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Country's economic competitiveness increasing within innovation component

Abstract. Current debates in the area of international management suggest that the notions of competitiveness of the country's economy and increase of the country's economic competitiveness are the important determinants of international management policies and practices. The factors influencing the competitiveness of countries have not yet been analyzed widely enough in the scientific circles. Thus, we have carried out a detailed elaboration, concretization and generalization of the results of scientific research on the most relevant issues concerning the increase of competitiveness of the country's economy. The purpose of this study is to determine the factors of competitiveness and establish the relationship between factors that improve competitiveness. The main factors contributing to the negative trends of innovation development of Ukraine have been allocated. Further, we have determined the main factors prompting the country's economic competitiveness. A structural and logic relationship model for the increase of the country's economic competitiveness has been formed. Factors that boost economic competitiveness must be considered as a combination of all elements. This will contribute to the increase of economic efficiency of the country's development potential. Factors of competitiveness, which are based on reinforced action of technological progress due to the creation and application of new technologies, knowledge and various innovations in all spheres of life, are subject to constant change and complemented by new factors. Theoretical propositions, identified to determine the factors influencing competitiveness are presented in the study. The structural and logic relationship model between factors, increasing competitiveness is expected to improve the management of the country's economic competitiveness, to secure the increasing level of economic competitiveness, and to be used in the theory and practice of international management.

Keywords: Economic Competitiveness; Competitiveness Factors; Global Competitiveness Index; Global Innovation Index JEL Classification: O10; O30; O57

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Підвищення конкурентоспроможності економіки країни на підставі інноваційної складової

Анотація. У статті запропоновано структурно-логічну модель взаємозв'язку чинників підвищення конкурентоспроможності економіки країни. Дістали подальшого розвитку тлумачення понять «чинники конкурентоспроможності економіки країни» та «чинники підвищення конкурентоспроможності економіки країни». Виокремлено головні чинники, які зумовлюють негативні тенденції інноваційного розвитку України.

Ключові слова: економічна конкурентоспроможність; чинники конкурентоспроможності; індекс глобальної конкурентоспроможності; глобальний інноваційний індекс.

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Повышение конкурентоспособности экономики страны на основе инновационной составляющей

Аннотация. В статье предложена структурно-логическая модель взаимосвязи факторов повышения конкурентоспособности экономики страны. Получили дальнейшее развитие толкования понятий «факторы конкурентоспособности экономики страны» и «факторы повышения конкурентоспособности экономики страны». Выделены главные факторы, которые обуславливают негативные тенденции инновационного развития Украины.

Ключевые слова: экономическая конкурентоспособность; факторы конкурентоспособности; индекс глобальной конкурентоспособности; глобальный инновационный индекс.

1. Introduction

The competitiveness of the country's economy is constantly in the focus of scientists because particularities of the study of this question define strategic decision making at both macro and micro levels. The proper study of competitiveness promotes assistance in forming of a balanced development of the national economy. Increased competition determines the need to focus on the most promising and important areas to ensure the country's competitiveness. Also it is important to study the main factors affecting competitiveness of the national economy to make a more efficient use of the existing economic potential development, including detection of obstacles to the way of growth of its competitiveness.

2. Brief Literature Review

M. Porter looks at competitiveness of the national economy from the standpoint of using available resources as the main factor of productivity. Later his proposed model of the investigation of competitiveness elements was completed. taking into consideration the influence of globalization of the world economy [1]. There exist a significant number of approaches to determine factors of national competitiveness. The most famous concept of competitiveness is the Porter's theory and the «competitive diamond» model (2006) [1, 6-19]. This model reflects a system of national competitive advantages and their interactions. A lot of attempts were made to improve Porter's approach: the «double diamond» model developed by A. M. Rugman and D'Cruise (1992) [2, 59]; the «nine-factor» model of competitive advantages by South Korean scientist Dong-Sung Cho [3]; the «dual double diamond» model of national competitiveness proposed by South Korean scientist Hwy-Chang Moon; the «generalized double diamond» model developed by A. M. Hwy-Chang Moon, Rugman and A. Verbeke (1995) [4, 97-114].

Various approaches to determine factors of a country's competitiveness developed by specialists of the World Economic Forum, the International Institute for Management Development in Lausanne, the World Bank, INSEAD, the Korea Research Institute of Industrial Policy, BCG Company, the World Competitiveness Centre have received proper extension [5]. Each approach to the examination of a country's competitiveness is based on the separation and classification of the main factors which have a significant impact on the economic development of a country.

The present study of the abovementioned approaches will make it possible to determine the main factors of Ukraine's competitive advantages, which will help to increase the country's competitiveness and economic independence.

Problems of competitiveness have been studied by such foreign scientists as Dong-Sung Cho (2000) [3], R. Farmer, R. Fathutdinov (2002) [6], M. Porter (2006) [1], R. M. Nureev (2007) [7], H.-C. Moon (1998) [3], J. Walter (2005) [8] and others.

A number of aspects of securing competitiveness of objects are the subject of study of domestic researchers such as J. V. Bazyliuk (2002) [9], Y. A. Zhalilo (2005), Z. S. Varnaliy (2013), S. I. Savchuk (2007) [10] and others.

In his studies, O.V. Kovalchuk (2006) refers to factors of competitiveness arch as the rate of renewal of production equipment at domestic enterprises, rates of science development, levels of social security, the rate of development of investment activity. O. Dykyi (2006) groups factors of competitive environment into six categories depending of their activity that creates conditions for competition. He supports Porter's ideas about the complex model of five forces of competition [11].

The issue of innovation-based competitiveness and competitive advantages is under constant review of different scientists who approach it from different angles. The role of innovation factors with regard to increasing the competitiveness of industry, the mechanisms and ways of solving systemic problems that cause the decline in competitiveness of basic branches of industry [13] were considered in the works of

O. M. Truschenko (2009) [12]. The need to take into account changes in the mechanism of competition based on innovation are discussed in the works of J. B. Bazyliuk (2002) [9] and J. A. Zhalila (2005). A number of domestic economists, such as V. M. Heyets (2002) and L. I. Fedulova (2007), justify the view that one of the key successful factors in innovation development is the level of development of innovative infrastructure. Changes in the structure of factors formatting competitiveness lead to appearance of new signs and aspects. Thus, a study of factors increasing competitiveness, based on a systemic approach, would have theoretical and practical importance in order to strengthen theoretical and methodological, as well as methodological and practical grounds of ways to improve the competitiveness of the country's economy.

3. Purpose

Evaluation of the level of competitiveness of the national economy and the analysis of the ways to improve its effectiveness determine the need for revision of this problem from the perspective of different scientific views, as well as for identification of factors that have a significant impact on the economy and its competitiveness. The article analyzes the place of Ukraine in the rating system of indicators for assessing the competitiveness of the national economy. A structural and logical model of the relationship between factors determining the formation and improvement of the competitiveness of the national economy is developed and proved in the article. It is impossible to bring the national economy to a new efficient level and provide high competitiveness in the world market without investigating the issue of increasing its competitiveness in terms of deepening globalization and the appearance of new countries with advanced real competitiveness.

4. Results

A factor is considered to be a driving force, a cause, a significant fact in any process, one of its necessary conditions, which determines its character or some features [8; 10, 102]. Factors of competitiveness are phenomena, events and situations that arise as driving forces causing the development of processes and, consequently, lead to the transformation of competitiveness of the object. Factors can move the competitiveness of an object upward and downward so that it can have positive and negative effects.

Factors increasing competitiveness are the factors presented in active and durable development of domestic country market, increasing GDP and export, stability of tax revenue to the budget, high employment, a rational and effective use of natural resources, conservation and development of innovation (scientific) potential of the country, stability in social and political spheres and the advanced place of the country in the international economic market.

In accordance with the world practice different indicators measuring the level of innovative development of the national economy are used to determine the factors increasing the competitiveness of the country's economy. There are several advantages of using international ratings, as they are: an important source of information for assessing the country's capacity, determining its strengths and weaknesses, emphasizing competitive advantages of its regions, informing investors about prospects of the business.

Ukraine's rating in the system of indicators for assessing the competitiveness of the national economy is presented in Figure 1. Ukraine has an average rating of the level of competitiveness (sometimes a low rating) compared to the developed countries leading the way in innovation.

The strengths of Ukraine's economy are: educational and scientific infrastructure, high percentage of the population with higher education, skilled workforce, labour market, average patent activity and R&D intensity and technological capabilities of industrial enterprises.

The main factors contributing to the negative trends of innovation development in Ukraine should be singled out after receiving the results of international observation, analysis and evaluation of innovative capabilities, technological readiness around the world:

Global Competitiveness Index (WEF)	2012-2013	2013-2014 2014-20		2014-2015	
	73 (147)	84 (148)		76 (144)	
Innovation and sophistication factors	2012-2013	2013-2014		2014-2015	
(Global Competitiveness Index (WEF))	71	93		92	
Technological Readiness	2012-2013	2013-2014 94		2014-2015	
(Global Competitiveness Index (WEF))	81			85	
Global Innovation Index (INSEAD)	2012	2013		2014	
	63 (141)	71 (142)		63 (143)	
Bloomberg's Global Innovation Index	2011	2012		2014	
	23 (50)	42 (50)		33 (50)	
Human Development Index	2005	2012		2013	
	76 (177)	78 (186)		83 (187)	
Doing business	2013	2014		2015	
	140 (189)	112 (189)	96 (189)	
World Competitiveness Index (IMD)	2012	2013	2014	2015	
The state of the s	56 (50)	49 (60)	49 (60)	60 (61)	
Knowledge Economy Index, KEI	2000	2012			
	54 (145)	56 (146)			
Global Innovation Index (BCG)	2004-08	2009-13			
	53 (110)	61 (110)			
World Intellectual Property Indicators	2010	2012			
	29 (103)	23 (103)			
Innovation Capability Index	2009-2010	2010-2011			
(ICI) EFD-GCN	54 (131)	61 (131)			
The International Innovation Index (BCGgroup)	2009				
	64 (110)				

Fig. 1: Rating of Ukraine in the system of indicators for the competitiveness of the national economy assessing

Source: [5]

- critical level of the development of institutional environment, poor quality of state regulation of the national economv:
- insufficient innovative activity, ability and willingness of enterprises to seek new ideas, implementation risk and expense of R&D, implementation of simulation strategy and copying innovation, development of foreign and sometimes not modern technology;
- deficient infrastructure, low level of interaction between universities and industry in research activities;
- inadequate resource base for enterprise innovation, low level of patenting; critical level of financial market development;
- small number of publications of scientific articles in relevant scientific and technical journals;
- complexity in business and the lack of appropriate conditions for innovative enterprise development;
- problems in the organization and liquidation of business activities, procedural mechanisms of taxes, relatively low level of investor protection in the national market, low capacity and intensity of competition in the domestic and certain local markets.

Factors of economic competitiveness in terms of innovative economy and under the influence of globalization, the development of scientific and technological progress, networks, information technologies and new knowledge are transformed in general and rep-

lenished by new ones. Taking into account domestic and foreign practices related to factors of competitiveness of the country's economy [1; 6, 142-161; 8; 9, 25-45; 11-13; 14], we have developed a model of interrelationship between factors increasing competitiveness at different levels of management which is shown in Figure 2.

In the current conditions of economic development, innovations and improvement of factors of production based on new knowledge are gaining weight. Factors of competitiveness based on the reinforced action of technological progress due to the creation and application of new technologies, knowledge and various innovations in all spheres of life are subject to constant change and complemented by new factors.

Competitiveness of the country is defined by various factors of higher (innovative, scientific and technical potential, infrastructure, etc.) and lower levels. Factors increasing competitiveness reflected at the lower level are distributed moving to higher levels of management and help identify potential of all levels.

These factors influence the relationship of existing competitive advantages and form new ones. Factors of competitiveness in the economy are complex, as they form a system which determines the synergistic effect and contributes to the development of competitive advantages. These benefits must be continuously maintained and improved under the terms of increasing the flow and accessibility of investment to new ideas, inventions, human capital, increasing the level of technological transfers of innovations, innovative counselling of all participants in the innovation process. The most impor-

Key parameters	Global policy, country's position in the global market, political and economic stability	Economic stability, living standards, national policy	Economic welfare	Price, product quality, market share, profit
Compe- titiveness as a result	National competitiveness	Competitiveness of industries sector, regional competitiveness	Regions competitiveness, competitiveness of enterprises	Actions the enterprises, competitiveness areas
Factors	Competitive environment and technological leadership. Development of an effective global strategy. Development of innovative potential. Integration, cooperation. The absence of the agreement and collaborations among competitors. Competitive advantages and innovations. Management added value. Global technology platform, information and technological infrastructure.			
Factors	Preconditions for the country's development. Competitive position of the state. Openness of markets and country. Integration and cooperation between compan New knowledge. Develop an innovative strategies of the count Strengthening international scientific coopera Simplification of foreign trade agreements an	ry. tion.		
Factors	Favourable geographical position, availability Attractive investment climate. Implementation of regional innovation strated Reduce regional economic imbalances. Well-developed infrastructure. Developing new organization forms and innov	of resources. ples.	sters).	
Factors	State support of business. Development of the network economy. Effective strategic management, develop an in Searching for competitive advantage of the er Increasing links between activities within the Development ability to create innovative idea. Investments in human capital, creative ability	nterprises. company and outsi s, the dominance o	de.	eve technologies.
Level	Megalevel	Macrolevel	Mesolevel	Microlevel

Fig. 2: Model of the relationship of factors increasing competitiveness at different levels of management Source: Developed by the authors

tant factors improving the competitiveness of our country are a structural innovation of economy, human development and strengthening of innovation culture.

Factors of competitiveness may create additional competitive advantages as the process of creation and implementation of innovations at enterprises produces an element of flexibility and adaptability to internal problems, external circumstances; promotes the development of strategic innovative management decisions resulting in lower expenses at enterprises, increased productivity and efficiency of labour. Moreover, innovations accelerate business processes through time savings, which also affects productivity and economic gaps and reduces lag. The described factors which increase competitiveness due to scientific and technological progress, as well as globalization, allow countries with different levels of economic development to enter the global market and occupy a competitive niche, to participate in international division of labour and increase productivity, to be involved in the global economic system, improve and develop additional coordination functions, to be part of the global production chain at suitable for country phases of the product life cycle and contribute to the formation of added value getting profits from cooperation with the global market. All these arguments generate more space for economic development improving the quality of life and economic prosperity, employment and economic stability, therefore strengthening competitiveness

5. Conclusions

The Ukrainian government declares the initiative of increasing the competitiveness and innovative development of the country each year. In fact, the government ignores the factors of socio-economic development. Ukraine's rating remains one of the lowest among different countries. To succeed in improving the competitiveness of the national economy, it is necessary to build an innovative outlook of society, the effective management of educational policies, to implement innovative projects in production of goods and services, to develop innovation culture at all levels of governance.

Consideration of the main factors affecting the competitiveness of economy, and the combination of all elements will increase the efficiency of the existing potential of economic development of Ukraine, help to identify constraints to the development of its competitiveness and improve competitiveness of the economy at all levels of governance.

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