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CRITICAL SUCCESS FACTORS OF NATIONAL COMPETITIVENESS

Yovka Bankova *

***Abstract:** Diversity of concepts and definitions about competitiveness exists. They are the starting point to reveal the critical success competitiveness factors. The goal of the paper is a discussion on the main factors of national competitiveness nowadays. Through the paper, variety of statements about the national competitiveness in a historical perspective from Adam Smith up to Michael Porter and national competitiveness models are debated. The approach applied in the paper is on the basis of the following three pillars – competitiveness theories, models and definitions the most important factors of national competitiveness to be outlined.*

***Keywords:** national competitiveness, national competitiveness factors, national competitiveness models, competitiveness theories.*

1. Introduction

The concept of “national competitiveness” is first brought in the United States (US). In 1982 in the US a document titled “Rebuilding the Road to Opportunity: A Democratic Direction for the 1980s”, which addresses the competitiveness issue was debated. In 1983, President Reagan created the President’s Commission on Industrial Competitiveness. The aim of the Commission was a discussion and proposals how the long term competitiveness of US industries to be increased. In 1984 the Commission published its first report but the definition of competitiveness appears in the report released in 1985. Nation’s competitiveness is defined as “the degree to which it (the country) 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.” (Review of the Findings of the President’s Commission on Industrial Competitiveness, p.5) According to the same paper, competitiveness is measured by four key indicators: labor productivity; real wage growth; real returns on capital employed in industry (real returns on assets invested in manufacturing); position in world trade. These indicators as will be discussed later should be accepted as the most common to measure and identify the national competitiveness.

* University of National and World Economy, Department “Marketing and Strategic Planning”, Sofia, Bulgaria; ✉ yovka.b@gmail.com
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Discussions on the competitiveness of Europe started almost a decade later at the beginning of 90s. European Commission's White Paper on competitiveness issued in 1993 sets the beginning along with other two White Papers on competitiveness issued in the United Kingdom in 1994 and 1995.

2. What National Competitiveness Means and Encompasses: Literature Review

The notion "national competitiveness" is poorly defined and more strongly contested than competitiveness on the regional and especially on the firm levels. On a company level, the notion of competitiveness is understood as the capacity of firms to compete, to be profitable, and to grow.

Well-known are the critical arguments of Paul Krugman about the national competitiveness and his understanding that the concept of national competitiveness can be accepted as a dangerous obsession (Krugman, 1994). The main three arguments he raises are:

1. It is misleading and incorrect to make an analogy between a nation and a firm; for example, whereas an unsuccessful firm will ultimately go out of business there is no such an equivalent for a nation.
2. Whereas firms can be seen to compete for market share and one firm's success will be at the expense of another's, the success of one country or region creates rather than destroys opportunities for others and also the trade between nations is known not to be a 'zero-sum game'.
3. If competitiveness has any meaning then it is simply another way of saying productivity; growth in national living standards is essentially determined by the growth rate of productivity.

Even Michael Porter (Portyr, 2004, pp. 14-15), who introduced and made popular the notion "competitive advantage" of nations, claims that "firms compete in industries, not nations". It is also true that the economic value is indirectly generated by nations trough enterprises, hence the main and most important role of the nations (countries) is to **establish an environment that supports the activities of enterprises.**

Garelli, the director of the World Competitiveness Centre, states that "competitiveness is not an objective in itself but an economic tool. However a tool is linked and dependent on the objectives pursued by the various economic actors, which constitute a nation."(Garelli, 2012, pp. 488-489). This is the reason why competitiveness is considered to be a dynamic concept that implements **three ideas**: (1) *to be efficient*, (2) *to make choices*, (3) *in what way the disposable resources are being used*.

Regarding the idea of efficiency some researchers consider that the key determinant to be efficient is productivity, but not all of the researchers accept that entirely. For example, Li (Li, 2011, pp.28-29) argues against equating the national competitiveness to productivity. Firstly, Li states that productivity is rather an observation of the economic growth and not a cause. He accepts the argument of other economists that productivity is actually a measured observation of increases in real per capita income. Secondly, Li agrees with Reinert that 'high relative or absolute productivity levels do not necessarily lead to competitiveness'. Although it is difficult to be competitive if you have low productivity or

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efficiency, Reinert states that it is not obvious that the most efficient producer of an internationally traded product makes a country competitive, in sense of enabling a rising standard of living. The same conclusion can be found in Porter's "Competitive Advantages of Nations". In reality, what can be observed are desperately poor nations and some very efficient producers located in these countries. Numerous are examples that support the last statement. An outstanding example comes from Haiti where one of the biggest world manufacturers of baseballs that has a large world market share originated and is located, but Haitians' living standard is very low. Therefore, **it is not the productivity or efficiency but the kind of production that makes a nation competitive.**

One more argument can be that productivity is an indicator that is focused on the production side of economy while real per capita income is a measure focusing on the consumption side. The two measures do not always match and there are possibilities that productivity improvements are not always translated into an increase in real per capita income. Wealth can be a good starting point to the higher competitiveness if what Porter said about the competitive advantages is taken into account – **sustainable competitive advantages are created and not inherited.** Being the most efficient in the 'wrong' activities may lead to negative development. Another conclusion of Porter (Portyr, 2004) is that the **national prosperity is created, not inherited** which defines in a clear way that the way of government a given national economy matters.

The second of the ideas above refers to making choices - strategic choices about where the potential added value in international markets will be bigger compared to that one of the competitors. *The third idea as was stated above is about the way of the usage of the disposable resources.* In reality countries compete to have an access and to manage different resources that may be drawn from the technology, infrastructure, government, education, etc.

"Competitiveness is an input into the country's production process that generates wealth of the nation."(Zinnes, Clifford, Eliat, Sachs, 2001, p. 316). Competitiveness refers also to the distribution of *wealth*. The concept of competitiveness is important because indicators as firm productivity, GDP (Gross Domestic Product), GDP growth by itself cannot reveal this idea completely. Wealth can originate from two factors – natural resources (the case of Gulf countries) or past competitiveness (the case of Italy and other European industrial countries). There is a phenomenon called a 'curse of natural resources' (Sachs, Warner,2001, p. 838) in some developing countries. The 'curse of natural resources' idea represents the negative effect of the dependency of a given country on natural resources may result in declining per-capita GDP. In the cases of Canada and Australia, natural resources export may also enjoy increasing terms of trade. Therefore, it is not natural resources but rather overreliance on exporting natural resources that will bring the 'curse' to the country because such overreliance may have as result delay in enhancing the capabilities of national industry.

Competitiveness of a given country refers also to the *sustainable improvements of the population's well-being*. *Prosperity* may mean incomes of people, standard of living and quality of life, a safe society, protection of the environment, etc. What is specific about the notion "prosperity" is that it can be defined depending only on the country that is observed. It means that the content of the term differs from one country to another. In fact when the competitiveness is explained/defined by prosperity it means that the *non-economic side of competitiveness* is taken into account. Competitiveness encompasses the economic consequences of non-economic issues as sciences, healthcare, education, political

stability, and environment. The economic logic and the structure of economic systems suppose that competitiveness can not be reduced in its meaning only to productivity or profits. For example, environmental degradation may directly reduce the productivity of sectors such as agriculture, which in turn can have negative implications both for the economy (especially for countries where GDP is heavily dependent on agriculture) and for matters of food security.

Comparatively new are the social aspects of competitiveness that gain an increasing attention nowadays. The term sustainable competitiveness is based on the relationships between competitiveness and environmental and social sustainability. Recently, World Economic Forum (WEF) calculated two indexes for sustainable competitiveness (WEF, 2012, p.51) – about **social sustainability** and **environmental sustainability** (comprising aspects: pollution, resource scarcity, water availability, and the regulatory framework as far as it pertains to environmental policies and measures). The definition of WEF (WEF, 2012,, p.52) for **sustainable competitiveness** is “the set of institutions, policies, and factors that make a nation remain productive over the longer term while ensuring social and environmental sustainability”. Sustainable competitiveness goes beyond mere economic performance to include other important elements that render societies sustainable by ensuring high-quality growth.

These aspects of competitiveness refer to the social responsibilities of countries – to provide an adequate health and education infrastructure to its citizens, to maintain political and social stability. Regarding these non-economic aspects of competitiveness and the role of the state an example from Singapore may be useful. Why Singapore is successful/competitive country? Tradition of the Government in this country supposes to “give back to the people” by means of better housing, hospitals, education. In Singapore more than 80% of population live in public houses provided by the state. In contrast, in 1998 in China the government started a housing reform and abandoned house welfare. Around 80% of new houses/flats built since 2003 are sold at the market prices. While almost every Singaporean can have a place to live, many Chinese find it difficult to afford a flat so that the ordinary Chinese households are forced to save for buying a flat. How these changes redounded to the national economy? High savings in China largely reduced Chinese household consumption. As a consequence, the Chinese government has had to rely on investments and foreign demand to maintain its economic growth.

National Governments continue to shape the competitiveness environment in many different ways via taxation, education or health issues. Switzerland, Singapore, Finland and Sweden, the top four most competitive nations in the Index of WEF. The reasons are sometimes tough, unpopular choices and longer-term strategic investments of their governments. China stands out as the most competitive among the BRIC economies¹, having systematically pushed forward with reforms over recent decades. Brazil has also made significant strides. This stands in deep contrast with the reform stagnation in India and Russia; two countries that until recently inspired notable optimism. In order to boost China’s textile export, Chinese government provided high tax rebate to textile exporters and keeps Chinese currency undervalued. These measures succeeded to help Chinese textile products to gain more of the world market share. However, behind such market share gain

¹ BRIC is an acronym that refers to the countries, which are all deemed to be at a similar stage of newly advanced economic development: Brazil, Russia, India and China.

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stay some costs. Western countries like the US accused China for manipulating its currency and there are many trade frictions. Also, the tax rebate policy may not provide the necessary incentive for many Chinese textile exporters to improve product qualities and technologies. Who benefited and who lost? Both foreign buyers and Chinese exporters won and the Chinese government (and Chinese people) may be the only loser. Nowadays, China has the biggest world market share for textile export; yet, more and more Chinese now realize this is not something to be really proud of.

3. Theories, Models and Definitions of National Competitiveness

To understand the factors that support the “national competitiveness” it will be useful to go back to historical basis and to search for the origins in the major schools of the economic theory: Classical theory; Neoclassical theory; Keynesian economic theory; Development economics; New economic growth theory (Endogenous Growth Theory) and New trade theory and to follow the main contributions to that notion from Adam Smith to Michael Porter. Other points of views are to outline and define the competitiveness factors on the basis of competitiveness models and definitions of national competitiveness.

3.1. Schools of Economic Theory

Adam Smith, who represents the Classical Theory, introduced the term ‘division of labour’ that stays for the idea of economies of scale and differences in productivity across nations. With respect to trade, Adam Smith (Smith, 2003) in his work published in 1776 demonstrated the gains from trade when countries have an absolute advantage in the production of different goods. A country will have an absolute advantage and should export the good if it can produce goods using less inputs (labour) in production; or alternatively countries should import goods that others can produce using fewer inputs (i.e. where they are produced most cheaply). Another representative of the Classical Theory who also contributes to the notion of competitiveness is David Ricardo. In his “On the Principles of Political Economy and Taxation” published in 1817 he introduces the notion “comparative advantage”. His main idea is that gains from trade could be obtained when two countries specialise in the production of goods for which they have so called “comparative advantage”. In the Ricardian model, production technology differences across industries and across countries give rise to differences in comparative labour productivity. In Ricardo’s “two countries - two goods representation” model, even though workers in one country are more productive in the production of both goods (i.e. have an absolute advantage in both goods) and if they are relatively more productive in one of these goods they should specialise in its production. Ideas coming from the Classical Theory refer to the competitiveness of the countries in the field of the trade.

Heckscher and Ohlin represent the Neoclassical Theory. They have developed “factor-proportions model” (H-O model) build on Ricardian model by incorporating two factors of production: labour (as with Ricardo) and capital. H-O model assumes that technologies are the same across countries and those comparative advantages are due to differences in the relative abundance of factors of production. This adds a new direction in defining the national competitiveness. Main ideas incoming from Neoclassical Theory are: perfect information (same technology across countries), constant returns to scale and full

divisibility of all factors leads to a world of perfect competition; the trade is based on factor endowments (labour and capital) and factors of production (labour and capital) within countries are perfectly mobile across industries.

In the focus of Keynesian Theory is the functioning of markets. The drivers of the system are the consumption function, the investment accelerator, together with export demand. The basic statements in this theory are: price adjustments might be slow, leading to adjustments in quantity; markets are not necessarily in equilibrium: shortages on demand or supply side; the two factors - capital and labour- are complementary.

Walt Rostow is a representative of the Development Economics Theory. His theory about the stages of development classifies societies according to five different stages: traditional, transitional, take-off, maturity and high mass consumption. Highly criticised, this theory has made a major contribution to development economics in the following directions: revealing the importance of agriculture and the role of investment in raising the growth rate; setting certain political and sociological preconditions for development of the countries. Other important issues of the Development Economics Theory are that some countries develop more successfully than others and that economic policy plays an important role in determining the success of the country.

The key assumption of Endogenous Growth Theory is that accumulation of knowledge generates increasing returns. Knowledge and know-how are not disseminated instantly but need to be acquired. This means markets do not automatically generate an optimal result: companies have an incentive to keep knowledge to themselves in order to gain monopoly rents. In order to keep investments in R&D profitable the governments need to balance between spreading knowledge on the one hand and on the other to protect intellectual property rights. Thanks to that theory human capital was introduced and treated as a production factor which means that companies and governments have an incentive to invest in training for employees and schooling for the entire population respectively. The last one was widely accepted as a factor of competitiveness and can be found in the competitiveness indexes.

Contrary to the Classical and Neo-classical Theories, the New Trade Theory in the attempt to explain the trade patterns between industrialised countries focuses on scale economies, product differentiation and imperfect competition. A number of categories of such models can be identified: Marshallian economies of scale – according to which external economies of scale provide the basis for the regional concentration of industries; models incorporating monopolistic competition of two types – the first ones allow economies of scale that are internal to companies themselves while the second ones refers to considering economies of scale and product differentiation in the production of intermediate inputs. Trade enables countries to access a larger variety of components/inputs thus generating external economies of scale. New trade theories suggest that a comparative advantage can be acquired as opposed to the abundance as assumed by traditional theory. Some of the main assumptions of the theory are: the production of new technology reflects decreasing returns to the application of capital and labour; there are increasing returns to scale in the use of technology; imperfect competition.

Michael Porter introduced the term “competitive advantage” and provided a systemic view of competitive advantage of nations through the “diamond model”. According to him, there are four interlinked factors contributing to the global competitiveness of

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particular industries of a nation: factor conditions, demand conditions, related supporting industries, and firm strategy, structure and rivalry. Contrary to the classical international trade theories which argue that comparative advantage resides in the factor endowments that a country inherits, Porter argues that the key factors of production (or specialized factors), such as skilled labor, capital and infrastructure, are created, not inherited.

Following the schools of economic theory, we observe that competitiveness factors make a transition from physical capital and infrastructure towards more sophisticated as education and training, technological progress, macroeconomic stability, good governance, firm sophistication, and market efficiency.

3.2. Competitiveness models

Diversity of competitiveness theories is a predisposition and a basis of the competitiveness models that have emerged. When analysing competitiveness theories, since Adam Smith, a transformation and transition from home-based resources of competitive advantage towards intangible resources can be observed (Bankova, 2013, p.74-75).

According to Carayannis two types of national competitiveness' models can be distinguished, depending on the driving force that raises the productivity (Carayannis, Wang, 2012, p.281). The first one is resource-led where the driving force is the lower cost natural resources, labour force or both and technology is not important. The other model is innovation – led. In that second model the driving force are factors of a higher order. The raised productivity results from the higher efficiency, based on knowledge and innovations. Difference is observed in the application of the two models depending on the type of the countries – developed and developing (Carayannis, Wang, 2012, p.281). The innovation model that is applied in the developed economies is a “push and pull” model with two elements – technology push and market pull. While the innovation model of the developing countries is called “access and adaptation” model.

But a balance between the resource-led and innovation-led competitiveness is needed. In the resource-led competitiveness model, higher competitiveness is likely to result in the deterioration of nature resource and environment, and excessive labor exploitation. In such competitiveness model, foreign investment has very limited spillover effects. Innovation or knowledge-led competitiveness means increasingly to put a higher weight on knowledge and innovation. It ranges from updating an existing product line, development of a new product line, and even with new-to-the firm, new-to-the nation, and new-to-the world innovation. All of these are preconditions of sustainability of competitive advantages.

Another significant model is the “diamond model” developed by Porter. What is specific about this model is that the focus is on the firm's external competitive environment. The resources based model of competitive advantages (or the resource based view) that was the leading model during the 80s of XX century in contrast to the Porter's model is focused and takes into account the internal capacity of each separate firm to achieve competitive advantage.

One of the critiques towards the comprehensive model of Porter is that he didn't incorporate the effects of multinational activities in the model. The solution offered by Dunning, (Dunning, 1992) is to treat multinational activities as a third exogenous variable which should be added to Porter's model. Nowadays a modification of the model is done. It

is called double diamond model of international² competitiveness (Rugman, D'Cruz, 1993) whereby multinational activity is formally incorporated into the model. The multinational activities include both outbound and inbound foreign direct investment (FDI). The main influencers that increase opportunities of the firms to access foreign knowledge and technologies are foreign direct investments and globalization.

For the purposes of the double diamond model the national competitiveness is defined as “the capability of firms engaged in value added activities in a specific industry in a particular country to sustain this value added over long periods of time in spite of international competition” (Rugman, D'Cruz, 1993). Two are the most important methodological differences between Porter and the modified national competitiveness model. First, sustainable value added in a specific country may result from both domestically owned and foreign owned firms. Secondly, sustainability may require a geographic configuration spanning many countries, whereby firm specific and location advantages that present in several countries to complement each other.

Double-diamond model of international competitiveness extends the following three areas.

1. The conventional model of Porter emphasizes the importance of the competitive environment within the home country, while the DDCM look in both, domestic and foreign driving forces.
2. The understanding about innovations in the conventional model is that firm must move beyond best practices and to shape best practices. While, with the extended model, incremental and adaptive innovations are included.
3. The conventional model is based and derived from the experience of developed and the newly industrialized countries. Extended model takes into account one more group of countries that cannot be any more neglected – developing countries.

From the point of view of innovation issues there is one more distinction between the two models. The Double Diamond differs from the Porter's Diamond of competitive advantages with “the firm's capacities in identifying, negotiating, networking with and improving its existing technological capacity” (Carayannis, Wang, 2012, p. 280) that is considered as the core of competitiveness.

Since Schumpeter, it has been assumed the innovation typically plays a key role in competitiveness at national, industry and firm level. According to Porter and competitive advantage theory developed by him, innovation is one of the most important driving forces for competitiveness (but, according to him, adaptive and incremental innovations that are new-to-the-firm or new-to-the nation but not to the world are overlooked).

3.3. Definitions of National Competitiveness

Different definitions of national competitiveness operate. They also reflect the change observed with schools of economic theory. What is specific about definitions is that the variety is even bigger and tangible. The evolution of the economic theories and in the understanding of the notion “competitiveness” manifested in the variety of definitions found in different publications. Belkacem (Belkacem, 2002) notes that almost every paper

² Notion international competitiveness refers to national competitiveness.

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on this subject struggles to define it. What is common between these most wide spread definitions is that a successful (economic) performance typically is judged on this level in terms of rising living standards or real incomes and open market conditions are supposed. Another thing is that more competitive economy is the one that is likely to sustain growth.

The Organisation for Economic Cooperation and Development (OECD) defined the competitiveness of a nation as the degree to which it can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term. OECD official definition (OECD) is: "Competitiveness is a measure of a country's advantage or disadvantage in selling its products in international markets". The OECD Secretariat calculates two different measures of competitiveness based on the differential between domestic and competitors' unit labour costs in manufacturing and consumer prices both expressed in a common currency.

In the European Competitiveness Report, the European Commission (European Commission, 2007, p.13) states that "competitiveness is understood as a sustained rise in the standards of living of a nation or region and as low a level of involuntary unemployment as possible".

The World Economic Forum, in its Global Competitiveness Report (WEF, 2012, p.4), defines competitiveness as "the set of institutions, policies, and factors that determine the level of productivity of a country". The productivity sets the level of prosperity that can be earned by an economy and the productivity level determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates.

International Institute for Management Development's (IMD) World Competitiveness Yearbook definition refers to 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. The shorter version of it is: how a nation manages the totality of its resources and competencies to increase the prosperity of its people.

Laura Tyson (Tyson, 1992) understands international competitiveness as the ability of the country to produce goods and services that meet the test of the international competition while the citizen of the country enjoy such a standard of living that is both rising and sustainable.

Michael Porter stays behind the idea that competitiveness at the national level means the productivity, defined as "the value of the output produced by a unit of labour".

What is common between these most wide spread definitions is that a successful (economic) performance typically is judged on this level in terms of rising living standards or real incomes and open market conditions are supposed. Another thing is that more competitive economy is the one that is likely to sustain growth.

4. National Competitiveness Factors

Usually competitiveness is defined in terms of the outcome (ex. living standards/incomes) rather than the factors that determine competitiveness. But the real question is to identify those factors that explain competitiveness rather than to describe its outcome(s).

Contrary to the competitive and comparative advantage paradigms the recent developments in the field of competitiveness reveal a different concept of comparative disadvantages (Filippov, Saebi, 2008). According to that concept comparative disadvantage at home markets have driven firms operating. Unlike Dunning’s perspective that outward FDI is mainly from developed to developing countries to seek low cost labour force, markets and natural resources, competitive disadvantage concept argues that the outward FDI and multinational companies from developing countries are to seek the access to advanced technologies in developed countries.

Scholars have come up with different sources of national competitiveness. They include, among others, relative labor costs real exchange rate, manufacturing, knowledge-intensive service sector, foreign direct investment, technology, innovation, institutions and government policies, and regulations. Contemporary national factors of competitiveness (Martin, 2004, p.2-23) may be classified in three groups.

Table 1: Competitiveness Factors

| Infrastructure and accessibility | Human resources | Productive environment |
|---|---|--|
| <p><i>1. Basic Infrastructure</i></p> <ul style="list-style-type: none"> • road • rail • air <p><i>2. Technological Infrastructure</i></p> <ul style="list-style-type: none"> • ICT • telecoms • internet | <p><i>1. Labour force characteristics</i></p> <ul style="list-style-type: none"> • productivity and flexibility <p><i>2. Management skills</i></p> <ul style="list-style-type: none"> • internationalised • levels of professionalism • levels of efficiency <p><i>3. High skilled workforce</i></p> <ul style="list-style-type: none"> • scientists and engineers • symbolic analysts <p><i>4. High participation rates in post school education</i></p> <ul style="list-style-type: none"> • tertiary education • vocational training <p><i>5. Educational infrastructure</i></p> | <p><i>1. Entrepreneurial Culture</i></p> <ul style="list-style-type: none"> • low barriers to entry • risk taking culture <p><i>2. Internationalisation</i></p> <ul style="list-style-type: none"> • exports/global sales • investment • business culture <p><i>3. Technology</i></p> <ul style="list-style-type: none"> • application • management <p><i>4. Innovation</i></p> <ul style="list-style-type: none"> • patents • R&D levels • research institutes and universities • linkages between companies and research <p><i>5. Capital availability</i></p> <p><i>6. Nature of competition</i></p> <p><i>7. Sectoral balance</i></p> |

Source: Martin, Ronald L., 2004, A Study on the Factors of Regional Competitiveness, A draft final report for the European Commission, Directorate-General Regional Policy; p.2-23

Specific attention is paid nowadays to technological factors. Application of modern technologies has changed significantly the role of most common factors of competitiveness. Innovation creates a “technological gap” which generates monopoly profits as long as it can be maintained. But in any case it is temporary and sometimes the

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“technologic gap” can continue only for a short time. The reason is imitation done by rivals that erodes the created competitive advantage.

Technology is a factor of specific importance nowadays, not only because of the direct impact but also because it is a “catalyst in changing the relative importance of the factors of production” (Carayannis, Wang, 2012). Accumulation of knowledge leads to an increase in technological competence, which adds a new dimension to comparative advantage model. The long term profitability depends upon continued innovation.” (Carayannis, Wang, 2012, p.283-284). Nowadays the main innovation enablers are human capital, technology base, and R&D investment.

At the national level, adequate provisions of the national and regional pools of R&D resources are critical, **including information and consultation services, R&D talent networks, global networks, learning and training, and R&D seeding funds, and tax incentives, etc.** The government should provide **effective and conductive policies and legal supports including intellectual property rights protection.** The governments’ support is needed in areas as monitoring of innovations and their possible applications and provide up-to-date information and proactive training when necessary.

The important **balance of fiscal incentive and social return** should not be neglected. The social return of an innovation may go far beyond its fiscal return. However, unless such social return are properly factored into the profits equation of firms, the social consequences of a decision to take or not take an innovation cannot be included. **Thus, public-led innovation and public private partnership is even more important for developing countries – a policy of the EU during the last years, easily discovered in different areas’ measures of the operational programs available for the EU member states.**

5. Conclusion

Apart from the big number of publications devoted to national competitiveness issues still the search for a common understanding about it is on. The fact that different nations belong to different stages of economic development (most generally - developed and developing countries) and need to deal with different historical and economic predispositions supposes the availability of all these different perceptions and models of national competitiveness.

Generally, current competitiveness factors belong to three groups representing specific areas: infrastructure and accessibility; human resources; productive environment. What is common about all of them is that the level of sophistication of the factors raises. In order to create and sustain competitive advantage over the time factors of a higher order are needed. This means factors that can not be easily copied. That’s why is paid so much attention to the knowledge and innovations. Beside that, the application of modern technologies has changed significantly the role of most common factors of competitiveness. In other words, factors of a higher order may alter other factors.

The social aspects of competitiveness are comparatively new. These aspects of competitiveness add new requirements when dealing with competitiveness factors. When it comes to one of the most important factors today – technological factor – we say that the **balance of fiscal incentive and social return** should matter and the social return of an innovation may go far beyond its fiscal return.

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KRITIČNI FAKTORI USPEHA NACIONALNE KONKURENTNOSTI

Rezime: Postoje brojni koncepti i definicije konkurentnosti. Oni su polazna tačka da se otkriju kritični faktori uspeha konkurentnosti. Cilj rada je razmatranje glavnih faktora nacionalne konkurentnosti današnjice. U radu se razmatraju različite izjave o nacionalnoj konkurentnosti iz istorijske perspektive, od Adama Smita do Majkla Portera, kao i modeli nacionalne konkurentnosti. Pristup primenjen u ovom radu bazira se na sledeće tri tačke: teorije konkurentnosti, modeli i definicije najbitnijih faktora nacionalne konkurentnosti.

Ključne reči: nacionalna konkurentnost, faktori nacionalne konkurentnosti, modeli nacionalne konkurentnosti, teorije konkurentnosti