COMPETITIVENESS AND INNOVATION OF THE ROMANIAN COMPANIES

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In front of the Romanian economy which has been integrated only for a few years, lies the challenge of competitiveness which in many cases is associated with innovation. To turn from a close center oriented economy to market economy required an enormous effort from the population and from the companies as well, but the real challenge is still to come. The requirements of competitiveness and innovation of the United European Market are compulsory, from the point of view of the Romanian entrepreneurs is vital for their survival and development. The studies made so far are not very promising. There are many things to be done, many problems are still not solved in the European Union. The European Union is behind its traditional competitors USA and Japan. This is why one of the major concerns of the EU is competitiveness and innovation.
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The appearance of the Common European market and the economic situation of the USA and Japan required from the EU the reconciliation and putting forward of the strategies for growth and development before their national economic politics. Two documents are representative from this point of view The Agreement for Stability and Growth and The Lisbon Plan. The initial plan which wanted to turn the EU into a model of achieved competitiveness proved to be exaggerated and at the 2005 European Council held in Brussels called the results „*mixed*" and the unofficial results are even more drastic, the Lisbon Strategy is characterized by „*the lack of development*" (Hodson, 2005), „*failure*" (Pisani-Ferry and Sapir, 2006; Wanlin,2006), „*disappointing result*" (Kok, 2004) and even more „*a ridiculously ambitious main target*" (Wanlin (2006).

According to the data of Wanlin (2006) in 2005 the average GDP of the EU of the 15 was smaller with 27% of the GDP of the US, though in comparison with 2000 till when the productivity of the EU grew with 1.4% yearly between 1995 and 2005, then the growth in the US was 2.4% yearly. The study prepared by Bannerman (2002) showed that in the period 1990-2000 the EU reached a 3% growth only in one year in contrast the growth fell under 3% in the US only in one year. The level of the achievements of the main competitors mainly that of Japan's and US's secure a perfect basis for comparison regarding the level of competitiveness that must be achieved by the EU. The main objective of the Lisbon Plan says that "*an economy based on knowledge, that would be the most competitive and dynamic in the world, that is able to develop continuously, with more workplaces and bigger social cohesion*" has to be achieved till 2010. This is characterized by four things: "*growth*", "*innovation*", "*employment*" and "*cohesion*" plus we have to add the fifth one which was decided at the 2001 meeting of the European Council held in Goteborg taken from the idea of "*sustainable development*" regarding "*environmental protection*".

By the middle of 2005 the accent fell on a precise target whose main objectives were directed to "*growth*" and "*employment*" but the targets multiplied on the level of communities and nationalities.

The Lisbon Strategy despite its goodwill and disputable applications appears as a reaction, a behavior which is needed because of the growing economic battles. The Lisbon Strategy does not offer a recipe for the achievement of higher competitiveness for all industries. Till now the competitiveness of the national economies was analyzed either in big lines – where more national economies were discussed World Economic Forum – Yearly Competitiveness Reports; IMD

World Competitiveness Yearbook), or in the analysis of the EU's economies, including the new member countries and the nominated countries economies (EU Commission, EU Sectorial Competitiveness Indicators, Lisbon Review, CER, The Lisbon Scorecard I,...,VI), or in the national analysis regarding the achieved Lisbon objectives mostly in the case of the national programs (in the case of Romania the GEA – *The Reports of the Group of Applied Economics and the Lisbon Strategy 2006 – National Reference Program*). The different studies cannot be compared in all respects because in most of the cases the data under discussion differ. The results of the broad reports are in favor of "*global*" indicators, while the so called "Scorecard" reports use "*structural*" indicators which use values taken from the economy and social medium, that can be aligned into a specific category from E to A where E is the least powerful value and A is the most powerful one.

The reports took into account the factors of competitiveness also but from different perspectives – the WEF is not a "*benchmark*" but it measures the respective factors with a specific method and ranks the countries according to it, while the reports based on the Lisbon Plan compare the facts to a previously planned objective. We have to mention that the objectives are determined based on the situation of the member countries which differ a lot from the situation of the new ones which sometimes make the comparison difficult or even impossible.

From the above mentioned we can conclude that beside of the fact that they used the same objectives the approaches differ, the indicators of the competitiveness are different and in such cases the different reports rank differently the same country.

Till 2005 the WEF used two indicators to determine the competitiveness of the different countries – GCI (*Growth Competitiveness Index*) and M/BCI (*Micro/Business Competitiveness Index*). Besides these the WEF in its 2006/2007 report developed a new method for determining competitiveness, which includes all the indicators of competitiveness taking into account the facts of the present and productivity in which they are used. It includes the effectiveness of the work and the flexibility of the workforce market. The factors of competitiveness can be divided into 9 groups: 1. Institutions; 2. Infrastructure; 3. Macro-economics; 4. Health and education; 5. Higher education and trainings; 6. The effectiveness of the market; 7. The level of technology; 8. The level and complexity of companies; 9. Innovation. Though these factors are common their importance varies from country to country and from periods to periods.

The WEF Report based on the phases of the factors of competitiveness speaks about ***three phases in which a country can be***:

I. *Phase* – The competitiveness is *factor driven*. It is characterized by: the low level of education of the workforce, the existence of natural resources – which are at the basis of small prices, but the products are simple. At the same time supposes the existence of some basic requirements: institutions, infrastructure etc.

II. *Phase* – The competitiveness is *efficiency driven*. This period is characterized by high efficiency and the good quality of the products. The competitiveness is the result of the high level of education of the workforce using the existent technologies.

III. *Phase* – The competitiveness is *innovation driven*. This phase is based on the products which are the result of innovation and on the complex production processes.

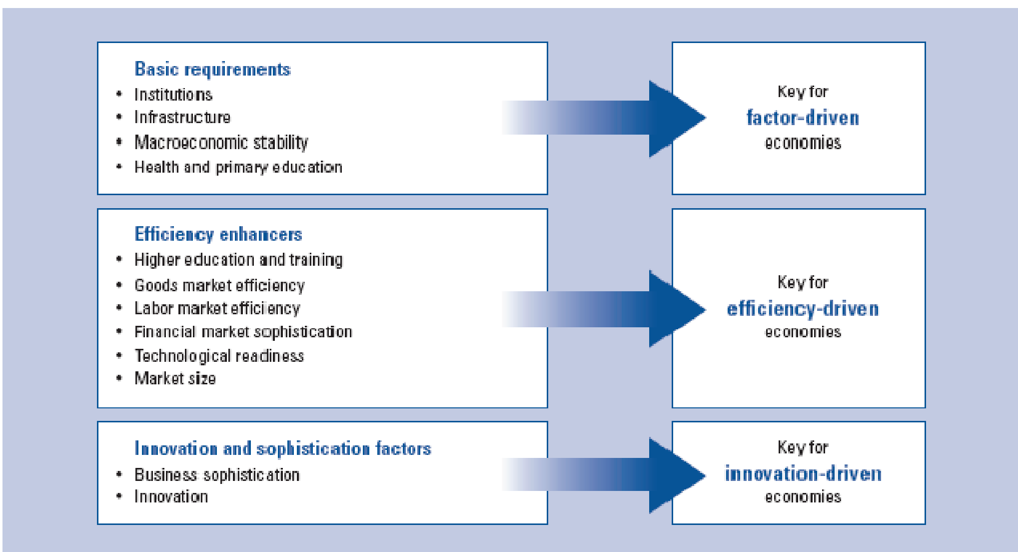
The GCI captures this open-endedness by providing a weighted average of many different components, each of which reflects one aspect of the complex reality that we call competitiveness.We group all these components in 12 different pillars that we call the *12 pillars of competitiveness*[70]. These pillars are:

[70] It is notable that the 12-pillar index recalls the origins of the World Economic Forum's work on competitiveness, taking into account the complexity of competitiveness and the large number of factors driving productivity. Klaus Schwab's pioneering competitiveness index from the Report on the Competitiveness of European Industry (Schwab 1979), and annual competitiveness reports released over the many years that followed, was a weighted average of 10 factors that can be summarized as follows: (1) dynamism of the economy, (2) industrial efficiency and cost of

First pillar: *Institutions*
Second pillar: *Infrastructure*
Third pillar: *Macroeconomy*
Fourth pillar: *Health and primary education*
Fifth pillar: *Higher education and training*
Sixth pillar: *Goods market efficiency*
Seventh pillar: *Labor market efficiency*
Eighth pillar: *Financial market sophistication*
Ninth pillar: *Technological readiness*
Tenth pillar: *Market size*
Eleventh pillar: *Business sophistication*
Twelfth pillar: *Innovation*

The concept of stages of development into the Index are integrated by attributing higher relative weights to those pillars that are relatively more important for a country given its particular stage of development.That is, although all 12 pillars matter to a certain extent for all countries, the importance of each one depends on a country's stage of development.To take this into account, the pillars are organized into three subindexes, each critical to a particular stage of development.The *basic requirements subindex* groups those pillars most critical for countries in the factor-driven stage.The *efficiency enhancers subindex* includes those pillars critical for countries in the efficiency-driven stage. And the *innovation and sophistication factors subindex* includes all pillars critical to countries in the innovation-driven stage.The three subindexes are shown in Figure 1.

Figure 1: The 12 pillars of competitiveness



Reference: World Economic Forum, " *The Global Competitiveness Index: Measuring the Productive Potential of Nations*" XAVIER SALA-I-MARTIN, JENNIFER BLANKE, MARGARETA DRZENIEK HANOUZ, THIERRY GEIGER, IRENE MIA, FIONA PAUA, *weforum.org/pdf/.../Reports/gcr_2007/chapter1.pdf*

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production, (3) the dynamics of the market, (4) financial dynamism, (5) human resources, (6) the role of the state, (7) infrastructural dimension, (8) outward orientation, (9) future orientation, and (10) sociopolitical consensus and stability.

The interrelation of the 12 pillars are: Innovation (12th pillar) is not possible in a world without institutions (1st pillar) that guarantee intellectual property rights, cannot be performed in countries with a poorly educated and poorly trained labor force (5th pillar), and will never take place in economies with inefficient markets (6th, 7th, and 8th pillars) or without extensive and efficient infrastructure (2nd pillar).
The different member countries of the EU take into account the above mentioned ones in the development of their own strategy. The 2005/2006 WEF report puts Romania on the 68th place among the 125 countries which was a place lower from the earlier year's rank though the level of the indicator grew to 4.02 from 3.67. This means that the situation worsened on a relative level (compared to other states). The Report said that for the first time Romania leaves the I phase (cheap workforce, natural resources) and because certain basic requirements have been fulfilled (institutions, macro-economic stability, infrastructure, the basic level of education and health system) it gets into the II phase which is efficiency driven.

Tabel 1: Global Competitiveness Index 2007-2008 (position)

Rank (Out of 131 countries/economies)	
Global Competitiveness Index 2007-2008	**74**
Subindex A: Basic requirements	*88*
1st pillar: Institutions	94
2nd pillar: Infrastructure	100
3rd pillar: Macroeconomic stability	84
4th pillar: Health and primary education	52
Subindex B: Efficiency enhancers	*62*
5th pillar: Higher education and training	54
6th pillar: Goods market efficiency	74
7th pillar: Labor market efficiency	85
8th pillar: Financial market sophistication	78
9th pillar: Technological readiness	59
10th pillar: Market size	43
Subindex C: Innovation and sophistication factors	*73*
11th pillar: Business sophistication	73
12th pillar: Innovation	76

Reference: *weforum.org/en/initiatives/gcp/Global Competitiveness Report/index.htm*

Table 2: The normalized values of the factors influencing competitiveness

Sub-indicators	Romania		First place	
	Indicator value	Rank	Indicator value	Country
I. Basic requirements	**4,13**	**83**	**6,05**	**Denmark**
1.1. Institutions	3,40	87	6,05	Finland
1.2. Infrastructure	3,05	77	6,51	Germany
1.3. Macro-economy	3,94	97	6,19	Algeria
1.4. Health and education	6,38	69	6,98	Japan
II. Factors strengthening efficiency	**3,99**	**55**	**5,66**	**USA**
2.1. Higher education	4,34	50	6,23	Finland
2.2. The efficiency of the market	4,03	76	5,69	Hong-Kong

2.3. The level of technology	3,59	49	6,01	Sweden
III. Innovation	**3,25**	**73**	**6,02**	**Japan**
3.1. The level and complexity of companies	3,89	73	6,26	Germany
3.2. Innovations	3,14	68	5,90	Japan

Reference*: The Romanian European Institute, 1st study, 2006*

We can see from the table that Romania's weak points are linked to the factors defining competitiveness but the growth of it depends on the investment decisions of the companies which are influenced by the business environment.

In the study of the WB published in 2006 which dealt with the business environment using ten indicators put Romania on the 46th place, in comparison with the 72nd place of the earlier year out of 170 countries.

Competitiveness can be defined in several ways, but the most accepted one defines it as the ability to sell a product. In practice it is characteristic from the point of view of companies, industries or on a macro-economic level. When we speak about the competitiveness of companies of industries then in most of the cases we analyze the supply and in this case it appears in the form of price or quality. The price based competitiveness which is the result of the difference between the efficiency of the production factors and the price of it that in most of the cases is the result of economies of scale. The quality based competitiveness can be the result of the market markup the products in question differ profoundly from other products. The reports on the industries use the quantitative factors (price, the size of exports, productivity, investments) and qualitative ones (management, brand, innovation).

The GEA spoke about the followings in its report on Romanian competitiveness:

1. *Workforce* – with the following sub-indicators:
   -unit labor cost – ULC;
   -the percentage of educational costs in the GDP;
   -the percentage of graduates in sciences and technology;
   -long life learning – LLL.
2. *Market* – sub-indicators: the level of investment per capita
3. *Research – Development – Innovation* indicators:
   - the level of cost for RDI in GDP;
   -the rate of innovation.
4. *Business environment* – with the following sub-indicators
   -state aids;
   -risk capital;
   -business survival.
5. *Infrastructure* – with two structural rates:
   -the level of logistics in GDP (growth indicator);
   -IT costs.

The work method implies four stages:

1.The appearance of composite indicators which compares the Romanian competitiveness to the EU's average;

2.The analysis of the influential factors compared to the EU;

3.The analysis of the relative position of the Romanian competitiveness (compared to the 15 EU countries and to the 25);

4.The analysis of the relative position from the point of view of the influential factors.

We have to mention the following results:

Table 3: The nominal value of the indicators of competitiveness

	Romania	EU 15	EU 25
Competitiveness	0,0017	0,042	0,038
Work efficiency	0,006	0,047	0,042
Employment rate	0,029	0,037	0,035

Conclusions

As a conclusion we have to mention that Romania in its fight with the economic and social problems did not promote the objectives set by the Lisbon Strategy. In the EU the main objective is to develop competitiveness with steps increasing innovation – they create new workplaces and stress those economic activities that protect environment – while in Romania the main stress was on the restructuring of the economic structure and to improve the entrepreneurial environment. The politics of the future will stress the development of the infrastructure – as the main factor of economic growth – to improve the partnership between the public and private to improve RDI, to improve the ability to develop the structural basis, to improve education and trainings and to facilitate financial reductions for RDI.

In the present there are more documents on the tasks which are varied. We can speak about the National Development Plan, The National Strategy Framework, Industrial Political Strategies, The National Export Strategy, The National Strategy of RDI 2007-2013.

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