0,6	0,6	0,7	0,8	0,8	0,8	0,8	0,7	0,7	0,7
South Africa	1,7	1,7	1,7	1,7	1,6	1,4	1,6	1,7	1,5	1,4	1,4

Source: EUROSTAT, http://ec.europa.eu/eurostat/tgm, *except Hong Kong

Regarding the extra EU-28 trade by main partners, the trend is the same, USA is loosing ground to China, Russia is gaining ground and Switzerland and Turkey are maintaining it's position. In 2004 the main partners for extra EU-28 exports were: USA with 24,9%, fallowed by Switzerland with 8%, China 5,1 %, Russia 4,9% and Turkey with 4,3%. In 2014 USA is leading with only 18,3%, a 6,6% decline, fallowed by China with 9,7%, up by 4,6%, Switzerland with 8,2 %, Russia 6,1% and Turkey with 4,4%. Even if it looses ground The USA is the main partner so The Transatlantic Trade and Investments Plan should be resurrected, but with on Trump's presidency it's a challenging perspective. Switzerland is also an important trade partner for EU but even if it has an unusual position being surrounded by EU member states, Switzerland does not wants to join EU. In 1992 the Switzerland submitted an application to enter the EU, but a Swiss referendum held on 6 December of '92 rejected the join of EU with 50.3%, and in 2001 76.8% of Swiss voted against joining EU. The Swiss Confederation adopted some EU's law in order to participate on the EU's single market, but does not goes further than this.

Table 2: Extra-EU28 Trade by member state, total products, share of exports (%)

GEO/time	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EU-28	100	100	100	100	100	100	100	100	100	100	100
Belgium	6	5,9	6	6,1	5,6	5,9	6,1	6,2	6,2	6,1	6,1
Bulgaria	0,3	0,3	0,4	0,4	0,5	0,4	0,4	0,5	0,5	0,5	0,5
Czech Republic	0,7	0,8	0,9	1	1,1	1,1	1,2	1,3	1,4	1,3	1,4
Denmark	1,9	1,9	1,8	1,8	1,8	2	1,8	1,8	1,8	1,7	1,8
Germany	27,1	26,3	27,6	27,3	27,3	27,4	27,8	27,6	28	27	28
Estonia	0,1	0,1	0,2	0,2	0,2	0,2	0,2	0,3	0,3	0,2	0,2
Ireland	3,3	3	2,8	2,6	2,4	2,9	2,7	2,5	2,2	2,2	2,4
Greece	0,4	0,5	0,5	0,6	0,6	0,7	0,7	0,8	0,9	0,8	0,8
Spain	4	4,1	4,2	4,4	4,4	4,5	4,4	4,7	5	5,1	5,2
France	13	12,9	11,8	11,4	11,5	11,9	11,4	10,8	10,8	10,2	10,2
Croatia	0,2	0,2	0,3	0,3	0,3	0,3	0,3	0,2	0,2	0,2	0,2
Italy	11,1	10,8	11	11,3	11,4	11,1	10,5	10,5	10,6	10,4	10,6
Cyprus	0	0	0	0	0	0	0	0	0	0	0
Latvia	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,2	0,2	0,2	0,2
Lithuania	0,3	0,3	0,4	0,4	0,5	0,4	0,5	0,5	0,5	0,6	0,6
Luxembourg	0,1	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,1
Hungary	0,7	0,8	1	1,1	1,1	1,1	1,1	1,2	1,1	1	1

GEO/time	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Malta	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Netherlands	6,1	6,2	6,6	7,1	6,9	7,3	7,3	7,1	7,3	7,1	7,2
Austria	2,5	2,6	2,5	2,5	2,5	2,4	2,4	2,3	2,3	2,3	2,4
Poland	1,2	1,4	1,6	1,7	1,9	1,8	1,8	1,9	2	2,2	2,2
Portugal	0,6	0,6	0,7	0,7	0,8	0,7	0,7	0,7	0,8	0,8	0,8
Romania	0,5	0,6	0,7	0,7	0,8	0,7	0,8	0,8	0,8	0,9	0,9
Slovenia	0,3	0,3	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4
Slovakia	0,3	0,3	0,4	0,4	0,5	0,5	0,6	0,5	0,6	0,6	0,6
Finland	2,2	2,2	2,3	2,3	2,2	1,8	1,8	1,6	1,6	1,4	1,4
Sweden	4,3	4,1	4,1	3,9	3,8	3,6	3,8	3,8	3,4	3,1	3
U. K.	12,2	13	11,6	11	10,9	10,5	10,9	11,7	10,9	13,2	11,6

Source: EUROSTAT, http://ec.europa.eu/eurostat/tgm

Looking in the structure of EU-28 membership, when it comes to the extra EU-28 trade by member state, there are only few that counts: Germany with almost 1/3, meaning 28%, fallowed by United Kingdom 11,6%, Italy with 10,6%, France 10,2%, Netherlands with 7,2 % and Belgium 6,1 %. Back, in 2004, France was on the second place, after Germany, but over the years it louses ground in favour of Britain and Italy. There is one disparity that continues to exist for almost 60 years. And it is not the only one. Many disparities exist between the member states of EU and this contribute to the internal tensions. The leaders of the most developed countries of EU are now debating on the differentiated cooperation. Considering the importance given by the EU to the regional development policy with the scope of reducing disparities between its regions, a deeper analyze should be done. In an interview of Jose Manuel Barroso, winter 2013, concluded "We should seriously ask ourselves if we did the best investments in the past to increase the competitiveness of our economies. I believe that some funds were not used to its full potential. (...) Every euro spent should have maximum impact in terms of growth and competitiveness."

3. Conclusions

There is no doubt that EU is a global actor, a powerful one in some fields, a shy one in others. It is also true that the world is in a continuous changing process, facing tumultuous challenges. The 21st-century world is a multi-polar one, where the new raising powers have sensitive needs.

After facing two major conflicts in a generation lifetime the main actors of Europe founded a Union searching to raise its power in order to be able to defend itself in case of a conflict, but more of it to be able to prevent a war through its power to negotiate. Considering this EU is a model of regional integration. And, also, through its foreign and security policy European Union seeks to preserve peace, strengthen international security, promote international cooperation and developed democracy, the rule of low, the respect for human rights. EU foreign and security policy strengthen by Lisbon Treaty, with the post of High Representative for Foreign Affairs and Security Policy.

European Union is also a model of global governance. Over the years, as it enlarged, manage to create an important legal framework, an institutional framework, facing multi-level governance, where member states, EU institutions, which are decisions makers, interact, being in fact about sharing sovereignty. Not to forget, that in many cases, at a national level, the politicians are fighting with the instinct to averse the sharing sovereignty. And if we consider the exit of Britain and the fact that Turkey is still a candidate state when it applied to join in 1987 and in 1997 it was declared eligible to join European Union, the future of EU remains uncertain. The present debate on the European Union split in two by the different

stages of developments of its member states is proving this uncertainty. It may conduct to other exits from the Union, if it is going to survive as a union as large as it is at the moment or as a smaller one remains questionable, and this has an influence on its perception as a powerful actor on the global stage. And it should not be an uncertain future, after the efforts being done along its existence. In the light of the above, what Jean Monnet wrote on his *Memoir*, in 1975: "Sovereign nations of the past are no longer the proper frame for the present problems that need to be solved. And the Community itself is only a step towards the organized world of tomorrow", are still within the present.

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EFFECTS OF KNOWLEDGE DISSEMINATION ON REGIONAL EUROPEAN ECONOMIC PERFORMANCE

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Abstract

The aim of the paper is to assess the impact of the innovation activity on the economic performance în the European NUTS 2 regions, in the period 2000 – 2014, based on a production function of an aggregate output (GDP per capita) which include patent activity as a factor of influence. To this end, the first part presents an overview of developments in macroeconomic indicators, levels of performance and their correlation with applications for patents relative to the population during the period between 2000 and 2014 at NUTS 2 European regional level. In part two, we assessed the econometric effects of the output of innovation or of patent applications on growth with data coming from 265 regions grouped by their inovatinvness capacity (leaders, important, moderate, modest).

The results achieved reflect the particular importance of patenting growth and patenting aplications as a whole and, in particular, of patented technologies and knowledge not only regionally but internationally. Meanwhile, a weak innovation activity, as reflected by the small number of patent applications, is a factor that can hamper economic growth. This is highlighted in a separate analysis on groups of innovators, where we obtained very good economic results in case of a sustained innovation activity reflected by requests filed under International Procedure (PCT).

Key words: regions, innovation, economic growth

JEL: O31, O40, R11

1. Correlative developments of innovation activity and regional economic performance

The performance of the regional economy is measured by gross domestic product (GDP) million. Population - measured by the number of residents on 1 January - is included to take into account the relative size of each region. The labor factor is represented by the number of employees over 15 years. R&D effort is measured by the total intramural expenditures for R&D (millions of euro). Human capital is represented by the number of economically active individuals with secondary and/or tertiary education.

Figure no.1a: **Regional distribution of PCT patents per thousand inhabitants (2013)**

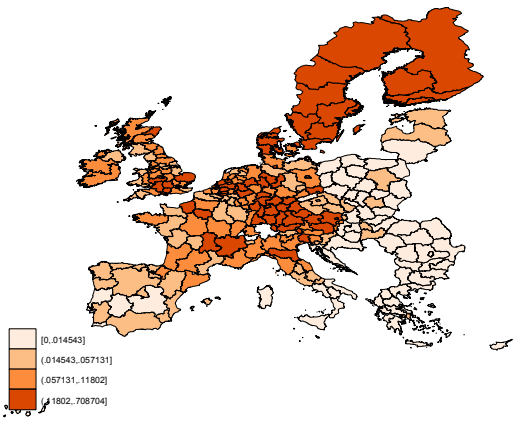
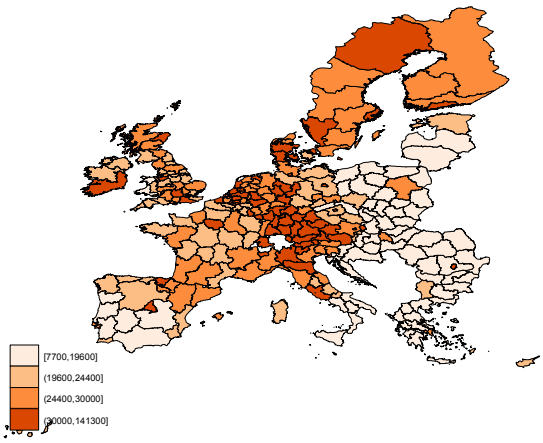


Figure no. 1b: **GDP per capita 2013**



Source: own preparation in STATA 14.0, based on Eurostat and OECD data, 2016

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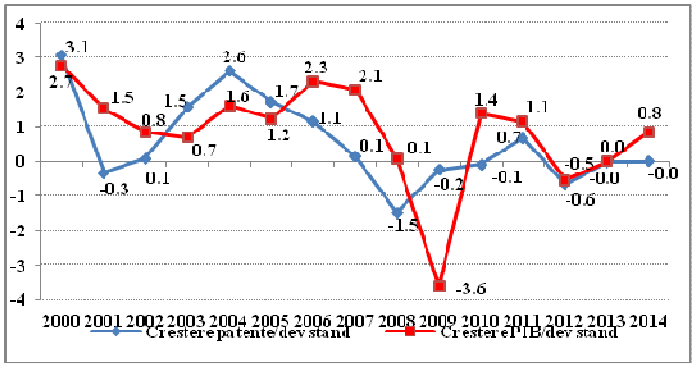
Relative to the number of inhabitants, the map distribution of patent deposits overlaps very well over the regional distribution of GDP per capita. Data for 2013 included in the figure below suggests a possible association between the two indicators.

The financial crisis in the first decade of the 2000s visibly affected the innovation economy. By virtue of the decrease in revenues and funds allocated to this task, the situations of increased risk made the pace of applications for patents to slow down. The following figure captures a comparison between the growth rate of real GDP and the patent applications throughout the European Union, since 2000. Growth rates in GDP and patents are reported to deviations of their standard values.

Figura nr. 2: **GDP and filing of patent applications growth rate in the UE-28 2000 – 2014 (%)**



Source: own preparation in STATA 14.0, based on Eurostat and OECD data, 2016

We note that innovation activity (measured in this way) had an annual growth rate somewhat steady, at least until the crisis in the sense that there was a continuous increase from 2001 to 2004, followed by a steady decrease until 2008 and a slight recovery until 2011; the lingering effect of the crisis has led to further cuts of patent applications filed. However, the decline was not as deep in terms of patent applications, but their subsequent rates remain negative to slightly positive rates of economic growth for the EU economy as a whole. Yet, the crisis has affected less innovative regions with less intense activity, but which have been in a period of economic growth..

Table no. 1 **Real GDP and Patent applications growth rate 2000 – 2014 (%)**

	2000	2001	2002	2003	2004	2005	2006	2007
Patent applications growth rate	5.51	-0.60	0.16	2.81	4.69	3.08	2.07	0.25
Real GDP growth rate	3.6	2	1.1	0.9	2.1	1.6	3	2.7
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	
Patent applications growth rate	-2.66	-0.44	-0.15	1.21	-1.19	-0.05	-0.02	
Real GDP growth rate	0.1	-4.7	1.8	1.5	-0.7	0	1.1	

Source: Eurostat, 2016

Moreover, even as a trend, the two developments are very similar. However, even if GDP has a similar evolution, it is further, with a lag period following the innovation until 2012 after that, the annual GDP growth there no longer seems to be in line with patenting. Analysis of the EU and subsequently of the member States highlights the great diversity of situations encountered, making it difficult for a forward-looking view of the relationship evaluated within European regions. Thus, during the 14 years considered, it was revealed the need for evaluation of a factorial complex and the use of estimation techniques by which we

can make a better possible control of the validity of variables and specifications of models (endogeneity, the omission of important determinants, error assessment, etc.).

The correlation between patent applications and GDP per capita for 2014 is strong. This is true for the correlation between the annual average of the two indicators for the period 2000 – 2014 as well, suggesting a possible association between their variations:

Figure no. 3a: **The relationship between patent applications and GDP per capita in 2014**

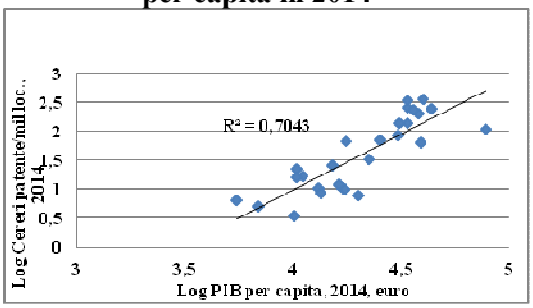
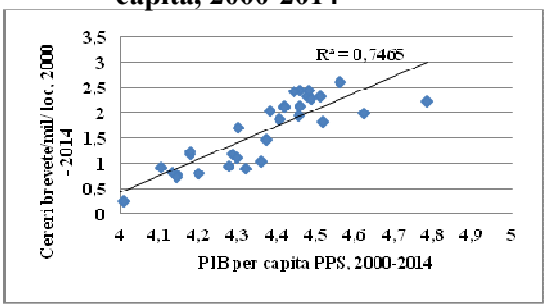


Figure no. 3b: **Patent applications and GDP per capita, 2000-2014**



Source: own preparation based on OECD data, 2016

Territorial units included in the analysis are at the national level, the Member States of the European Union, to which we added depending on data availability, Norway and Switzerland. The study, however, was focused on assessing the relationship outlined at regional level and the spatial analysis comprised 265 territorial units, of which 258 NUTS 2 and 7 NUTS 1 for countries where there is no such a level of administration (Cyprus, Estonia, Latvia, Lithuania, Malta and Luxemburg). The time period considered for all regions and variables 2000 - 2015, nationally, and differentiated 2000-2015 / 2012, for analyzes conducted at the regional level.

Analyses are performed in all regions, and separately on four groups of innovative regions. Thus, we used a grouping of regions according to regional innovation performance (knowledge resources endowment and innovative capacity), according to the latest *Regional Innovation Scoreboard* (European Commission, RIS, 2016) and *European Innovation Scoreboard* (European Commission, EIS, 2016) issued by the European Commission. Europe's regions (regions 214 different units) were classified into four different groups depending on innovation performance: regional *leaders* in innovation (*LEADER,* 36 regions), strong regional innovators (*STRONG*, 65 regions), moderate regional innovators (*MODERATE*, 83 regions) and *modest* regional innovators (*MODEST*, 30 regions).

The four groups of regions delineated according to the latest assessment by the European Commission (European Commission, 2016) are characterized as follows:

- *leaders* (*Leaders Innovators*) are those regions with a relative performance measured by regional performance index of 20% or more above the EU average; all 36 regional innovation leaders in the EU are located in only seven EU Member States: Denmark, Finland, France, Germany, the Netherlands, Sweden and the UK; whole countries included in this group are: Denmark, Finland, Germany and Sweden;

- *important regional innovators* (*Strong Innovators/(Innovation followers*), 65 units, are performing regions between 90% and 120% of the EU average. The group of countries includes Austria, Belgium, France, Ireland, Luxembourg, the Netherlands, Slovenia and the UK;

- *regional moderate innovators* (*Moderate Innovators*) are performing regions between 50% and 90% of the EU average, the largest group (83 regions), comprising Croatia, Cyprus, Czech Republic, Estonia, Greece, Hungary, Italy, Lithuania, Malta, Poland, Portugal, Slovakia and Spain;

- *modest* regional innovators (*Modest Innovators*) 30 regions which are performed under 50% of the EU average. All regions in Bulgaria, Latvia and Romania and thus at the national level these countries are modest innovators. In most countries there is limited variation between regional performance groups, suggesting that innovation performance at the regional level is linked to the national level. However, the fact that in some countries there is a greater variation (especially in larger countries) highlights also regional particular features and the existence of " regional areas of excellence".

In Austria, Belgium, Bulgaria, Czech Republic, Hungary, Ireland and Romania, all regions are in the same performance group, on the other hand in 12 countries there are two different regional performance groups. Only four larger Member States (France, Germany, Italy and Spain) present three different regional performance groups. In addition, Cyprus, Estonia, Latvia, Lithuania, Luxembourg and Malta are included nationally, as in these countries there is no regional administrative level, in such manner the composition of the group's performance is identical to the ratio 2016 of the Scoreboard European Innovation (European Commission, RIS, 2016).

2. Effects of dissemination of knowledge on regional economic performance

Griliches (1979, 1986) studied the role of knowledge in economic growth externalities. He believes that the productivity of a company depends not only on its efforts in R&D, but also the stock of knowledge available in its area. Subsequently, Griliches (1992; 1994) concluded that spillovers of R&D are an important determinant of endogenous growth. Its conclusions are strongly confirmed by specialists as a starting point in establishing policies that support innovative work. However, the current situation shows big differences in performance in spatial innovation or organization. Despite technological developments, there are organizations, sectors or regions where these activities are proving difficult to implement, given the costs takeover.

2.1. Research hypotheses and models of analysis

The subsequent analysis shows, under these terms, unequivocal role of innovation in growth and regional development. To this end, we sought to evaluate whether the output of innovation activity plays a role in the performance of regional economic on a sample of 265 European regions over the period 2000-2014, based on a production function for the entire sample and then assessing the output effects on economic performance of regional innovation on four groups of regions, according to the 2016 European Commission Report (European Commission, RIS, 2016).

The analysis is based on a logarithmic Cobb-Douglas function where the dependent variable is expressed by GDP per capita, and the explanatory variables are based on the standard factors like the accumulation of physical capital and human capital, technical progress and integration into the labor market, then we added the measures listed on innovation activity. The general formula used is as:

$$\log GDP\ p.c. = \alpha_0 + \alpha_1 \log gfcf + \alpha_2 \log educworkforce + \alpha_3 \log population + \alpha_4 \log emprate + \alpha_5 \log R\&D + \alpha_6 \log patentapp + \varepsilon$$

Thus, we have tested the following hypotheses:

I.1*:** Physical capital (I.1.1***) and human capital accumulation (***I.1.2***) positively influence GDP growth.

***I.2*:** Regional population size is a factor of economic development.

***1.3*:** There is a direct and positive correlation between regional the economic size and the degree of insertion of the labor force in economic activities.

***1.4*:** A broad and intense activity of research - supported by financial efforts and highly skilled workforce is a basic input in production.

***1.5*:** The output of innovation, regardless of the action taken in combination with other potential determinants is essential in any process of growth.

Basically, we estimated externality effects of innovation on a production function which includes innovation's dimension as a determinant of regional growth, using a Cobb-Douglas function. In the estimated models, we regressed GDP per capita in relation to innovation indicators, along with those specific to an equation of economic growth.

The results presented in Table 2 are obtained as follows: the first five models have as independent variables: accumulation of fixed capital and human capital, population size, expenditure on research and development and the patent applications submitted to the EPO. The last three models have substituted applications to the EPO with the international recorded ones, both being instrumented by the number of requests after the inventor's country of origin and priority year.

Table no. 2

The impact of innovation performance on regional economic performance

	m1	m2	m3	m4	m5	m6	m7	m8
	b/se	b/se	b/se	b/se	b/se	b/se	b/se	b/se
log_pat_epo_nr	0.060***	0.025***	0.028***	0.025***	0.029***			
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			
log_pat_pct_nr						0.031***	0.032***	0.030***
						(0.00)	(0.00)	(0.00)
log_fbkf	0.411***	0.327***	0.303***	0.301***	0.315***	0.310***	0.309***	0.296***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
log_edu_sec	0.295***	0.185***	0.195***	0.180***	0.087***	0.036		
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)		
log_edu_tert		0.354***	0.347***	0.350***	0.325***	0.365***	0.367***	0.379***
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
log_ocup			0.375***	0.349***	0.193***	0.153***	0.144***	0.253***
			(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.04)
log_chel_cd					0.005	0.009	0.011	0.011
					(0.01)	(0.01)	(0.01)	(0.01)
log_pop	1.028***	0.289***	-0.032					
	(0.06)	(0.06)	(0.06)					
log_dens_pop								-0.419***
								(0.07)
Constanta	-4.003***	0.658	1.660***	1.568***	2.151***	2.309***	2.395***	3.052***
	(0.37)	(0.34)	(0.35)	(0.09)	(0.11)	(0.10)	(0.09)	(0.13)
R-squared	0.705	0.791	0.800	0.796	0.823	0.823	0.823	0.815
F	1520.519	1934.944	1662.258	2014.074	1338.949	1526.182	1829.336	1414.600
N observat	2790.000	2790.000	2730.000	2839.000	1981.000	2217.000	2217.000	2173.000

* p<0.05, ** p<0.01, *** p<0.001

Source: own preparation using STATA 14.0

The later models (Table 3) are performed on the sample segments, in order to identify differences, if any, in terms of influence and importance of the innovation on regional development. The LEADER group comprises of 36 regions from 7 countries, the group STRONG consists of 65 regions from 8 countries, the group MODERATE consists of 83 regions in 13 countries, and group MODEST innovation includes 30 regions from only 3 countries.

We took into account the specifications run as the output measure of innovation, both the number of patent applications filed with the EPO and those who followed the international path.

Table no. 3

The role of innovation in economic growth of the European regions

	leader1 b/se	leader2 b/se	strong1 b/se	strong2 b/se	moderate1 b/se	moderate2 b/se	modest1 b/se	modest2 b/se
log_pat_pct_nr	0.074***		0.035***		0.031***		0.018***	
	(0.01)		(0.01)		(0.01)		(0.01)	
log_pat_epo_nr		0.035**		0.036**		0.037***		0.011
		(0.01)		(0.01)		(0.00)		(0.01)
log_fbkf	0.292***	0.368***	0.240***	0.294***	0.335***	0.309***	0.330***	0.316***
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
log_edu_sec		0.516***		0.434***		0.052		0.047
		(0.03)		(0.04)		(0.03)		(0.018)
log_edu_tert	0.204***	0.522***	0.252***	0.416***	0.290***	0.296***	0.546***	0.462***
	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)	(0.02)	(0.04)	(0.05)
log_pop		-0.383***		-0.593		-1.361***		-1.959
		(0.10)		(0.09)		(0.11)		(0.26)
log_ocup	0.673***		-0.602***		-0.156***		0.403***	
	(0.08)		(0.05)		(0.06)		(0.08)	
Constanta	0.844***	3.654***	1.394***	5.505***	3.077***	11.086***	3.44***	14.602***
	(0.21)	(0.57)	(0.13)	(0.52)	(0.15)	(0.68)	(0.23)	(1.80)
R-squared	0.694	0.765	0.660	0.652	0.789	0.844	0.883	0.899
F	308.538	319.609	569.617	399.911	774.265	821.550	522.961	383.467
N observations	597.000	544.000	1275.000	1171.000	906.000	830.000	308.000	245.000

* p<0.05, ** p<0.01, *** p<0.001

Sursa: own preparation using STATA 14.0

Overall, it appears that this activity (innovation) proves to be very necessary for regional economic development. Whatever the extent considered, namely applications through PCT respectively EPO, the estimated elasticities have maximum statistical significance coefficients, are positive and robust in terms of economic magnitude. However, the size of the economic impact is significantly higher in models 1, 3, 5 and 7 which relate to applications filed under the international procedure, the economic effect when filed with the EPO is significantly lower.

Contrary to expectations, expenditures on research and development are not in a direct, positive relation with GDP per capita, an effect that could be distorted because of the measure used in the models, namely, their expression in unit value and not by referring to the production value. Physical capital, human capital, with secondary and higher education and labor market integration (both in terms of absolute values and expressed as the employment rate) are instead elements that contribute to a better regional economic performance. Population size can be, however, an obstacle in this process of growth, given its contradictory developments in recent years.

For lower-performing regions in innovation (MODEST group), there are large differences from the other three groups of regional innovators. Overall, we estimate that sustained international innovation activities, are in a positive relationship with the economic performance of the region, but the narrowing of the range of spread of patenting only to the European level can not be regarded as an important influencing factor of GDP. This reflects, on the one hand, the need to increase the absolute level of patent applications - as an expression of the importance given to innovation activity – and, on the other hand, the need to overcome the limitation of regional or even European patenting, by directing the activities to international recognition.

These results can be combined with the significantly reduced labor pool in MODEST group of regions, insufficient financial support of innovative activity, along with the importance of increasing education, workforce qualification and increase the accumulation of physical capital.

The conclusions we can deduce from these results are:

In a very clear statistically and economically significant manner innovation output appears to be crucial for regional economic growth. Overall, patent applications would support an increase in GDP per capita of 0.025% to 0.060%, regardless of the indicators considered in the specifications and measuring methods thereof. Somehow, the procedure

registered international patents are constant in terms of the magnitude of the economic impact, ranging between 0.030% and 0.032%.

The other major determinants in relation analyzed are bound by the accumulation of physical and human capital, whose relevance is even higher as the population with higher education increases.

Similarly, the performance of the labor market has a strong significance in the economic growth process, which results in positive estimated coefficients on the related variable and also supporting other factor combinations of GDP growth.

Contrary to expectations, expenditure on research - development does not indicate a clear support to GDP, even though its estimated coefficient is of positive sign, but the fact there is no statistical significance suggests that this measure should be considered carefully in such models. One possible explanation is that in a considerable number of regions considered, these costs are very low and have been declining since 2008. Perhaps the same explanation can be brought for the effect sometimes positive and sometimes negative of demographic size, revealing not so much importance to the population, but especially to the people with university engaged in the labor market.

Conclusions

Succeeding the performed analysis, the following conclusions can be drawn:

1. As a result of enhancing competitiveness, innovation performance is a first class determinant of economic growth

2. The more, the innovation activity is sustainable and broader protected by intellectual property rights, which highlights the recognition and the importance of this process, the effects on growth are more significant.

3. The lower patenting is in terms of absolute size applications, but also in terms of worldwide recognition, the more regions are less important innovators and the less their innovation activity can support regional economic performance. A possible solution to this problem is a greater degree of international openness

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ROMANIA'S REGIONAL DEVELOPMENT AT THE CROSSROADS: WHERE TO?

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Abstract

Drawing from the literature on regional and urban development, and taking into account technical evaluations of the current institutional structure at the regional level, this article seeks to assess the strengths and weaknesses of Romania's current "*regionalization-lite*" model. Law 151/1998 established the primary framework for implementing regional planning, paving the way toward eight NUTS II regions. While these regions are not formal administrative units and remain based on associations of counties, they have begun functioning and delivering development impact. The main institutional structures at the regional level are the eight Regional Development Agencies (RDAs), which have among their tasks the drafting of Regional Development Plans, the main regional-level planning tool, and the implementation of the Regional Operational Programme (ROP), the main source of infrastructure financing for county and local authorities. While few question the importance of these tasks and the high effectiveness of RDAs in fulfilling their mandates, regional-level planning and investments continue to showcase significant shortcomings. This article describes the existing institutional structure and reviews its main strengths and weaknesses. Based on this diagnostic, it lays out several options for improving the status-quo, from enhancing the current model all the way through pursuing formal administrative regionalization. The choice will fundamentally shape Romania's development for generations to come.

JEL classification: R10, R11, R50, R58, P48

Keywords: regionalization, regional planning, regional investments, Regional Development Agencies, EU funds

1. Introduction: Why Regional Development Matters

Romania will soon celebrate two decades of regional-level institutions, policies, and investments. A variety of factors – economic, legal, political, and cultural – make this a fascinating case study for regional development scholars and policymakers. In brief, Romania has chosen a "regionalization-lite" model, without establishing formal administrative regions but trying to foster regional-level planning and investments. This was largely a compromise between what the current legal framework allows and what the country's development needs have required, particularly in the context of EU accession and, since 2007, full membership.

The current article serves two primary aims: to diagnose the effectiveness of Romania's current regional development model and to propose potential scenarios for future improvements. In what follows, the first section sets the context for this assessment, explaining the importance of a functional regional development framework. The second section describes the current model in Romania and reviews the main factors responsible for its current setup. The third section evaluates strengths and weaknesses of Romania's regionalization-lite model across the entire cycle: from strategic planning through financing mechanisms and project implementation. The fourth section concludes by summarizing several potential options for improving the status quo.

Ultimately, after ten years of EU membership, Romania should invest significant effort into reevaluating its current administrative framework and deciding on an optimal regional development model. The current article seeks to contribute to this endeavor, while noting from the very beginning that a final decision on this critical topic will require additional research and coordination among academics and policymakers.

In simple terms, sound regional development holds the key to the long-term economic development of any country, including Romania. Much of the theory of the past centuries leads to the conclusion that a country's economic growth is the result of two variables: population changes and individual productivity. Policymakers can seek to influence both

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levers, although demographic measures are typically hard to implement and take a long time to produce effects.

Romania currently experiences a profound demographic crisis,[1] ranking second in the EU for population loss and also second in the world (after war-torn Syria) for the increase in its diaspora (average annual growth of 7.3%).[2] To rely on population growth for sustainable economic growth would be unfeasible in the short and medium term. Instead, Romanian policymakers may seek to boost individual productivity. This would mean increasing the average output for each individual who takes part in the national economy.

Economic theory has explored for a long time the main drivers of individual productivity. Some initial theories tied productivity to the number of hours worked. But this clearly failed to take into account the impact of capital improvements (e.g., someone working for 10 hours with a sowing machine generates a lot more output than someone handknitting for the same amount of time). The effect of capital was captured in the Harrod-Domar model, and later improved by economists Robert Solow and subsequently Paul Romer, who showed that productivity is a factor of technological change and innovation – exogenous (i.e., transferred from abroad) and especially endogenous (i.e., produced by the factors inside a national economy).[3]

Fostering technological change and, as a result, long-term productivity and economic growth, fundamentally depends on enabling people to reach their full creative potential. This requires access to education in order to accumulate know-how, as shown by Romer, but also access to other basic services like roads, water, sanitation, and proper healthcare to enable productive pursuit. In fewer words, a country's economic growth depends on facilitating access to opportunity for all its people.

In a complementary model, economist Indermit Gill shows in the *World Development Report (WDR) 2009* that three factors are key to a country's growth: economic density (economic production per unit of space), distance (mobility of people, goods, capital, and ideas) and division (ease of cross-border flows of people, goods, capital, and ideas).[4] This "3D model" is grounded on three key market forces supporting the development process: agglomeration (economies of scale and scope), migration, and specialization (to leverage comparative economic advantages).[5] Upon analyzing extensive economic data for countries around the world, Indermit Gill and his team of World Bank economists conclude that economic growth and development require policies that support urbanization, territorial development, and regional integration.[6] All three dimensions are inextricably linked to regional development. Contrary to conventional views, this model notes that urbanization and development go hand in hand, and territorial disparities are unavoidable and even welcomed in the short-term. Over the long run, supporting an economy's strongest economic engines (i.e., its urban areas) will generate higher economic growth overall and produce spillover effects in poorer regions as well.

A 2013 World Bank report took the WDR 2009 model and applied it to Romania's case, arguing that the country's leading and lagging areas require specific governmental actions and

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[1] Răzvan Bărbulescu, "Romania's Demographic Decline – What's Next," in *Romanian Economic and Business Review*, Vol. 7, No. 2

[2] United Nations, *International Migration Report 2015*, available at http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2015_Highlights.pdf

[33] *See* Robert M. Solow, "A Contribution to the Theory of Economic Growth," *The Quarterly Journal of Economics*, Vol. 70, No. 1 (Feb. 1956) and Paul Romer, "Increasing Returns and Long-Run Growth," *The Journal of Political Economy*, Vol. 94, No. 5. (Oct., 1986)

[4] Indermit Gil et al., *World Development Report 2009*, the World Bank, available at http://documents.worldbank.org/curated/en/730971468139804495/pdf/437380REVISED01BLIC1097808213760720.pdf

[5] Ibid.

[6] Ibid.

investments.[1] The authors argue that in growing, dynamic urban areas, the Romanian government should invest in connective infrastructure between cities and peri-urban areas and in quality of life programs (e.g., green spaces, bike paths, better housing, etc.). These actions support the growth of urban mass and, hence, enable urbanization and economic development. In lagging areas, interventions should ensure basic services delivered to everyone: from education to healthcare and public infrastructure (roads, water, sanitation, etc.). Instead of artificially trying to jumpstart economic activities everywhere and reduce disparities among regions, policymakers would make better use of scarce public resources by investing them in connective infrastructure that enable people in lagging regions to access opportunities in leading regions. Connectivity and mobility remain vital to all developed economies.

All this is to highlight the critical importance of effective regional development at all levels. This requires several mutually reinforcing elements: *strategic planning* that takes into account the specific needs and opportunities of each region, defining clear priorities and ensuring a coordinated, integrated approach; effective and efficient *financing* programs in line with the defined strategic priorities; and high-impact, well-managed projects at the regional level.

2. Romania's Regionalization-Lite Model

Romania has a particular model of regional territorial development, the result of policy choices, domestic legal constraints, and international opportunities. The 1991 Romanian Constitution explicitly notes that Romania's territory is organized by communes, cities, and counties, without any reference to a regional administrative layer.[2] However, as part of the EU accession and post-accession processes, Romanian policymakers have had to find solutions for designing and implementing regional-level policies and programs. In July 1998, Parliament adopted law 151/1998, which was the first step toward Romania's regional development framework, with a number of key objectives: reducing regional disparities; preparing the institutional setup for EU accession; improving the correlation of regional-level investments; and stimulating interregional cooperation in the context of Romania's EU membership preparations.[3]

The same law created the institutional framework for Romania's regional development, which was further refined through Law 315/2004.[4] Parliament approved the creation of eight "development regions," noting specifically that these are not administrative units, but serve as "the framework for elaborating, implementing, and evaluating regional development policies, as well as the gathering of statistical data, in line with European requirements by EUROSTAT, at the NUTS 2 level."[5] As with a wide range of legislative changes adopted before 2007, this regional development framework was essentially a requirement for Romania's successful EU membership bid. It is improbable that, in the absence of the accession process and its urgency and importance on the public agenda, domestic policymakers would have legislated on the sensitive topic of Romania's territorial development.

Under pressure from the UE but unable to create new administrative layers without changing the Constitution through a very complicated process, Romanian decisionmakers adopted a "regionalization-lite" model. For one, each development region is the result of a convention between the representatives of the respective counties included in each region, as explicitly defined in the annex to Law 315/2004. Based on the partnership principle, a Regional Development Council (RDC) functions in each of the eight regions, including

[1] Marcel Ionescu-Heroiu, Sebastian Burduja, Dumitru Sandu et al., *Competitive Cities: Reshaping Romania's Economic Geography*, World Bank, 2013.
[2] *See* Romania's Constitution, Article 3, paragraph (3), available at http://www.ucv.ro/pdf/site/constitutia_romaniei.pdf
[3] *See* Law 151/1998, available at http://www.cdep.ro/pls/legis/legis_pck.htp_act_text?idt=17411
[4] *See* Law 315/2004, available at http://www.cdep.ro/pls/legis/legis_pck.htp_act_text?idt=56280
[5] Ibid., article 6 (2)

county council presidents and representatives from municipalities, towns, and communes in each county. The RDC's leadership includes positions for a president and vice-president, rotating among counties. The RDC is not a separate legal entity and merely serves as a coalition of county and local-level actors. At a *de jure* level, it decides the regional strategy, programs, and projects, and it also coordinates the corresponding Regional Development Agency (RDA). The RDA serves as the secretariat for each respective RDC.

Due to the aforementioned legal constraints, RDAs are established as "nonprofit entities of public utility," and are separate legal entities operating beyond Romania's public sector. This is essentially the executive arm of RDCs, handling the design on regional development strategies and the implementation of financing programs. RDAs have accumulated significant experience in handling EU funds, both in the pre-accession and post-accession period. Notably, they have served as Intermediary Bodies (IBs) for the Regional Operational Programme 2007-2013 and 2014-2020, the most important source of funding for infrastructure investments at the subnational level, covering a wide array of needs: roads, schools, ambulatories, industrial platforms and brownfield redevelopment, green energy projects, etc. RDAs have been financed in large proportion through EU funds for technical assistance and, in smaller proportions, through own revenues (from various programs) and funds from county councils.

At a *de jure* level, RDCs supervise the entire range of RDA activities, approving monitoring reports, their bylaws and hierarchical structure, the location of headquarters, the appointment of RDA leadership, etc. At a *de facto* level, RDAs enjoy a substantial degree of autonomy from RDCs in their daily operations, and their list of attributions has expanded significantly over the years. This is evident in comparing Laws 151/1998 and 315/2004, as well as in the fact that RDAs served as IBs for Axis 1 of the Competitiveness Operational Programme toward the end of the 2007-2013 programming period. This has been the result of RDAs' consistently positive results in the implementation of EU-funded programs, primarily the ROP, as noted in multiple independent assessments.[1]

As Intermediary Bodies, RDAs enter into a contractual relationship with the Managing Authority (MA) of the respective Operational Programme. This is based on an Implementation Framework Agreement that defines the responsibilities of both parties. For the ROP, for instance, RDAs serve as the link between program applicants and beneficiaries, on the one hand, and the MA in the Ministry of Regional Development, Public Administration, and EU Funds (MRDPAEF), on the other hand. The agreement also defines how and when RDAs get paid, the list of eligible expenditures, potential sanctions for breaches, and performance indicators.[2]

Overall, Romania's "regionalization-lite" model is a compromise indicative of the two factors pulling into two opposite directions. On the one hand, at the level of EU Member States and as a result of EU conditionalities and financing programs, there is a push toward greater regionalization. This is also in line with the global trend of advanced democracies and economies: more power delegated to the subnational levels. Regions are, in this sense, "closer" to the citizens but large enough (compared to cities/communes and counties) to enable truly impactful policies and projects. On the other hand, Romania remains a very centralized country, following a tradition spanning over a century and reflecting fears related to potential requests for territorial autonomy by ethnic minorities.[3] This pull away from regionalization explains why Romania has failed to adopt formal administrative regions, keeping regional-level bodies as partnership

[1] *See*, for instance, Sebastian I. Burduja, Marcel Ionescu-Heroiu, Florian Gaman et al., *MA-IB Communication and Collaboration for the Regional Operational Programme, 2014-2020*, World Bank, December 2013

[2] Ibid.

[3] Ana Maria Dobre, "Europeanization and New Patterns of Multilevel Governance in Romania," in *Cohesion Policy and Multilevel Governance in South East Europe*, ed. Ian Bache and George Andreou, London, Routledge, 2011.

structures among lower-level authorities, with little real power, or as nonprofit entities often depending on the central level (as is the case of RDAs serving as IBs for EU-funded programs). Moreover, Romania had the opportunity to introduce a formal regional level through the 2003 referendum on several additions to the Constitution, but merely included a note under article 135 (2) – "the economy" – noting that the State has an obligation to "apply regional development policies in accordance with EU objectives."[1]

3. Strengths and Weakness of Romania's Regionalization-Lite Model

The current compromise in Romania's regional development framework entails some strengths and a multitude of weaknesses. As the country remains very centralized, even after the establishment of the eight planning regions, it preserves a central government that is able to enforce the same standards and procedures across the entire country. This standardization helps ensure that strategic planning is similar at the level of each region and financing programs like the ROP have the same processes for all applicants and beneficiaries, regardless of which part of the country they come from. A central point of command can also make interactions with Brussels easier; in the case of the ROP, for instance, it is much more efficient to interact with a single Managing Authority in the MRDPAEF than with eight different bodies.

This centralization should also facilitate coordination among and across regions. Central institutions should also be better equipped to attract the best and the brightest human resources and pay them appropriately, while regional-level bodies may struggle to build equally qualified teams (e.g., some key specialists may not want to relocate). Moreover, critics of regionalization may rightly point out that Romania's system faces enough challenges as it is. Moving toward formal administrative regions would only complicate things further, lowering EU funds' absorption rates even more. Indeed, some parts of the current system are working well in their current setup: RDAs, in particular, have leveraged their nonprofit status to adopt competitive, results-based human resource management. They enjoy a lot more flexibility than public institutions, and are hence able to reward/sanction their employees to drive results.

At the same time, the status quo system has a number of vital weaknesses. First, there is a clear focus on form over substance, leading to institutions without clear mandates, sudden and repeated institutional changes, and process inefficiencies. Good examples of this are the National Agency for Regional Development and the National Council for Regional Development, created in 1998 merely to mirror regional-level development agencies. Policymakers felt the need to establish central bodies in charge of supervising and coordinating the nascent regional bodies. The Agency was later disbanded, while the Council remains ineffective and there are no public data on how or when it meets and what decisions it actually takes. Another key example is the defunct Regional Committee for Strategic Evaluation and Correlation (RCSEC). This body was supposed to prioritize ROP 2007-2013 investments at the level of each region by evaluating how each project responded to development needs. In practice, without significant resources behind its mandate, this regional body became a bottleneck in the project evaluation cycle, generating major delays. Government Decision 1383/2008 severely limited the RCSEC's role to a strictly consultative one, and the body stopped functioning *de facto*.

An additional weakness is that the regional level simply has too little authority to enable impactful, truly regional planning and investments. RDAs produce comprehensive Regional Development Plans (RDPs) that capture the development needs and opportunities of

[1] *See* Romania's Constitution, Article 135, paragraph (2), letter (g), available at http://www.ucv.ro/pdf/site/constitutia_romaniei.pdf

each region. RDAs organize consultations and get the RDPs approved at the RDC level. They often also play a role in helping county and local authorities identify potential investment projects, and enable coordination among them. But oftentimes these documents do not influence policy and financing decisions; indeed, particularly for the 2007-2013 programming period, the RDPs had very little impact on the design and implementation of EU-funded instruments (e.g., the ROP) and effectively no impact on state-budget-funded programs (e.g., the National Local Development Program – NLDP). Fortunately, this has begun to change more recently. In the design of the 2014-2020 ROP, for instance, each RDA worked with counties in its region to define roads of "regional interest," which would be financed under a dedicated axis in the new program. Such selection criteria forced counties to work together and submit joint project proposals, proving that it is possible to stimulate regional investment projects even in the absence of a formal regional tier. Of course, it remains a lot more difficult to design and manage a project across multiple counties based on partnership instead of applying on behalf of a single regional body. But such developments should be encouraged, contrasting sharply with the previous programming period, when selection rules somewhat discouraged cross-country/regional projects: by upholding the first-in-first-out selection criterion, previous procedures encouraged the submission of small and simple projects limited to a single jurisdiction.

With further respect to financing programs, the current centralized model has failed to design interventions that respond to the different needs of each region. As a result of urbanization and economic development under free-market conditions, Romania's regions are starting to look very different.[1] The West and North West, benefitting from their proximity to the EU's core, are leading regions, where investing in advanced services can further bolster economic growth; by contrast, the North East and South regions have been lagging behind, in dire need of basic infrastructure (e.g., water and sanitation). This is why the ROP and other programs like the NLDP should offer different axes to each region, in line with its specific needs.

What is more, because there is no formal administrative tier at the regional level, there remains a single MA for the ROP at the central level, which "has become overburdened with verifications, approvals, and other procedures designed to validate decisions at the IB level."[2] Upon reviewing the list of tasks for the MA vs. the IBs, a World Bank report concluded that there should be more delegation from the former to the latter.[3] This would allow the MA to focus on strategic management (vision-setting, coordination, monitoring and evaluation, etc.), empowering IBs to deal with day-to-day operations and address applicant/beneficiary concerns much more rapidly and cost-efficiently.[4] By splitting more of the tasks into eight, corresponding to the eight regions and RDAs, the MA would ensure that applicants/beneficiaries wait less for the processing of applications, reimbursement requests, and other documents. The MA could keep some control over the process by closely monitoring IB actions based on sampling.

4. Romania's Regionalization: Where to?

Based on the previous diagnostic, this article makes several recommendations for improving Romania's current regional development framework. In the short-to-medium term, policymakers have options to enable truly regional planning and investments: (i) ensure that Regional Development Plans (RDPs) drafted by RDAs and approved by RDCs go beyond

[1] *See* Marcel Ionescu-Heroiu, Sebastian Burduja, Dumitru Sandu et al., *Competitive Cities: Reshaping Romania's Economic Geography*, World Bank, 2013.
[2] Sebastian I. Burduja, Marcel Ionescu-Heroiu, Florian Gaman et al., *MA-IB Communication and Collaboration for the Regional Operational Programme, 2014-2020*, World Bank, December 2013, p. 1
[3] Ibid., 2
[4] Ibid., 32

EU-funded instruments, include all sources of potential funding (state-budget funded programs like the NLDP, loans, etc.), and are deeply tied to how financing instruments are designed and implemented; (ii) allow for customized financing programs at the level of each region, even under a single MA at the central level, and delegate a lot more operational tasks at the level of regional bodies (RDAs), allowing the MA to focus on the most strategic, cross-regional issues; (iii) incentivize regional projects by deploying smart selection criteria (e.g., awarding bonus points for projects developed jointly by multiple counties in the same region); (iv) strengthen the RDAs' legal status as nonprofit entities, thus preserving their ability to manage their human resources flexibly and in line with actual results delivered; (v) consider expanding RDAs' mandate to cover more financing sources in addition to the ROP, including state-budget-funded programs like the NLDP, which would enable better coordination and more complex, integrated regional investments.

In the long-run, Romania's formal regionalization promises substantial benefits if properly carried out. Unlike previous attempts, this process should focus on substance (i.e., what the regions would be responsible for, how they would collaborate with other subnational authorities, etc.) vs. form (e.g., where the regional capitals would be, what the title of the regional leading authority would be, etc.). In any case, decisionmakers and academics should start preparing for regionalization early on, not just because of the complex legal changes needed (including constitutional amendments), but also to minimize the risk of compromising absorption rates for non-reimbursable funds in the midst of the foreseen administrative changes. One possibility is to introduce regionalization-like elements through step-by-step pilots: for instance, allowing regional-level bodies like the RDAs to handle nearly all steps required for small and medium-sized investment projects, while keeping large projects under stricter monitoring by the central Managing Authority.

Ultimately, the current article has sought to review Romania's current institutional framework for regional development, highlighting both strengths and weaknesses, and proposing potential ways forward. Avenues for further research may include a comparison with how other EU states moved from a centralized to a regional development model, as well as in-depth assessments of current regional-level bodies (RDCs, RDAs, etc.) and their capacity to take on potential formal administrative roles. In a "Europe of regions," as often referred to by top policymakers, Romania will very likely have to design and implement a formal regional tier. The importance and complexity of this endeavor require significant analysis and wide-ranging consultations. The chosen path will indeed shape Romania's economic development for many generations to come.

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INNOVATION IN EUROPE – DYNAMICS AND DETERMINANTS

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Abstract

The paper aims to examine the relationship between regional innovation and some main determinants, through a regression analysis, using the patent data as statistical indicators of the innovation activity. Analysis is carried at the 265 NUTS 2 regions of the European Union (28 countries) in the period 2008-2015, based on patent data provided by the European Patent Office and highlights the special role of the investment in the research activity in developing innovative capacity. Also, a greater share of the population with tertiary education can be a real support in the innovation process. Instead, the absolute increase of the demographic pool seems not to be a driver in this process, which is more important when we have considered the patent applications filed under the Patent Cooperation Treaty (PCT procedure) than the EPO patent applications was used.

Key words: innovation, NUTS 2 regions, patent indicators

JEL: O31, O52, I25

1. Patents as statistical indicators of invention activities

Nowadays, a premium is put on the Knowledge Economy, as evidenced not only by the dynamics of innovation activity in all countries, but also by the great interest in understanding the influence mechanisms of the innovative capacity of the economic actors (both at micro and macro level, individuals and firms/institutions) and its impact on society progress and human development. In assessing the performance of applied research and technological development, a leading indicator of analysis is the number of patents registered or those issued to / from patent offices around the world. According to the Frascati Manual (2002, p. 200): "a patent is an intellectual property right relating to inventions in the technical field." It is issued by a specialized office to a company, an individual or public body, whether the invention (product or process) is new (worldwide), involves an innovative and is susceptible of industrial application.

The benefits of patent as indicators of innovative activity are obvious: they provide information on a wide field of technologies, the number of patents being otherwise provided for several technological areas (ITC, nanotechnology, biotechnology, environment and health). This information not only allows the public to identify specific kinds of technologies, but they are detailed in the sense of the possibility of knowing the inventor / applicant, application date, other data regarding publication or citation (number and by whom). The data also concern the invention itself, meaning a full description and also the majority of inventions shall be subject to patenting by a legal office. In this way, you can know the intensity, quality, innovative activity structure for states and even for some smaller territorial areas and, most importantly, statistics on patents serve to follow the dynamics of the innovation process, cooperation in research and inventors mobility diffusion of technology between sectors and between countries, etc. All these data are available for longer periods and event in real time through national offices or regional (EPO, USPTO) or international (OECD, WIPO) organizations. However, the extremely high volume of data and the fact that there are other possibilities for keeping the secrecy of remaining unpatented inventions estabilish limitations of patents as indicators of innovation activity.

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2. National and regional innovation dynamics in the European Union

In this study, we will consider information on patent applications and issued patents available at the European Patent Office (EPO), explicitly in PATSTAT 2016 database that provides information on patents filed with national offices, the EPO, the USPTO and the Japanese Patent Office, as well as those filed under the international procedure - PCT. However, one source of information is the database REGPAT OECD (2016), from which we extract similar data at the level of regions covering a large number of countries. Thus, the indicators used reflect the commercial value of inventions covered by that particular office markets (US, EU), the main consuming markets in the world of technology.

2.1 Patent applications worldwide, European and national level

Between 2000 - 2015, at the European Patent Office were recorded on average 130 120 patent applications per year (according to the priority date), the EU Member States accounting for 55.627 of it. Thus, in relative terms, in 2014, requests were 39.6% in the EU, the US and Canada - 27.3%, Japan and South Korea - 19.5%, China (along with Taiwan and Hong Kong) and India accounting for 7.10%.

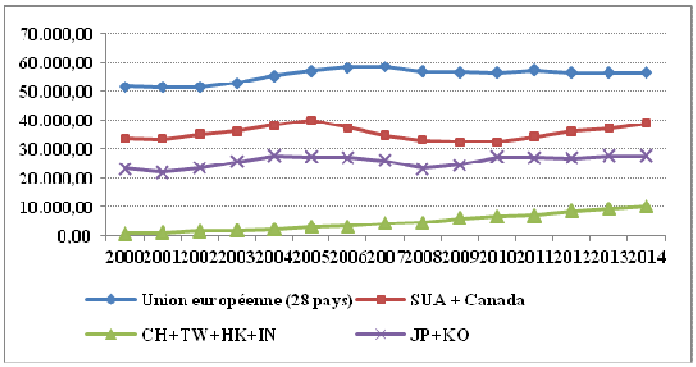
Table no. 1: **Patent applications filed with the EPO by priority year 2000 -2014 (numbers)**

	2000	2001	2002	2003	2004	2005	2006	2007
World	116620	114,913	118,436	123,945	131,589	136,198	135,189	132,633
UE-28	51754	51,440	51,524	52,972	55,458	57,168	58,351	58,494
USA + Canada	33768	33477	35114	36190	38274	40027	37593	34819
CH+TW+HK+IN	802	1082	1559	1906	2183	3072	3370	4218
JP+KO	23372	22082	23424	25518	27736	27341	27119	26072
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**% în 2014**
World	126,824	128,550	132,057	134,928	137,170	140,043	142,705	100,00
UE-28	56,938	56,687	56,602	57,285	56,600	56,571	56,561	39,64
USA + Canada	33049	32445	32582	34474	36156	37393	38997	27,33
CH+TW+HK+IN	4553	6068	6642	7124	8432	9262	10135	7,10
JP+KO	23393	24658	27208	27015	26879	27619	27756	19,45

Source: Eurostat, 2016

Increases in these latter countries were the most outstanding, given that in 2000 they cumulate only 0.68% of applications filed with the EPO worldwide. According to Eurostat (2016), the total patent applications filed with the EPO sectors increased in 2014 by 22.37% worldwide compared to 2000 (from a total of 116 620 to a total of 132 633).

Figure no. 1: **International comparisons on EPO patent applications based on priority year 2000 – 2014 (numbers)**



Source: Eurostat, 2016

The European Union had the lowest growth rate over the entire period (only 9.29%), while in India and China, together with Hong Kong and Taiwan the increase was of 126.68%. Regarding Member States of the European Union, there are great differences among them on the innovation output (result).

For comparison, we chose the indicator number of patent applications per 1 million inhabitants between old and new Member States, the average in the latter (EU-13) is over 14.2 times lower than in EU-15. Moreover, the gap was recessed from the beginning, when it was only 13.5 times (as shown in Table 2).

Table no. 2: **Average patent applications number per 1 million inhabitants in the EU, 2000-2014,**

	2000	2001	2002	2003	2004	2005	2006	2007
UE-28	106.31	105.40	105.37	107.95	112.59	115.58	117.54	117.39
Zona € (19)	131.84	132.20	131.92	134.97	141.36	144.82	146.78	145.73
UE-15	136.75	134.60	130.31	137.65	148.27	148.73	153.58	149.51
UE-13	5.09	6.20	6.33	5.41	8.46	10.40	8.22	10.03
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	
UE-28	113.81	112.9	112.49	113.55	111.95	111.66	111.59	
Zona € (19)	141.08	140.25	138.85	139.53	136.68	135.53	134.77	
UE-15	148.58	143.49	144.87	147.57	148.54	150.20	152.18	
UE-13	11.03	11.55	9.84	10.13	9.62	10.89	10.70	

Source: Eurostat, 2016

The situation at national level reflects most important differences. Thus, in Germany, patent applications filed with the EPO in 2014 exceeded 20.670, while in Romania and Bulgaria there were only 102, respectively 47 license claims over the same period.

Figure no. 2a: **The intensity of patents: EPO applications per 1 million inhabitants, 2000 - 2014**

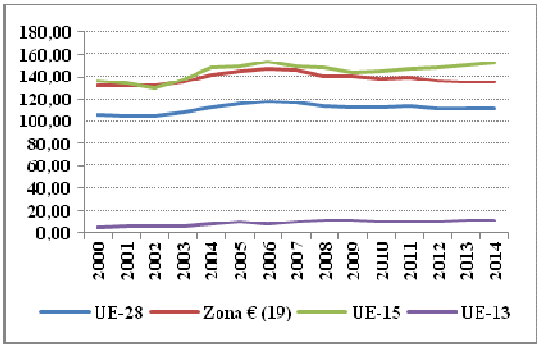
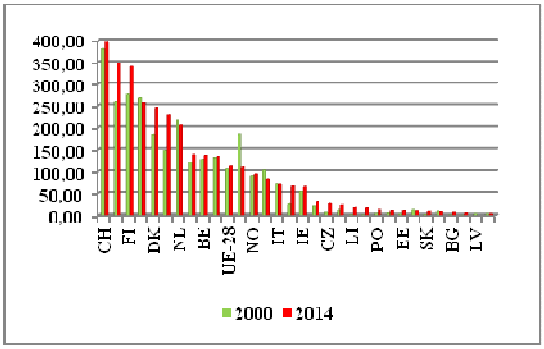


Figure no. 2b: **Patent applications per 1 million inhabitants, 2000 and 2014**



Source: own preparation based on Eurostat data, 2016

Except Malta and Cyprus, Romania and Bulgaria ranks last in the EU, even if they had a relative increase in importance, but the initial level of 7 applications in Bulgaria and 6 requests in Romania (in 2000) would require a much higher growth rate, in order to reach the European average of 112 patents per 1 million inhabitants. From this point of view Romania was found in last place in the European Union with an average of 5.11 patents filed per 1 million inhabitants and Bulgaria on the last but one place, with 6.5 such applications in 2014.

2.2 European patent applications in NUTS 2 regions

At NUTS level 2 regions, the spatial distribution of the number of patents filed with EPO in 2012 highlights the coexistence of areas where these differences are extreme. Thus, we could outline several regional poles in central Europe, comprising most regions of Germany and Austria, the south of England and the Scandinavian Peninsula, as well as a

number of regions in central-western and southern France and in northern Italy. Cartographic distribution of patent applications filed under the international (PCT) is very similar, still observing a certain concentration of the regions with the highest values of the indicator.

Figure no. 3a: **The regional distribution of EPO patents, 2012 (numbers)**

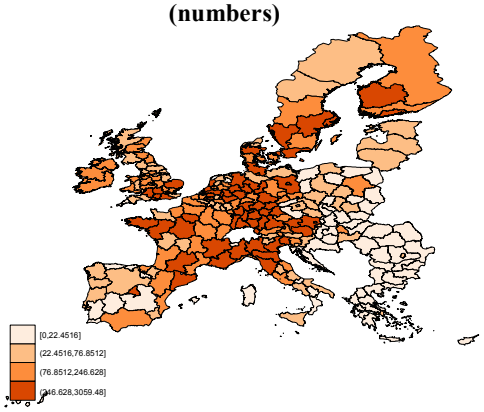
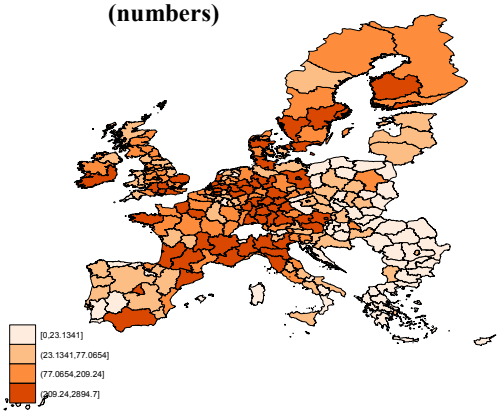


Figure no. 3b: **The regional distribution of PCT patents 2013 (numbers)**



Source: own preparation in STATA 14.0, based on Eurostat and OECD data, 2016

The regions with the lowest number of patents filed with EPO and PCT include large areas of eastern and south-eastern, mainly from Bulgaria, Romania and Greece.

2.3 Patent applications in high-technology and ITC

Patents are granted for inventions in all fields of technology. But we observe developments in some maintaining an average of over 310,000 in the first decade, while in 2013 their number drop to about half at EPO.

Figure no. 4a: **Distribution of high tech patents, EPO priority year, 2012 (numbers)**

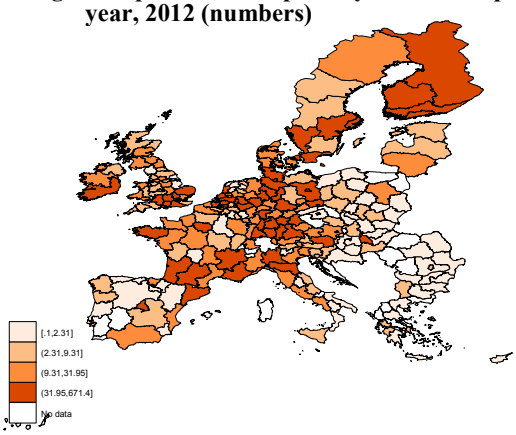
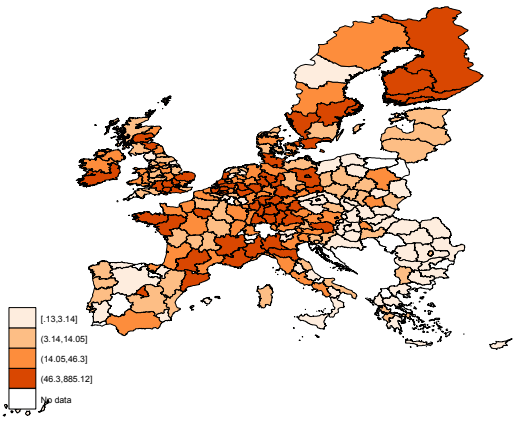


Figure no. 4b: **Distribution of ITC patents, EPO priority year, 2013 (numbers)**



Source: own preparation in STATA 14.0, based on Eurostat data

This dynamic was registered in the EU, where differences between countries are extreme. Thus, as for 2013 the EU-15 holds 96.82% and the new Member States (2013) only 3.18%.

Innovation - broadly defined as the creation of new products, processes, marketing and organizational innovations - is difficult to measure because of its inherent complexity and the limited data available. Research and development activities, respectively patent development evolved in correlation with GDP. R & D investments that support innovation are long-term investments; however, the economic crisis, difficulties in accessing funds necessary to support innovation activity, reducing demand for innovation, risk aversion prolonged state of

partial recovery in the dynamics of patent applications. Moreover, the spatial distribution of R & D expenditure shows a similarity with the directly observable patent applications.

Figure no 5a: **Regional distribution of R&D expenditures, % of GDP (2013)**

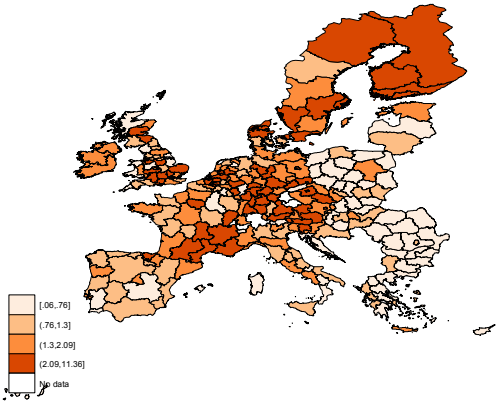
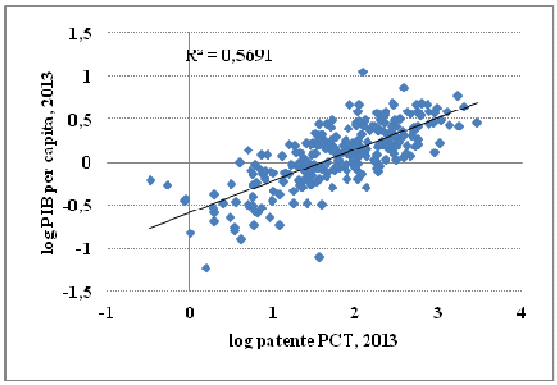


Figure no 5b: **The correlation between R&D expenditures and GDP per capita (2013)**



Source: own preparation in STATA 14.0, based on Eurostat and OECD data, 2016

The correlation between expenditure on research - development and the number of patent applications is relevant in this regard, indicating a potential significant of these expenses in increasing regional innovative capacity.

3. Evaluation of the production function of the European regional innovative capacity

The period analyzed in this study is quite broad, ie 2000 - 2015 (or 2012 for indicators available up to that year), the data are considered on an annual basis, since in a few cases observations are zero ((in some studies is the explanatory variable is the average over a number of years, uUSAlly three, in order to eliminate the zero values of the indicator). In this way, the total number of observations of models is high, taking into account the analysis was conducted on NUTS 2 units that include the whole EU area (out of the 276 regions a few islands were excluded).

3.1. Determinants of patent applications growth - models description and research hypotheses

The dependent reference variable is the number of patent applications identified in each region, applied through the PCT procedure, by inventor's country of origin and the priority date. In a traditional model of knowledge production function (KPF), introduced Griches (1979), we have included the human capital endowment, measured by number of university graduates; and the number of resident population as a control variable, in order to capture the relative size of the regions.

The specification of the main log linearized model is as follows:

$$\log patents = \beta_0 + \beta_1 \log R\&D\ expenditures + \beta_2 \log human\ capital + \beta_3 \log population + \beta_4 \log employment\ rate + \varepsilon$$

As you can see, the reference dependent variable is the number of patent applications identified in each region, but assessments were made considering both those applied to EPO and the PCT procedure and as whole number too, as well as high tech or information and communications technology patents.

The research hypotheses to be tested econometric are formulated as follows:

I.1: Production of patents is in direct positive correlation with financial allocations for research - development.

***I.2*:** For an intense activity of innovation /patenting is essential a high level of working age population with a university degree (I.2.1) or even secondary school(I.2.2).

***I.3*:** Physical capital stock is an important contribution to knowledge creation.

***I.4*:** The regional dimension is a key demographic development of regional innovative capacity.

***I.5*:** There is a supportive role for steady development of innovation activity is the integration on the labor market, which could provide the input for the innovative process successful conduct.

3.2. Innovation's influence in Europe. Results and conclusions

Table 3 presents the results of estimates of specifications from a basic model, using the method with fixed effects (FE) in the simple way (1, 4, 6, 8) and using the robust option (models 3, 5, 7 and 9).

Table no. 3

The estimation results of the production function of knowledge at regional level, where the dependent variable is measured by patent applications filed under the PCT, 2000 - 2013

	m1 b/se	m2 b/se	m3 b/se	m4 b/se	m5 b/se	m6 b/se	m7 b/se	m8 b/se
log_chel_cd	0.260***	0.194***	0.149***	0.181***	0.196***	0.171***	0.162***	0.176***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
log_edu_tert	1.098***	1.042***	0.888***	0.909***	1.090***	1.052***	1.083***	1.132***
	(0.06)	(0.06)	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
log_edu_sec		1.133***	0.856***			0.720***	0.763***	
		(0.12)	(0.14)			(0.14)	(0.14)	
log_pop	-0.002	-0.546*	-1.187***				-1.603***	
	(0.27)	(0.27)	(0.36)				(0.35)	
log_fbkf			0.245***	0.300***				
			(0.04)	(0.04)				
log_ocup				-0.999***	-0.617**	-0.424*		
				(0.21)	(0.21)	(0.21)		
log_fbkf_%_pib					0.120	0.155*	0.084	0.082
					(0.07)	(0.07)	(0.07)	(0.06)
log_dens_pop								-1.730***
								(0.36)
Constanta	0.199	1.779	5.479*	2.151***	1.799**	0.051	8.764***	3.873***
	(1.68)	(1.65)	(2.25)	(0.56)	(0.56)	(0.66)	(2.21)	(0.79)
R-squared	0.241	0.271	0.247	0.229	0.209	0.220	0.233	0.213
F	238.207	209.144	130.524	146.596	130.357	110.753	121.274	133.956
N observations	2503.000	2503.000	2230.000	2217.000	2217.000	2217.000	2230.000	2231.000

* p<0.05, ** p<0.01, *** p<0.001

Source: own preparation in STATA 14.0

We note that choosing the model with fixed effects followed Hausman test result indicating this method as the correct compared to estimating using random effects (RE), $p \leq 0.05$ reflecting the inconsistency ofthe latter method. In each specification, the explanatory factors include action on research and development (ie expenditure assigned for this purpose), human capital (education level of the population), demographic pool and regional employment size.

The results obtained lead to the following remarks:

1) In all effect estimates for input on research spending - development, their role is clear, statistically significant, robust and important as the magnitude of the economic impact (I.1 hypothesis is confirmed). Thus, a 1% increase in these expenditures lead to an increased number of patent applications with values ranging from 0.149%(Model 2) to 0.260% (Model 1). The constant effect of this determinant, regardless of the others considered factors, reflects its particular importance.

2) A consistent pool of labor with tertiary education is essential for obtaining good results in innovation, hence the we find a large economic significance of the effect. Introducing the complementary variable of population with secondary education also seems to support the regional innovative capacity growth, even if the economic importance of its impact is not as high as for the the population with university degree. This confirms what was otherwise expected, respectively the importance of higher education that should characterize an increasingly larger share of the population (I.2 hypothesis).

3) The size of the regional demographic pool in absolute value, however, is at odds with innovation capacity, a larger number of the population is not a supporting factor of economic development and of innovation. In conjunction with the outcomes of education, this emphasizing the need for action to increase quality workforce and not only the number of population (actually the opposite effect on patenting is obvious when we introduced a variable on secondary education in the models, that in the end enhances the negative role of the quantitative dimension of this regional indicator). Thus, I.4. hypothesis is not verified

4) The absolute size of the employed workforce is not in a direct, positive corelation with the dependent variable, its effect is negative in combination with various other drivers or using different techniques. This result could be explained by the decreasing number of workers in the years under analysis, mainly as an effect of the economic crisis. As a conclusion, we can say that the results confirm the predictions of theoretical and empirical literature, even in these simple models of evaluation. However, if the absolute number of employees does not appear to be relevant, it is particularly important to increase the integration of labor elasticity, patent applications relation with the employment rate being direct, statistically significant and robust (hypothesis I.5).

In the following models (Table 4) we took into account that the production of knowledge is characterized by a delay between spending on R&D and production of new innovations legally protected by filing patent applications (Jaffe, 1986 şi 1989).

Table nr. 4: **Effects of the influencing lag variables introduction**

	m1 b/se	m2 b/se	m3 b/se	m4 b/se	m5 b/se	m6 b/se	m7 b/se
	PCT applications				***EPO applications***		
L.log_chel_cd	0.260***	0.240***	0.239***	0.183***	0.133**	0.093*	0.131**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)
log_edu_tert	1.108***						
	(0.06)						
log_pop	-0.098						
	(0.31)						
L.log_edu_tert		1.116***	1.102***	1.042***	1.490***	1.302***	1.358***
		(0.06)	(0.06)	(0.06)	(0.07)	(0.08)	(0.08)
L.log_pop		-0.131	-0.457	-1.163***	-1.749***	-2.206***	-1.133**
		(0.30)	(0.34)	(0.34)	(0.37)	(0.38)	(0.39)
L.log_ocup			0.439*	0.559**			
			(0.21)	(0.21)			
L.log_edu_sec				1.050***			
				(0.13)			
log_ocup_salariati						1.533***	
						(0.21)	
log_rata_ocupare							1.315***
							(0.27)
Constanta	0.766	0.982	1.783	4.174*	10.551***	9.421***	4.542
	(1.88)	(1.86)	(1.91)	(1.91)	(2.27)	(2.27)	(2.58)
R-squared	0.219	0.223	0.224	0.249	0.225	0.242	0.235
F	187.898	192.149	140.219	128.936	173.965	139.193	135.993
N observations	2268.000	2259.000	2201.000	2201.000	2051.000	2002.000	2021.000

* p<0.05, ** p<0.01, *** p<0.001

Source: own preparation in STATA 14.0

To estimate the function of generating knowledge we have adopted model widely used in literature, having as drivers of innovation activity the expenditures in R&D, the education level, the size of the labor market with a one year lag from the previous period.

The first four models in shown in Table 4 include as dependent variable applications through the PCT procedure and the last three the application filed with the EPO. The results obtained confirm those earlier and the ones widely accepted in the literature, underlining once again the key role of this indicator in a sustained innovation activity conclusions.

Thus, the introduction of lag variables like the investment in more research activity – developmentand the share of population with higher education are factors of particular relevance for innovative dynamic in analyzed areas. In all models, both in the first four where the dependent variable is measured by patent applications filed under international procedure,

and those submitted to the EPO (last three columns) elasticities of innovation activity in relation to the two indicators have a plus sign and are statistically significant, with a critical magnitude of the economic impact. We also note that an increase in employment is in those circumstances has a real positive influence on innovativeness of the European regions. As such, the combined effect of education, investment in research and degree of integration into the labor market is confirmed as a factorial complex with direct implications on innovative performance of EU regions.

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TOURISM DEVELOPMENT OF CULTURAL HERITAGE ON THE BASIS OF CREATIVITY

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Summary

Cultural patrimony, due to its role of history and heritage spokesman, is regarded as part of the cultural tradition of a society. Tourism lead to an understanding of the cultural heritage, the relationship between these representing a parallel to the debate which takes place within the framework of a society, on the theme of tradition and modernity. It is very important to analyze the role of authenticity perceived as a measure of the quality of the product and as a determining factor for tourist satisfaction.

The work proposes to show the ratio between culture and tourism, to emphasize the role of cultural and creative tourism on tourist destinations and to analyze the ways in which cultural and creative tourism can attract the tourists in a tourist destination.

Keywords: culture, tourism, cultural heritage, creative tourism

JEL Classification: L83, M20, Z32

1. Introduction

It can be said that the relationship culture - tourism is a biunique relationship: cultural goods and products are promoted in large part by means of tourism and tourist offer includes, in most cases, cultural attractions (Iordache M.C.,2013).

The basis of cultural tourism is the interests of the people to find out more, to discover, to study, to experience something new and unknown. A person who has learned about Gaudí's architecture will want to visit Barcelona, a fan of Mozart's, will search for a visit to Salzburg or a festival of opera, many people will want to see Santa's house in Lapland or magnificent show of flowers in the Netherlands. More and more tourists are willing to learn about local traditions, life style, to enjoy the arts and local food, to participate in the local cultural events.

Cultural tourism is an original synthesis of cultural industry and tourism. In general, culture is international - music and dancing are understood by everybody, but the most surprising and most interesting is the national originality. Each nationality with its cultural heritage, such as the language and folklore, architecture and way of living are interesting for others. In opposition to the ways of electronic communication and exchange of information, the cultural tourism gives people the memorable impression, which is brought by the effect of existance and common feelings.

The methodology of the research used includes the documentation of the bibliographical reference what is based on a series of research, in large part conceptual, international studies which show a fundamental theoretical guidance about cultural tourism and heritage. The methods used shall be focused on conceptualization and description of the terms of cultural tourism and of the heritage elements, being necessary to examine closely these concepts, having regard to the opportunities offered by the tourist destinations.

I selected the specialty literature on the basis of the content of focus (terms of tourism, culture, heritage, creative tourism) and I analyzed in order to identify the points of interaction between them. Subsequently the identification and analysis of the conceptual framework, on the basis of the specialty literature and/or examples, I have outlined the impact of creative tourism development, on the areas in which it is incorporated, and the ways in which we can increase the attractiveness of a cultural destinations by cultural creative tourism, elements which could be useful to decision-makers in a tourist destination.

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2. Cultural heritage and tourism

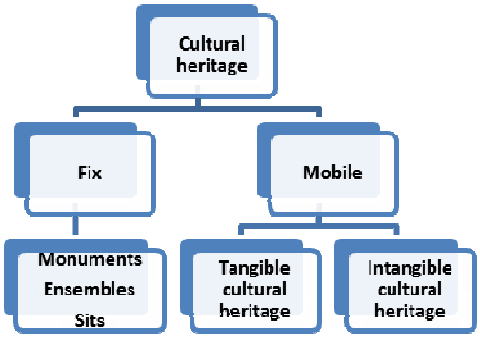
Bob McKercher and Gillary du Cros (2002) outlined the conditions sine-qua-non of the existence of tourism of the cultural heritage. This implies the existence of four components: tourism of cultural heritage, the use of the goods of the cultural heritage, consumption of experiences and products and, of course, the tourist.

1. The cultural heritage tourism offers to tourists attraction of the cultural traditions, places and values and aspects of religious practices, folk traditions, personalized social communities.

The Federal Australian Government, in the document Creative Nation: Commonwealth Cultural Policy (1994) defined cultural heritage tourism as that tourism which allows the inclusion of a whole range of experiences by visitors, they can even contemplate what a destination and its inhabitants do distinctly and distinctive - life style, characteristic heritage, art, the inhabitants, for the purposes of interpreting these experiences and personal cultural richness.

2. Goods of the cultural heritage, which, according to the Department of national treasures, can be fixed (historical sites, monuments, buildings) and mobile (manuscripts, textil objects, pottery, traditions, shows, traditional crafts, etc.)

Fig.no.1 – Structure of cultural heritage



Source: created by authors

3. The consumption of experiences and of products specific to tourism of the cultural heritage involves consumption of local products and experiences of tourists. But it must be taken into account and the way in which the elements of the cultural heritage, tangible or intangible, are processed into products of tourism of the cultural heritage, as among the main objectives of this form of tourism is to protect the components which they value.

4. The tourist, at the fourth element of tourism of the cultural heritage, is, in fact, the vertebral column in the tourism sector.

Fig.no.2 – The tipology of cultural tourist

The tourist in cultural purpose	Cultural tourism is the main reason for visiting a destination, and this type of tourist has a deep cultural experience
The cultural tourist in landscape purpose	The cultural tourism is to a certain extent the main reason for visiting a destination, but cultural experience is superficial
The unexpected cultural tourist	A tourist who don't travel for the purpose of cultural tourism, but which, after arrival at destination, is enough to have a profound experience of cultural tourism
The incidental cultural tourist	Cultural tourism is a weak reason for visiting a destination, and the result of the experience is a superficial one
The occasional cultural tourist	This type of tourist has not among the main objectives of travel the cultural tourism, but it participates in certain activities and has a superficial cultural experience

Source: McKercher, B. and du Cros, H. (2002)

All five types of tourists described above are actually affected by the chosen destination for sightseeing, and from this point, the host has the role to strengthen their identity, depending on their natural uniqueness specific.

3. Key Elements of the cultural tourism with impact on tourist destinations

It is expected that competition between the cultural tourist destinations in order to attract more visitors, to increase significantly. The newcomers will have to be very inventive, in respect of the intended destinations, in order to highlight multii among its competitors. Use only of stereotipice labels, such as "the town history", will no longer operate to become a distinct place in cultural tourism landscape. Furthermore, it is understood that powerful social trends acting in favor of cultural tourism.

People seek for more and more the authenticity and the unique experiences. Thus, the tourist package on a holiday destination becomes more industrial, more and more people will search for unique experiences, authentic areas, with the load cultural and traditional rituals of social life (Chhabra and associates, 2003, Kim & Jamal 2007, knudsen & Wade 2010).

Among the key elements of the cultural tourism with positive impact on the tourist destinations we lists:

Cultural tourists tend to spend more money on holidays. Statistics on cultural tourists reports that, on average, they have a higher level of higher education, income and spend more money on travel than other tourists. It was found that the daily expenses of cultural tourists exceed 70 euros, while the tourists in a traditional tourist holiday spent 52 euros (ATLAS 2007). However, it should be noted that the cultural tourists stay in an area for a period shorter than traditional tourists.

In the field of cultural tourism tourists are often older and better prepared. the context in which we can appreciate that, the tendency of aging of the company operates in favor of tenders for cultural tourism. The age groups submitted to grow by weight and, at the same time, and purchasing power greater, being more willing to spend than to save. For example, in a survey conducted in 2002 by the german GfK among seniors aged between 50 and 79 years, almost 50% were agree with the statement "rather prefer to live a better life than to save money all the time" (GfK 2002). At the same time, the seniors have more time available for travel, can choose to make trips and in the off-season.

Increased quality requirements of cultural tourists. The cultural tourists tend to be more aware of the quality of the environment that they visit, the level of service the accommodation and gastronomy, etc. For example, they are not necessarily attracted by the standardized hotels or the menus of big restaurants but rather of architecture of accommodation spaces, the specificity of the local gastronomy or customs and traditions of the area (Council of Europe, 2009). Increase of the degree of concern with regard to the environment, among the cultural tourists, determine the providers of tourist services to contribute to the sustainability of the environment and local communities.

Diversification of tourist attractions. For many tourist destinations, the development of heritage sites and other cultural offers allows a diversification of their portfolio of tourism. Certain countries have registered decreases of mass tourism "sun and sea", due to climatic conditions and but also economic, but have diversified offer by items based on the crop for tourists to be attracted by the destination (but Ashworth 2004). Croatian coast and parts of North Africa, Tunisia, in particular are examples for such attempts to benefit from the heritage and culture specific (gastronomy, events, crafts, etc.).

It is very important to take into account not only the favorable potential effects, but also critical aspects of tourism, in particular in places, with a limited capacity of tourism.

Critic aspects of cultural tourism

➔ ***The quick-consumption places of heritage.*** Even in rich destinations in the patrimony (for example, Bath or Venice), tourists have rarely a duration of stay for over two days. The situation of small towns of heritage is more serious, since most of them receive in large part to the visitors a day, whose residence is measured in hours; for example, a stay for 4-6 hours for holiday commuters in Valletta, or an average of 2.5 hours in Delft. (Ashworth 2004 and 2009).

➔ ***Return to the visit is unlikely.*** Another major problem is that the heritage attractions do not have a tendency to generate visits to return. A heritage tourism could be considered a tourist like a collection of cultural objective which should be extended, by visiting other destinations. Ironically, as the experience of heritage is unique, so it is less likely to be repeated (but Ashworth G.J. 2009)

➔ ***Stopping at a certain stage of development of the areas of heritage***. In many cities, the historical areas have become "ghettos well maintained", as an expression of the negative effects of the policies of the patrimony not aimed at their inclusion on a large scale, in the tourist circuit. This may result in historical mumify of the centers in the heart of the city's modern and increasingly irrelevant for everyone, with the exception of tourists (Robert and assistants, 2003, 86 and 93)

➔ ***The impact of tourism development of the places of retail prices, workshops and local residential spaces***. With the development of the cultural tourism, it registers a gradual shift of economic functions in the tourist places. For example, higher rents generated by the intensification of tourist flows can affect traditional traders of historical centers and small workshops. The effect can be reflected on the inhabitants, who no longer found certain goods or services which they seek (Russo 2002), but also on the urban centers, inhabited only by the rich classes and occupied by tourists and private enterprises" (Pascual J., 2004).

➔ ***The degradation of smaller places of heritage.*** The easily accessible heritage locations and small historic towns often attract a large number of visitors (most often visitors a day) with strong negative effects. The conflict in the promotion of cultural tourism has become obvious: must be kept unique character of a historic environment alive, which is marketed to potential visitors. However, the development of tourism brings many visitors, tourist shops offering cheap products imported, theatrical lighting is installed monuments, it provides entertainment "folk" etc. Damage caused by massive tourism on the sites of heritage is felt in many places in Europe and around the world.

➔ ***Cultural tourism requires measures of sustainability***. Typical models of consumption and the negative effects of the tourism heritage determine that the proactive management of tourism by regional and local authorities and tour operators to become a necessity. In the case in which the areas of heritage, public spaces and other local resources are damaged and destroyed by excessive tourism, resources will be lost for both locals and visitors. If the heritage workplaces become degraded, the life cycle of the tourist area reaches the critical stage and the inhabitants are faced with a situation in which must compete with tourists for space, local services and opportunities to enjoy their life. In short, the site of the patrimony and local community should be the most important interested parties in the development of cultural tourism and local authorities must understand that the protection of the site and quality of life of the local population are essential for supporting tourism on long term.

Although tourism is often considered to threaten the heritage sites through the levels of use too high, it is important for the local community. The different objectives of the heritage sites (conservation) and of the organizations of tourism (operation) will be often in conflict, but mutual understanding, partnerships and cooperation for durability will probably be the best way to prepare the ground for acceptable compromise and sustainable solutions.

4. Creative and cultural tourism versus traditional and cultural tourism

If we define globalization in terms of increasing the integration of economic, social and cultural, tourism can be seen as a question, and as an effect of a process of globalization (Richards, 2007). Due to the processes of globalization of the postmodern company, tourists search for more and more of the authentic cultural experiences and unique local products.

"The Experience Economy" (Pine and Gilmore, 1999) or creative economy (Howkins, 2001), which may be applied and tourism, occurred after the design that the goods and services are no longer sufficient and that producers must differentiate products through their conversion into experiences offered to the consumer. In tourism, this shows us that the creative products for cultural tourism does not rely only on the objects of material heritage, but also on the authentic experience and actual commitment in the cultural life of the community from tourist destination. These products are based on the individual creation of those who manages assets, on auto creation of tourist experience and on the inclusion of more emotional interaction, social and participative with the locals and their culture. Pine and Gilmore have suggested that the next phase of creating the value will be in the field conversion or experiences that change in fact tourist itself (Richards, 2011).

UNESCO defines creative tourism as a "travel directed to a tourist which forms a genuine learning experience, with participating in the arts, heritage, or particular character of a place which provides a link with those who live in this place and have created this crop varieties "(UNESCO, 2006). Creative tourism is tourism which gives visitors some creative activities, including the observation of the arts, crafts authentic learning through interactive seminars and informal education experiments, the participation in seminars cooking stove, and the ability to remain in high quality residential locations and communicate with the local community without hindrance (Campbell C., 2006). Creative tourism means obtaining the skills during the holidays, acquired in the context of the activities related to the culture and traditions of the area of the tourist destination. The tourists develop creative potential and get closer to the local community through participating in the interactive seminars and the acquisition of experience (Raymond C., 2009).

While traditional cultural tourism is based on the viewing and contemplation (e.g. visiting museums, art galleries, concerts, theater of ballet, etc.), cultural tourism creative is based on experience, participation and learning. It gives visitors the opportunity to develop creative potential through active participation in the experiences that are characteristic of the holiday destination where they are carried out. Creative tourists are deeply involved in culture destination, where they take part in various activities - crafts, art, gastronomy, etc. This creates a close link between the tourists, the local population and his cultural heritage (Richards and Wilson, 2007).

In addition, creative tourism is not linked to the cultural tourism, because the use of tourism resources which are essentially processes - such as dances, songs, crafts, paintings, festivals and, therefore, is more durable than traditional cultural tourism based on the consumption of the heritage constructed objects (Richards and Wilson, 2006). It satisfies the desire of tourists to develop more the cognitive side and to acquire genuine experiences. In this respect, the creative tourism is similar to experimental tourism(Smith, 2006). It involves learning, on holiday, a skills which is part of the culture of the country or the community visited. The creative tourists develop their creative potential and get closer to the locals, participating actively in the workshops and learning experiences which are based on the culture of their holiday destinations (Uzzell, 2006).

Fig.no.3 – Differences between creative and cultural tourism and traditional and cultural tourism

Creative and cultural tourism	Traditional and cultural tourism
✓ Is based on the local creative capital with constant development ✓ Is addressed to small groups and individuals with limited niche interests ✓ Involves the non-destructive participation, responsibility, the creation of new cultural heritage Durabilitate foarte ridicată, bazată pe procesul continuu de creație ✓ Involves high mobility and without the need for a lot of infrastructure ✓ Oriented toward the development of creativity in the cities, the preservation of tradition, learning ✓ Improves the local economy directly by financial support for the communities ✓ The touristic products are sold in the country ✓ Creative tourist travel with the purpose of learning and gaining experience	✓ It is base on the existance of material resources with predetermined characteristics ✓ Is addressed to big groups and individuals with general interests in culture ✓ Cultural tourism mass represents a danger for many cultural sites of heritage ✓ Limited development because some resources can't be renewed ✓ Is much more static, depending on the tangile resources ✓ Oriented toward the tourist objectives visit, events and their conservation ✓ Improves the local economy by received taxes, tickets sold, souvenirs ✓ Touristic products are exported in other countries ✓ Cultural tourist want to get rest and see the objects

Source: Ohridska-Olson RV, Ivanov SH., 2010, Yáñez C. M.,2011

As we can see, cultural tourism and creative tourism is based on different resources. Cultural tourism is traditionally oriented toward the visiting the famous targets, large-scale events and maintaining cultural life, by keeping everything that is tangible and can that bring profit. On the other hand, the creative tourism resources are linked to the intangible values, such as learning, the acquisition of experience and development of traditions. Unlike the cultural tourist, creative tourist mustn't see impressive historic buildings, places included in the UNESCO lists or large events. The purpose of creative tourism is the creative development of all cities and countries.

Another problem that separate these two types of tourism is the main objective of tourists, that is what I want to do tourists during travel, if you just want to relax on the beach, to see many churches or to obtain certain skills. A large part of the tourists are so-called "random cultural tourists " these are the tourists who use cultural tourism product with the purpose to see the famous places of the country. The creator tourist is traveling due to his motivation to see the country, to learn something, to participate in creative activities and to communicate with the local people. All of these help at the separation of an ordinary tourist from a creative tourist.

Cultural tourism is oriented more to tangible values than creative tourism. In this case, the creative tourism is fully oriented toward intangible resources, development and their preservation. The tourists have, therefore, different sights. Some believe that it is important to see the most famous buildings, beautiful nature, while others want to be included in the social life and learn from her.

5. Cultural and creative tourism - leverage to increase the attractiveness of tourist destinations

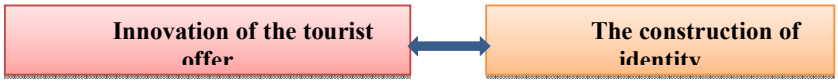
A cultural tourist destination should strengthen his competitiveness in the modern tourist market, which means that there is not enough to be just a copy of other destinations, but rather to create an offer distinct and genuine. All tour operators involved should endeavor to develop the destination, in such a way as to be charged as an attractive tourist destination and competitive.

The quality objectives of the heritage tourism can be summarised as follows:

• Innovation tourist offer, by the design of the distinctive tourist experiences and the development of the original tourist products, based on an industry high quality amenities, levels of particular interest and an implementation of the European market trends with an emphasis on local values and on the socio-cultural dimension.

• Building a distinctive identity to create a synergu between all elements that draw attention over the advantages of offer and help to reposition the destination as a prestigious and attractive destination in the minds of potential tourists.

Fig.no.4 - The quality objectives of the cultural tourism of heritage



In the tourist offer innovation and create an identity recognized, creative tourism can give a new dimension to the quality objectives set that can be achieved through the integration of all the parties concerned in increasing the competitiveness of destination. The development of creative tourism requires, in the first place, a creative management of destination which might lead to the development of tourism in the direction of the best and synergy of all other important factors in the development of tourism destination: the local administration, local residents, associations, Hotelieri Restorers picked, etc. By creative tourism, a cultural destination can create a unique product based on indigenous values, can reduce seasonal type, improving and demand-through innovation and modernization or by integrating the tourist areas inactive in their offer. Based on its resources, the destination must implement the concept of integrated management of the destination and the synergy operational strategies at all levels.

It is very important for the development of the creative content of the heritage destination, cultural resources to integrate the local values on the principle of sustainable development by:

● full compliance with the transport capacity;

● priorities for the conservation and management of the required for the protection of cultural goods;

● need to maintain the quality of the visitor's experience.

For example, at the Great Chinese Wall, one of the most visited places in the world heritage, there is a plan for traffic management of visitors; the city pump, which receives the daily over 10,000 visitors, has launched a virtual tour of the areas which are not accessible for reasons of conservation measures; Stonehenge made a draft of the replacement of the highway crossed the site, taking into consideration the impact or negative impact on the storage conditions and the environment. (Villafranca J., Chamorro M., 2007).

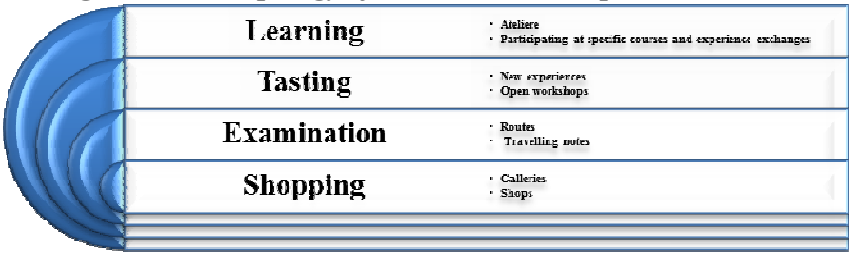
These issues have been discussed in detail in a seminar organized at the Alhambra (Granada, Spain), in February 2006, stressing the impact of tourism development on the properties entered in the World Heritage List. The end result of this seminar was drawing up a declaration which included exciting and innovative proposals, such as the necessity that the objectives included in the World Heritage List to report regularly to the number of visitors, but also to make forecasts concerning the evolution of the fluxes of tourists (Yáñez C. M.,2011). In our opinion, this requirement should be made compulsory, given the exponential multiplication of the number of visitors to the objectives of heritage which are not ready to manage and to avoid possible negative impacts.

At the same time with these approaches have intensified conflicts between those who manage the assets and the interested parties in the tourism sector with regard to the use or not of these; for example, Venice has implemented strategies for the management of the fluxes of visitors on the basis of strict criteria relating to compliance with the capacity of transport.

Creative tourism could not be done without creative development; therefore, the following breakdown is the main ways of implementation of creative tourism:

1) The use of creativity as one of the activities of tourism, through the active participation of the tourists in these activities . More and more communities consider that the creative activities may make the destination more attractive for tourists, even if they only wish to look, than to participate in the activities.

Fig.no.5 – The tipology of creative tourist experiences



Source: authors adaptation after Wurzburger R, Aageson T, Pattakos A, 2010

More than that, there are different types of experiences and products which can be assigned to a creative tourist: the active involvement in activities, the development of the specific skills, looked at the shops and galleries of creative products.

2) The use of creativity as a background for tourism, by which tourism creativity should be carried out in a manner less direct than during the participation in all activities. The aim is to create a common atmosphere covering the entire sector creative and the environment. In order to attract as many tourists is not only possible dissemination of the cropping information, but it is claimed that all these may be used as a certain "bait" specific for them. An example of such a creative background is the kitchen of a certain tourist destination, which could attract the tourists who want to taste the food and to know more secrets of the kitchen than those who want to learn to cook.

Creative tourism is focused on the new tourist, anxious to strengthen the existing skills, to acquire or discover creative new personal skills relating to the destination of the tourist attraction. He brings many benefits in all respects : contributes to maintaining the values of tangible and intangible assets, store, protect the old traditions, promote a country abroad and creates new jobs for the inhabitants, which is particularly important in the context of the current economic climate. Moreover, it creates a quick cooperation between people of different nationalities and forms a new market of tourism. All these factors allow the creative tourism to contribute to the improvement of the local economy by revenue to residents, companies and local budgets, by a number of different taxes and fees, by income from consumption.

6. Conclusions

Creative tourism is linked to the cultural tourism, but has many differences. Creative tourism is oriented toward the development of creativity, traditions conservation, education and has in view more individual customers or small workgroups, while the cultural tourism focuses on visiting known structures, participation in events and is oriented toward mass tourists.

Creative tourism is important in the sense that focuses on the past, the present and the future. What becomes relevant are not only final products, but the entire participation in the creative process. The passive consumption of cultural products becomes active through communication, education and participation, and creative tourism resources are renewable energy sources.

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