Practical Approach of the PEST Analysis from the Perspective of the Territorial Intelligence

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Abstract

Considering that steam power was the trigger of the First Industrial Revolution in the 18th century and that the discovering new sources of energy, alongside with developing the technologies required to use these new type of fuels in the end of the 19th century was considered the Second Industrial Revolution, then the proliferation of the Information Technology and Communications on one hand, and the development of knowledge workers on the other hand are the main drivers of the Third Industrial Revolution, also known as the Knowledge revolution.

Digging deeper in the Knowledge Economy, we propose as the subject of this paper and as a part of our research, a theoretical approach in assessing and analyzing a region from the perspective of both territorial intelligence and smart developing.

1. Introduction

The Territorial Intelligence has evolved as a particular from the Economic Intelligence, aiming to apply the last's laws and characteristics in order to develop a region or a territory from a sustainable point of view. The new and young branch has evolved, developing its own particularities and principles, by adapting to the necessities of a territory.

However, the main question remains: which are the main factors that define an intelligent territory? Once the answer is established, we can move even further to creating the methodology and procedures in order to adapt the existing regions.

As the Territorial Intelligence evolved from a microeconomic perspective to macroeconomic one, we consider that the some microeconomic specific tools can be as well adapted to the requirements of a macroeconomic field. Thus, the present paper aims to present the advantages of using a conventional management tool – the PEST analysis in order to identify the main characteristics of a region, from the Territorial Intelligence point of view.

2. Main characteristics of the territorial intelligence

Intelligence can be defined as the ability to understand, to identify what is essential, and to solve new problems or situations based on previous experiences.

From a practical point of view, Waltz (Waltz, 2003, 1) defines intelligence as using the specific knowledge in reaching ones targets, the fundaments of one's decisions and actions.

If the economic intelligence refers to the usage of information in order to create goods and services, thus achieving the targets, how can the territorial intelligence be defined? We consider that the most appropriate definition is the one promoted by (Pascaru, 2007, 2), who considers that territorial intelligence is the result of both the usage of the resources of a territory and the knowledge an competences transfer between the local stakeholders.

According to specialists in the field (Pascaru et al, 2010, 10), the base of the Territorial Intelligence consists out of three ethical principles:

- Participation of all actors in development, starting with the citizens;

According to Pascaru, participation is based on communication; therefore the information is place in an interactive context. This requires the availability of information, the ability of stakeholders to access the information content and, therefore, and information technologies.

- Global approach of situations characterized by an adequate balance between economic, social and environmental variables;

As the French specialist Girardot emphasized, cited by Pascaru, sustainable development tends towards harmonization of economic, environmental, social and cultural targets. Compared to the centralist logic, which can be considered as dividing the activities on each sector, sustainable development is based on an integrated approach to territorial scale. The territorial intelligence involves many sectors of knowledge and action (demography, geography, environment, economy, communications, health approach, heritage and institutions) and involves, necessarily, the law, history and culture.

- Partnership of all the actors involved.

Territorial intelligence is characterized by the need to develop methods and tools to facilitate the work of stakeholders in network partnerships, sharing information and cooperation.

Next to these, the same specialists mention three other methodological principles:

- Addressing the territory as a space of action;

The territory can be defined as a geographical and interaction between a human community. Hence territorial intelligence involves three complementary levels of analysis:

1) The role of territorial stakeholders, their representations and power relations within the institutional frameworks, in which they operate, as well as projects they initiate;

2) Socio-economic dynamics resulting from individual or collective decisions: demographic behaviors, the mobility of goods and people, the activities dynamics;

3) Spatial structures and trends, which are solid representations of the stakeholders' actions and socio-economic dynamics.

In terms of territory, it is important to identify the relevant action territory, considering both the administrative territories and the multiple levels government analysis.

- Generalization of project management and culture of evaluation;

Participation in the collective achievement of a territorial diagnosis and achieving territorial intelligence system creates a learning process that continues with participatory evaluation of the actions, thus proving on best practices and identification of errors to avoid.

- The accessibility of the information society technologies and of the information transmitted

Computer networks are the territorial intelligence infrastructure. The informatics and telecommunications tools are indispensable for organizing the knowledge exchanges and the collective work of many different stakeholders, which work from different places from each other and are not synchronized in time.

3. Particularities of the PEST Analysis in the light of the territorial characteristics

What is PEST analysis? As shown in (Makos, 2013) PEST is acronym for Political, Economic, Social and Technological. This type of analysis is used to standardize these four external factors above in relation to your organization situation. PEST analysis is helps you to determine how these factors will affect the organizations performance and activities in the long-term. It's also used in collaboration with other analytical management tolls like Porter's Five Forces and SWOT analysis to give a clear understanding of situation and related internal and external factors.

The PEST analysis can be defined as an part of an analysis conducted on external factors that

influence the activity of an organization, grouped based on their nature: political, economic, social and technological. The goal of the analysis is to provide an overview over the main environmental drivers that should be taken into consideration when defining the global strategy. (Wikipedia) (Muniandy, 2015)

According to (HO, 2014) Pest analysis examines four categories of external environmental factors, namely:

- Political factors (P): these cover various forms of government interventions and political lobbying in an economy.
- Economic factors (E): these mainly cover the macroeconomic conditions of the external environment, but can include seasonal/ weather considerations.
- Social factors (S): these cover social, cultural and demographic factors of the external environment.
- Technological factors (T): they include technology-related activities, technological infrastructures, technology incentives, and technological changes that affect the external environment.

Variants that build on the PEST framework include PESTLE (including Legal and Environmental factors), SLEPT, STEEPLE/STEEPLED (including Demographical factors), DESTEP, SPELIT and STEER (including Regulatory factors).

Examples bellow is adopted by (Makos, 2013):

- POLITICAL: New state tax for accounting; New employment laws for employee handbook maintenance; Political instability in foreign partner country
- ECONOMIC: Internal economic growth; Changes in interest rates.
- SOCIAL: Shift educational requirements and changing career attitudes; Population grow rate.
- TECHNICAL: Automated processes in the industry; Rate of innovation; Changes in technology.

Another example of PEST analysis is presented in Table no.1 adapted from (J.H.M., 2016) and (Jurevicius, 2013).

Table no. 1 Examples of PEST analysis factors

POLITICAL	ECONOMIC	SOCIAL	TECHNICAL
Environmental regulations and protection	Economic Growth	Income distribution	Goverment Research spending
Tax polices	Interest rates & monetary policies	Demographics, population growth rates, Age distribution	Industry focus on technological effort
Internal trade regulations and restrictions	Goverment Spending	Labour/ social mobility	New inventions and development
Contract enforcement law / Consumer protection	Unemployment policy	Life style changes	Rate of technology transfer
Employment laws	Taxation	Work/career & leisure attitudes, Entrepreneurial skills	Life cycle and speed of technological obsolescence
Goverment Organization/attitude	Exchange Rates	Education	Energy use and costs
Competition regulation	Inflation rates	Fashion, hypes	Information technology
Political Stability	Stage of business cycle	Health consciousness & welfare, feelings on safety	Internet
Safety regulations	Consumer Confidence	Living conditions	mobile technology
Bureaucracy	Labor costs	Attitudes toward imported	Basic infrastructure level

		goods and services	
Corruption level	Weather	Attitudes toward product quality and customer service	Legislation regarding technology
Anti-trust law	Climate change	Minorities	Technology incentives

Source: (J.H.M., 2016/ Jurevicius, 2013)

As the PEST analysis is used to identify the main external drivers of an organization and, based on their characteristics, the organization should be able to adapt its strategy in order to be able to grow and to reach its targets.

Taking in consideration this assessment, we strongly believe that the PEST analysis can be used as a tool in identifying the main characteristics of a region or territory, based on the 6 Principles of Territorial Intelligence, as they are presented by Pascaru and Girardot (Girardot, 2008, 6). Furthermore, we consider that using this kind of analysis; one should be able to take the necessary actions, based on the region's strengths and flaws, in order to develop the region in question as a pole sustainable development

The hypothesis of this theory is that the external factors included in the PEST analysis and linked with the Principles of Territorial Intelligence. Thus, expanding the analysis to a region and analyzing each factor should provide us a clear image on the status of the territory from the perspective of the Territorial intelligence principles.

Moving further, most of the PEST factors can be linked with the principles, as follows:

- The existence of *Political Stability* and *Information technology* alongside low levels of the *Corruption level* respectively will create the premises of openness and proper communication from the local territorial administration with both the citizens and the main stakeholders, thus promoting the first principle.
- The existence of the legal related factors (such as *Employment laws* or *Contract enforcement law*), financial related factors (Tax polices), environmental (*Weather and Climate Change*) and demographic factors (*Minorities, Demographics, population growth rates, Age distribution or Living conditions*) brings a global approach on the analysis, taking into consideration all the existing variables of a region.
- The partnership of the existing stakeholders can be defined by Anti-trust law, Attitudes toward imported goods and services or the Technology incentives.
- The *Government Organization/attitude, Bureaucracy, Attitudes toward imported goods and services or Labour/ social mobility* are, in our opinion, factors that define the territory as a space of action;
- The project management and culture of evaluation take into consideration factors such as the *Stage of business cycle, Competition regulation or Consumer* Confidence.
- Last, but not least, the accessibility of the information society technologies is consilidated based on the *Rate of technology transfer, Information technology or Internet and mobile technology*.

We are presenting an example PEST analysis approach in United Kingdom as shown in (Bush, 2016)

Political factors: UK is a constitutional monarchy that's run under the influence of a parliamentary system. The United Kingdom is said to be a fair, stable country with plenty of opportunities for those operating within, and the country as whole. Below is presented a few factors of the positive and negative factors:

Positive: Relatively "fair" country, with public having a large influence on their internal workings; Proactive government; politically stable; split into national and local administrations. Negative: Some well-hidden corruption; uncertainty or not to stay in the UE, or leave (BREXIT).

Economic factors: The United Kingdom has a good and strong position relative to other countries. The GDP is high, economy is diverse, and also has a few issues.

Positive:5th high product GDP (Gross Domestic Product) in the world, second in the Europe only to Germany; Large population allowing for even small markets to be profitable; Diversified economy with both large public and private sectors; Free market; Increasing Foreign Direct Investment.

Negative: Slow recovery from the 2008/2009 economic recession; Lots of money spend on providing free public services financial aid, even for migrants.

Social factors: This factors are very important factor in any PEST analysis.

Positive: Many free public services (e.g National Health Services); densely populated with 54.1 million inhabitants; Open to migration leading to cosmopolitan environment with around 1 in every 8 residents born abroad. High standard of living.

Negative: High and increasing dependency ratio; some social unrest with regard migration and ethnic groups; ever-increasing further educational costs.

Technical Factors: United Kingdom as a More Economically Developed Country, does have good access to technology. Below is presented some of most important technological factors affecting the United Kingdom.

Positive: Quality innovation skill; expertise in science and IT; effective laws with regard to intellectually property; plenty of internal competition to stimulate growth.

Negative: slow technological development in comparison to the United States.

4. Conclusions

One of the main attributes of the PEST analysis is that it analyses the major external factors that influence the activity and determines the main characteristics of the strategy of an enterprise, regardless of its size. Moving on, we consider that the analysis can be extrapolated and adapted to the needs and requirements of a region.

The main argument in this hypothesis is that, by definition, the PEST analysis focuses on the external factors of an organization. Moving to a bigger size (such as the one of a region), the main drivers analyzed in the PEST matrix can be, indeed, considered as internal factors of the region, but, at the same time, they influence each and every stakeholder from the region. Thus, the PEST analysis is a rigorous tool in identifying the main drivers of a region.

Furthermore, the political, economic, social and technological factors used in the analysis are characteristics of the 6 principles of the territorial intelligence. This means that the existence or absence of these factors can be interpreted as the situation of the territory and the requirements missing in order to be considered a pole of sustainable development.

Last, but not least, given its flexibility, the PEST analysis can be adapted in order to include more domains, such as legal, environment, demography or regulatory.

Because of this, we strongly believe that is an adequate tool in assessing a territory from the territorial intelligence perspective.

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