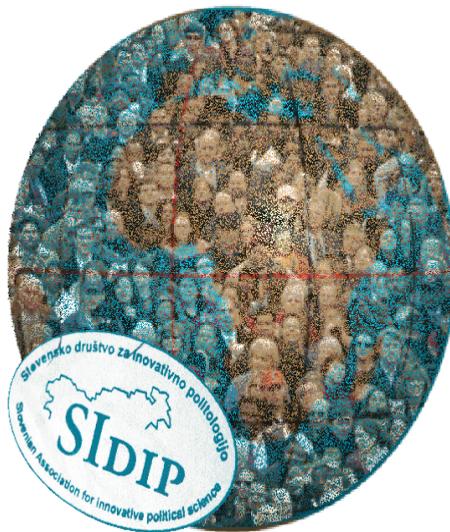


# Innovative Issues and Approaches in Social Sciences



Volume 4 Number 2 May 2011

SIDIP

ISSN 1855-0541

# Innovative Issues and Approaches in Social Sciences (IIASS)

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Vega Press

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## **Publishing information:**

IIASS is exclusively electronic peer reviewed journal that is published three times a year (initially in January, May and September) by Vega Press and it is available free of charge at <http://vega.fuds.si/>

## **Scope:**

IIASS is electronic peer reviewed international journal covering all social sciences (Political science, sociology, economy, public administration, law, management, communication science, etc.). Journal is open to theoretical and empirical articles of established scientist and researchers as well as of perspective young students. All articles have to pass double blind peer review.

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## **Territorial competitiveness factors – different institutions' approaches and actual state in Slovakia**

**Tomas Šoltés**

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### **Abstract**

*The aim of the article is to present a comparative study of territorial competitiveness factors. The analysis is realized in the form of content analysis of relevant strategic and legal documents both at international level and the level of Slovakia. The article focuses on identifying the most common factors used to determine territorial competitiveness. Therefore, it establishes several major groups based on comparable factor characteristics, divides the factors of each of the analyzed documents into the established groups and compares the perception of competitiveness by various institutions and documents.*

**Keywords:** *Slovakia, territorial competitiveness, economic crisis, development*

### **Foreword**

The overall performance of a country depends on its ability to be successful in the global environment. In other words, it depends on its competitiveness. It is therefore important to understand the fundamentals and factors affecting competitiveness on national as well as regional level. Even before the global economic crisis increased efforts were dedicated to enhancing production efficiency and ensuring the competitiveness of countries on international level. These activities were at the forefront of not only governments, but also of relevant international organizations and the world's leading economists. A joint effort is to understand competitiveness and its factors and subsequently prepare policies and development strategies of countries.

Despite serious efforts in this field, there is no generally accepted definition of competitiveness. Various theories and organizations, as well as documents and publications produced by them, define the concept of competitiveness differently and base the definition on different theoretical foundations. Slovakia is not an exception in the field of competitiveness monitoring. Competitiveness of the Slovak economy is set in its strategic documents as one of the major priority areas to achieve the targeted growth of living standard and ensure sustainable development of Slovakia. But also in the conditions of Slovakia, a generally accepted definition of competitiveness is missing. The same goes for the factors affecting competitiveness. There is no generally established methodology, therefore no clearly defined set of specific factors of competitiveness.

First of all, several key findings of the author's former research in the field of competitiveness definition (Šoltés, 2010) are presented in order to enable the reader to see the sources of the theoretical understanding of competitiveness.

Consequently, the article is focused on content analysis of legal and strategic documents from various relevant international institutions, which are active in the field of competitiveness analysis and measurement. The article focuses on exploring different sets of competitiveness factors and by comparing those tries to identify the most frequent ones and group them into several main groups based upon similar characteristics.

### **1. Understanding of competitiveness**

Theoretical approaches to competitiveness can be roughly divided into two major groups. On the one hand, we can identify approaches that look at competitiveness as the ability of a territory to achieve an advantage over other countries, regions, etc. This group is represented

mainly by classical economics and economic schools based on classical foundations. On the other hand, it is possible to identify approaches that base country's competitiveness on the ability to sell its products in international trade (e.g. New Trade Theory). Conjunction of these two groups is the identification of productivity as the source of success, and thus figuratively meaning the competitiveness, of a country or a region.

Among the most influential authors of classical economists, who directly examined the "advantages" of countries against other countries (today we could in this respect consider these advantages to be in a figurative meaning the competitiveness of countries), were particularly Adam Smith and David Ricardo. Adam Smith in his book *Wealth of Nations* (Smith; Reich, 2000) placed emphasis on economic growth, focusing on increasing productivity and praised international trade. He promoted the absolute advantage of countries. Unlike Smith, David Ricardo promoted comparative advantages of countries. Smith noted that the gains from trade can only exist if a country has an absolute advantage over other countries, thus it reaches a lower overall productivity. Ricardo on the other hand, says that the gains can be achieved even in trade among countries which trade with two commodities, for which they have a comparative advantage - an advantage in labor productivity (labor per worker).

The main representative of the New Trade Theory is Paul Krugman. Krugman, in his theory criticizes the concept of territorial competitiveness. In his view, the concept of competitiveness is not significant and Krugman mentions a dangerous obsession in connection to national competitiveness. His criticism is based on three key points (Krugman, 1994). There is no limit that would represent the bankruptcy of a country. Competitiveness of countries is not a zero-sum game and the success of one country does not consequently mean the loss of another country. And finally, if competitiveness has any meaning, then it

is only a different expression of productivity (growth in living standards is determined by productivity growth).

World Economic Forum (WEF) on an annual basis since 1979 publishes The Global Competitiveness Report, which is one of the most comprehensive sources of information concerning comparative advantages, weaknesses and opportunities for economies around the world. The Global Competitiveness Report for the years 2009/2010 defines the very concept of competitiveness as "*... set of institutions, policies and factors that determine the level of productivity of a country. The productivity level then provides a sustainable level of prosperity that can be achieved by the economy.*" In other words, more competitive economy can produce higher incomes for its residents.

Institute for Strategy and Competitiveness at the Harvard Business School is the workplace of one of the world's leading authorities in the field of competitiveness - Michael Porter. Porter says: "*The prosperity of the country depends on its competitiveness, which is derived from the productivity with which the country can produce goods and services*". (Porter, 2008) In the report prepared by Porter under a study by the Council for U.S. Competitiveness<sup>13</sup> (Porter, 2007), which he dedicated to the understanding of competitiveness and its causes, defines the goal of competitiveness as the improvement of nations prosperity measured by living standards per capita. The basic source of long-term prosperity is productivity with which a country can use its human, financial and natural resources in the production of goods (Porter, 2007).

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The Council on Competitiveness is a nonprofit organization established under the U.S. Internal Revenue Service aimed to promote long-term competitiveness of the USA. Its members are leading personalities from the business, academic and trade union sphere.

Organization for Economic Cooperation and Development<sup>14</sup> (OECD) in the effort to define the concept of competitiveness of countries states, that it does not analyze profitability, but rather the country's ability to grow and improve the living standard of the population. If we wanted to get a single definition of competitiveness according to the OECD, then we must look to earlier reports and documents published under various departments of OECD. OECD describes competitiveness as "... *the ability of firms, sectors, regions, countries or supranational regions to generate, in exposure to international competition, relatively high factor income and factor employment on a sustainable basis.*"

The European Union issues an annual report on competitiveness, called the European Competitiveness Report (ECR). The ECR in its former versions defines competitiveness directly as: "*Competitiveness is seen as a sustainable growth of living standards of the country or region under the lowest possible involuntary unemployment.*" The main objective of the report is to annually analyze and evaluate the competitiveness of EU countries, with the greatest emphasis on examining the productivity as the most reliable indicator of competitiveness in the long run. The report also states that "*competitiveness is the overall economic performance of a country measured within a country's ability to provide its citizens with an increase in their standard of living on a sustainable basis under a broad access to employment for those who are willing to work.*"

International Institute for Management Development (IMD) annually publishes the World Competitiveness Yearbook (WCY). WCY analyzes and evaluates how nations and companies manage their responsibilities to achieve greater prosperity. WCY states, that competitiveness of an

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Compare: Hatzichronoglou (1996) and Durand, Madaschi, Terrible (1998)

economy cannot be understood only in relation to GDP and productivity, because firms must also overcome the political, social and cultural dimensions. Therefore, countries must create an environment with the most appropriate structure, institutions and policies to promote competitiveness. (Rosselet-McCauley, 2010)

## **2. Understanding of competitiveness in Slovakia**

From the view of the implementation of competitiveness theory and measurement of competitiveness in economic policy, three main strategic documents at national level were analyzed:

National strategic and reference framework<sup>15</sup> (NSRR) constitutes the basic document of the Slovakia in the field of economic development, competitiveness and innovation in the programming period 2007-2013. Despite the fact that this document is the basic document used for defining priorities of Slovakia, but also used as the basis of other various Slovak strategic programs, the document itself does not contain a concrete and comprehensive definition of competitiveness. Even despite the fact that the very word "competitiveness" is used in the document more than 100 times. The document analyzes the competitiveness of Slovakia and its factors, such as cheap labor force. Consequently, the document tries to draw the reader's attention to knowledge based economy as a source of long-term competitiveness. The document states: *"The strategic part of the NSRR is based on the vision of economic and social development of Slovakia, which is couched in terms of overall convergence of Slovakia's economy to the EU15 average by means of sustainable development."* NSRR aims to improve the living standard of Slovak citizens in order to progressively and

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Ministerstvo výstavby a regionálneho rozvoja SR: *Národný strategický referenčný rámec 2007 – 2013*. Bratislava, 2007

sustainably catch up with the living standard of advanced EU countries. Competitiveness is not directly defined, but the content of the document is clear that this term is understood in particular as the ability to achieve economic growth, and on the other hand, Slovakia's ability to successfully trade its production in international markets.

The program document to the Operational Programme Competitiveness and Economic Growth (OP) also does not include a direct definition of competitiveness. In the introductory part the document states, that the aim of the OP is to maintain and develop a competitive and effective production potential of industry and the energy sector, as well as tourism and other selected services, in terms of sustainable development and so to contribute to effectively raising the economic performance of Slovakia and reduce regional disparities in terms of economic performance. Attention is given to support activities with positive impact on employment and innovation development. From this we can conclude that competitiveness is understood as the ability to maintain or increase the level of economic growth (performance) of Slovakia.

National Lisbon Strategy (Slovak Competitiveness Strategy)<sup>16</sup> was adopted as an economic strategy for Slovakia until the year 2010, which should be the basis for proposed government policies. The strategy was intended to make by the year 2010 from the Slovak economy a competitive economy capable of catching up as quickly as possible to the living standard of most European Union countries. The strategy defined that its main goal "*... can be achieved only through rapid and long-term growth.*" The strategy describes that the exact same goals as it claims were adopted in the year 2000 at the Lisbon Summit of leading representatives from the states of the European Union. The aim is to

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Bruncko, M. et al.: *Stratégia konkurencieschopnosti Slovenska do roku 2010. Národná lisabonská stratégia*. Ministerstvo financií SR, Bratislava. 2005

make the European Union *"the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion."*

Despite the orientation of the above mentioned important program documents on increasing the competitiveness of Slovakia, these directly do not define the very concept of competitiveness or its factors. The performed research shows in the field of territorial competitiveness analysis a clear focus on economic categories and indicators. Competitiveness factors identified in various documents are mostly associated with cheap labor, favorable tax system, the openness of the economy, etc. Less emphasis is put on categories outside the economic sphere, e.g. institutional support, support for high-tech businesses and industries with high added value, health and other. Only indirectly, through the identified need of educated workforce, the focus is on development of education and lifelong learning of human resources.

Taking into account all of the above mentioned aspects, Slovakia should in the field of competitiveness understanding focus primary on the approach of the EU. The EU understanding is clearly focused not only on economic aspects of competitiveness, its legal and strategic documents are in most cases directly implemented or taken into account also in Slovakia and it is one of the few approaches that identifies regional foundations of competitiveness even by including the regional aspect in its definitions.

### **3. Competitiveness understanding – conclusions**

The approaches dominating in national competitiveness definition today are based either on microeconomic foundations (companies) or on a very popular concept in modern theory - the regional competitiveness.

In the view of microeconomic foundations, most of the approaches are based directly or in a broader sense on the ability of a territory to produce competitive goods. Therefore the theory is based on companies and their production ability, which ultimately supports the assumption of Krugman (1994), that competitiveness, can be viewed only from the perspective of firms, not territories (countries).

As for the regional foundations of competitiveness, many of the analyzed theoretical approaches and institutions describe competitiveness generally and mostly for the national level, not for regional level, but identify a reciprocal connection among these two types of competitiveness. Regional competitiveness can be viewed from different perspectives. The difference is mostly in the way of deriving regional competitiveness. Based on some studies on the analysis of competitiveness it is possible to identify two main ways of deriving regional competitiveness. We can distinguish a top-down approach, which promotes the derivation of regional competitiveness by linking its factors and definition to the same aspects as national competitiveness. The opposite is a bottom-up approach describing regional competitiveness as the sum of the competitiveness of all the businesses operating in the region. (Martin, 2004)

The regional aspect of competitiveness is important also from the viewpoint of Slovak republic, which identifies regional level as a vital fundament of the overall national competitiveness. Even despite the fact, that none of the main strategic or legal documents in terms of Slovakia state a definition of regional competitiveness.

The next table concludes the main aspects of competitiveness definition by various approaches of the analyzed institutions and theories:

Table: Comparison of key aspects of competitiveness definition by relevant institutions and Slovak republic

	Definition	Set of factors	Regional level definition
<b>World Economic Forum</b>	Yes	Yes	No
<b>Institute for Strategy and Competitiveness</b>	Yes (Porter)	No	No
OECD	Yes	Yes (Competitiveness Indicators Platform) Various (European Competitiveness Report EU 2020 Sustainable Development Indicators)	Part of national level definition
<b>EU</b>	Yes	Yes (European Competitiveness Report EU 2020 Sustainable Development Indicators)	Part of national level definition
IMD	Yes	Yes	No
<b>Slovak republic</b>	No	No	No

*Source: Own.*

#### **4. Factors of territorial competitiveness**

This part of the article presents the outcome of the content analysis of relevant legal and strategic documents concerned with identification of territorial competitiveness factors. The outcome is the establishment of several main factor groups according to equivalent or similar characteristics of individual factors defined by different institutions and their documents.

#### **4.1. Performance / Production Effectiveness**

For most of the analyzed theories and documents, the notion of competitiveness is understood as the ability of countries to realize their products on international markets, with particular attention paid to the ability to increase productivity. Competitiveness is therefore directly linked to the country's ability to use more efficiently production factors to produce goods. As already mentioned, the definition and criticism of competitiveness by Paul Krugman sees the very concept of competitiveness as often misused in the political process and only in other words expressing productivity.

First of all, we will look at the notion of performance impact on competitiveness from the view of World Economic Forum (WEF). WEF includes performance and productivity factors under the group called Efficiency Enhancers. In this group it includes higher education and training, efficiency indicators of both goods and labor market, the development of financial markets and factors indicating impact of market size. To estimate the impact of higher education and training, WEF focuses on factors such as the quantity and quality of education (i.e. education level enrollment rates, education expenditures, quality of educational system or internet access at schools, further on-the-job training, etc.). The goods market efficiency is characterized by the intensity of competition, antimonopoly policies, level of bureaucratic burdens in business, impact of FDI, customer preferences. On the other hand, the impact of labor market efficiency is identified by indicators of market flexibility (redundancy costs, hiring practices, worker-employer relations, etc.) and efficient use of talent (worker productivity, brain drain and other). Efficiency of financial markets includes access to loans and venture capital, the level of equity market, level of financial services, financial regulations level or soundness of banks. The final group of

WEF performance factors concerns market size, defined by the size of both domestic and foreign markets.

The International Institute for Management Development (IMD) sees the performance area of competitiveness as the overall economic performance of the analyzed territory, the efficiency of its government and the business efficiency. Economic performance includes indicators in the fields of domestic economy, international trade and investment, employment and price level. The efficiency of government is measured by the level of public financing, fiscal policies, business legislation and the overall institutional and societal framework. These three groups of factors are the majority of factors presented by the IMD. Only one other group exists besides these three, which shows a strong orientation on economic characteristics of competitiveness.

Organization for Economic Co-operation Development (OECD) relates the performance side of competitiveness to economic conditions of the territory, sustainability, efficiency and economic development factors. In the field of economic conditions OECD is concerned with GDP growth, interest rates, national savings, inflation, income indicators, etc. For the category of sustainability OECD focuses on real GDP growth rates, greenhouse emissions, carbon emissions and taxes, protect land areas, use of forests or environmental research and development budgets. As we can see, both in the group of economic conditions and sustainability, there are indicators of GDP growth. This fact shows, that the individual groups are not isolated, but rather interlinked, which we may not see so clearly in the approach of other organizations. The Efficiency group includes indicators of value added analysis, number of enterprises and multinational companies, export shares, wages, number of employees, etc. The last group of factors defined by OECD that could be included under the performance and productivity topic is Economic Development. This group focuses on government expenditures, taxes, investment,

interest rates, inflation and other. As well as in the case of WEF, also OECDs main focus is clearly on the economic characteristics of territorial competitiveness, as the competitiveness factors integrated into this Performance group represent the majority of the overall number of factors presents by OECD.

At the level of the European Union we will analyze the current versions of the European Competitiveness Report<sup>17</sup>, EUROPE 2020 strategy and the set of Sustainable Development Indicators. For each of the above mentioned documents we will analyze their content and identify factors directly linked or related to territorial competitiveness enhancement and divide them into each of the established groups of factors.

According to European Competitiveness Report competitiveness refers to the overall economic performance of countries in terms of its ability to provide its citizens with rising living standards on a sustainable basis and expanded access to employment for those who want to work. The report focuses on productivity and employment to provide a picture of the state of the European economy, both in the context of recent developments and long-term prospects. Therefore, the attention is on three key indicators, one of which is Productivity as the value added per hour worked. The average labor productivity reflects the state of the art of technology in a broad sense - the ability to produce goods and services per hour worked. Productivity growth is the only source of sustainable growth in per capita income and is the basis for growth in living standards.

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Sustainable Development Indicators <sup>18</sup> (SDIs) are used to monitor the development in the context of the EU Sustainable Development Strategy and its reports published every two years by Eurostat. In many cases, the sustainable long term development of the EU territory is associated with the ability to achieve growth in the area of competitiveness. The set of the SDIs includes also indicators of economic performance and productivity - Real GDP per capita (growth rate and absolute values) and Productivity of Inputs.

#### **4.2. Infrastructure**

This group does not only represent the physical transport infrastructure (roads, railways, etc). It is the overall infrastructure important for the development potential of the analyzed territory. Therefore, this group will include factors such as transport infrastructure, internet and broadband infrastructure, fixed and mobile phones penetration and others.

WEF divides infrastructure indicators into two main groups - Transport infrastructure and Energy and Telephony Infrastructure. The transport infrastructure is then aimed on the quality of overall infrastructure, roads, railways, ports or airports and the available set (quantity) of kilometers. Energy and Telephony Infrastructure focuses on the quality of electricity supply, fixed telephone lines and mobile telephones subscriptions.

International Institute for Management Development describes infrastructure impacts on competitiveness by using indicators of basic, technological and scientific infrastructure, education, health and environment. As we can see, the definition of this group and its impact on competitiveness could be described in more depth by stating specific factors of each of the infrastructure types. The manner in which the IMD

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identifies infrastructure now is too general and can be described by many different indicators.

OECD identifies a particular group of Physical Infrastructure. The group includes factors describing transport infrastructure through analyzing the amount of paved roads, capacity of harbors and airports, railroads indicators, number of vehicles, etc. A very positive fact is the identification of ICT infrastructure as a vital part of competitiveness of the analyzed territory. The group states factors concerned with IT infrastructure and its use, such as standard access lines, number of internet and mobile subscribers and number of households with a broadband internet connection.

### **4.3. Institutions**

Institutions group describes the institutional framework of the examined territory. Factors of this group should represent the impact on competitiveness of such indicators as government institutions, support institutions, level of bureaucracy, regulation and policy, tax level, etc. The main difficulty concerning this group of factors is to identify factors that can be quantified and relevant statistical data can be obtained to support their use in the estimation of their impact on competitiveness.

World Economic Forum divides its factors in this area into two groups – Public and Private Institutions. Public Institutions represent factors such as property rights, ethics and corruption, judicial independence, government inefficiency or security. Whereas, the Private Institutions group includes corporate ethics and accountability. From these two groups we can see that WEF tries to identify mostly the impact of the proper functioning of both private and public institutions. It therefore analyzes not the quantity, but quality level of these institutions.

OECD is aimed on estimating the influence of Regulations and Institutions Efficiency on competitiveness. This group of factors is

concerned with areas such as price controls, trade agreements, tariffs reduction, trade associations, simplification of rules and procedures, clusters, etc. OECDs approach is so aimed on the business support function of the institutions. Rather than analyzing the overall level of institutional framework of a territory, it focuses on the efficiency of the institutions in the field of business support and reduction of various administrative and legislative burdens.

#### **4.4. Education / Quality of human resources**

Factors of this group are aimed at quantifying the impact of the average educational level of population on the territorial competitiveness (national, regional, etc.). Even factors seemingly unrelated to monitoring the characteristics of human resources of a territory are very often included into this group. It is mainly due to their connection to enhancement of human resources quality through influencing education, training, qualification and even characteristics such as health or life expectancy.

WEF is the exact example of such approach. In this group it identifies only factors seemingly related to education. WEF also identifies higher education as an important factor of competitiveness, but includes this factor in the group of Efficiency Enhancers. The rest of education and human resources related indicators are in the group of Health and Primary Education. The group includes various indicators of the impact of such diseases as malaria, tuberculosis, HIV and other; it analyzes the impact of life expectancy, quality of primary education and primary school enrollment rates. WEF focuses in this view more on the basic quality of human resources, rather than on training and/or education related directly to work and productivity of inhabitants. As mentioned earlier, this is the concern of the group focused on efficiency.

OECD is more specific in this field, but also primarily does not focus on education characteristics. The focus is also shifted to the overall quality of human resources. The quality of human resources is described by the establishment of three groups – Human and Social Resources, Social Improvements and Welfare. Human and Social Improvements is a rather quantitative group. It involves indicators of the quantity of population, labor force, economically active population, age structure and some human resources characteristics linked to health – tobacco consumption, obesity percentage, mortality rates, etc. Social Improvements group is aimed on the impact of health and education expenditures<sup>19</sup>, number of NGOs, number of employment and training programs, investments in public safety and recreational activities expenditures. The last group of Welfare indicators includes crime index, various welfare characteristics (unemployment benefits, welfare payments, number of well-being programs), happiness index, income p.c., physical and mental conditions of the population, etc.

Within the understanding of IMD are factors related to the quality of human resources mentioned earlier under the Infrastructure group, where indicators of health and education are taken into account, but are not described in more depth.

EUROPE 2020 in this field focuses on the number of prematurely ending education or training by gender, participation in tertiary education by gender and the population at risk of poverty or exclusion. A very similar focus is visible also in the approach of the Sustainable Development Indicators: These indicators analyze in the view of human resources the rate of population at risk of poverty by gender, employment of older workers and years of healthy life and life expectancy at birth.

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Not specifying what level of education. Therefore we can assume an equal distribution of importance among all the levels of education expenditures.

#### **4.5. Environment**

Only in the case of OECD we can find a separate group of factors characterizing the environmental dimension of territorial competitiveness. Under the group of Natural Endowments OECD analyzes the factors of total land and forest areas, water capacity, waste water plants, agricultural and fishery production, mining capacity or product, energy status including electricity, oil capacity and renewable energy. And also in the case of Economic Performance group, where various factors describing such areas as emissions levels or carbon tax levels are included.

EUROPE 2020 states as some of the development factors the emissions of green house gases, the rate of renewable energy sources to total national energy consumption and the energy intensity of the economy.

Other institutions identify environmental aspects only in a marginal manner. For example the IMD includes factors related to this issue, namely a factor called Environment, in the Infrastructure factors group along with health and education.

The Environment group exists because particular factors of energy intensity of production and economic dependence on input factors like energy, oil, gas, etc. are now identified as a very important competitiveness factor. Although it is not yet included in all approaches and their groups of factors, the activity in this area clearly supports the competitiveness impact identification. It is also evident from the various support initiatives of green and renewable energy sources both on national and international level. Therefore, despite the fact that relevant institutions may not directly state natural or environmental indicators as sources of competitiveness enhancement, it is important to acknowledge this group as a possible, or even a significant, factor of competitiveness.

#### **4.6. Employment / Unemployment**

The group represents various measures and characteristics of employment or unemployment of the analyzed area. Long-term success and competitiveness of a territory is directly linked to its ability to create and provide its residents with adequate and sufficient job opportunities.

Employment/Unemployment is a separate group. But, analogically to the case of Environment, the indicators of employment or unemployment are in most cases not stated separately, but rather under other groups of factors, as for example the indicator Employment under Economic Performance group of the IMD or under various groups characterizing human resources.

An exception is the understanding of the European Union. The EU in its various sets of factors or indicators clearly focuses on both employment and unemployment indicators as a vital part of development and competitiveness. The European Competitiveness Report focuses on employment rate as the percentage of productive population in employment, as well as on the unemployment rate defined as the percentage of active population – people willing to work and who are outside employment. EUROPE 2020 monitors employment rates by gender and the Sustainable Development Indicators focus in the area of employment on the employment of older workers.

#### **4.7. RDI / Technology**

Factors of this area are often indicators of expenditures (public and/or private) on science, research, development and innovation, domestic and/or foreign expenditure in these areas, number of researcher workers, number of RDI organizations, the current state of technology, technological progress, indicators of knowledge transfer, etc.

To analyze the impact of innovation and research related aspects of competitiveness WEF established a separate group called Innovation

and Sophistication Factors. This group is further divided into Business sophistication (Quality and quantity of local suppliers, nature of competitive advantage, value chain breadth, production process sophistication, extent of marketing, etc.), Innovation (Capacities for innovation, company spending on research and development, quality of research institutions, intellectual property protection, utility patents, etc.) and Technological Readiness (Availability of latest technologies, technology transfer, number of internet users, broadband internet subscriptions, etc.).

OECD is in the definition of RDI and technology factors of competitiveness very specific. It divides its factors into two groups – Technological Capacity and Knowledge Enhancement. The first group involves factors of technological transfers, innovative capacity, expenditure on R&D, number of think tanks and vocational training providers, protection of intellectual property, level of attraction of specialists, numbers of enterprises involved in government sponsored technology projects, amount of income tax deduction reflecting research expenses, industry-financed GERD as a percentage of GDP. Knowledge Enhancement group focuses on the number of researchers, patenting activity, rate of technological innovation, degree of specialization in jobs, etc.

As for the analyzed documents on the level of EU, only the newly proposed strategy EUROPE 2020 identifies a single indicator suitable for the understanding of competitiveness enhancement in the field of RDI, namely the gross domestic expenditures on research, development and technology.

#### **4.8. Openness of the economy**

Another important factor, although not directly referred to, is the openness of the economy. Many theories (i.e. theories based on

classical foundations) address the success of countries as the ability to maintain their active participation in international trade. This condition cannot be achieved in a closed economy. Therefore, the focus of this group is on promoting a system of an open market economy and estimating its impact on territorial competitiveness. The Openness group is so a joint group of factors for identification of the activity of the country and its goods on international markets. The most common indicators in this field include share of export on the overall trade, percentual comparison of export to import, number of joint companies of domestic and foreign owners, level and flows of foreign investments, etc.

As an example we can state the approach of the World Economic Forum and its group of factors called Goods Market Efficiency, where WEF includes the import as a percentage of GDP factor.

### **Conclusion: A critical overview**

National competitiveness has marked a huge growth in the interest and activity in the field in form of many institutions, publications, studies and projects. On the other hand, the field still lacks progress in the conceptual framework, which can be recognized as a vital part of the whole understanding and analysis in order to be able to move the whole topic forward. As an emerging and very popular area of interest, national (or generally speaking *territorial*) competitiveness is driven mostly by international institutions measuring and ranking competitiveness at country level. Still, the need for development of the conceptual and theoretical content of the issue is necessary.

It is important to note again, that the origins of competitiveness can be in most cases found at the level of enterprises.<sup>20</sup> Most of the approaches

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Not only earlier mentioned Krugman (1994), but see also Garelli (2002, Available online: <http://members.shaw.ca/compilerpress1/Anno%20Garelli%20CN%20Fundamentals.htm>) and Chartrand (2002, Available online: <http://members.shaw.ca/compilerpress1/CN%20PPF.htm>)

try to implement this notion of business competitiveness at the level of countries, or in some cases even regions. This is, however, done subjectively according to the goals and methodology of each particular institution or document. The result is a different definition of competitiveness and its factors for each institution, theoretical approach or document. This situation creates a somehow loose environment, in which analysis, projects and research can be undertaken in various directions and producing outcomes, for example in form of country competitiveness ranking, that cannot be mutually compared because of different contextual background.

Considering all that was mentioned, the goal of the article was to establish main competitiveness groups and try to divide factors identified by the analyzed legal and strategic documents into these groups. These groups then represent a conjunction of all the analyzed v documents and therefore can be considered a good framework basis for the analysis and measurement of competitiveness factors. The aim behind proposing groups rather than individual factors is an effort to propose a generally acceptable framework. Individual factors should be identified for each analyzed territory after further research respecting territorial characteristics, statistical data availability, etc.

At this stage, the comparison and description of Slovak Republic conditions in the field of competitiveness comes handy. It not only shows the current state in Slovakia, but also fills the empty space of competitiveness and its factors definition. Slovak competitiveness is a widely used term, but lacks any underlying theoretical background, definitions or set of factors. Here we can use the proposed factor groups, analyze available statistical data in Slovakia, choose particular factors to represent each group and consequently analyze their impact on the competitiveness of Slovak republic.

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In conclusion, the proposed competitiveness factor groups should present a universally implementable framework for competitiveness analysis. The content analysis focused on documents prepared by different institutions, from different territorial and theoretical backgrounds and even from both governmental and private levels. Therefore, the analysis and the proposed factor groups can be used in various environments. Having written that, it does not mean these factors are the only possible to be considered or the only right factors. The term “universally” should be referred to more as an analysis basis. The main factors can be adjusted or expanded according to the specific conditions of each analyzed territory. But, as the analysis, research and documents will be prepared based on a jointly acceptable framework, it will allow for the results and outcomes to be partially or fully comparable.

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