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# FOREIGN EXPERIENCE IN IMPROVING THE EFFICIENCY OF THE SYSTEM OF STATE REGULATION OF INNOVATION ACTIVITIES

Abstract. Therefore, the transition to an innovative economy requires the development of a network of regional innovation systems. At the same time, the regional innovation policy should be aimed at the formation of regional innovation clusters as the basis of the innovation system of the region, where the best conditions for the innovation process are located. Of particular interest are regions with high scientific potential (as a rule, they include scientific fences and a number of academic towns and other territories with high scientific potential), as they have a significant stock of developments ready for commercialization. It is on the basis of such territories that it is necessary to develop regional innovation clusters.

Despite the fact that the problem has been studied and the high level of attention, many of its aspects remain unresolved. Many authors have pointed out the limited possibilities of using classical methods of evaluating investment projects for innovation, and thus the proposed alternatives have not been widely used.

The practical and actual significance of the problems of management and evaluation of innovative projects and the use of the most effective methods for this purpose, determined the choice of the dissertation topic, its content, goals and problems.

The practical significance of Makala is in the development of management algorithms and evaluation methods for innovative projects. The algorithm includes intra-stage project evaluation and methodological justification of the manager's decision-making in the implementation of the project at each stage and ensuring the need to adjust the strategy. In addition, the analysis of the main barriers to practical implementation was carried out and recommendations were developed to eliminate them. The developed method includes all the prerequisites for successful application in the specific activity of the region.

Key words: state regulation, innovation, innovation potential, efficiency, adaptation of foreign experience.

**Introduction.** For Kazakhstan, the formation of innovation infrastructure is of particular importance, since science is concentrated only in a few regions, and within the framework of the planned economy, this component of the innovation system is practically absent and it is necessary to start everything from scratch.

To date, Kazakhstan has not achieved the planned growth in all areas of innovation activity. This is largely due to a change in the economic situation in the country against the background of the introduction of sanctions, a slowdown in the pace of structural progress in the innovation sphere, which leads to lagging behind the leading countries. These circumstances indicate that there are a number of unresolved problems in the domestic innovation system [1].

For further research, it is necessary to look at the innovative infrastructure of the regions, identify their features, advantages and disadvantages, and determine what features affect the harmonious and effective development of the region [2].

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The concept of regional innovation systems linking innovation and spatial development is in the process of active formation, as evidenced by the lack of generally accepted rules and terms, despite the large number of publications in this area. At this stage, it is necessary to identify a certain set of rice development patterns in Kazakhstan's regions, which are characterized by a certain specificity, the calculation of which is necessary when choosing methods for further rice development, including methods of state support for innovations that are adequate to the specifics of the regional innovation system. Recently, the creation of conditions for sustainable innovative development of the economy is associated with the formation of an innovative ecosystem.

It describes the modern model of innovative development of the economy of a region or country and is essentially an actual version of early concepts, the first and most important of which is the theory of the national innovation system.

In the context of modern economic competition, territories that provide the most favorable conditions for the creation and implementation of new scientific and technical ideas, the introduction of promising technologies and developments benefit. Therefore, the study of the problems of developing regional innovation infrastructure, which creates conditions for generating innovations and improving production facilities that are in demand by the customer and the market, has now become particularly relevant.

**Methods.** The paper uses methods of modeling and comparative analysis. To solve individual tasks, we used the methods of the «tree» of goals and expert assessments. The information and empirical base of the research is normative legal acts of regional and municipal levels; official data of Republican and regional authorities; methodological, scientific, educational and reference literature, Internet materials, as well as research conducted by the authors.

Methodological research is a General method of scientific knowledge-analysis and synthesis, Content-Media analysis of sociography, system-comparative method that allows to determine the Genesis, sequence and functioning of stages of development of state regulation of innovative development in the country as a whole.

Research and development work in the field of development and effective adaptation of foreign experience in managing the development of municipal institutions.

**Results and discussion.** In the world practice, various types of tax incentives are used that stimulate innovation:

- provision of a tax credit, i.e. transfer of tax payments in terms of costs, from profit to innovative goals;

- «ax holidays» for income over several years from the implementation of innovative projects»;

- preferential taxation of dividends of legal entities and individuals received on shares of innovative organizations;

- reduction of the tax rate on income focused on custom and combined Research and development activities;

- links for providing discounts taking into account the priority of projects being implemented;

- preferential taxation of profits obtained as a result of the use of patents, licenses, know-how and other intangible assets that are part of private ownership;

- Reduction of income tax on the cost of equipment transferred to research institutes, universities and other innovative organizations;

- exclusion of services related to innovation financing, contributions from charitable foundations from taxable income;

- transfer of part of the profit to the next preferential taxation, special accounts of the Innovation Organization in the case of use for innovative purposes.

Currently, there are three types of innovative activities of developed countries:

1) awareness of leadership in science, implementation of large-scale target markets, covering all stages of the scientific and production stage, with a significant share of scientific and innovative value in the defense sector (USA, England, France);

2) creation of a favorable innovation environment in the rationalization of the entire structure of the economy (Germany, Sweden, Switzerland), awareness of the spread of news;

3) ensuring coordination of activities of various sectors in the field of Science and technology, readiness for the achievements of the world scientific and technical progress, orientation to stimulating innovations through the development of innovative infrastructure.

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Let's look at the experience of organizing innovation activities on the example of several countries. Features of supporting innovation activities in the United States

Institutions of state regulation of innovation activities in the United States, which:

- American Science Foundation (oversees basic research);
- American Scientific Council (oversees industry and universities);
- NASA (National Space Agency);
- National Bureau of standards;
- National Institute of Health;
- Ministry of Defense;
- National Center for industrial research;
- National Academy of Sciences;
- National Technical Academy;
- The American community in contributing to the development of science.

Many structures are financed from the federal budget. The state encourages the creation of venture firms and research centers. According to the proposal of the US National Science Foundation, the most profitable venture firms can be fully or partially funded from the federal budget for the first 5 years.

Highly scientific and effective research is fully funded by the state, due to strong international competition, risk, complexity of high costs.

According to the National Science Foundation of the United States, the share of small businesses in the innovative period has increased from research work to scientific and technical growth. Over the past two decades, small and medium-sized firms (with employees of up to 500 people) have received жаңа 2.5 per employee, or IIIbIF 2.5 per project, more than large corporations (10,000 people).

As in other countries of the technological core, in the United States, investment funds operate venture firms («risky» capital firms) and «spin-off» firms (special laboratories and government research centers, independent institutes, separated from universities, firms-«Descendants») [3].

The analysis of the organization of financing of large-scale investment projects shows that in the industrialized countries of the West there is a continuous diversity of project financing schemes [4]. These drawings can be grouped by different symbols.

The state actively finances «spin-off» firms through large non-profit research centers and universities, which are constantly separated from these firms and concentrated among them. In addition, it is necessary to note the practice of free issuance of licenses for the commercial use of products that are the property of the federal government and are patented in the course of budgetary research.

An important element of direct support for innovation processes is the formation of the state innovation infrastructure. The state can create consulting centers and central innovation distribution networks that provide innovative business services.

The state creates conditions for the formation of the innovation market (information about state publications, exhibitions, exchanges, fairs, etc.) and, as an example, acts as its agent in the sale and purchase of licenses [5].

Government agencies require forecasting and monitoring of innovation trends in the country and abroad, but it is still the search for effective advanced technologies for large-scale implementation. Since it is difficult for private organizations to assess the possible effectiveness of innovations implemented on a general economic scale, state expertise of innovative projects occupies a significant place.

Innovative organizations are provided with benefits for paying for public services - communications, heat, electricity, etc. There are also measures of spiritual support: awarding state awards to outstanding scientists and innovators, awarding honorary positions, promoting innovative methods of economic management, using innovative products and services, visiting leading innovative organizations with the state leadership, supporting the self-organization of the scientific and technical community, participation of representatives of scientific and technical intelligentsia at important state events, etc. [6]

Among the measures of comprehensive regulation, it is necessary to note tax incentives. Preferential taxation of income is carried out by reducing the tax base, which is obtained by deducting from tax payments, reducing tax rates.

A distinctive feature of the state innovation policy in the United States is the low «departmental» concentration of decisions on the implementation of innovative projects (for example, very high in Japan)

and processing. In order to develop innovation activities in the United States, the Research and development activities was adopted in 1984. In the United States, great attention is paid to the maintenance of State Innovation statistics, expertise and forecasting of innovative projects.

Here, mechanisms for the development of domestic and international competition have been developed, and anti-trust legislation has been working for more than 100 years. It is not surprising that this country ranks first in the world in terms of competitiveness [7].

Public administration of innovation policy in Japan

The Ministry of Internal Trade and industry plays a key role in the implementation of innovation activities here. A long-term program of innovative development of the country will be formed and applied research will be stimulated to purchase licenses abroad. Replacing the displacement of foreign competitors from existing markets due to the high quality and cheapness of goods, a serious problem is the formation of new markets for themselves, while maintaining high quality and low prices of new goods.

The long – term goal of public policy in Japan is to transform from an «imitator» to a "inventor" country that develops technologies. Priority areas are information systems, mechanotronics, biotechnology, and new materials.

The state not only determines the general and sectoral strategy for the development of foreign trade and industry, but also does not have at its disposal a sufficiently large arsenal of methods and equipment that allow us to refine this strategy [8]. In addition to influencing the development of export and export production by traditional economic and administrative methods, such as comprehensive state assistance to exporters, assistance in their sales activities, direct subsidies, preferential lending and tax insurance, etc., Japanese government agencies also widely use indirect methods:

A) targeted allocation of financial resources provided by private banks and their accumulation in priority areas;

B) assistance to enterprises in acquiring advanced foreign technologies;

C) conducting observations for scientific and technical exchange with foreign countries.

The Japanese model of scientific and technical growth, integration of production and science, predicts the construction of new Technopolis-cities, which will be grouped in Research and development activities and scientific-intensive industrial production.

According to the American expert on Japanese technopolists Sh.Tatsuno, the strategy of technopolists is the transition of the high – tech level to the activities of new spheres of activity, and it also means the intelligence of the entire Japanese economy.

State regulation of innovation trends in Japan is also characterized by protectionist policy in promoting new products, the provision of tax and credit benefits for Research and development activities financing, high import customs tariffs, and indicative planning of Research and development activities. The Japanese government is taking measures to develop international integration and cooperation.

For example, there is an agreement on the American-Japanese partnership in the field of Science and technology. As a result of active innovation activity, Japan ranks first in the world in terms of life expectancy, economic growth rates in industrialized countries, efficiency of resource use, and GDP per capita. The leading countries of the European Union are Germany, England, and France.

The European Union has the following features: high cost of land, labor and Natural Resources; respect for historical traditions, professionalism, healthy lifestyle, culture, education, informatization and high technological level of production; high population density; state regulation of prices for important food products; certification of products, application of international and European standards in the management and production of products; indicative planning of innovation activities; development of scientifically intensive sectors of the population; high level of concentration in the production Association. As a result, these countries maintain a high standard of living [9].

The European Union pays great attention to the revival of innovation activity. The main directions of the innovation policy of the European Union include:

- development of a single antimonopoly legislation;

- application of an accelerated equipment wear system;
- Preferential taxation of Research and development activities;
- promotion of small scientific-intensive business;

- direct financing of enterprises to stimulate innovation in the framework of innovative technologies;

- promotion of cooperation between university science and firms that produce scientifically-intensive products.

The basis of the innovation policy of the European Union is the «plan for the development of international infrastructure for technology transfer and innovation», adopted in 1985. The main purpose of this document is to facilitate and accelerate the process of implementing the results of scientific research of finished products at the national level. «One section of the plan» «cooperation between countries in the field of innovation» provides for the formation and creation of a specific infrastructure for the implementation of innovations at the regional level – consulting services for the management of innovations and the implementation of technologies. The second part of the plan is aimed at coordinating the implementation of a patent system, the transfer of information on technologies and innovations. The fourth is the implementation of measures to increase the innovation potential of developed countries (Greece, Ireland). The promotion of innovation activities in the European Union is carried out according to the principles adopted in world practice.

The experience of the United States, Korea, Japan, Germany and other developed countries shows that the project management system is a powerful tool for overcoming the economic crisis and solving major scientific, industrial and social problems. It is this method that serves as a management tool in conditions of instability and uncertainty, development systems and changes in conditions of unstable tax system, the emergence of private investors and owners, the refusal of the state to continuously manage the production and economic activities of enterprises, lack of resources and weak control over price growth, incomplete improvement of legislative issues, etc. [10].

By the beginning of the twenty-first century, in countries with traditional market economies, project management, with the goal of completing them on time, ceased to be a means of systematic management and the pace of work performed.

**Summary and Conclusion.** Project management, after-sales service, suppliers, manufacturers were like the corporate voice of the customer/customer, which stimulated the optimization of all efforts on the project/product adopted by the team. This approach, in addition, allows you to determine (and reduce) previous costs other than the project with a high level of accuracy.

Companies and experts working in this field have formed the necessary professional structures and created the «world of Project Management», which includes national and international organizations – investment, industrial, construction, consulting and engineering firms, where congresses and symposiums are held, magazines, books and textbooks are published, and there is its own market for software.

The largest international organization in the field of project management is IPMA (International Project Management Association) - an International Association in project management that unites 20 national societies of Europe, as well as other countries.

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## ИННОВАЦИЯЛЫҚ ҚЫЗМЕТТІ МЕМЛЕКЕТТІК РЕТТЕУ ЖҮЙЕСІНІҢ ТИІМДІЛІГІН ЖОҒАРЫЛАТУДЫҢ ШЕТЕЛ ТӘЖІРЕБИЕСІ

Аннотация. Инновациялық экономикаға көшу өңірлік инновациялық жүйелер желісін дамытуды талап етеді. Бұл ретте өңірлік инновациялық саясат инновациялық процесс үшін ең қолайлы жағдай жасалатын өңірдің инновациялық жүйесінің негізі ретінде өңірлік инновациялық кластерлерді қалыптастыруға бағытталуы тиіс. Жоғары ғылыми әлеуеті бар өңірлер ерекше қызығушылық тудырады (әдетте, оған ғылыми қоршау мен бірқатар академиялық қалашықтар, жоғары ғылыми әлеуеті бар басқа да аумақтарды жатқызуға болады), өйткені онда коммерцияландыруға дайын әзірлемелердің елеулі қоры кездеседі. Дәл осындай аумақ базасында өңірлік инновациялық кластерлерді дамыту қажет.

Мәселенің зерттелуіне көбірек көңіл бөлінсе де, оның түрлі аспектілері шешілмеген күйде қалып отыр. Көптеген авторлар инновацияға арналған инвестициялық жобаларды бағалаудың классикалық әдістерін қолданудың шектеулі мүмкіндіктерін көрсеткендіктен, ұсынылған баламалар кеңірек қолданылмады. Инновациялық жобаларды басқару және бағалау мәселелерінің тәжірибелік және өзекті мәні және осы мақсатқа орай тиімді әдістерді қолдану диссертация тақырыбын, мазмұнын, мақсаты мен мәселелерін шешуді анықтады.

Мақаланың тәжірибелік мәні – инновациялық жобалармен басқару алгоритмі және бағалау әдістерін әзірлеу. Алгоритм жобалардың кезеңішілік және менеджердің әр кезеңде жобаны іске асыру жөнінде шешім қабылдауының әдістемелік негізделуі және стратегия түзету қажеттілігін қамтамасыз етеді. Бұдан басқа, тәжірибелік енгізуде негізгі кедергілерге талдау жүргізілді және түзету бойынша ұсыныстар әзірленді. Әзірленген әдіс аймақтың нақты қызметінде табысты қолдануға барлық алғышарттарды қамтиды.

**Түйін сөздер:** мемлекеттік реттеу, инновация, инновациялық әлеует, тиімділік, шетелдік тәжірибені бейімдеу.

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## ЗАРУБЕЖНЫЙ ОПЫТ ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ СИСТЕМЫ ГОСУДАРСТВЕННОГО РЕГУЛИРОВАНИЯ ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ

Аннотация. Переход к инновационной экономике требует развития сети региональных инновационных систем. При этом региональная инновационная политика должна быть направлена на формирование региональных инновационных кластеров как основы инновационной системы региона, в которых будут заложены лучшие условия для инновационного процесса. Особый интерес представляют регионы с высоким научным потенциалом (как правило, к ним можно отнести научные ограждения и ряд других территорий, академ-городков и других территорий с высоким научным потенциалом), так как они имеют значительный запас готовых к коммерциализации разработок. Именно на базе таких территорий необходимо развивать региональные инновационные кластеры.

Несмотря на изученность проблемы и наличие повышенного внимания, многие ее аспекты остаются нерешенными. Многие авторы указывали на ограниченные возможности применения классических методов оценки инвестиционных проектов на инновации. Таким образом, предлагаемые альтернативы не получили широкого применения.

Практическое и актуальное значение вопросов управления и оценки инновационных проектов и использование наиболее эффективных для этих целей методов определило выбор темы диссертации, ее содержания, цели и постановки проблем.

Практическая значимость научной статьи, заключается в разработке алгоритма управления инновационными проектами и методов оценки. Алгоритм включает в себя внутриэтапную оценку проектов и методическую обоснованность принятия менеджером решений по реализации проекта на каждом этапе и обеспечение необходимости корректировки стратегии. Кроме того, проведен анализ основных препятствий практического внедрения и выработаны рекомендации по их устранению. Разработанный метод, содержит все предпосылки для успешного применения в реальной деятельности региона.

**Ключевые слова:** государственное регулирование, инновации, инновационный потенциал, эффективность, адаптация зарубежного опыта.

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