ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

ХАБАРШЫСЫ

ВЕСТНИК

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК РЕСПУБЛИКИ КАЗАХСТАН

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IMPROVING THE MECHANISM OF STATE REGULATION OF INNOVATION ACTIVITIES IN TURKESTAN REGION

Abstract. The importance of innovation in ensuring the development of a modern economy has been recognized in Kazakhstan not only in the works of specialists, but also in the position stated by the state. However, from understanding the importance of innovation in the context of economic development to understanding its real significance in the economic development of the country, and even more so - to develop an effective policy that ensures the active use of innovation to ensure economic and social progress, a very difficult path runs.

Regulation of innovation in a modern market economy is a complex system of state, public and corporate institutions that serve and regulate innovation processes in order to ensure the fullest use of their potential. A set of institutions and organizations that cover all stages and areas of the innovation process, and currently forms a national innovation system in developed market economies.

The trend of transition to an innovative way of development and the formation of a national innovation system is currently an important direction in economic science. This makes it particularly important to theoretically understand the essence of the innovation process in the economy and ways to improve the effectiveness of state regulation of innovation.

Thus, the development of a mechanism for activating innovation activities within the framework of the state regulation system is one of the most acute socio-economic problems. The obvious relevance, great practical significance and lack of development of the indicated problem led to the choice of the topic of the dissertation research, its goals and objectives.

In the scientific article, the conditions for effective innovation activity of economic entities are identified and based on them, recommendations are developed to improve the mechanism for increasing innovation activity within the system of state regulation of innovation activity of the Kazakh economy.

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

Introduction. Currently, one of the main factors determining the need for the development of innovative activities of scientific, production and intermediary enterprises and organizations of the region is their adaptation to changing economic conditions and stable dynamics of supplier and consumer markets. Taking this situation into account should contribute to the creation of innovative structural complexes that ensure the development of industrial relations and improvement of the socio-economic situation of the population of the region on the basis of stimulating the innovative activity of PTI.

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. However, currently, in many regions, there is a situation when the demand of the market and consumer groups for innovative products (services, technologies) is not presented in the existing offer on the regional market. The main reason for this situation is that the innovation activity management structures operating in it are not able to create favorable conditions for the development of new methods and technologies, as well as for the introduction of new products and services into production.

There are several mechanisms for regional stimulation of innovative development:

Unused features. The peculiarity of the current situation is that the country has significant fundamental and technological developments, a unique scientific and production base, but these developments cannot solve them. The most pressing problems and, accordingly, not required. It is also necessary to improve the legislation regulating all issues arising in relation to intellectual property.

Government innovation programs as the basis of innovation policy. There are many different programs mentioned below. This mechanism is widely used.

Additional measures to support regional innovations. Creating favorable working conditions, providing a resource base, promoting product promotion and information support are the main areas of activity of regional authorities that contribute to innovative development.

A number of organizational and economic measures that contribute to regional innovative development have been tested in the world practice [1-3]:

- implementation of special target programs at the national, regional and local levels;
- direct state subsidies and targeted financing of regional authorities;
- tax incentives aimed at stimulating regional innovative development;
- formation of scientific, technological and innovative parks;
- creation of small innovative business incubators;
- creation of Centers for the transfer of technologies from the public sector to industry under the auspices of the state and local executive bodies;
 - Organization of management consulting for entrepreneurs
 - other measures.

The most effective mechanism for stimulating the development of innovations in the regions can be called coordinated actions of the Government, Business, Science, Education, financial organizations and mass media. All over the world, regions are considered as the first step in innovative activities in the development of the entire country.

Regional self-government bodies should implement the following measures to support inventive and innovative activities on the ground:

- to deduct the amount of tax paid by the taxpayer during the sale of products, works and services, the price of which is reduced in comparison with the price in the previous tax period due to the use of inventions and other intellectual property objects in products, works and services in the amount of losses incurred by the taxpayer [4];
- exemption from the payment of the share of tax on the profits of enterprises and organizations that fall under the regional tax received during the first five years due to the use of Kazakhstani inventions and other intellectual property objects in their production.

Thus, despite the rich experience of introducing and maintaining an innovative type of economy in other countries, it is necessary to solve the issue of stimulating the innovative development of the economy in the Republic of Kazakhstan, both by borrowing foreign experience from individual regions, as well as the entire country.

Measures of state support for innovative development implemented in the Turkestan region are widespread.

Support is aimed at providing residents and remote residents with the following types of services:

- rental of office space;
- services of the project Support Department;

- consulting services;
- Accounting services;
- legal services.

Shagyn Zhane Orta kasipkerlik subektileri ushin onirlik engineering ortalyktaryn Kuru Zhane olardyn kyzmetin kamtamasyz or iske asyryluda.

Damudyn innovatsiyalyk Zholy boynsha kozgalys Eldin zhinaktalgan innovatsiyalyk aleuetin tiimdi iske asyru Zhane ony Odan AR ulgaitu, Innovatsiyalyk protsesterdi baskarudyn parmendi tetigin Kuru ushin kolayly zhagdaylar bolgan kezde Gana mumkin bolady.

Innovatsiyalardy endiru natizhelerin bagalauga zhuyelik tasildemenin negizgi tuzhyrymdamasi bolyp tabylatyn, innovatsiyalyk zhobalardyn ishki sharuashylyk tiimdiligin bagalau adisteri, 1 - kestede korsetilgen.

Recommended evaluation methods	Activities	
Assessment of market attractiveness of innovations	Determining the effectiveness of innovations by their commercialization in selected market segments	
Assessment of the overall readiness of the enterprise to implement innovations	Analysis of the amount of resources that can be used for the implementation of the project [5]	
Assessment of opportunities for implementing innovations in the enterprise	Analysis of the volume of additional financial and economic costs required by the enterprise for the implementation of innovative projects in selected market segments	
Efficiency of investment in innovation	Determination of performance indicators of enterprise investments in new or improving technologies	
Impact of innovations on the enterprise economy	Analysis of the impact of innovative changes on the formation of economic indicators of peasant activity of the enterprise [6]	

Table 1 – Innovationalardyn ishki sharuashylyk tiimdiligin bagalaudyn usynylatyn adisteri

In our opinion, the concept of a systematic approach to evaluating the results of implementing the proposed innovations takes into account not only the development of external indicators, such as commercial indicators of investment efficiency in innovations, but also internal indicators, such as economic opportunities for the development of the enterprise [7].

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 a slowdown in the pace of structural progress in the innovation sphere, which leads to lagging behind the leading countries. These circumstances indicate that the domestic innovation system has a number of unresolved problems. For example, the indicator that characterizes activity in the field of patenting has negative dynamics.

The proposed methods for evaluating the effectiveness of these projects and the structural relationships between the stages of implementation of innovative projects are fully defined in table 2. At the first stage, there is a selection of ideas for an innovative product based on the principle of maximum attractiveness.

In turn, the work carried out will determine the necessary level of readiness of the enterprise, the necessary resources for the effective implementation of the project. Next, it is necessary to determine the determined amount of resources required for the implementation of the project, the additional amount of them that the enterprise has, and compare them accordingly.

In addition, we can note insufficient support for the activities of industry business associations, the system of additional education and a low level of effectiveness of mechanisms for the development of Technology Commercialization and high-tech exports.

One of the main tasks of innovative development of the country is to create conditions for increasing the innovative activity of the business environment. Understanding the importance of this problem determines the need for further research in the field of innovation activity to optimize the mechanisms of its stimulation [8].

Project stages	Economic problems	Recommended methods	Necessary initial information
Research	Formation of an idea	Methods for assessing the market attractiveness of innovations	Symbols of consumer actions: the volume of purchases made with them and their number.
Constructive	Reading the purchasing opportunities of potential consumers. Creating an experienced version	Methods for assessing the possibility of implementing an innovative project by an enterprise	Volume of sales and planned cost of iinovation products
		Methods for assessing additional costs for the implementation of an innovative project	The amount of funds allocated for research and development activities
Commercial	Test launch of a new product into production	Methods for evaluating the effectiveness of costs associated with the implementation of the project	Specific weight of personnel covered by research and development activities
Distribution	Formalize the consumer's opinion about the new product	Methods for assessing the impact of an innovative project on various areas of the enterprise's work	Property for research and development activities

Table 2 – Stages of innovative projects and methods for evaluating their effectiveness

The state remains the main source of funding for innovative projects. State participation in innovation activities can include both direct financial support with centralized funds and the creation of conditions for using the market mechanism for attracting funds [9].

One of the most important problems is the imperfection of the regulatory framework regulating innovation activities. Due to the lack of a single consolidating law on innovation activities at the federal level, there is a fragmentation of legal norms in the field of innovation, their fragmentation by normative legal acts of various legal force, which do not exclude legislative contradictions and complicate law enforcement practice.

Personnel problems also occur in the innovation infrastructure. The qualifications of scientific and pedagogical personnel do not always deserve high marks, and there is also an obsolescence of employees of the innovative sphere.

There are problems with engineering and technical personnel. It is believed that this is due to a decrease in the level of engineering education and a decrease in the prestige of engineering work [10].

A very important problem in the organization of Personnel Support in science is «mental retardation». After the collapse of the USSR, a large-scale emigration of Soviet scientists abroad began. Since 1990, more than 10 thousand candidates and doctors of science have left the country. Currently, there is an obsolescence not only of personnel, but also of technological capacities. Along with the construction of new technoparks, scientific laboratories and equipment become unusable and put into operation, which, in turn, «slows down» the creation and promotion of innovations. The innovation activity of organizations implementing technological, organizational and marketing innovations has been gradually declining since 2011.

An important process is the sale of high-tech products. Most enterprises of the high-tech sector do not have an organized sales chain. Kazakhstani enterprises are still weak to focus on the international market, they do not have trading experience and cannot successfully compete with foreign firms.

The strategic goal should be to achieve the long-term competitiveness of the Turkestan region on a national and global scale based on the development of the knowledge economy by creating innovations and creating and providing the necessary conditions for modernizing production:

- Improving the quality of life of the population of Turkestan region;
- Increasing the investment attractiveness of the Turkestan region;
- Organization of new jobs in innovative industries and organizations that provide services in the innovative sphere;
 - increase the level of income;
- increase in budget revenues by increasing the added value of products and services with the introduction of innovative results;
 - promotion of high-tech and environmental innovations to foreign markets.

The strategy is aimed at solving the following tasks:

- increasing human potential in the field of Science and education;
- technologies and innovations;
- creating a demand for innovations;
- increase innovation activity and the emergence of new high-tech and innovative companies;
- formation of a favorable innovation climate for the purpose of commercialization of scientific and (or) scientific and technical results;
- formation of a balanced, steadily developing research and development sector that ensures the expansion of knowledge, their competitiveness in national and global markets;
 - expansion of bilateral and multilateral interregional and international cooperation;
- Development and improvement of the efficiency of innovation infrastructure in the territory of Turkestan region;
 - formation of a system of information support for innovation activities.

When implementing the strategy, it is necessary to adhere to the following basic principles:

- identify problems and find ways to solve them using a complete set of innovative tools;
- systematic interaction of the state, business and science in identifying priority areas of innovative development, as well as in the process of their implementation;
- create a system of incentives and conditions for technological modernization of the economy based on improving the efficiency of companies using the entire range of tariff, customs, tax, and antimonopoly regulation measures;
 - ensuring investment and personnel attractiveness of innovation activity;
- orientation to the highest international standards when evaluating innovative business and innovation infrastructure;
- encourage competition in the knowledge generation sector as the main motivation for innovative behavior:
- coordination of regional budget, tax, foreign economic and socio-economic policy as a necessary condition for solving the main tasks of innovative development.

Systematic planning of innovation activities allows us to radically improve the state of the financial infrastructure of the innovation industry, stimulate the development of institutions and means of financing, stimulate private investors, and give an impetus to the development of innovation activities.

The solution to the problem of increasing the number of innovations introduced is the creation and development of an innovative infrastructure in the regions integrated into the system of holistic and regional economic management. In many Kazakhstan regions, individual innovation infrastructure facilities are being created and even successfully operated, but a model in which all innovation infrastructure facilities of the region operate in an organic unity and have a single effective management system is very rare. In this regard, there is a need for the formation and theoretical justification of a mechanism for managing the regional innovation infrastructure, which can be used both in the design of the management system and in the most innovative infrastructure of the region. The proposed model reflects the general principles of the emergence and action of innovation infrastructure management and can be considered in relation to the macro-and micro-levels of innovation activity. Consequently, the subjects of the proposed scheme are the state, regional authorities, the Chamber of Commerce and industry, public organizations (associations), etc. maybe.

The object of management is the regional innovation infrastructure itself, for which it is necessary to create a management system that meets the basic requirements of adequate and effective management in terms of target installations, complexity, scale, potential. Thus, as a result of the influence of external and internal factors caused by the subject of management itself, a certain management structure is formed, which motivates the subject to set certain goals and objectives. The formulation of the main goal is a defining moment that affects all subsequent actions. After all, the development priorities and the innovation program itself are chosen depending on the goal set. In this case, the purpose of managing the innovative infrastructure of the region is to bring the innovative infrastructure of the region in line with the needs of its innovative development.

At the same time, the algorithm for creating an innovation infrastructure management system in the region is revealed by dividing the necessary actions into stages, each of which is characterized by the specifics of the tasks being solved.

The following main tasks are solved:

- economic and organizational mechanisms and adequate tools to ensure the functioning of regional innovation infrastructure will be determined;
- the necessary management and coordination institutions (for example, coordination centers, specialized committees and departments of regional administrations, corporate structures, Technopark zones, etc.) will be created;
- assess the real resource capabilities of local budgets and the possibility of attracting extra-budgetary funds for the implementation of priority innovative projects for the region;
- a system for monitoring the implementation of the chosen innovative regional strategy is being formed;
- in the region, the possibility of adjusting the course of work related to the creation of a system for increasing innovation infrastructure will be provided.

The next element of the management mechanism of the innovative infrastructure of the region is the principles.

The principle of efficiency is the rapid and adequate adoption of management decisions, the absence of lag in the course of production processes.

The principle of cost-effectiveness is the optimal distribution of management labor, the absence of duplication of functions, and the reduction of costs for performing management functions.

The principle of functional suitability is a guarantee of reliability, ensuring management and control at all levels, and following the goals and strategy of the organization.

The principle of adaptation is the ability to quickly transform in accordance with a variable production process .

Functions and methods include planning as the next element of the regional innovation infrastructure management mechanism.

Planning is one of the main elements of managing the innovative infrastructure of the region. Innovation infrastructure planning is a computational system aimed at selecting and justifying the goals of innovation development in the region and preparing the necessary solutions for their unconditional achievement. The planning system of innovation infrastructure in the region includes a set of various plans that interact with each other and are aimed at implementing the main functions and tasks of planning.

The organization of innovation infrastructure is determined by the task of innovation activities adopted at this stage of the region's development. Accordingly, the transition of the organization should lead to a change in the innovation infrastructure. Motivation of innovation activity should inevitably be considered as a constantly implemented process, which can be represented as a set of interrelated elements that mutually conditioned each other and characterize the motivational mechanism of innovation activity as a whole. Control over the functioning of the innovation infrastructure of the region is carried out by evaluating the results of work, as well as monitoring the progress of the implementation of the innovation infrastructure.

Of particular importance in the management of regional innovation infrastructure are the effects that can be both obvious and implicit (external).

The success of the functioning of the innovative infrastructure of the region is assessed from different points of view, but most often the main indicators are indicators of socio-economic development of the region as a whole, as well as its individual districts and enterprises. These indicators characterize the socio-economic impact of the region from the creation and «maintenance» of innovative infrastructure facilities. But these estimates can be recognized as conditional, since in multi-factor socio-economic systems, for example, in the region, many components contribute to the final result, and it is difficult to objectively «isolate» the contribution of one of the factors, such as the effectiveness of innovation infrastructure.

As a solution to this problem, the socio-economic consequences of the functioning of innovation infrastructure in the region can be divided into obvious and implicit (external) factors.

Summary and Conclusion. The obvious effects obtained through innovation activity are reflected in the number of innovations introduced in the region, as well as in the aggregate economic benefits from their application (cost savings, additional income, etc.). They are as follows:

- promotes the development of Kazakhstan's science by providing funding for promising scientific developments;
- increase the innovation potential by introducing and disseminating advanced technologies, progressive forms of innovation activity and business, new methods of production management and organization;
- provides an increase in production volumes and an increase in product competitiveness and is therefore considered as a «smart» tool for supporting economic growth;
- optimizes the sectoral and territorial structure of the economy, supports the most efficient industrial enterprises; as well as replenishes budgetary and extra-budgetary funds with tax and other revenues, contributes to the expansion of interregional economic ties.

Unclear (external) effects of the functioning of innovation infrastructure in the region are manifested in changes in the values of socio-economic and environmental indicators of the region's development, which cannot be directly related to the results of innovation activities. For example, the introduction of a new innovative product into production clearly increases GRP in the amount of added value obtained during production and sales. But in addition, the volume of production at mixed enterprises will increase, the production of substantive goods and complementary products will change, share costs will be reduced due to the introduction of new technologies, new jobs will be created, costs for environmental activities will be reduced, etc.all this will affect GRP, but indirectly and requires a separate detailed approach.

The main task of the management mechanism is to create an open and effective innovation infrastructure that is fully integrated into the region's economy. The creation and consistent formation of conditions for the effective functioning of innovation infrastructure will ensure, on the one hand, the transfer of knowledge, their distribution and transformation of competing technologies for the entrepreneurial environment, and on the other - the orientation of the research environment to meet the emerging innovative needs of production and society development.

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ТҮРКІСТАН ОБЛЫСЫНДА ИННОВАЦИЯЛЫҚ ҚЫЗМЕТТІ МЕМЛЕКЕТТІК РЕТТЕУ ТЕТІГІН ЖЕТІЛДІРУ

Аннотация. Қазіргі экономиканың дамуын қамтамасыз етудегі инновациялық қызметтің маңызы Қазақстанда тек мамандар жұмысында ғана емес, мемлекет ұстанымынан да танылады. Алайда экономиканың қалыптасу жағдайында инновация маңыздылығынан бастап, елдің экономикалық дамуындағы мәнін түсіну, сонымен қатар, экономикалық және әлеуметтік прогресті қамту үшін инновацияларды белсенді қолдануды қамтамасыз ететін тиімді саясат әзірлеудің жолдары қиын.

Қазіргі нарықтық экономика жағдайында инновациялық қызметті реттеу – олардың әлеуетті мүмкіндіктерін барынша толық пайдалануды қамтамасыз ету үшін инновациялық процестерге қызмет көрсететін және реттейтін мемлекеттік, қоғамдық және корпоративтік институттардың күрделі жүйесі. Инновациялық процестің барлық кезеңі мен салаларын қамтитын институттар мен ұйымдардың жиынтығы қазіргі уақытта дамыған нарықтық экономикада ұлттық инновациялық жүйені құрайды.

Дамудың инновациялық жолына көшу үрдісі және ұлттық инновациялық жүйені қалыптастыру бүгінде экономика ғылымындағы өзекті бағыт болып саналады. Бұл экономикадағы инновациялық процесс мәнін

теориялық түсінуді, инновациялық қызметті мемлекеттік реттеудің тиімділігін арттыру жолдарын ерекше маңызды етеді.

Осылайша мемлекеттік реттеу жүйесі шеңберінде инновациялық қызметті жандандыру тетігін әзірлеу өзекті әлеуметтік-экономикалық мәселенің бірі болып саналады. Өзектіліктің айқын болуы, тәжірибелік маңыздылық және аталған мәселенің дамымауы диссертацияның зерттеу тақырыбын, оның мақсаты мен міндеттерін таңдауға септігін тигізеді.

Ғылыми мақалада шаруашылық жүргізуші субъектілердің тиімді инновациялық қызметінің шарттары анықталды және соның негізінде Қазақстан экономикасының инновациялық қызметін мемлекеттік реттеу жүйесі шеңберінде инновациялық белсенділікті арттыру тетігін жетілдіру жөнінде ұсынымдар әзірлеу жолы негізге алынды.

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

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СОВЕРШЕНСТВОВАНИЕ МЕХАНИЗМА ГОСУДАРСТВЕННОГО РЕГУЛИРОВАНИЯ ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ В ТУРКЕСТАНСКОЙ ОБЛАСТИ

Аннотация. Значение инновационной деятельности в обеспечении развития современной экономики получило признание в Казахстане не только в работах специалистов, но и в позиции, заявленной государством. Однако от осознания важности инновационной деятельности в условиях становления экономики до понимания её реального значения в экономическом развитии страны, а тем более — до выработки эффективной политики, обеспечивающей активное использование инноваций для обеспечения экономического и социального прогресса, пролегает весьма нелегкий путь.

Регулирование инновационной деятельности в условиях современной рыночной экономики — это сложная система государственных, общественных и корпоративных институтов, обслуживающих и регулирующих инновационные процессы, чтобы обеспечить наиболее полное использование их потенциальных возможностей. Совокупность институтов и организаций, охватывающих все стадии и сферы инновационного процесса, и образует в настоящее время в развитых рыночных экономиках национальную инновационную систему.

Тенденция перехода на инновационный путь развития и формирование национальной инновационной системы на сегодняшний день является актуальным направлением в экономической науке. Это делает особенно важным теоретическое осмысление сущности инновационного процесса в экономике, путей повышения эффективности государственного регулирования инновационной деятельности.

Таким образом, разработка механизма активизации инновационной деятельности в рамках системы государственного регулирования является одной из наиболее острых социально-экономических проблем. Очевидная актуальность, большая практическая значимость и недостаточность разработки обозначенной проблемы обусловили выбор темы диссертационного исследования, его цели и задачи.

В научной статье выявлены условия эффективной инновационной деятельности хозяйствующих субъектов и на их основе разработаны рекомендации по совершенствованию механизма повышения инновационной активности в рамках системы государственного регулирования инновационной деятельности казахстанской экономики.

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

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