

IMPACT OF TECHNOLOGY TRANSFER ON INCREASING THE COMPETITIVENESS
OF THE NATIONAL ECONOMY

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Annotation: V state issledovany teoreticheskie i prakticheskie aspekti otsenki i kontrolya vliyaniya transferta tekhnologii na povyslenie konkurentosposobnosti natsional ekonomiki.

Key words: transfer, innovation, technology, national economy, competitiveness, potential.

Statement of the problem: At present, in most developed countries of the world, the process of formation of a post-industrial society is taking place, an economy of an innovative type is actively being formed, and the transition of the economy of developed countries to a technological structure is being carried out.

Analysis of recent research and publications. On the basis of the studied literature of such authors as Saibel N.Yu. and Bertosha E.V.: Innovations are becoming one of the main economic resources that affect the competitiveness of enterprises. The level of competitiveness of enterprises and firms is influenced by the scientific and technical level and the degree of improvement of production technologies, the use of the latest inventions and discoveries, the introduction of modern forms and methods of organizing production and labor. Only a developed technology transfer system will make it possible to create domestic, acquire and adapt foreign developments aimed at increasing the level of the country's competitiveness, since the possession of technologies is the most obvious reason for the total wealth of wealthy nations.

Isolation of previously unsolved parts of the general problem.

At the present stage of development of the entire economic society innovations are a strategic tool capable of increasing the competitiveness of the state's products and its economic growth.

Purpose of the article: The purpose of this work is to identify the main aspects of increasing the competitiveness of national products, in the context of the modernization of the national economy, as well as solving problems related to the introduction of innovative developments of other countries in the economy of a given country, or a particular enterprise.

As a new efficient economy emerges, innovations increasingly determine the dynamics and quality of economic development. Effective strategic management of innovations, technology transfer and knowledge is becoming a critical condition for ensuring the competitiveness of the country, industries and companies associated with the production of high technology products. As world practice shows, successful innovation activity is impossible without a system of effective state support. One of the most important reasons for the growing role of the state in the transition to a new model of economic development is that the market itself directs private companies to obtain predictable commercial results and high incomes in the short term, the desire to maintain leadership in the market, both due to the monopoly right to possession of certain factors of production (raw materials, technologies, etc.), and due to the formation of artificial obstacles for other innovative companies.

The task of creating general conditions for the development of entrepreneurship and innovation activity by the state, creating an environment that stimulates innovation risk, helps to attract private and foreign capital in the creation of high-tech products, stimulate various forms of cooperation between the state, university and entrepreneurial sectors of scientific and industrial activity. It is the partnership between the state and private business that reduces the risks of inefficient decisions in the field of innovation. Therefore, the center of gravity in solving the problem of the relationship between the state and the market is transferred to the aspects of their mutual complementarity, rather than opposing one to the other. In this context, national innovation systems should be formed.

At the state level, these areas are determined taking into account the primary needs of the state and its innovative potential. State support allows in certain scientific fields not to lose the achieved scientific positions or to influence the change in the technological structure of economic development. That is why the concentration of resources in the priority areas of development of science and technology should be attributed to the principles of building innovation policy.

An important condition for cooperation between science and industry is the market mechanism of interaction and attraction of young scientists to participate in the most important scientific and innovative developments. In our country, there are still not enough scientific developments for all types of human activity, which, moreover, could be classified as innovative. In such cases, in order to revive the economy of enterprises, industries, human activities that have stopped in their development, a multi-stage technology transfer mechanism is used, i.e. introduction of innovative developments of other countries into the economy of a given country, or a particular enterprise.

Technology transfer is also applicable when own innovative developments are more expensive than world ones. Considering that the economy of Uzbekistan has switched to the path of innovative development and, therefore, flexibility, efficiency, gain in time and money are needed in the course of updating the production process. Now in the world economy there is a change of eras, technological structures. The world has moved to the fifth technological order. In order for our country's economy not to lag behind the world's, we only need funding for innovation activities of the fifth technological order, which means we need to do more transfers. Technology transfer can be applied in one country in the process of adapting the innovative development of one enterprise to another.

There are several models of innovative development in the world. French, for example, provides for the study of technical, technological, economic, environmental, social and other problems of enterprises and the search for research teams that can provide a profitable solution, while improving the competitive position of a particular enterprise. The English model, on the contrary, having a database of scientific developments, allows you to choose an enterprise in which it is profitable to implement the results of scientific activity.

For our country, at the stage of formation of innovative activity, it is optimal to study the problems of enterprises, on the one hand, and create a database of scientific developments, on the other. For Uzbekistan, the achievement of innovative and technological development is critical, since only through this path it is possible to create a modern technological base, produce competitive products, rational use of natural resources, increase the efficiency of agriculture, and strengthen international competitiveness. In addition, the global financial and economic crisis that began in mid-2008 poses new challenges, including for the industry of Uzbekistan. In this regard, the government of Uzbekistan in 2009 took a number of measures to reduce costs, search for new, alternative and more efficient methods of production in order to increase the level of competitiveness of domestic goods and services in international markets. When solving this problem, one should proceed from its features.

The specificity of products such as the results of creative work leaves its mark on the functioning of the technology market, creating significant differences between it and other markets. So, the features of trade on it include: a long and diverse nature of cooperation, frequent use of a combination of several technology carriers (for example, export and rental of industrial equipment, scientific and technical cooperation, joint ventures), more complex procedures for processing transactions, etc.

The exchange of the results of creative activity (especially in science, technology and management) is the most important factor of progress. Therefore, the state controls this area and, creating the prerequisites for developing more effective results, stops citizens' attempts to use the achievements of the human mind to the detriment of society. In particular, it ensures the protection of the results of the creative work of citizens and organizations by introducing the legal institution of intellectual property.

Interstate and transnational technology transfers are based on developed political, economic, scientific, technical and humanitarian ties between countries. The creation of political, international legal, economic and other conditions for establishing mutually beneficial trade and technology exchanges is the responsibility of the federal authorities and institutions, but to a large extent depends on the independent efforts of the regions.

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Based on the individual potential of the existing structure of the economy, location, situation at enterprises, each region needs its own set of measures, different from others.

The main trends in the activities of the state in the innovation sphere of developed countries have led to the formation of universal, proven by world practice and proven to be effective recommendations regarding the content and main tasks of state support for innovation, the main of which include:

- adoption of appropriate regulatory and legal decisions in areas that are traditionally assigned to the state;
- actively promote the transfer of technologies created in the areas of traditional responsibility of the state;
- play a leading role in cooperation between the state and the private sector in all areas of innovation activity, if possible, participate in certain nodes of the “chain” of creating innovation that have both great public benefit and significance for the private sector;
- focusing national efforts on technologies that are critical for enterprises in a steadily

The object of innovation policy is the resource potential of the country, in which the central place is occupied by intellectual potential. This is due to the limited traditional resources and the possibility of unlimited involvement of intellectual potential in economic activity.

The intellectual potential can be characterized through a set of parameters, which include the resource support of scientific activity (financing, material, technical and organizational support) and the amount of accumulated knowledge (the most important discoveries, inventions). In the conditions of extensive development of innovative activity, the leading role is played by quantitative indicators that determine the resource provision of intellectual potential. However, when the possibilities of extensive development of the economy are exhausted, the role of the quantitative use of scientific and technical potential (the potential of accumulated knowledge that was not in demand) increases.

The presence of a powerful scientific and technical potential is a necessary but not sufficient condition for effective economic growth. In the conditions of transition to the market, the determining factor in the development of scientific and technical potential is the mechanism of the functioning of the economy, in accordance with which the policy of using intellectual potential is built.

When forming the state innovation policy, the following problems arise: ensuring the relationship between the economic, social, scientific and technical aspects of development within the framework of a unified innovation policy; taking into account the degree of uncertainty of innovation processes; ensuring the optimal use of resources based on alternative forecasting.

Innovative activity is a fundamentally new type of human activity that determines the priorities of modern production and consumption. According to analysts who directly study the economic impact of scientific and technological progress on the development of society, it has been established that the degree of influence of this factor on the gross national product ranges from 2/3 (L. Kantorovich) to 87-90% (R. Solow). That is why the development of an effective state scientific and innovation policy is becoming a defining element of state regulation of the economy.

The extent to which market means will be able to solve the problems of increasing the innovative activity of enterprises and the effectiveness of their interaction in managing innovation and technology transfer will depend on the vector of development of the country as a whole. Technology transfer is the movement of technology using any information channels from one of its individual or collective carriers to another. All measures suitable for improving the competitiveness of products, increasing productivity or performance of the enterprise, taken together, determine the promotion of innovation. From a technological point of view, innovation is defined as an invention introduced into practice, such as, for example, a new type of product or a production process.

Technology transfer, therefore, is considered as one of the aspects of the innovation process and represents the transfer of scientific and technical knowledge and experience for the provision of scientific and technical services, the application of technological processes, and the production of products. The criteria for the existence of the fact of transfer is the active use of the transferred technology for production purposes

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Transfer of new technology at the time of its development, i.e. at the beginning of its life cycle, due to the company's desire to form and maintain monopoly power in the relevant product market. At this stage, first of all, small, newly organized firms for this purpose, usually created by carriers of the introduced technology, show interest in owning an innovation. Another category of buyers of new technology are representatives of large businesses that monopolize an already existing market and intend to secure their economic position by conserving or developing it by acquiring an innovation. Possession of a unique technology enables its owner for a certain period of time, on completely legal grounds, to receive excess profits from its use.

To refine the technology and bring it to a level where it becomes possible to replicate, providing additional income, additional capital investments (both financial and intellectual) are needed. Such capital is possessed either by representatives of large businesses (financial resources) or knowledge carriers (intellectual capital). According to world statistics, on average, in the total cost of technology development, the scientific component takes 33.5%, patenting and licensing - 4.6%, work in the field of design and production of design and technological documentation - 24%, market analysis - 6, 6%. To complete the development, additional capital investments in patenting innovations are required - at the rate of 0.137 dollars. for 1 dollar R & D costs, for the development of a new product design - \$ 0.716, for marketing research - \$ 0.197. The forms of implementation of a new technology at this stage of its development are the acquisition of the most complete package of intellectual property rights in the form of a patent or an exclusive license and a strategic alliance in the field of joint R&D.

At present, in the developed countries of the West, the share of new or improved technologies, equipment and other products containing new knowledge or solutions accounts for 70 to 85% of the growth in gross domestic product. They concentrate more than 90% of the world's scientific potential and control 80% of the global high-tech market, the volume of which is currently estimated at 2.5-3 trillion. dollars, which exceeds the market of raw materials and energy resources. It is expected that in 15 years it will reach 4 trillion. Doll.

Profits from the sale of high technology products are enormous. Annually, the volume of exports of science-intensive products brings the United States - about 700 billion dollars, Germany - 530 billion, Japan - 400 billion dollars.

Enterprises use their own resources or borrowed funds in the form of loans to finance technology purchases.

Theoretically, it is possible to master the borrowed technology of non-monetary costs at the initial stage, paying the seller on the terms of royalties (annual deductions) after mastering the production of products and receiving the necessary technological equipment, tooling and certain types of materials, components on the terms of leasing, compensation or barter transactions. However, in practice, financing of technology transfer agreements requires start-up funds amounting to 20-30% of the total cost of technology.

The current stage of world economic development is characterized by accelerated rates of scientific and technological progress and increasing intellectualization of the main factors of production. Intensive research and development of new technologies on their basis, access to world markets with them and the development of international integration in the scientific and industrial sphere within the emerging global economy have actually already become a strategic model of economic growth for industrialized countries.

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