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## **NATIONAL COMPETITIVENESS BETWEEN CONCEPT AND REALITY. SOME INSIGHTS FOR ROMANIA**

Competitiveness represents, now more than ever, one of the most desirable attribute an entity (country, region or firm) is looking for on the global arena. The evolutions that took place (for the last few years) into the "real world" and into the "academic field" as well, emerged into generating some new and/or enriched approaches, translated into new and/or improved theoretical frameworks able to embrace national competitiveness. After emphasizing two of these, the paper stops at the most well known (and recent) global report on competitiveness and analyzes it – with some special insights for Romania, in order to identify some of the characteristics of the Romanian competitiveness facing the demands of globalization.

### **1. National Competitiveness – from old concepts to new models**

Competitiveness, which is inextricably related to the concept (and reality) of competition, was and remained a desired target for firms and countries as well (because all of them wish to outperform others and enjoy such advantage over time). Nevertheless, the term itself gets a different definition from any author/scholar or authority/organism that uses it. From the "classical" approaches of Michael Porter (Porter, 1990) or Paul Krugman (Krugman, 1994) to the more recent ones, emphasized by Mark Gehlar et al. (Gehlar et al., 2006), and Sule Onsel Sahin et al. (Sahin et al., 2006) competitiveness remained an "obsession", especially under the pressure of global competition. The main idea about what competitiveness means remained the same; what has changed over time were the ways to achieve it, the sources of sustainable competitiveness into a perpetually and rapidly changing business environment (Herciu & Ogrean, 2008).

As Cassey Lee argued just a few year ago, "in the existing literature, two aspects have been emphasized in discussing national competitiveness, namely, economic performance measured in terms of GDP per capita (or productivity) and trade performance. These two aspects of national

competitiveness suggest that important insights into competitiveness may come from two broad and well-established body of literature in economics, namely, trade theory and growth theory” (Lee, 2008).

Simply putted, as the first page dedicated to national competitiveness by the Institute for Strategy and Competitiveness of the prestigious Harvard Business School emphasizes (<http://www.isc.hbs.edu/econatcomp.htm>), ”a nation’s prosperity depends on its competitiveness, which is based on the productivity with which it produces goods and services.” But here arise at least two kinds of amendments (Michael Porter, in Snowdon & Stonehouse, 2006): **(1)** ”competitiveness is rooted in a nation’s microeconomic fundamentals, manifested in the sophistication of its companies and the quality of its microeconomic business environment”; **(2)** ”in the global economy, so long as you have the clusters – the critical mass – a particular field of business activity can be extremely efficient and productive (...) is a lot evidence showing that many small countries have done very well by integrating themselves into the global economy”.

Under these transformed circumstances, the theoretical frameworks able to capture all the new dimensions of the national competitiveness and their (internal, as well as external) interrelations have also been changed; the search for national competitiveness was enriched in order to reflect society’s progresses: from quantitative factors/measures to qualitative ones, from numbers/figures to humans/people, from status quo to how it’s made. So, new models have arisen; by this paper we would like to stop at two of the modern models, recently developed by Dong-Sung Cho & Hwy-Chang Moon (2005) and Stephane Garelli (2008), because we think these models could offer (at least) some good suggestions for a coherent practical approach regarding national competitiveness.

**A.** In their analyze, Dong-Sung Cho & Hwy-Chang Moon argued that “the most popular definition of competitiveness at the national level can be found in the Report of the President’s Commission on Competitiveness, written for the Reagan administration in 1984: **A nation’s competitiveness** is the degree to which it can, under free and fair market conditions, produce goods and services that meet the test of international markets while simultaneously expanding the real incomes of its citizens. Competitiveness at the national level is based on superior productivity performance.”

According to its authors, **The Nine-Factor Model** that Cho & Moon propose (Cho & Moon, 2005) “is more comprehensive and more dynamic than Porter’s original diamond model (see Fig. 1.). First, this framework includes four groups of human factors in addition to the four physical factors of the original Diamond model in explaining a nation’s competitiveness. Therefore, it is more comprehensive in explaining different types of nations, in particular, where the roles of different groups of people are important for their economic development. Second, it is more dynamic. The human factors and physical factors interact in order to spur a nation’s development. This model embodies Porter’s notion that “national prosperity is created, not inherited.” In some ways, it does more so than Porter’s Diamond in that people are the major spur behind obtaining national competitiveness by arranging and combining the physical factors in a productive way.

In addition, government officials are endogenous factors in this new model and thus have direct influence on national competitiveness, while the government factor is an outside variable in Porter’s original model. Human factors include workers, politicians and bureaucrats, entrepreneurs and professionals (including scientists and managers). Physical factors include factor conditions, demand conditions, related and supporting industries and business context. Chance event, an external factor, is added to these eight internal factors to make a new paradigm.”

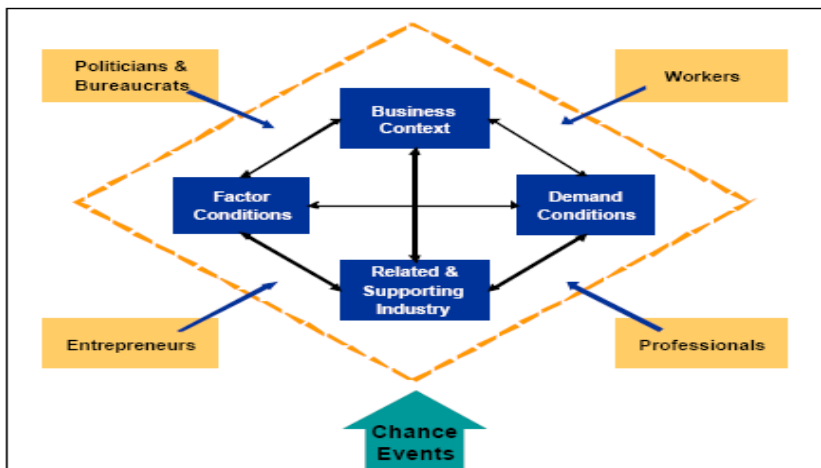


Fig. 1. The Nine-Factor Model (Cho & Moon, 2005)

**B.** After twenty years of measuring, evaluating and comparing competitiveness with IMD, Stephane Garelli has made a critique retrospective, by recognizing (Garelli, 2008) that “to be honest, we struggled to define a difficult concept in simple words. The academic, long winded definition was quick to emerge (a field of economic theory which analyzes the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people). But what we needed was a one-liner that everybody could understand. (...and he comes to...) **competitiveness** is how a nation manages the totality of its resources and competencies to increase the prosperity of its people”.

Then, he proposes The Competitiveness Cube (see Fig. 2.): “In brief, the **Cube theory** defines four competitiveness forces: aggressiveness vs. attractiveness, assets vs. processes, globality vs. proximity, and social responsibility vs. risk taking. The frontal face of the cube describes how competitiveness is generated within one given year. The depth of the cube introduces the time dimension and illustrates competitiveness accumulated over time, and thus the wealth of a nation (as an example, Singapore - a 40-year-old nation - is very competitive but has less accumulated wealth and can be represented by a cube with a larger frontal face but little depth. On the contrary, Switzerland expands less rapidly than Singapore but has a longer history: its cube has a smaller frontal face but more depth)”.

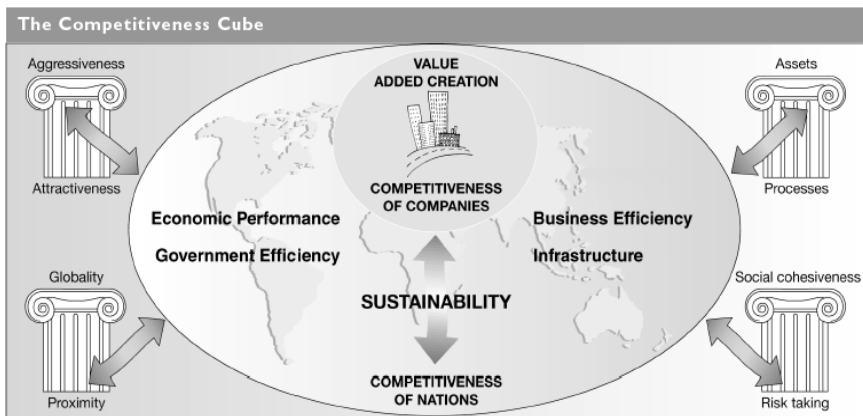


Fig. 2. The Competitiveness Cube (Garelli, 2008)

As well as the Michael Porter's Diamond Theory, Garelli said that his theory „underlines that the management of competitiveness should be both systemic and systematic: systemic means that the interaction between the factors of competitiveness is just as important as the analysis of the factors themselves (for example, when focusing on developing infrastructure, it is not just about building airports, railroads, railways, ports, etc. it is also about connecting all these facilities into one integrated value-added logistical system based on the most modern technologies); systematic means that a competitiveness strategy needs to be coherent over time. Business is pretty adaptive to the most adverse conditions provided that the rules are clearly defined and predictable (some nations, such as Malaysia or China, have been rather restrictive in their business legislation but because they have been consistent, business was able to adapt. Other nations, such as India, have changed directions and priorities many times in the past giving rise to confusion and distrust in the business community.)”

## **2. World Economic Forum and The Global Competitiveness Report 2009-2010 – evidences for Romania**

Since 2005, the World Economic Forum has based its competitiveness analysis on the Global Competitiveness Index (GCI), a highly comprehensive index, which captures the microeconomic and macroeconomic foundations of national competitiveness (Sala-I-Martin et al., 2009).

In the Global Competitiveness Report author's opinion, competitiveness is “the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the sustainable level of prosperity that can be earned by an economy. In other words, more-competitive economies tend to be able to produce higher levels of income for their citizens. The productivity level also determines the rates of return obtained by investments in an economy. Because the rates of return are the fundamental drivers of the growth rates of the economy, a more-competitive economy is one that is likely to grow faster in the medium to long run.

The concept of competitiveness thus involves static and dynamic components: although the productivity of a country clearly determines its

ability to sustain its level of income, it is also one of the central determinants of the returns to investment, which is one of the key factors explaining an economy’s growth potential.”

As we said earlier, the determinants of competitiveness are very heterogeneous. Therefore, twelve different determinants or “pillars of competitiveness” are identified by WEF (and in order to keep up with the changes in the global environment, they were upgraded each time it was necessary). These are: (see Fig. 3.): (1) Institutions, (2) Infrastructure, (3) Macroeconomic stability, (4) Health and primary education; (5) Higher education and training, (6) Goods market efficiency, (7) Labor market efficiency, (8) Financial market sophistication, (9) Technological readiness, (10) Market size; (11) Business sophistication and (12) Innovation.

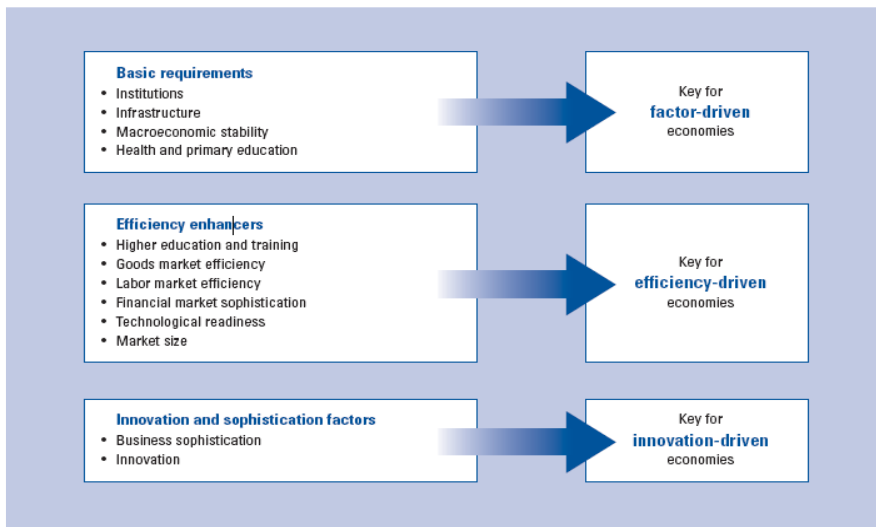


Fig. 3. The 12 Pillars of Competitiveness (WEF, 2009)

On the other hand, the GCI technically reflects the three stages of development that the economic theory prescribes for a country; according to WEF through the GCI:

(1) In the first stage, the economy is factor-driven and countries compete based on their factor endowments: primarily unskilled labor and natural resources. Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low

wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions (pillar 1), well-developed infrastructure (pillar 2), a stable macroeconomic framework (pillar 3), and a healthy and literate workforce (pillar 4);

(2) as wages rise with advancing development, countries move into the efficiency-driven stage of development, when they must begin to develop more efficient production processes and increase product quality. At this point, competitiveness is increasingly driven by higher education and training (pillar 5), efficient goods markets (pillar 6), well-functioning labor markets (pillar 7), sophisticated financial markets (pillar 8), a large domestic and/or foreign market (pillar 10), and the ability to harness the benefits of existing technologies (pillar 9);

(3) Finally, as countries move into the innovation-driven stage, they are able to sustain higher wages and the associated standard of living only if their businesses are able to compete with new and unique products. At this stage, companies must compete through innovation (pillar 12), producing new and different goods using the most sophisticated production processes (pillar 11).

The concept of stages of development is integrated into the Index by attributing higher relative weights to those pillars that are relatively more relevant for a country given its particular stage of development (see Fig. 4.). That is, although all 12 pillars matter to a certain extent for all countries, the relative importance of each one depends on a country’s particular stage of development. To take this into account, the pillars are organized into three subindexes, each critical to a particular stage of development.

Subindex	Factor-driven stage (%)	Efficiency-driven stage (%)	Innovation-driven stage (%)
Basic requirements	60	40	20
Efficiency enhancers	35	50	50
Innovation and sophistication factors	5	10	30

Fig. 4. Weights of the three main subindexes at each stage of development

According to the Report, countries are allocated to stages of development based on two criteria: (1) the first is the level of GDP per capita at market exchange rates: factor driven countries – under 2000 US\$; countries in transition from stage 1 to 2: 2000-3000 US\$; efficiency

driven countries: 3000-9000 US\$; countries in transition from stage 2 to 3: 9000-17000 US\$; innovation driven countries: up than 17000 US\$; (2) a second criterion measures the extent to which countries are factor driven. They proxy this by the share of exports of mineral goods in total exports (goods and services) and assume that countries that export more than 70 percent of mineral products (measured using a five-year average) are to a large extent factor driven.

As the authors of the Global Competitiveness Report assume and emphasize (Sala-I-Martin et al., 2009), "for the past three decades, the World Economic Forum's annual competitiveness reports have examined the many factors enabling national economies to achieve sustained economic growth and long-term prosperity. Our goal over the years has been to provide benchmarking tools for business leaders and policymakers to identify obstacles to improved competitiveness, thus stimulating discussion on strategies to overcome them. In the current challenging economic environment, our work serves as a critical reminder of the importance of taking into account the consequences of our present actions on future prosperity".

The most recent Global Competitiveness Report was released by WEF on the 8<sup>th</sup> of September 2009. According to this report, Switzerland tops the rankings of the Global Competitiveness Report 2009-2010; being recognized as the most competitive country, Switzerland has outperformed the United States – the traditional first place player, which ranks the second for this time, followed by Singapore, Sweden and Denmark. The Top 10 of the most competitive countries is completed with Finland, Germany, Japan, Canada, and Netherlands (see Table 1). The GCI results for the top 10 countries show a measurable decline in average score since last year, dropping from 5,51 out of a possible maximum score of 7 last year to 5,45 this year. In other words, it appears that in the context of the present recession, the competitiveness performance of top-performing countries on average has declined. This implies that in many cases countries that improve in the rankings do so by maintaining a performance across the various indicators similar to that of past years (WEF, 2009).

As we can observe (GEA, 2009), **Romania** ranks the 64<sup>th</sup> (from 133 countries that the Global Competitiveness Report ranks), with 4 positions better than the last year. But, the score improvement is insignificant – 4,11 versus 4,1 (on a scale ranking from 1 – the worst to 7 – the best).



Table 1. The Global Competitiveness Index 2009–2010 rankings and 2008–2009 comparisons

Country/ Economy	GCI 2009-2010		GCI 2008- 2009	Country/ Economy	GCI 2009-2010		GCI 2008- 2009
	Rank	Score	Rank*		Rank	Score	Rank*
Switzerland	1	5,60	2	Spain	33	4,59	29
United States	2	5,59	1	Cyprus	34	4,57	40
Singapore	3	5,55	5	Estonia	35	4,56	32
Sweden	4	5,51	4	Thailand	36	4,56	34
Denmark	5	5,46	3	Slovenia	37	4,55	42
Finland	6	5,43	6	Bahrain	38	4,54	37
Germany	7	5,37	7	Kuwait	39	4,53	35
Japan	8	5,37	9	Tunisia	40	4,50	36
Canada	9	5,33	10	Oman	41	4,49	38
Netherlands	10	5,32	8	Puerto Rico	42	4,48	41
Hong Kong SAR	11	5,22	11	Portugal	43	4,40	43
Taiwan, China	12	5,20	17	Barbados	44	4,35	47
United Kingdom	13	5,19	12	South Africa	45	4,34	45
Norway	14	5,17	15	Poland	46	4,33	53
Australia	15	5,15	18	Slovak Republic	47	4,31	46
France	16	5,13	16	Italy	48	4,31	49
Austria	17	5,13	14	India	49	4,30	50
Belgium	18	5,09	19	Jordan	50	4,30	48
Korea, Rep.	19	5,00	13	Azerbaijan	51	4,30	69
New Zealand	20	4,98	24	Malta	52	4,30	52
Luxembourg	21	4,96	25	Lithuania	53	4,30	44
Qatar	22	4,95	26	Indonesia	54	4,26	55
United Arab Emirates	23	4,92	31	Costa Rica	55	4,25	59
Malaysia	24	4,87	21	Brazil	56	4,23	64
Ireland	25	4,84	22	Mauritius	57	4,22	57
Iceland	26	4,80	20	Hungary	58	4,22	62
Israel	27	4,80	23	Panama	59	4,21	58
Saudi Arabia	28	4,75	27	Mexico	60	4,19	60
China	29	4,74	30	Turkey	61	4,16	63
Chile	30	4,70	28	Montenegro	62	4,16	65
Czech Republic	31	4,67	33	Russian Federation	63	4,15	51
Brunei Darussalam	32	4,64	39	<b>Romania</b>	<b>64</b>	<b>4,11</b>	<b>68</b>

(WEF, 2009)

Although, comparative to the last year report, where Romania was positioned on the last but one place in the European Union, this year there are three member states less competitive than Romania within the EU (Latvia, Greece and Bulgaria). When the report – which is based on statistics from 2008 and on a survey applied to managers in spring 2009 – was prepared for releasing, at least Latvia was much more affected by the global economic crisis than Romania.

	Rank (out of 133)	Score (1–7)
<b>GCI 2009–2010</b> .....	<b>64</b>	<b>4.1</b>
GCI 2008–2009 (out of 134).....	68	4.1
GCI 2007–2008 (out of 131).....	74	4.0
<b>Basic requirements</b> .....	<b>86</b>	<b>4.1</b>
1st pillar: Institutions.....	84	3.7
2nd pillar: Infrastructure.....	110	2.7
3rd pillar: Macroeconomic stability.....	75	4.6
4th pillar: Health and primary education .....	63	5.5
<b>Efficiency enhancers</b> .....	<b>49</b>	<b>4.3</b>
5th pillar: Higher education and training.....	52	4.3
6th pillar: Goods market efficiency.....	61	4.2
7th pillar: Labor market efficiency.....	79	4.3
8th pillar: Financial market sophistication.....	56	4.4
9th pillar: Technological readiness.....	58	3.8
10th pillar: Market size.....	41	4.5
<b>Innovation and sophistication factors</b> .....	<b>75</b>	<b>3.4</b>
11th pillar: Business sophistication.....	83	3.8
12th pillar: Innovation.....	70	3.1

Fig. 5. Global Competitiveness Index 2009-2010, Romania (WEF, 2009)

But how does Romania stands regarding its national competitiveness (see Fig. 5.)? The lowest score is for infrastructure – ranking 110 (comparative to 105 last year), which guides Romania to the lowest place into the European Union. It also registers the lowest scores into the EU for health and primary education and technological readiness. Other weaknesses are higher education and training and business sophistication, indexes where, from all the EU countries, only Bulgaria ranks worst than Romania. Instead, Romania outperforms countries such as Greece, Portugal or Italy regarding the macroeconomic stability (with its 75 ranking), but it is left behind by Bulgaria (ranking 45). Financial market

sophistication reveals a good ranking – position 56 – comparative to countries such as Greece, Italy or Latvia. The best ranking Romania registers for market size – 41, but it losses points regarding goods market efficiency (ranking 61, although in front of Bulgaria, Hungary or Italy) and labor market efficiency (ranking 79, although better than Italy – ranking 117, Greece – ranking 116 or Portugal – ranking 103) (GEA, 2009).

Regarding Romania’s stage of development (Fig. 6.), it is a country in transition from stage two – which defines efficiency driven countries to stage three – which defines innovation driven countries. Alongside Romania in this transition stage are countries such as: Bahrain, Barbados, Chile, Croatia, Hungary, Latvia, Lithuania, Mexico, Oman, Poland, Russian Federation, Turkey and Uruguay (WEF, 2009).

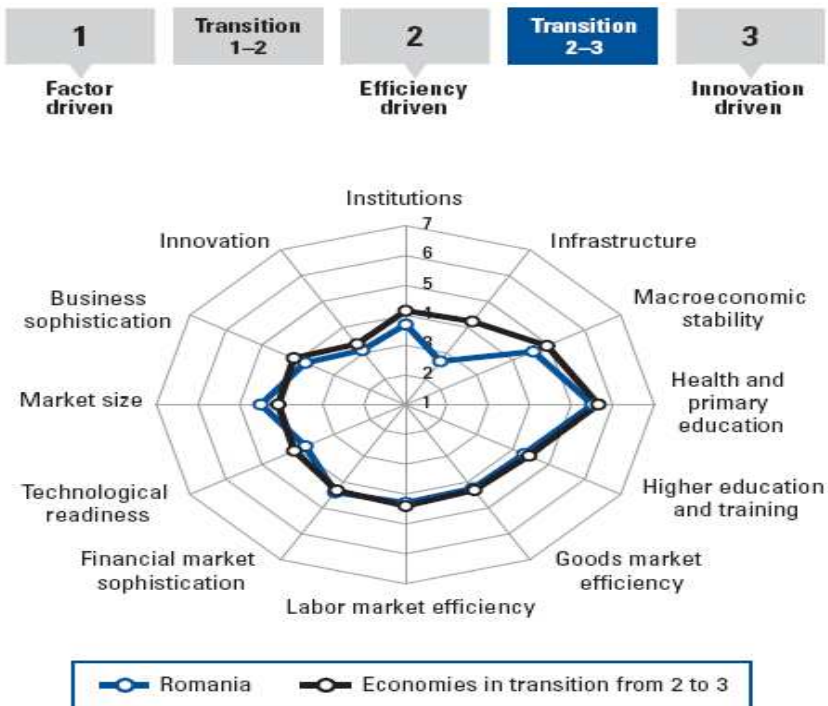


Fig. 6. Romania – stage of development (WEF, 2009)

Generally speaking, as the GCR put it, countries falling in between two of the three stages are considered to be “in transition.” For these countries, the weights change smoothly as a country develops, reflecting the smooth transition from one stage of development to another. By introducing this type of transition between stages into the model – that is, by placing increasingly more weight on those areas that are becoming more important for the country’s competitiveness as it develops – the Index can gradually “penalize” those countries that are not preparing for the next stage.

The academic literature in the field offers some advices, in order for countries to improve their national competitiveness; for example, S. Garelli offers what he named The Golden Rules of Competitiveness for a nation (Garelli, 2008, a.): **(1)** create a stable and predictable legislative and administrative environment; **(2)** ensure speed, transparency and accountability in the administration, as well as the ease of doing business; **(3)** continually invest in developing and maintaining infrastructure: both economic (road, air, telecom, etc.) and social (health, education, pensions, etc.); **(4)** strengthen the middle class: a key source of prosperity and long-term stability; **(5)** develop privately-owned medium-sized enterprises: a key element of diversity in an economy; **(6)** maintain a balanced relationship between wage levels, productivity and taxation; **(7)** develop a local market by promoting private savings and domestic investments; **(8)** balance aggressiveness on international markets with attractiveness for added-value activities; **(9)** counterweigh the advantages of globalization with the imperatives of proximity to preserve social cohesion and value systems; **(10)** always return the tangible signs of successful competitiveness to the people by providing a higher level of prosperity for all.

### References:

1. Bowen, H.P., Moesen, W. (2005), Benchmarking the competitiveness of nations: non-uniform weighting and non-economic dimensions, Vlerick Leuven Gent Working Paper Series 2005/2
2. Cho, D.-S., Moon H.-C. (2005), National Competitiveness: Implications for Different Groups and Strategies, in International Journal of Global Business and Competitiveness, Vol.1, No.1, pp.1-11

3. Garelli, S. (2006), Competitiveness of Nations: The Fundamentals, in IMD World Competitiveness Yearbook
4. Garelli, S. (2008, a.), Competitiveness 20 years later, in IDM World Competitiveness Yearbook 2008, pp. 29-34
5. Gehlar, M., Regmi, A., Stefanou, S.E., Zoumas, B. (2006), Managing Firm Competitiveness in Global Markets, USDA & AIEA 2 International Meeting Competitiveness in Agriculture and in Food Industry: US and EU Perspectives, Bologna, Italy.
6. Görg, H., Greenaway, D., Kneller, R. (eds.) (2005), Globalisation and Productivity Growth: Theory and Evidence, Palgrave Macmillan, London
7. Hamalainen, T.J. (2003), National Competitiveness and Economic Growth. The Changing Determinants of Economic Performance in the New Economy, Edward Elgar Publishing Limited
8. Herciu, M., Ogorean, C. (2008), Interrelations between competitiveness and responsibility at macro and micro level, in Management Decision, Vol 46 No. 8, pp. 1230-1246
9. Krugman, P. (1994), Competitiveness: a dangerous obsession, Foreign Affairs, March/April.
10. Lall, Sanjaya (2001), Comparing National Competitive Performance: An Economic Analysis of World Economic Forum's Competitiveness Index, Working Paper No.61, Queen Elizabeth House Working Paper, University of Oxford.
11. Lee, C. (2008), An Institutional Perspective of National Competitiveness, in The Singapore Economic Review, May
12. Porter, M. (1990), The Competitive Advantage of Nations, Harvard Business Review, March-April: 73-93.
13. Sahin, S.O., Ulengin, F., Ulusoy, G., Aktas, E., Kabak, O., Topcu, Y.I. (2006), A New Perspective in Competitiveness of Nations
14. Sala-I-Martin, X., Blanke, J., Drzeniek Hanouz, M., Geiger, T., Mia, I., The Global Competitiveness Index 2009-2010 – Contributing to Long-Term Prosperity amid the Global Economic Crisis, in World Economic Forum (WEF), The Global Competitiveness Report 2009-2010
15. Snowden, B., Stonehouse, G. (2006), Competitiveness in a globalized world: Michael Porter on the microeconomic foundations of the competitiveness of nations, regions, and firms, in Journal of International Business Studies, 37, 163-175

16. \*\*\*\*\* Grupul de Economie Aplicata (GEA), Comunicat de presa. Raportul Global al Competitivitatii 2009-2010, 08.09.2009
17. \*\*\*\*\* International Institute for Management Development (IMD), World Competitiveness Yearbook 2009
18. \*\*\*\*\* World Economic Forum (WEF), The Global Competitiveness Report 2009-2010, 08.09.2009