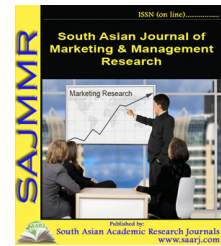




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CONCEPTUAL APPROACHES TO BUILDING A PERSPECTIVE MODEL OF NATIONAL INNOVATION SYSTEMS: LESSONS FOR UZBEKISTAN

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ABSTRACT

In the 21st century, innovation, innovation activity, and a science-based economy or innovation economy are given great importance in solving a variety of important problems in different countries. Current, the level of development of new knowledge and their effective use in socio-economic development is a very important advantage of the competitiveness of any country. This factor determines the role and weight of the country in the world community, the living standards of the people and national security. In industrialized countries, 80-95 percent of GDP growth is accounted for by new knowledge based on innovation. The rapid development of the "new economy", the growing interdependence of new technologies with capital markets, the creation of new knowledge, technologies, products, services and their effective use have laid the foundation for the emergence of national innovation systems as an institutional basis for innovative development.

KEYWORDS: *National Innovation Systems, NIS Of Uzbekistan, Concepts Of Innovation Development, Model Of NIS*

INTRODUCTION

The scheme of the economy based on scientific achievements can be thought of as a system based on four principles: the innovation system, the information society, continuing education and the innovation policy of the state.

Innovative systems are unique in each country. For example, B. Amabl, R. Barre and R. Buaye "Innovation systems in the age of globalization" concludes that it is impossible to create a universal model of the innovation system used in any society. The category "Social system of innovations" is proposed, which assumes that the NIS model depends on the matrix of procedures in society; Four categories of social innovation systems: "market" (USA, UK),

"meso-corporate" (Japan), "social-democratic" (Scandinavian countries), "European-integration" (Germany, France, Italy, the Netherlands) categories are analyzed.

The basis of the effectiveness of countries' innovations lies in the existence of a system-forming mechanism, which K. Freeman called the "National Innovation System" (Freeman C., Technology Policy and Economy Performance, London, Pinter Publishers, 1987).

The National Innovation System (NIS) can be described as follows: "NIS is a collection of different institutions (tools, associations, organizations, structures) that work together and individually to create and promote new technologies while developing policies that affect the innovation process. creates a framework that serves governments in implementation. In essence, it is an integrated system of interconnected institutions that serves to create, store, and transmit the knowledge, skills, and artifacts that define new technologies"(Metcalfe S., 1995).

However, so far there is no single definitive definition of the concept of NIS. A single methodology for the formation of NIS has also not been developed. In addition, NIS has different goals in different countries. In France, for example, the goal of NIS is believed to be to create additional jobs, while in Germany it is understood to be the development of advanced technologies.

Typically, the strategy for the development of NIS in each case is determined by the macroeconomic policy of the state and the historical and cultural traditions of each nation.

Nevertheless, there is some commonality in the structure of the existing NIS in highly developed countries, as well as in the composition of its elements (key parts), as well as in the classification of its functions and interaction schemes.

The following sectors are the basis of the National Innovation System of the countries:

- Generation of new knowledge (science and its branches in other fields);
- Dissemination and introduction of knowledge (research and development - (R&D), production of goods and services);
- Commercialization of innovations (market of scientific and technical products, commercial establishments);
- Education and training of employees;
- Innovative infrastructure, including financial support;
- Management and regulation (legal framework, macroeconomic and innovation policy of the state, corporate governance, market mechanisms).

Organizations and enterprises operating in these areas, depending on their innovation, are part or all of the NIS and form their subsystems.

Summarizing the experience of our country and abroad, it became clear that NIS, in essence, forms the institutional basis for the innovative development of the national economy, creating the necessary conditions and resources for effective scientific, scientific-technical and innovative activities in the country. This activity includes a set of total subjects and objects in the basic sectors of the economy: science, education, production and market, a set of legal, financial, social institutions that provide innovative activities.

DISCUSSION

Increasing product competitiveness, increasing profits, expanding market share, reducing production costs are the main factors that stimulate the introduction of innovations. Therefore, producers of goods and services will be at the center of innovation processes, and the ability of businesses to adopt and implement innovations has become a key factor influencing the innovation of the economy. A retrospective development analysis of perceptions of the of innovations nature and approaches to their classification in the past (Y. Shumpeter, R. T. Lape, F. Kotler, P.F. Drucker, etc.) also allows us to define this concept as follows: innovation means innovation development and introduction of new or improved products, services, systems, organizational devices in order to increase the market value of the business, increase its efficiency on the basis of better meeting certain social needs in order to achieve the expected economic, social, environmental and similar results. The National Innovation System (NIS) is the creation of new knowledge, its introduction into production, dissemination, effective use and transformation into innovation.

Developed infrastructure and institutions, which develop, commercialize and implement innovations in a global competitive environment, ensure the country's superiority. The fact that the countries that have suffered to some extent from the global financial and economic crisis have taken timely measures to re-equip production, adopt new technologies and thus produce competitive products is proof that we have suffered less from this crisis.

Finland's experience in this area is exemplary. Until 1991, the export of this country, which had very few natural resources, depended on the former USSR. The collapse of the Soviet Union and the global economic crisis of the 1990s had a major negative impact on the Finnish economy, with the unemployment rate rising from 3.5 percent in 1990 to 20 percent in 1993. To overcome this situation, in 1994 the government developed a new economic program aimed at accelerating innovative development. To this end, the government has implemented a very active and well-developed National Innovation System, which is personally overseen by the President of Finland. In particular, along with increasing the competitiveness of the country's industries, the main focus was on the development of new high-tech industries, as well as supporting innovative development and entrepreneurship at all stages, while focusing on scientific research, implementation of their results and globalization. relations with the market have been established effectively. Thus, the country emerged from the global economic crisis without much loss.

Ten years after the introduction of the national innovation system, in 2003, The Institute for Management Development and the World Economic Forum (WEF) ranked Finland 1st and 2nd in the ranking of the most competitive countries. At the same time, the WEF highlighted the quality of the country's national innovation system.

Along with a number of developed countries, some countries of Southeast Asia have also entered the stage of sustainable development based on the expansion of innovation processes in the real sector of the economy. Thanks to the creation of NIS in these countries, the transition to an innovative path of development has been achieved. As a natural result of continuous industrial development, NIS has enabled these countries to provide leadership in the field of technology and raise the competitiveness of their economies to a higher level.

At a time when the world's leading economies are on the path of new growth in science and innovation, Uzbekistan must strive to move to an innovative path of modernization of the economy in the short term in order to rise to the level of world scientific and technological

development. To this end, it is necessary to identify clear priorities for the development of science, technology and engineering in the framework of the formation of a national innovation system based on the adaptation of science and technology to market conditions, the rapid development of fundamental sciences, the most important research and development, as well as legal protection of intellectual property. It will be necessary to go the way of efficient use.

Recognition of the crucial importance of knowledge and innovation for the "new" economy, the ability to attract new elements to create, disseminate and use new knowledge, expand the number of participants in this process, as well as harmonize our national economy with world economic systems and principles - One of the main advantages of NIS. In this work, it will be important to study the experience of the most advanced countries in Uzbekistan, successful ways to build an effective innovative economy, including the commercialization of scientific developments.

In our country, the content and essence of all work in this area has begun to change radically. Methods of organization and management of communication technologies, modern high-tech types of services, mobile communication, high-speed Internet, cable television, remote banking services, procedures for organizing the maintenance and repair of agricultural and automotive and technological equipment is improving.

Over the past decade, the share of traditional types of household and communal services has fallen from 16 percent to 9.5 percent, while the share of high-tech services has increased to 21.2 percent. In recent years, among high-tech services, communications and information services have developed rapidly, growing 3.3 times over five years and 24.5 percent in the reporting year.

At the same time, it should be noted that the share of Uzbekistan in the international market of scientific products is extremely small: according to various estimates, this share is 0.001%. Technology sales are also not ideal. Engineering services dominate in this area, with the share of patents, licenses and know-how (news) accounting for only 0.3% of total exports and 0.7% of imports.

In order to mobilize the country's potential to address the priority issues of socio-economic and scientific-technological development, it is necessary to identify conceptual approaches to innovative development, as well as create a new institutional environment that facilitates the effective organization of these processes. For the rapid development of Uzbekistan in the field of science and innovation, both the state and private business in the innovative development will have to constantly work towards a specific goal.

Therefore, it is necessary to accelerate the process of forming a perfect NIS in Uzbekistan. To do this, it is necessary to use the world experience to develop a concept of transition to an innovative economy and a strategy for the formation of a national innovation system based on the existing procedures of a market economy.

In order to find a model (copy) of innovation that suits the conditions of Uzbekistan, it is necessary to analyze the national characteristics of the industry in other countries and understand the reasons for these features. Only then, in order to make the development of innovation processes in the country as effective as possible, it would be appropriate to discuss the acceptability of a "new model" of innovative development in line with the national characteristics of Uzbekistan.

Whichever way is chosen, the formation of an innovative system will have to take into account the priorities in the field of economic development of the country in terms of sustainable development, economic security and technological independence.

However, before embarking on the creation of a national innovation system, it is necessary to identify the sources of innovation. After that, each country will form its own innovation strategy. Sources of innovation in world theory and practice are of two main types:

- import (or purchase) of technologies and knowledge available abroad, their adaptation to local conditions and their use taking into account the characteristics of national economies;
- Creation of new knowledge and technologies not only in the country but also in the world.

In our opinion, the main goal of innovation policy should be the creation of a system of knowledge generation, stimulating the activity of the private sector, thus developing and implementing projects and programs for the creation of competitive goods and services.

Our esteemed scientists, Sattorkulov and Toshbaev, who have conducted research in this area, describe the factors that ensure that innovations are used most effectively in society without lying idle¹:

- a set of laws that regulate all the factors of priority of innovation activities;
- investment-financial block, which provides financial support for innovations at each stage of practical activity, especially in the initial stages;
- support of risky projects and programs by the state through the provision of special benefits and privileges, their state orders and public procurement of finished products;
- information support of innovation activities, including the creation of an active database of projects;
- creation of a network of supportive infrastructure and technology transfer, both at the level of individual enterprises and organizations, as well as at the national level;
- training of specialists in various fields of innovation and technological management;
- formation of a team of experts providing various services in the field of technology and management;
- Establish public awareness of knowledge and experience in the field of innovation.

We also agree with the opinion of above mentioned authors and give the following view of points:

- each of these elements is essential, but not absolutely sufficient. In any case, their simultaneous implementation allows to create the necessary innovative environment for conducting innovative activities;
- scientificity, structure, integrity are the most important principles of the creation of the MIT structure;
- the principle of science requires the objectivity of the analysis, the conclusions and recommendations are based on scientific evidence;
- the principle of systematization requires the comprehensiveness, interdependence and completeness of events;

- the principle of integrity ensures the construction of a single, integrated MIT on the basis of a single ideology, a single information space, a single economic and legal environment;
- an integrated MIT integrates all components into a single unit, eliminates departmental differences, and eliminates duplication of tasks and tools.

CONCLUSION

The Concept of Innovative Development of the Republic of Uzbekistan for 2012-2020 includes the creation of an effective national innovation system that provides economic, legal and organizational conditions for the country's economy to the path of innovative development, bringing innovative products of domestic producers to foreign markets. and strengthening tasks with academic staff were identified. Some work has been done to accomplish these tasks. For example, the achievements in the implementation of the model of Southeast Asian countries show that it is possible to achieve the desired results through the introduction of technologies created in our country and studied abroad, and their rapid implementation in enterprises.

Summarizing the above, it should be noted that in addition to the proposed main areas of business regulation, it is possible to specify other areas and forms of legal support for business entities. These include, first of all, ensuring a high level of quality of goods (services), prevention of environmental protection, fire safety and other hazards, compliance with sanitary and hygienic standards in the workplace, and so on.

The proposed conceptual approach of the MIT of Uzbekistan, taking into account the experience of developed countries, provides for the use of a life-tested version of the MIT, providing a model that strengthens the scientific and technological potential of the Uzbek economy in order to give a market character. The changing processes of our national economy require significant changes in policy in the field of science and innovation. The most important grounds for the introduction of new elements in the practice of innovation should be described.

It is necessary to master advanced methods of organizing and organizing research, to create an innovative infrastructure and market for intellectual property, to determine the specialization of organizations within the national innovation system. To do this, it is necessary to focus the existing scientific and technological potential on the development and implementation of innovations everywhere, mobilize all levels of government, science and technology organizations and the business sector to accelerate the use of scientific achievements and advanced technologies to achieve strategic national priorities.

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