

ANALYSIS OF THE BUCHAREST METROPOLITAN AREA CLASSIFICATION ON TERRITORIAL INTELLIGENCE REQUIREMENTS

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ABSTRACT

This paper is an attempt to provide an answer to the following question: once a development region has been geographically defined, what should be done for it in order to become a real developed region, attractive on criteria such as administratively, social, economic, internal and external business environment and so on? This paper aims to identify the main lines of actions based on development requirements of a region on the principles of territorial intelligence.

KEYWORDS: *Territorial intelligence, Development region, Territorial integration*

JEL CLASSIFICATION: R58, O18

1. INTRODUCTION

Territorial intelligence is a fairly new concept and little addressed in the literature, which emerged as an alternative to territorial development models based on short-term economic efficiency and central government policy (Girardot, 2008).

The concept of territorial intelligence is closely related to the concept of sustainable development territorial gradually emerged with the rise of the economic crisis and financial environment as an alternative to economic development.

Territorial intelligence requires more than economic intelligence, the last one being responsible of creating products and gaining mobility for services among economic innovation actors. Territorial intelligence essentially improves territorial development from increasing economic competition to sustainable development of the territory through a comprehensive territorial approach ("thinking globally to act locally") that integrates the economic, social, environmental, and cultural dimensions. This fact involves a process of knowledge-based multidisciplinary and multisectoral partnership.

2. TERRITORIAL INTELLIGENCE WITHIN REGIONAL DEVELOPMENT

A defining characteristic of territorial intelligence is the smart way to use information and communication technologies to support regional development. Related to this aspect, according to Girardot (2008), territorial intelligence can be addressed as the form of intelligence that uses IT&C to develop collective intelligence, integration of territorial information and analysis tools in information systems developed within a cooperative manner.

From this point of view, territorial intelligence can be defined as a form of collective intelligence resulting from the combination of individual skills of public and private decision makers within a territory, the construction of knowledge through joint cooperation in sharing information territorial actors and development partners that have clear targeted formulation, evaluation and implementation at local level of long-term innovative projects.

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In light of these approaches, we believe that territorial intelligence meets a number of significant roles, as mentioned in Tabel 1.

Table 1. Territorial intelligence approaches

Author	Territorial intelligence approach
Girardot, 2000	A tool for supporting actors in the territory for conducting planning processes, definition and evaluation of policies and actions for sustainable territorial development.
Dumas, 2004	Aims at fostering the participation of stakeholders in a partnership at the local level by mobilizing knowledge, experience and expertise.
Ugarte, 2008	An instrument to operationalize the recent concept of territorial governance, which occurred in the context of the current emergence of the knowledge society and information.
Saccheri, 2008	Territorial intelligence is conditioned by the functioning of integrated strategies at the territory level oriented at developing individual skills and knowledge, at multiplication of these through both horizontal and vertical interaction mechanisms and flows and by understanding the social, political and environmental aspects that can affect the development of territories.

Source: made by authors

Referencing to the concept of territorial governance, according to Ugarte (2008) territorial intelligence can be defined as an integration of all knowledge related to understanding territorial structures and dynamics as well as instruments used by public and private actors in order to produce, use and share the necessary knowledge in the sustainable development of the territory. Based on the above considerations we can say that the evolution of territorial governance determines the development of the concept of territorial intelligence by allowing integrated sharing of knowledge and thoughts about the territory as a result of diversity and also achieves consistent and coordinated actions. On the other hand, territorial intelligence provides feedback for territorial governance process through integrated analysis and assessment of the actions developed through diversity, resulting in new knowledge that can help on shared improving actions within the territory.

3. CASE STUDY: BUCHAREST METROPOLITAN AREA

This paper highlights a relatively new concept for local public administration from Romania, but frequent used in EU15 countries such as Germany, France, Netherlands, Sweden, Italy and Belgium. Discussions on the goal of economic and territorial intelligence in the national context derived from a set of government decisions and projects which stimulates the integration of urban and rural settlements in self managed organizational structures, even autonomous. Such structures are complex entities and for example we can mention poles of urban development, urban growing poles, competitive poles and local action groups.

Although currently in Romania, there is a specific framework that would ensure the development and promotion of territorial intelligence, there are certain similarities found in those countries. The concept of territorial intelligence has its origins among others, in the process of adapting to the changes occurring clusters in public management. Thus, with the adoption of modern business practices, some clusters have obtained the status of intelligent clusters, this process is extended to public management and, therefore, the management of the territory.

3.1 Research methodology and study approach

Taking into consideration that this paper propose the identification of relevant factors related to territorial intelligence among the Bucharest Metropolitan Area, the appropriate tool for the research is STEER analysis (Socio-cultural, Technological, Economical, Ecological and Regulatory).

STEER analysis is used in many cases by private multinational companies when conducting investments in other countries, and by governments of European countries which promote urban development poles.

STEER analysis defines the main elements similar to the theoretical concepts and identified elements within the Bucharest Metropolitan Area. As long as Bucharest Metropolitan Area is the main urban development pole both in the South of Romania and Romania, this method is a suitable one for analyzing dimensions such socio-cultural, technological, economic, environmental and regulator of this region.

Each dimension was assessed through eight relevant structural elements whose existence has been validated or not the Bucharest Metropolitan Area (BMA).

4. RESULTS DISSEMINATION

This section of the paper highlights the factor above mentioned for all five STEER analysis dimensions. As every dimension involves an own specific research, the authors consider as most relevant the results in a final shape.

a) Socio cultural dimension

At this level were considered strategic aspects of local and metropolitan importance, both existing among specific literature on intelligent clusters and local government practice in developed European countries.

As yet there is no official framework for issuing intelligent status of a regional area, for the Bucharest Metropolitan Area have been taken into account a number of structural elements on the socio-cultural dimension (Table 2).

Table 2. Socio cultural dimension

No.	Socio-cultural factors	Checked
1.	Technical and sciences research centres	1
2.	Economic and business administration research centres	1
3.	Public administration and Legal sciences research centres	1
4.	Industrial and specific area specialization training institutes	1
5.	Social protection programs provided by government according to prevention principles	0
6.	Clusters for civic skills development – social experimental centres	0
7.	Actions for transformation civil servants into Key Account Managers	0
8.	Small impact of the political factor in the manifestation of civic values	0

Source: adapted from Radu, Brânzaș, Matei (2013)

Taking into consideration the input of these factors, the level for similarity of scientific requirements on territorial intelligence in the Bucharest Metropolitan Area is 50%. Among the main reasons for this we consider that a pronounced political factor is constantly influencing the system of social values. Also, the transformation process of public workers into Key Account Managers requires even spiritual and material motivation for the work and after the assessment sessions. Territorial intelligence acts similarly with its own public workers as with employees that activate in the private sector. So that, the equity between revenues and evaluation of work performance is mandatory. Social experimentation centres are entities (mostly governmental) that train citizens for new development areas forthcoming on short and middle term. These social experimentation centres are developed by government and are operating in a permanent schedule, since the intelligent territories are involved in a continuously transformation process and are based on innovation and experimental principles.

b) Technological dimension

We can consider as areas of technological development both retrofitting existing industrial infrastructure and new investments for activities related to research and innovation field. Having a widespread access among the entire population and economic entities within the region at Internet connections and latest technological products and services represents a big challenge but also a big advantage for a region. Another advantage occurs by facilitating the collaboration with the external environment too. Some of the technological factors seem to have different features and impact, so that a multi-perspective is specific for this dimension. That's why technological dimension has an important influence on local informational strategy. This dimension is approaching also the e-Governance principles, as we talk about IT&C and technological development. Table no. 3 is relevant for the conducted analysis.

Table 3. Technological dimension

No.	Technological Factors	Checked
1.	Integrated intelligent traffic system existing or under implementation	1
2.	Inter-modal transportation system existing or under implementation	1
3.	Developed and implemented facilities according to e-Government requirements	0
4.	Explicit integration of computerization within undertaken or in progress projects	0
5.	100% geographical coverage of Internet connections	1
6.	Virtualized knowledge sharing tools	0
7.	Public institutions transformed in unique informational cells (equipped with modular information system)	0
8.	Functional mechanisms for international transfer of know-how	0

Source: adapted from Radu, Brânzaș, Matei (2013)

Technological dimension is distributed by its factors only in 37% within the Bucharest Metropolitan Area, due to some relevant issues. One important reference is regarding the poor proliferation of virtualization instruments and technologies for sharing knowledge. In other words, among this region there is not implemented an integrated system that can provide support for distribution and enrichment of intellectual capital resources. Concepts such as management systems, knowledge bases are suitable in this region and are both reachable in price and level of use. Also, specific e-Governance methods are not recognizable for local administration, likewise specific international partnerships. Another critical issue is expressed by converting the public institutions into unique informational units. Mostly, this factor requires the employment of extranet instruments, valid Business-to-Business collaborations, and also providing guarded access to concrete users out of domestic users. The main gain consists in diminishing bureaucracy and a shorter information path for tasks and reporting.

c) Economical dimension

In this category of factors there have been analyzed elements that target stability of the business climate, the capacity to formulate a comprehensive economic policy, and economic KPIs for regional trade efficiency. Also, this dimension addresses policy aspects that covered investment research and innovation tasks conducted by local and central public administration. As mentioned above, just a part of the concrete KPIs can be measured by conventional tools. Thus, majority of the exposed factors involves infrastructure elements built by private corporate environment, and also by local and central public administration. Table 4 highlights the results on this dimension.

The percentage of 25% for matching the economically requirements of territorial intelligence within Bucharest Metropolitan Area is caused by the lack of an integrated policy specific to competitive environment.

Facing these facts, we can statue that Bucharest Metropolitan Area doesn't exceed the pole of urban development stage, and this is because the public management excluding those proceedings which

would transform it into a regional competitor regarding to other domestic regions. Risk management is another overlooked factor in the Bucharest Metropolitan Area, despite it is common among many development regions of Schengen area.

Table 4. Economical dimension

No.	Economical Factors	Checked
1.	Regional governance strategy oriented business practices	0
2.	Adequate local infrastructure for companies and competitive developing poles	1
3.	Regional policy on promoting public private partnership (PPP)	1
4.	Tools to prevent scarcity of raw material	0
5.	Regional financial provisions established by local government to cover projects financed by local government	0
6.	Monetary reserve fund to mitigate periods of recession or crisis	0
7.	Government investment in research and innovation programs > 1.25% *	0
8.	Regional trade balance > 0 **	0

Source: adapted from Radu, Brânzaș, Matei (2013)

* The development regions of Italy, the closest level as group oriented competitive practices.

** Non availability for regional statistics on trade indicators development in the regions of Romania

d) Ecologically dimension

At this level were analyzed information that reflects regional policy on the environment protection and conservation. The most important aspects burden on the current infrastructure which comply with environmental legal requirements, civic values on the environmental dimension among the business habitat. A critical factor deals with international agreements and partnerships that approach environmental issues of the developing areas. In Table 5 there are revealed some relevant factors targeted by environmental aspects.

Table 5. Ecologically dimension

No.	Ecologically Factors	Checked
1.	Integrated system for water-protection by any type	1
2.	Air protection system	1
3.	Integrated selective waste collection	0
4.	Clusters of firms in waste collection	0
5.	Regional warning system for environmental emergencies	1
6.	Integrated regional energy strategy	0
7.	Energy supply facilities from autonomous sources	0
8.	Removing plants, factories and big polluters of urban area	0

Source: adapted from Radu, Brânzaș, Matei (2013)

Regarding to the ecological factors, Bucharest Metropolitan Area shows a correlation rate of 37% with territorial intelligence requirements. One of the most important reasons is the scarcity of energy security and corporate framework for ecological clusters. The first impression of these factors is that they are correlated only in an adjacent manner with other mainstream factors. That's why, in many situations, ecological factors are facing an informal treatment. Nonetheless, international community issue concrete and clear sanctions for countries and private corporate environment. EU institutions and NGO working in this field are claiming governmental measures for preventing ecological disasters and accidents. More than that, the fast proliferation of information engage increased risk in terms of the partnership with customers and business partners to develop the region, being aware that in the world there is a great manifestation of reluctance to NGOs, public institutions or companies that aren't environmentally familiar or do not coordinate their activities to modern ecologically standards.

e) Regulatory dimension

This factor burdens on the legal infrastructure that is encouraged by the existence of territorial intelligence features among Bucharest Metropolitan Area. So that we analyzed interpretation of the regulations, level of bureaucratization within local public administration, and within current tasks conducted by those who are responsible with decision making processes. Table no. 6 presents the proposed factors for this last dimension.

Table 6. Regulatory dimension

No.	Regulatory Factors	Checked
1.	Public institutions transformed into semi-autonomous organizations	0
2.	Redistribution government funding based on the principle of quantified performance	0
3.	Use of managerial accounting systems in the public institutions	0
4.	Evaluating system for public institutions developed by clusters representatives	0
5.	Regional regulatory policy	0
6.	Low impact of the political factor within regional decision-making processes	0
7.	Specific regulations for international transactions	1
8.	Effective intellectual property regulatory rules	0

Source: adapted from Radu, Brânzaș, Matei (2013)

Once the analysis for the selected factors among regulatory dimension, the results point out a level of only 12% matching for Bucharest Metropolitan Area. The most important disparity is identified on aspects related to the political factors and the management of public institutions. More than that, legal framework for regulatory dimension is the base for territorial intelligence development among a region as big private companies, and also clusters efforts must find a real help by adequate legislation and regulations in order to build competitiveness poles.

5. CONCLUSIONS

This paper exposes the main similar characteristics between elements of territorial intelligence revealed in Romania and those specific characteristics proposed by the theoretical approach.. As a final result, the performed STEER analysis highlights a 32% degree of requirements intersection for the Bucharest Metropolitan Area. This level is far unsatisfactory for an EU capital town.

For this reason, the most important strands in the short and medium term in the Bucharest Metropolitan Area, we propose:

1. Amplification for factor regulation, where incentives have promoted regional clusters, and clusters of innovation. This factor must be supplied with concrete mechanisms for framework implementation.
2. Development of intelligent clusters, fact that will require a radical change in a region's civic culture as computerization requires major investment and mindsets changing.
3. Technological factors are complemented by the social factors, in the sense that the system of social values can be changed by streamlining government activities.
4. Another very important element neglected by managers of public institutions is to promote economic risk management. The economic dimension requires measures to prevent crisis situations. Public institutions are responsible for supporting innovative clusters even through exceptional financing instruments, as it is targeted regional interest.
5. Although territorial intelligence involves focusing on local activities, government involvement should not be forgotten. Thus, government investment, with regional backed by raised financial resources are essential in the development of innovative clusters policy and digital government.

6. Although sometimes are forgotten, environmental factors can be treated in two different approaches. They may be the result of other factors, or might be the goal that in order to be achieved, other factors must be accomplished. The Schengen states provides a relaxed development of large areas of friendly ecologically framework.

In conclusion, in the year 2013, the Bucharest Metropolitan Area does not satisfy all the structural elements of economic and territorial intelligence. This finding is a strong argument for promoting legislative, administrative, economic, environmental, technological and cultural remedies capable of generating within an optimum time period for all types of structural elements within the five dimensions of territorial intelligence.

This course requires an amplification of regional governance processes that can lead to a new kind of organization and regional development.

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