

EVOLUTION OF COMPETITIVENESS OF ROMANIA DUE TO THE QUALITY CLUSTER FORMATION

ZENOVIA CRISTIANA POP¹

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ABSTRACT

In times of globalization and hard competition, high volatility and uncertainty, many investors will try to find national markets, in the world, which can be seen as “Economic Moats”. Investing in them will mean building a portfolio of solid businesses and therefore improving the odds of being successful. In outline, our working paper aims at presenting and analyzing key issues of the complex evolution of competitiveness of Romania, as a result of cluster formation.

KEY WORDS: National competitiveness, Global Competitiveness Index, World Economic Forum, cluster formation

1. Introduction

The first question is how can a nation determine her competitiveness and so positively affect the level of live of their citizens. The determinants of competitiveness which are usually used are labor costs, interest rates, exchange rates and economies of scale. Due to globalization and the increased competition, the acquirement of knowledge becomes also more and more important to the nation. Subsequently we must outline different aspects of competitiveness, through presenting some of the given definitions in the related literature:

One definition is offered by the Organization for Economic Cooperation and Development (OECD): “Competitiveness should be understood as the ability of companies, industries, regions, nations, and supranational regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis”. (OECD 1992)

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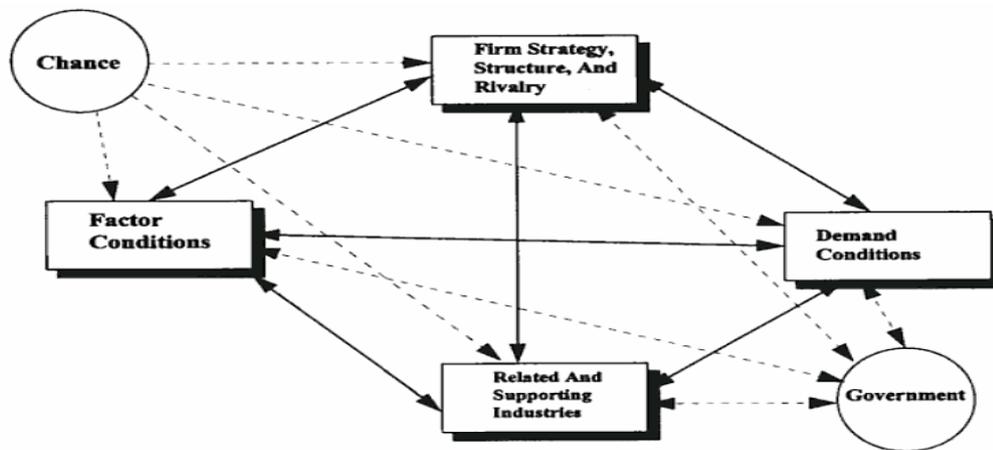
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Because economic growth can be determined by social stability and environmental standards, a new definition develops. “The ability to maintain market shares while at the same time being able to earn sustainable and high incomes as well as maintain and improve social and environmental standards”(Wolfmayr-Schnitzer 1998). Improving the environment through the firms activity doesn't necessarily secure it's success. After Laura D'Andreea Tyson competitiveness means to produce goods and services that “meet the test of international competition, while the citizens enjoy a standard of living that is both rising and sustainable” (Bach Stephen D. 2001).

At the microeconomic level, “A firm.... that earns superior financial returns within its industry (or its strategic group) over the long run is said to enjoy a competitive advantage over its rivals.” (Ghemawat P. et al. 1999) The opinion of Saloner, Shepard and Podolny is that as to be able to determine the features of all the forms of competitive advantage a firm can make two things a firm can produce some service or product that its customers value than those produced by competitors or that it can produce its service or product at a lower cost than its competitors”. But “in order to prosper, the firm must also be able to capture the value it creates” (Saloner Garth et al. 2008). In order to create and capture value the firm must have a sustainable competitive advantage. It is hard to define competitiveness and the debate still goes on, because there is no universally accepted definition. Still the most recognized definition of competitive advantage in the management field was given by Michael Porter, the Harvard Professor who replaced, the term introduced by the economist David Ricardo in his Principles from 1817, comparative advantage with competitive advantage: “Competitive advantage relative to the best worldwide competitor”(Porter Michael 1990).

In the systematic model called the Diamond Model, Porter is identifying four features of a national environment as shown in Figure 1. These features, like factor conditions, demand conditions, related and supporting industries, and the firm strategy, structure and rivalry, make the development of a sustainable competitive advantage by national firms, possible (Lou Anne Barclay 2000). National competitiveness can be influenced by many factors like: the nation's culture, institutions, her history, law system, system of government, legislation, the changes in taxation and policy-making, educational system and religion or the cluster formation.

Figure 1: Porter's "Diamond"



Further we will explain each factor. The factor conditions refer to the endowment of the country's production factors. Such factors are natural resources, infrastructure, human resources, qualification or commitment level, and also administrative infrastructure. Demand conditions of the home country reflect the customers-mix, their needs and wants, scope and growth rate, for products and services produced in the home country.

Supporting industries can benefit after an internationally successful industry. Competitive supplying industries will sustain innovation and contribute to growth. In conclusion related and supporting industries (hardware and software), engage economic development. Another factor one should take into account is the firm strategy, structure and rivalry. The way how firms are organized, created, and managed (Ganeshan Wignaraja 2003).

Paul Krugman argues in his article „Competitiveness: Dangerous Obsession that competitiveness is used inappropriate with the term national. The development of a country's economy depends on how well it can compete on the world markets. If a country is failing, it means that it is not competitive. The reaction of Paul Krugman reflects only the fact that economists have not taken seriously the idea of Porter. He indicates that: "Evidence hard to reconcile with factor comparative advantage is not difficult to find. Korea, having virtually no capital after the Korean War, was still able to achieve substantial exports in a wide range of relatively capital intensive industries such as steel, shipbuilding, and automobile. Conversely, America, with skilled labor, preminent scientists, and ample capital, has been eroding export market share in industries..., such as machine tools, semiconductors, and sophisticated electronic products" (Porter, Michael 1990).

Porter obviously adopts a critical point of view of the main theoretical framework offered by this model of international trade among nations (Siebert Horst 2000). The H-O-S model of trade (Heckscher-Ohlin-

Samuelson) explains comparative advantage in terms of differences in factor endowments between countries. (Barry Jones 2001). While nations or firms try to compete, a confrontation of interests arises. Therefore a more narrow approach as the authors stipulate can be used in defining different levels of competitiveness, determined by the ability of the economic actors to overcome this conflict.

The several levels are: 1. **Ability to survive** –the ability to survive is the lowest level of competitiveness. No important change to the competitive environment of the economic actor takes place. The adaptation follows passively. 2. **Ability to develop** - is the medium level of competitiveness. It applies to the ability to respond quickly to the continuously changing in competitive environment. Only through a quick adaptation efficient activities can be achieved. 3. **Superiority**- represents the highest level of competitiveness. The economic actor is able to change the competitive environment by way of introducing efficient operations, quicker development or better qualities than competitors (Janno Reiljan, et al. 2000).

The term competitiveness involves also defining its range. Three major groups can be identified: local (regional); internal (national); international (global) competition. Only on the world market can the “international competitiveness” of a firm or a nation be tested. Three elements contribute to the competitiveness are government, business and education.

2. Global Competitiveness Report

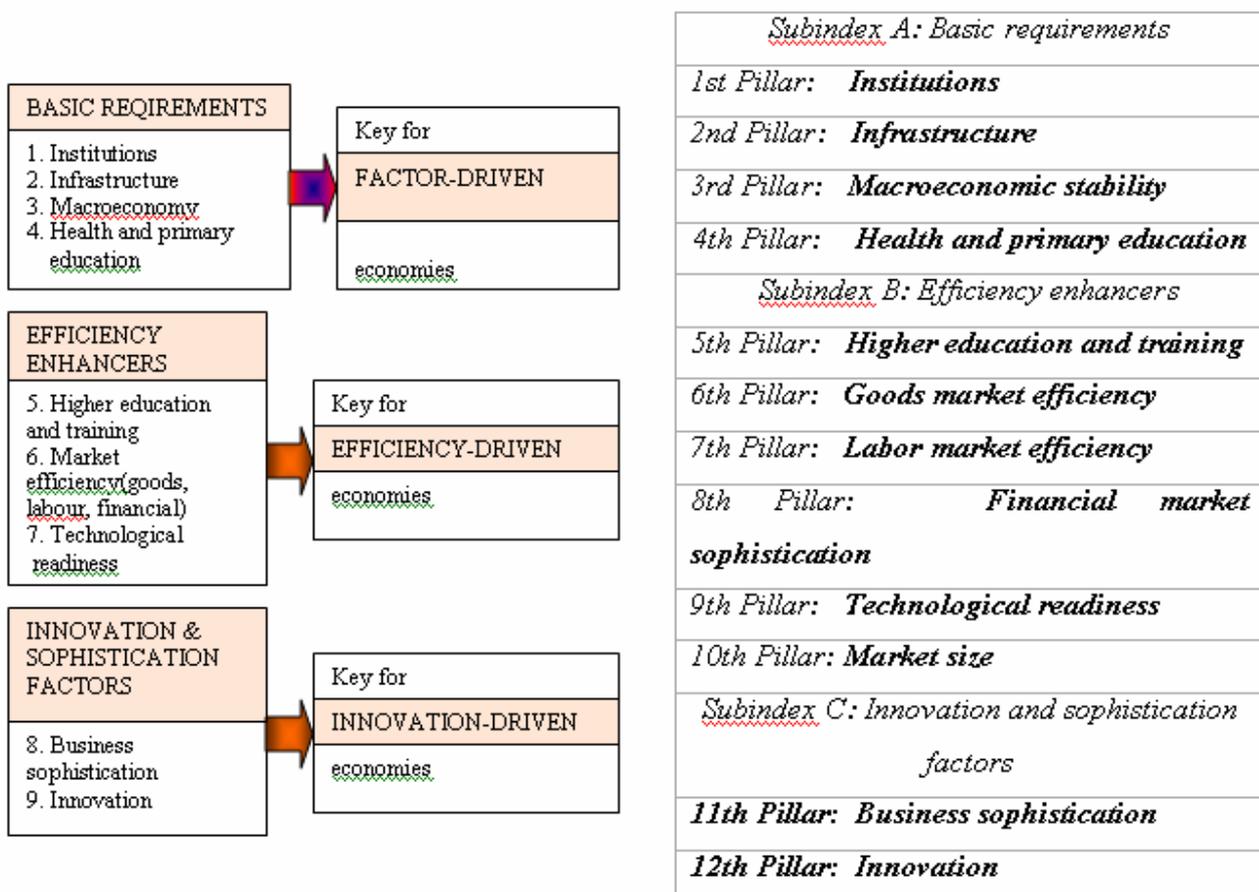
The **Global Competitiveness Report** is published yearly by the World Economic Forum. In 1979, in Geneva Switzerland, was the first report released. The report assesses the ability of countries to provide high levels of prosperity to their citizens. This in turn depends on how productively a country uses available resources. Therefore, the Global Competitiveness Index measures the set of institutions, policies, and factors that set the sustainable current and medium-term levels of economic prosperity. (WEF 2008) The publication of the report in the period between 1989 to 1995 resulted with the contribution of the **International Institute for Management Development (IMD)** under the name World Competitiveness Report. In 1995 the two organizations split up. (Ruth A. Pagell, Michael Halperin 1998). The Global Competitiveness Index contains two types of data, reflecting the potential growth of the country and setting its focus on the technological level of the country. These types of data are “hard data” and “soft data”. Only the best available estimates from various international agencies, private sources, and national authorities were used for this Report. Therefore hard data refers to statistics or key figures, for example rate of inflation, mortality rate, and birth rate. (Andre Rößing 2007)

The most basic indicators used for evaluating the living standard and the level of economic development are: Gross domestic product (current prices) in millions of US Dollars (source World Economic Outlook Database); national sources; Population (hard data) in millions State of World Population; IMF, World Economic Outlook Database);

2.1. The structure of the Global Competitiveness Index

Through his structure the Global Competitiveness Index (GCI) tries to obtain competitiveness by using a weighted average of many different components, organized according to the following structure into 12 pillars of economic competitiveness. The 12 pillars mentioned in Figure 2 are not independent variables. The variables are related to each other and tend to reinforce each other. For example the variable innovation contained by the 12th pillar would not be possible without good educated and trained labor force so 5th pillar (Porter Michael E., Schwab Klaus 2008).

Figure 2: The 12 pillars and Sub indexes of the GCI and their stages of development



The economy of countries that are in the first stage, are factor-driven. These means that the intense competition is based on the factor endowments. Like we mentioned above factor endowments means generally unskilled labor and natural resources. As a consequence companies compete with basic products or commodities. The productivity is low and therefore the wages are also low. At this stage of development to achieve competitiveness depends on the 1st Pillar, so how well can public and private institutions function, on the 2nd pillar, infrastructure construction, on the 3rd pillar a stabile macroeconomic environment and on the 4th pillar the health of the labor force.

The transition from the factor-driven stage into the efficiency-driven stage of development is illustrated by the rise of the wages. The wages rise, because there is a strong need of efficient production processes and high product quality. Competitiveness is induced by the 5th, 6th, 7th, 8th, 9th, and 10th pillar. To develop more efficient production processes the country needs a well educated and trained workforce, efficient goods, labor and financial markets, where demand and supply establish everything and the economic actors know how to benefit from existing technologies. As countries shift from the second stage to the third, so the innovation-driven stage, they are forced to offer higher wages for the development of new and unique products. Only through innovation, so the 12 pillar and sophisticated production processes the 11th pillar, can a firm maintain her position on the global market. Although all 12 pillars are for all countries important, their importance depends on the country's stage of development. To consider that, all the 12 pillars were classified into three sub indexes, each important to a different stage of development. We named the three Subindexes A, B and C, as displayed in Figure 2.

Subindex A groups those pillars critical for countries in the factor-driven stage, **Subindex B** includes those pillars critical for countries in the efficiency-driven stage and the **Subindex C** includes the pillars critical to countries in the innovation-driven stage. Figure 3 reflects the specific weights referred to each Subindex, in the three different stages of development.

Figure 3: Specific weights for each Subindex

<i>Stages</i>	<i>BASIC REQUIREMENTS</i>	<i>EFFICIENCY ENHANCERS</i>	<i>INNOVATION & SOPHISTICATION FACTORS</i>
Factor-Driven	50%	40%	10%
Efficiency-Driven	40%	50%	10%
Innovation-Driven	30%	40%	30%

2.2. The Global Competitiveness Index- Classification of Countries

So called “transition” countries are situated between stages. As a country develops from one stage of development to another, for example from factor-driven stage into the efficiency-driven stage of development, the weights change also. This means that more weight become those areas that are evolving more critical for the country’s competitiveness. The grouping of countries into stages of development is shown in Figure 4. The stage of development, of each country is determined by the GDP per capita (in US\$). Accordingly, countries in the factor-driven stage have the GDP per capita less than 2,000 US\$, “transition” countries from factor-driven to efficiency-driven stage have the GDP per capita between 2,000 and 3,000 US\$.

Efficiency driven economies show a GDP per capita of 3,000 and 9,000 US\$. The Transition from stage 2 to stage 3 of development is measured with a GDP per capita of 9,000 and 17,000 US\$. While the innovation driven stage has a GDP per capita that is higher than 17,000 US\$. Some of the countries belonging to the different stages of development are listed in the Figure below (WEF 2008).

Figure 4 : Stages of development

<i>Stage 3</i>	<i>Stage 2</i>	<i>Stage 1</i>
Austria	Romania	Benin
Hong Kong	Korea, Rep	Uganda
Israel	Bulgaria	Vietnam
Italy	Montenegro	Moldova
France	Mexico	Indonesia
Germany	Peru	Nigeria

3. Cluster

The study of clusters begun in the late 50’s (Hirschman 1958), but it was only in the 90’s when with the contribution of Porter who analyzed the place individual firms take in cluster of firms belonging to the same industry an classification between vertical and horizontal clusters was made. In vertical clusters firms are linked through buyer and seller alliances, while in horizontal clusters firms can either part the

same market, or use the same technology or need the same skills for their labor force and the same natural resources. The wide area of possible research showed clusters have specific features depending of the economic (Rosenfeld 1996) and geographic background: “A cluster means a large group of firms in related industries at a particular location” (Swann and Prevezer 1998). “A cluster is very simply used to represent concentrations of firms that are able to produce synergy because of their geographical proximity and interdependence, even though their scale of employment may not be pronounced or prominent” (Rosenfeld 1997). Some suggest that firms belonging to similar types of business, although they are located near to each other, they do not have an important presence in that area (Crouch and Farrell 2001). The cluster means an opportunity for new business formation (Porter 1998).

4. Method of analysis

Using the data from the Global Competitiveness Report from 2007-2008 and 2007-2009 we will try to examine the international competitiveness of Romania through a set of well chosen indicators, and try to demonstrate the link between the development of competitiveness and the formation of cluster-networks, developed in the regions of Romania, who has been undergoing over the past ten years, a process of complex economic and political reform, improved possibly due to the perceived benefits brought about by accession, in 2007, in the European Union (EU).

Due to the expansion of the country coverage, the report listed, in 2008-2009 a total of 134 countries, with 3 countries more than in the 2007-2008 Report. We presented all the 12 pillars as to be able to get closer to the actual situation in Romania and prove that these networks of interdependent firms are linked and add value (Roelandt and den Hertag 1999), and therefore provide competitiveness.

Figure 5: shows the a little uneven development of Romania’s competitive performance over the various pillars and the Global Competitiveness Index rankings and scores from the Report in the Years 2007-2008 and 2008-2009. The Figure shows that Romania has seen a positive development or improvement in competitive performance over the past two years, exceeding 5 places from the (74th) to (69th) in the Global Competitiveness Index between 2007 and 2009. This is the result of the pressure that meant the accession to the European Union, and the pushing for economic reforms.

Although Romania is placed in the GCI 2007-2008 out of 131 countries, ahead of countries from the continent like Bulgaria: 3.93; Serbia: 3.78; Macedonia 3.73; Moldova 3.64; Bosnia & H.: 3.55; Albania: 3.48; it remains after several countries like Italy 4.36 Hungary 4.35 Poland 4.28 (WEF 2008)

Figure 5: Development of Romania's competitive performance

Report Romania	2007-2008	Score	2008-2009	Score
GCI Rank	74	3.97	68	4.1
Basic requirements	88	4.07	87	4.15
<i>Institutions</i>	<i>94</i>	<i>3.44</i>	<i>89</i>	<i>3.63</i>
<i>Infrastructure</i>	<i>100</i>	<i>2.57</i>	<i>105</i>	<i>2.56</i>
<i>Macroeconomic stability</i>	<i>84</i>	<i>4.64</i>	<i>76</i>	<i>4.85</i>
<i>Health and primary education</i>	<i>52</i>	<i>5.62</i>	<i>66</i>	<i>5.55</i>
Efficiency enhancers	62	3.98	54	4.18
<i>Higher education and training</i>	<i>54</i>	<i>4.14</i>	<i>52</i>	<i>4.29</i>
<i>Goods market efficiency</i>	<i>74</i>	<i>4.04</i>	<i>67</i>	<i>4.18</i>
<i>Labor market efficiency</i>	<i>85</i>	<i>4.13</i>	<i>97</i>	<i>4.1</i>
<i>Financial market sophistication</i>	<i>78</i>	<i>4.05</i>	<i>60</i>	<i>4.42</i>
<i>Technological readiness</i>	<i>59</i>	<i>3.29</i>	<i>48</i>	<i>3.7</i>
<i>Market size</i>	<i>43</i>	<i>4.23</i>	<i>42</i>	<i>4.38</i>
Innovation and sophistication factors	73	3.54	75	3.53
<i>Business sophistication</i>	<i>73</i>	<i>3.99</i>	<i>78</i>	<i>3.93</i>
<i>Innovation</i>	<i>76</i>	<i>3.09</i>	<i>69</i>	<i>3.14</i>

From among the factors considered as having a positive development, the index reveals also details behind what has determined Romania to exceed 5 places in the Global Competitiveness Index. Institutions: from rank 94 to rank 89. For the businesses environment, is the institutional framework principally formed by public institutions, whose important role is to ensure that the court system is not influenced by politics or corruption, that property rights are protected, that government policies transparency is guaranteed. But not only public institutions must play their part, but also private institutions. Ethics must be a common term to the public. The rating of Romania's institutional environment can be regarded as mediocre. The term "Clusters" was defined only in July 19, 2006 – in the Government Order 918 and some ministry departments, agencies or other government organizations were assigned to implement cluster policy at a national level: National Authority for Scientific Research – NASR; National Agency for SMEs and Cooperation – NASMEC; Ministry of Economy and Trade – MET; Ministry of Education, Research and Youth – MER; Ministry of Communications and

Information Technology – MCIT; (Ministry of European Integration: “National Reform Programme (NRP)” – Lisbon strategy 2006)

For the national competitiveness, macroeconomic stability (from rank 84 to rank 76) is crucial. A firm doesn't invest in a country in which the inflation is out of control or when the government accumulates a high budget deficit. Whereas inflation has been coming down significantly in recent years, until 2007, know according to Eurostat Romania has been classified in 2007 as 5th in the European Union in terms of percentage of budget deficit. Romania registered a public deficit of 2.6 % of GDP, after countries like Hungary at 5%, Greece 3.5%, United Kingdom 2.8%, and France 2.7%. A reallocation of resources must take place, due to the fact that the government debt has to be repaid, cutting public investments on education and public health. (Bogdan Asaftei 2008). In the following we start presenting the main clusters in Romania Figure 6 (European cluster observatory 2009) and their GDP Figure 7.

The cluster's size (one star if the cluster employment level reaches the top 10% of all clusters in Europe) the degree of specialization (proportion of employment in a cluster category in a region over the total employment in the same region and the European level are important) and the focus (importance) of the region upon the cluster on the influence the total of knowledge and the quality of knowledge present among firms forming a cluster. When the three factors are developed, it proves that the cluster has reached a point where it can develop positive spillovers and linkages. Through measuring these three factors the European Cluster Observatory can allocate each cluster 0, 1, 2 or 3 ”stars” depending on how many of the three factors are met. No star is given if the cluster is less than 1,000 persons.

Figure 6: Main clusters in Romania

<i>București-Ilfov</i>	Sud-Vest Oltenia	<i>Vest (Timișoara)</i>	Sud–Muntenia (Ploiești)
<i>Education</i>	<i>Craiova RO</i>	<i>Heavy Machinery</i>	<i>Apparel</i>
<i>-Agglomeration: **</i>	<i>Heavy Machinery</i>	<i>-Agglomeration: ***</i>	<i>-Agglomeration: ***</i>
<i>-Innovation: N/A</i>	<i>-Agglomeration: ***</i>	<i>-Innovation: N/A</i>	<i>-Innovation: N/A</i>
<i>-Exports N/A</i>	<i>-Innovation: N/A</i>	<i>-Exports: Strong</i>	<i>-Exports. Very strong</i>
<i>Publishing</i>	<i>-Exports: Strong</i>	<i>Oil and Gas</i>	<i>Oil and Gas</i>
<i>-Agglomeration: **</i>	<i>Oil and Gas</i>	<i>-Agglomeration: ***</i>	<i>-Agglomeration: ***</i>
<i>-Innovation: N/A</i>	<i>-Agglomeration: ***</i>	<i>-Innovation: N/A</i>	<i>-Innovation: N/A</i>
<i>-Exports: Weak</i>	<i>-Innovation: N/A</i>	<i>Exports: Weak</i>	<i>-Exports: Weak</i>
	<i>-Exports: Weak</i>		

Nord-Est (Iași)	Sud-Est Constanța	Centru Brașov	Nord-Vest Cluj
<i>Apparel</i>	<i>Apparel</i>	<i>Apparel</i>	<i>Apparel</i>
-Agglomeration: ***	-Agglomeration: ***	-Agglomeration: ***	-Agglomeration: ***
-Innovation: N/A	-Innovation: N/A	-Innovation: N/A	-Innovation: N/A
-Exports: Very strong	-Exports: Very strong	-Exports: Very strong	-Exports: Very strong
<i>Textiles:</i>	<i>Metal</i>	<i>Textiles</i>	
-Agglomeration ***	-Agglomeration: ***	-Agglomeration: ***	<i>Building Fixtures</i>
-Innovation: N/A	-Innovation: N/A	-Innovation	-Agglomeration: ***
-Exports: Strong	-Exports: Strong	-Exports: Strong	-Innovation: N/A
			-Exports: Very strong

Source: European Cluster Observatory, 2009

With Apparel we mean Clothes, Textiles= Fabrics; Metal Manufacturing Rolling= mills, casting, tools, screws; Oil & Gas Products and Services = Refineries; Building Fixtures; Equipment & Services Kitchen furnishing, plaster; Heavy Machinery Forest machinery = tractors, locomotives; Education & Knowledge Creation = Universities, libraries;

Figure 7: Regional GDP per inhabitant in the EU 27 in 2006 (in PPS, EU27=100)

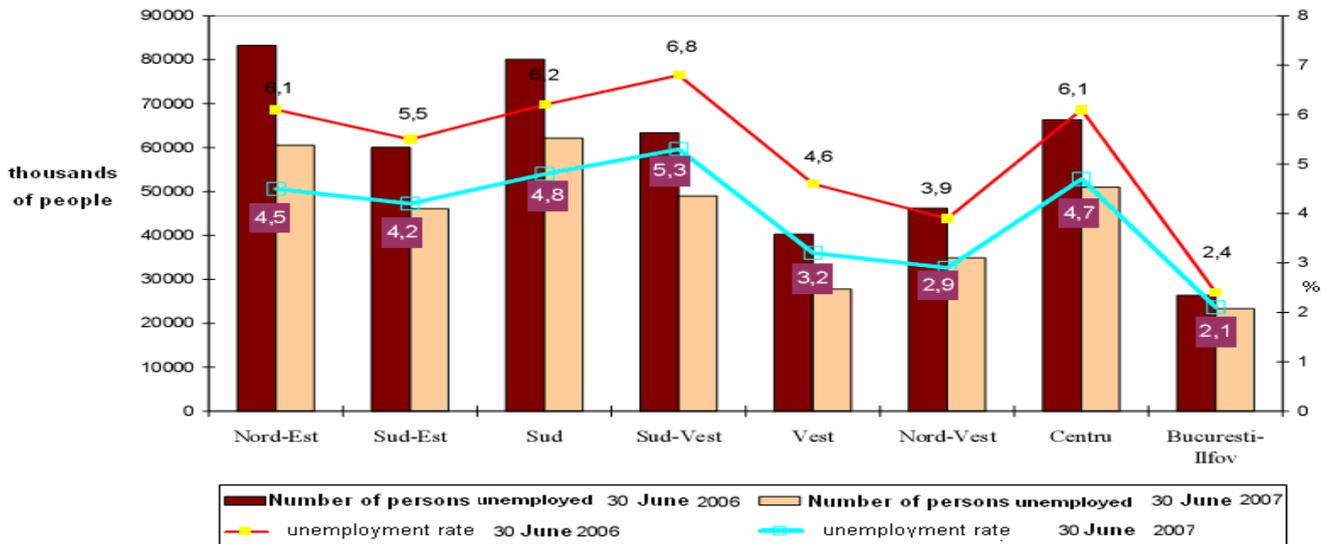
North – East	25
South -West	30
South – Muntenia	32
South – East	33
North - West	36
Center	38

(Source: EUROSTAT 2007)

When Porter analyzed for the first time the formation of clusters, he examined the geographic distribution of employment, and therefore he identified three types of industries with very different geographic profiles: local industries, traded cluster-industries and natural resource-based industries. As result we analyzed the statistic from June 2006 and 2007 when with the highest unemployment rates as shown in Figure 8, following regions were recorded South-West (5.3%), South (4.8%) while the North West and Bucharest-Ilfov registered an unemployment rate of 2.9% and 2.1%, reaching the lowest levels.

If we are looking at the GDP, North - West Cluj, Center, Brasov and to a certain extent, also the South-East region, are well developed due to the existence of very strong, dynamic, traditionally developed urban centers. The proximity with Hungary has had a benefic impact on the West region.

Figure 8: Evolution of the number of unemployed persons and unemployment rate in the different regions %



(Source: National Agency for Employment Romania 2006-2007)

Figure 9: Distribution of Foreign direct investment in Romania and number of SME's by development regions 2007

Region	FDI Value EUR million	% of total FDI	Nº of SMEs
TOTAL, of which:	42,770	100.0	404526
BUCHAREST	27,516	64.3	80908
CENTER	3,541	8.3	48921
SOUTH	2,942	6.9	46468
SOUTH -EAST	2,448	5.7	53723
WEST	2,365	5.5	35204
NORTH - WEST	1,907	4.5	55299
SOUTH - WEST	1,379	3.2	36728
NORTH -EAST	672	1.6	47275

(Source: White Charter of Romanian SME's 2007 and INSSE)

The highest number of SME's has Bucuresti-Ilfov with – 80.908-, which is approximately three times more than the lowest number encountered namely West region- with 35.204 as shown in Figure 9. We must mention that București-Ilfov is the main recipient of internal migration flow, and is the most

developed when it comes to infrastructure. Another important region is North - West with 55.299 SME's, shaping its industrial profile.

The low **level of entrepreneurship** lies in **West and South - West**. In **South - West** this level is determined by the predominance of low skilled workers, low degree of urbanization and a high level of migration abroad. These factors contributed to the cluster formation in Apparel and Textiles so clothes and fabrics, where the lohn production is very common due to low wages. It became a topic of concern because the unemployment rates rose. This refers only to the registered unemployed people due to the fact that more people are choosing to work abroad, the real numbers are not known. Another problem is the fact that this lohn production brings no added value to the region.

North-West and South-East are the regions with highest number of SME-s. In the South-East region agriculture plays the most important role (vineyard, sunflower, followed by crops of wheat, cereals and beans). In recent years the tourism activities flourish and the processing industry also, holding by far the first place in terms of turnover and people employed in the region.

The regions are well known for high education centers. Romania's most important universities like the University of Bucharest (founded in 1694; refounded in 1864); the Al. I. Cuza University of Iași (founded in 1860); the Babeș-Bolyai University of Cluj-Napoca (1919); the University of Craiova (1966); the University of Ploiești (1948); and the University of Timișoara (founded in 1962); and the Transylvania University of Brașov (1971). exist also in this regions. This education centers are important factors of development and create a healthy entrepreneurial environment.

North-East region is a less developed region in Romania (with the lowest GDP). This happened as an result of forced industrialization in the 60's and 70's (furniture, chemicals, building materials, construction machines, textiles). A low urbanization-level and the predominance of agricultural activities and the low level of investment of 1.6% of all FDI in 2007, conducted to the highest unemployment rates (4.5%) in Romania.

On the other hand, there are regions like the South-West, that has a rather low level of economic development, but that also faces other structural deficiencies such as high unemployment (4,2%), and ageing populations. These regions suffer from economic poverty resulting from a lack of basic infrastructure, restricted access to public services and high unemployment and are becoming depopulated at a faster rate than other regions.

Romania ranks tenth in the world in terms of the diversity of minerals (around 60) produced in the country. Romania was in the 1970s, Europe's second oil producer.

Oil deposits lie along the outer rim of the Carpathians and through the Sub-Carpathians. The oil-refining industry, started in Sud region becoming an important key point for Romanian petroleum industry. It has large refineries and oil storage installations and is an industrial center with varied manufacturers. The pipeline network included 2,427 km for crude oil, 3,850 km for petroleum products, and 3,508 km for natural gas, oil production (Figure 10) in 2006 and the Oil and Gas clusters evolved, stating that clusters are formed where the factor conditions from the Porters “Diamond” are located.

Figure 10: Romania’s oil production from 1998-2007

Million tonnes	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Change 2008 over 2007	2008 share of total
Romania	6.6	6.4	6.3	6.2	6.1	5.9	5.7	5.4	5.0	4.7	4.7	-0.4%	0.1%
Russian Federation	304.3	304.8	323.3	348.1	379.6	421.4	458.8	470.0	480.5	491.3	488.5	-0.8%	12.4%

Source (<http://www.bp.com>)

Major projects like the Nabucco Pipeline for Caspian oilfields or the Constanta-Trieste pipeline, could bring billion dollars for Romania.

An efficient allocation of resources in well-functioning goods and services markets can determine the equilibrium between supply and demand.

Moreover, Romania has a Competitive Advantage in Extent of market dominance (ranked 47th out of 134). This means that the corporate activity in Romania isn’t dominated by a few business groups, but with a clear tendency to be spread among many firms (score of 4.2 between 1 and 7); number of procedures required to start a business (ranked 19th out of 134); time (number of days) required to start a business (ranked 27th out of 134). An inefficient tax system and an entrenched tradition of bureaucracy can disable the business environment, making it hard for both national and international economic actors to operate and create wealth.

Romania has moved into complex products like derivatives and futures. (Oxford Business Group 2008) while the rank for the market sophistication improved from 78 to rank 60. In respect of Technological readiness, (from rank 59 to rank 48) the development was due to some comparative advantages in: mobile telephone subscribers (rank 50), internet users (rank 23), and Broadband Internet subscribers (rank 44).

This pillar measures how open is an economy to embrace new technologies, that could increase productivity. The diffusion level of Information and communication technologies (ICT), in Romania increased because of the recent boom in mobile telephony. The Mobile coverage in Romania is very high, with 80.4 people per 100 populations having a cell phone in 2006, according to International Telecommunication Union, World Telecommunication Indicators (June 2008 update); national source, before the US with 80.3 people per 100 population. The under-developed fixed line infrastructure caused

an increased demand for Internet access in the country and the number of Internet users per 100 populations reached 52.2 internet users per 100 populations (WEF 2008). In 1999 the total size of the Romanian market for computer software reached \$400 million. About 25 percent of the software that is being used by Romanian consumers comes from local companies (Azhdar Karami 2007).

The country has more than 200 software development companies; over 100 are already exporting their services to EU and North American markets. The distribution of the R&D departments at firm level by regions reflects the first place for Bucharest (68,8%), West (61,1%) and North West (60,0%) regions, while least R&D departments are in South –West (50%), South-East 43,8%) and Centre (41,4%) regions. An example is the Transilvania Cluster formed by a group of highly specialized suppliers and service providers (over 460 experts) of Internet Technology & Communications (IT&C) solutions. The members are AGS, AroBS, Transilvania Software, Net BRINEL, RECOGNOS Romania and Transart.

Surprisingly, the innovation capacity (from rank 76 to rank 69) of Romania is ranked quite high at 58th although it has no competitive advantage. By developing innovation a country ensures one sustainable driver of productivity. Analyzing the three main innovation enablers, government, the business sector and research institutions, Romania reached a rank that is always over 50th rank. A research conducted in 2004 revealed that the firms with R&D departments invest more in the innovating process (Voinea Liviu, Simionescu Laura 2005).

Only to a certain extent the rankings for Higher education and training have remained broadly as shown in Figure 5, going up two places from 54 to 52 and the Market size moving one place up from 43 to 42. The quality of the educational system and the lack of specialized workforce in some sectors becomes an important political issue. A more complex business environment needs educational training. Although Romania moved up two places, the numerous legislative changes that took place into the school system, the decentralization of the decision-making process sometimes with contradictory aspects, has hence the development. Because Romania is in stage two (Figure 4), the efficiency-driven stage of development, the well function of her market, becomes a required economic precondition. Only a functional market can reinforce the foundations for a sustainable long-term level of growth, in an economy.

From particular concern are areas such as: Infrastructure (from rank 100 to rank 105) Health and primary education (from rank 52 to rank 66), Labor market efficiency (from rank 85 to rank 97) and Business sophistication (from rank 73 to rank 78) as presented in Figure 5.

Infrastructure Romania should take into account the foreign investor's suggestions on improving the transport, logistics and communications infrastructure in order to maintain its lead among the destinations preferred by investors. Romania should take into account the foreign investors feedbacks,

especially when it comes to negative aspects. We also have to be careful when it comes to the labor force cost, a very important issue that the investors consider when drawing up investment plans.

5. Conclusion

Although Romania has evolved due to the EU enlargement process, and the increased competition influenced by the globalization Romania should continue developing flexibility, openness and ability to adjust with quick changes to the different economic and social challenges. Countries of the region, such as Hungary dropped 13 places from rank 47 to rank 62.

Based on the results obtained comparing the different competitiveness rankings of Romania, offered by the Global Competitiveness Report, we can conclude that through reducing corruption and nontransparent procedures more investors can be determined to invest and the general tendency from Figure 5 can be veered in the specified direction. The implementation of institutional accountability and transparency will provide a more competition oriented approach focused on the international and national market whereas the created flexibility will ease the adjustments to the different economic and social challenges.

For the new global competitive environment reducing the burden of payroll tax could become a key issue. Additionally to the macro-economic factors, the competitiveness is characterized by other conditions macroeconomic indicators. Thus, the multifaceted nature of the repayment of the government debt will erode the competitive potential of our country, leaving it vulnerable to external shocks. If the NGO's role in the social and economic policy making will remain unimportant, it would be harder to realize a coherent competitiveness policy agenda. The paper highlights some of the information given us by the index and cluster formation we can underline that Romania has not sorted out yet some of the basic areas. We refer here to the macroeconomic vulnerability, the quality of education, and the facilitation of education especially in the rural areas, the acquirement of institutional accountability and transparency, and the need to facilitate improvements in the country's infrastructure. Only through this improvements Romania will match the needs of development of her national economy, reflecting the problems and needs of the private sector. If Romania will benefit from the substantial EU-funding the disparities between its regions will disappear. In this paper we showed that the clusters in Romania are efficiency enhancers, formed by the factors from Porter's "Diamond": factor conditions as the existence of oil and gas in South –Muntenia , human resources with low qualification as in North-East and Center region and a lack of administrative infrastructure.

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