

CURRENT MODELS OF INNOVATION DEVELOPMENT

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This article is devoted to the study of contemporary models and innovative strategies of different countries in the world and Ukraine in particular. This publication examines three basic models of innovative economic development and offers the necessary steps for building an innovative model of Ukraine.

Introduction It should be noted the need for a significant reorientation of the economy in the modern areas of technology development at the current stage of Ukraine's development. The National Model of Innovation Development, which should take into account the individual characteristics and potential of the Ukrainian economy, should play a leading role. To do this, you need to explore the models of innovation development, which are widespread at the present stage of world globalization.

Task formulation. The purpose of the article is to reveal the essence and peculiarities of innovative models of development of the leading countries of the world and to apply their experience in constructing an innovative model of Ukraine's economic development.

Methods of research. When the article was written, it used general scientific methods of research, methods of systems and comparative analysis were used, on the basis of which the analysis of the essence of innovative models of economic development of the leading countries of the world was carried out, and measures were proposed for constructing an innovative model of Ukraine's development.

Results, their discussion and perspectives. The change into an innovative model of development is the most characteristic feature of the current stage of the global economy. The main subject of innovative development of the national economy is the state, which determines its choice of a model. The state creates conditions for increasing the innovation potential of the country, defines priorities in scientific and technological activities and supports their development through a system of financial, credit and tax instruments, creates informational institutional mechanisms of resource support innovation.

The existing scientific potential of Ukraine is able to ensure its economic progress, but, unfortunately, the low level of innovation activity slows this process. The main problems of modern innovation policy of Ukraine are:

- insignificant demand for innovation;
- imperfection of the financing scientific research system;
- absence of efficient organization and management of new products;
- inconsistency of innovation projects which prevents the growth of efficient use of limited resources.

Studying the features of economic development American scientist M. Porter identified four stages of economic development of the national economy [1]:

1. The development on the basis of production factors.
2. The development based on investments.
3. The development based on innovation activity.
4. The development as a means of increasing prosperity.

The peculiarity of innovative development of Ukraine is that different sectors of Ukrainian economy are at different stages, and therefore they need to develop differentiated development strategies.

A certain type of economic development corresponds to each of these stages: extensive, intensive and innovative. Practical realization of innovative economic development involves the formation of a development model.

The innovative model of economic development is the theoretical expression of innovation priorities, areas, structures, systems, motivation, strategies, mechanisms that aim to create the innovative type of development of the national economy. Its realization involves research providing long-term development programs, the creation of the innovation financing mechanism, the realization of marketing concepts in the departments of innovation, the implementation of innovative programs, creating advanced information management system, solving strategic social and public problems. Innovation activity affects the level of economic development of any country: those countries benefit in today's globalized process that chose an innovative model of economic development as the main priority of long-term strategy to increase the competitiveness of the country.

The innovative model is a special system of relations, institutes and institutions that create the right conditions for science and technology within the limits and under the influence of certain state innovation policy. There are three main models of economic development:

1. The resource model. It is used without high-tech production, consists of three interconnected components: natural resources, manufacture and money.
2. Innovative model. It consists of the transformation of money into knowledge, knowledge into innovation and innovative product in the money.
3. Intellectual and donor model. It has some features of the innovative model, which does not include the production stage.

Having analyzed the model of economic development, we can conclude that the most effective is the innovative model, despite the competitiveness of countries in the world.

The formation of the innovative model of economic development in each country is influenced by many factors, both external and internal environment, but despite the variety of models of national economies there are three main models in the world.

The first model provides guidance on science reserves and realization of large-scale targeted projects that cover all stages of the research and production cycle. Target policy involves the use of an appropriate range of measures without targeting specific areas. The main thing is to exclude factors that have a negative effect on innovations irrespective of the economy sectors.

This model is brightly represented in the USA. So, in 1898 the American industry operated only 139 research laboratories, and 20 years later their number was 692 [2]. In other words, in the USA economy there was a rapid increase in the number of scientific departments of private companies in the early twentieth century. In the future, large enterprises have realized the importance of their research laboratories to create new products that provide competitive advantages.

During this period scientific research laboratories of corporations became the main dominant element of the innovation system that was formed. This innovative system was introduced by several hundreds of corporation's research facilities in the mid 20s of the twentieth century in the United States. The dominance of market factors of the areas of innovation in the early stages of capitalist economy is characteristic for European countries as well.

The peculiarity of the formation of the USA national innovation system in the late XIX - early XX century is a close relationship of industry and universities. Active government policy on universities, especially research ones, and powerful financial support provided a privileged education system in the USA [3-4].

At the end of the twentieth century the stage of formation of the new features of universities in national innovation systems began, - various technology transfer centers were created and developed: innovation centers, technology parks, incubators of new technologies which contributed to the selection of promising scientific research and extension of new technologies for the benefit of small and medium businesses. At the same time, venture finance began to apply this form of interaction between scientists and entrepreneurs.

The second model involves innovative development orientation to spreading innovation, creating a favorable environment for innovation, rationalization of economic structure.

A major expansion of the network of public research laboratories and institutions, increasing the share of public funding and strengthening the regulatory functions of the state in science became the push accelerating the evolution of national innovation systems in the second half of the twentieth century.

These trends are most clearly manifested in the UK, Germany and France [2].

This period is marked by the stimulation of import of technical innovations, training and assignment of experts abroad, bonus system, technical expertise and advice at public expense, which in turn contributed to the establishment of high standards of technological development and scientific and engineering activities in the fields of national economy.

The third model of innovative development is focused on stimulating innovation through the development of innovative infrastructure software perceptions of scientific and technological progress and coordination in various economic sectors in the field of science and technology, including the small business to the innovation process by entering the technological chains of large enterprises.

This model is characterized by the stimulation of specific priority industries. The main element of state regulation and innovative economic development tool is plans for economic and social development and comprehensive programs that take into account the strategic directions of the country's development [5]. The technological development of Japan was carried out by the strategic directions of innovative development, and although these mechanisms appeared over twenty years ago, some of them, with some modification, can now be used in solving similar problems in Ukraine.

Economics

Based on the experience of the Japanese economy we can identify the most effective mechanisms for the promotion of innovative development:

- parallel implementation of scientific and technical programs;
- strategic international alliances, techno;
- creating telecommunication networks;
- risk capital and venture capital investment;
- selective import encourage etc.

The principle of parallel implementation of research programs is linked to the solution of tasks, including these:

- creating competition among developers;
- joint efforts;
- maintaining permanent contacts between enterprises, developers.

The purpose of strategic international alliances is gaining access to the latest international developments, promotion companies located in the country, but belong to foreign owners, joint scientific research.

Creating a techno focuses on development of the regional economy, modernization of depressed areas, strengthening the integration of science and industry.

Current indirect methods of regulation involve the promotion of scientific and technical integration, the development of innovation infrastructure, developing long-term technology forecasts, simplification of innovative companies creation.

The global crisis has exacerbated the urgency of accelerating the innovation process for companies, industries and national economies in general. The crisis is causing new redistribution of total world economic space. Therefore, discussions around innovative development model are now translated into concrete strategy for states and companies that expect to win in the competition for markets in the post-crisis period [6-7].

Thus, the modern innovation process has a complex multidimensional character. The application of any model of innovative development system essentially depends on macro and microeconomic conditions of business activity of certain economic agents - members of the modern innovation process. The sources of innovation at this stage may be research and knowledge gained in the process of learning by doing. The elements of innovation model of a country should be logistical, financial, organizational and human capabilities, social and psychological factors of a group.

The innovative way of economic development of Ukraine is the most advanced means of achieving economic growth. The most developed countries follow this way; there are all preconditions for its implementation in Ukraine. A continuous and purposeful process of searching, generating and implementing innovations is at the core of the innovative development that makes it possible not only to increase the efficiency of social production, but also change the ways of its development fundamentally.

But it is also necessary to mention that the construction of a model of innovative development to achieve the competitiveness of Ukraine in the global world economy needs strengthening innovation oriented industrial policy. The purpose is to overcome significant differences between the existing potential of the innovative development (significant opportunities for effective scientific research in terms of the development of higher education, the level of research institutions, the number and qualifications of scientists and engineers) and low efficiency of its use.

Conclusion. It can be concluded from the above that the creation of an innovative model of economic development in Ukraine will require enormous effort, resources, political will and mobilization of high society. The success of a country or company depends on its ability to find its position in the marketplace to offer more competitive products than other market participants. This is possible only in conditions of high innovational support of the national economy and individual companies. Ukraine will become a high-tech country with an innovative model of economic growth, providing the adequacy of industry to scientific and technical achievements of post-industrial society. To overcome the substantial backlog of Ukraine from developed countries as for productivity in all sectors of the economy, renew fixed assets, and implement energy-saving technologies can only be based on industrial innovation. Creating a coherent industrial and scientific-technological complex will contribute to the full satisfaction of the internal needs of the country and exports of high technology products.

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