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ECONOMIC AND LEGAL REGULATION OF THE ACTIVITIES OF PUBLIC ADMINISTRATION ENTITIES IN THE INNOVATION SECTOR

Kateryna Dubova[1], Iryna Dmytruk[2], Maria Filippskikh[3]

Abstract. The *subject* of the study is public relations in the field of economic and legal regulation of innovation activity. *Methodology*. The methodological basis of the study is the methods of induction and deduction, the dialectical-materialist method, the method of analysis and synthesis, and the historical method, which allowed for an objective understanding of the content and essence of the issues under study. The *purpose* of the article is to analyse the theoretical and practical aspects of economic and legal regulation of activities of public administration entities in the innovation sphere in Ukraine and developed countries, and to propose effective ways to improve the mechanism of the relevant state policy. The *results* of the study show that the State economic and legal regulation of innovation activity is carried out with the aim of ensuring progressive transformations in the field of material production, increasing the competitiveness of the national product in the world market, improving the environmental situation, and strengthening the security and defence capability of the country. The economic and legal regulation of the activities of public administration entities in the innovation sphere should not restrict innovation processes (including through excessive structuring and detailing), but should set the direction of their evolution, constantly improve, dynamically monitoring changes in the situation. *Conclusion*. The main form of state support for the development of innovation is the economic and legal regulation of innovation activities, support for small innovative enterprises and the creation of a favourable innovation climate. The aim of state policy in this area is to move towards an innovative development path based on selected priorities. The state economic and legal regulation of innovation activity is carried out in order to ensure progressive transformations in the sphere of material production, increase the competitiveness of the national product on the world market, improve the environmental situation, strengthen the security and defence capability of the country. In order to achieve the effectiveness of innovation activities, it is necessary to adopt a new approach to solving the problems of antimonopoly policy, product quality management, safety and labour protection. This requires the adoption of new laws and regulations, which should take into account legal issues related to the development of production, resource conservation, environmental protection, etc. The regulatory framework of innovation activity should be brought in line with innovation policy, in particular, it should be closely linked to the measures provided for in the relevant state programme documents and should actively contribute to their implementation.

Key words: economic regulation, legal regulation, innovation sphere, public administration, innovative business, innovative activity, innovation policy, state support, innovative entrepreneurship.

JEL Classification: L51, K40, O31, L26

1. Introduction

Today, it is becoming increasingly clear that the existing problems of Ukraine's technological lag behind foreign countries are not so much related to a lack of funds, but to insufficient skills to transform knowledge into competitive products and technologies – into innovations demanded by the market.

[1] Admiral Makarov National University of Shipbuilding, Ukraine *(corresponding author)*
E-mail: ilinskaya2013@gmail.com
ORCID: https://orcid.org/0000-0002-1098-9620
[2] Admiral Makarov National University of Shipbuilding, Ukraine
E-mail: iryna.dmytruk@nuos.edu.ua
ORCID: https://orcid.org/0000-0002-2228-0889
[3] Admiral Makarov National University of Shipbuilding, Ukraine
E-mail: mariia.filippskykh@nuos.edu.ua
ORCID: https://orcid.org/0009-0000-3967-2822

One of the factors hindering the radical growth of innovation activity and the effective use of Ukraine's intellectual potential is the imperfection of the legislative framework in the innovation sector, which largely determines the weakness of links between the development, production and commercialisation of high-tech technologies, and the inefficiency of mechanisms for introducing the results of intellectual activity into economic circulation. There are enough obstacles in modern legislation to prevent both small and large enterprises from quickly and efficiently mastering the latest technologies. Such barriers can be found in departmental documents, instructions and other regulations, as well as in decrees of the President of Ukraine and the Cabinet of Ministers of Ukraine. Ultimately, all this has a negative impact on the investment climate. Well, Ukrainian business and foreign business do not show the interest in innovation that Ukrainians expect.

The main reason for this situation is that innovation legislation in Ukraine has been developing slowly and inconsistently for a long time, without a clear concept, without defining the methods of legal regulation, the subject of regulation and the scope of regulated relations. Accordingly, one of the priority tasks of improving the relevant economic and legal regulation is to determine the vector of its development, which will allow not only to structure the regulatory legal framework, but also to turn it into a catalyst of innovation processes.

2. Theoretical Aspects of Economic and Legal Regulation of the Activities of Public Administration and Innovation Sphere Entities

A characteristic feature of modern world economic development is the transition of leading countries to a new stage in the formation of a post-industrial society – building an economy based primarily on the generation, dissemination and use of knowledge (Tabellini, 2010).

The main form of state support for the development of innovation is the economic and legal regulation of innovation activities, support for small innovative enterprises and the creation of a favourable innovation climate. The aim of state policy in this area is to move towards an innovative development path based on selected priorities.

Many modern countries face the challenge of transitioning from a commodity economy to an innovative economy. To achieve this goal, it is necessary to create a holistic national innovation system with a developed infrastructure, a civilised technology market and legal protection of the results of intellectual work (Blind, 2011).

The world experience shows that the progressive socio-economic development of the state and ensuring its competitiveness on the foreign market is primarily ensured by the presence of a developed national innovation system (Oke, 2023).

Each state, developing its own path of innovative development, setting certain goals and taking into account the whole set of internal and external factors of development, chooses one or another type of strategy and tactics that allow to achieve the necessary level of innovative activity.

Today, Ukraine is facing a choice of its own strategy for boosting innovation based on its existing intellectual potential and scientific and technological resources.

The strategy of innovation and technological breakthrough, with the large-scale support of the state, will give Ukraine a chance to change the trajectory of falling into the technological abyss and become a leader in some areas of the development and dissemination of the sixth technological order as the material and technical basis of a post-industrial society. Ukraine still has an opportunity to take a strong position in certain areas of the scientific and technological revolution of the first half of the XXI century. To do this, it is necessary to assess these opportunities, existing potential, reasonably identify scientific and technological niches and concentrate forces and resources on their early development (Cecere, 2016).

An important role in the stimulation of innovation activities on the part of the state is played by the creation of a favourable innovation climate in the economy and infrastructure for providing research and development, including national services for scientific and technical information, patenting and licensing, standardisation, certification, statistics, analytical centres for studying foreign experience, preparing forecasts of scientific and technical development and, on the basis of these, forming a system of national scientific priorities for providing information to decision-makers; assessing the possible negative consequences of innovations (Oke, 2023).

The state participates in the organisation, financing and evaluation of key areas of scientific and technological development and growth of the national innovation potential, and creates a climate conducive to innovation in industry.

Fiscal policy instruments that provide indirect incentives for innovation, such as tax breaks and credits, accelerated depreciation of high-tech projects, etc. For private businesses that invest in innovation. In the case of direct funding of organisations, research areas or individual scientists, the amount and structure of relevant expenditures are determined by the choice of the state policy priority.

Tax incentives are provided during the implementation of any project, but the economic responsibility for development, scale and priorities lies entirely with private sector companies, and the state does not directly claim the results obtained in the course of development.

The policy of increasing the country's competitiveness and its inclusion in the global innovation market determines the prospects for its technological and economic development (Blind, 2011).

A sufficient condition for public funding of private sector projects is an increase in the "productivity" of innovation (Kovac, 2010).

The positive impact of public spending on private firms lies in the direct and indirect (through the development of basic research) incentives and diffusion of technologies. However, there can also be negative consequences of public incentives – the substitution of public for private funding, structural imbalances and, finally, an increase in wage costs if companies receiving public subsidies spend them mainly on increasing the salaries of researchers. All these factors should be taken into account when selecting projects for government incentives (Matthews, 1986).

A special place is occupied by programmes for the development of innovative entrepreneurship.

Amendments and additions to existing laws and the adoption of new regulations may help to adjust the tax incentives for innovation by the state.

World experience also confirms the leading role of universities in the innovation process. The most advanced ones have attracted hundreds of industrial, research and commercial companies and have become a consolidating force that unites the interests of many partners. Foreign universities, which have become centres of innovative development, are enjoying enormous success (Brownsword, 2021).

Consequently, the state's recognition of the university's leading role in the development of innovative business and the corresponding improvement of the regulatory framework, which will remove the existing restrictions on cooperation between the university and business, will make it possible to prepare a new generation of high-tech business entrepreneurs in a relatively short time.

Thus, the state economic and legal regulation of innovation activity is carried out in order to ensure progressive transformations in the sphere of material production, to increase the competitiveness of the national product on the world market, to improve the environmental situation, to strengthen the security and defence capability of the country.

3. Analysis of the World Practice of Economic and Legal Regulation of the Activities of Public Administration Entities in the Innovation Sphere

The analysis of the world practice of regulatory and legal regulation of innovation activity shows that there are two main approaches to solving this issue.

The first approach is typical for most Eastern and post-Soviet countries. Its distinctive features are as follows:

– Focus of legislative activity on a purely vertical aspect: the state as a subject of innovation activity;
– regulation of innovation activities by means and methods of public law and public administration, primarily by administrative law, which establishes relations between executive authorities and business entities (Rudra, 2023).

The logical consequence of this approach is the adoption of a relevant law, the subject matter of which is closely related to public policy and public administration measures in the innovation sphere. As a rule, in such a law:

– The goals and priorities of innovation policy were formulated;
– basic terminology is introduced into legal circulation;
– the legal status and ultimate goals of innovation entities and entities operating in the field of public administration are regulated;
– the legal, economic and organisational foundations of state regulation of innovation are defined;
– forms of state stimulation of innovation processes are defined.

In particular, basic laws on innovation activity have already been adopted in China, Georgia, Armenia, the Republic of Kazakhstan and the Republic of Moldova. There is information on the development of similar laws in Tajikistan, Uzbekistan and Turkmenistan (Rudra, 2023).

The second approach is typical of Western industrialised countries. Here, the main role in stimulating innovation activity is played by legal acts regulating private law, horizontal relations between innovation actors. As a rule, such regulations are limited to the following key issues:

– Stimulation of the involvement of intellectual property objects in economic circulation;
– development of scientific and technical cooperation (both between the public and private sectors and between firms);
– support for small- and medium-sized innovative businesses (Cecere, 2016).

Innovative terminology and recommendations in the field of innovation statistics are contained in the system of statistical manuals of the so-called "Frascati family", developed by the Organisation for Economic Co-operation and Development (OECD)

together with Eurostat. For example, the Oslo Manual contains conceptual concepts on the structure and characteristics of the innovation process, basic definitions of technological, product and process innovation (CCI) and innovation activities, classifications and methods for measuring the characteristics of the innovation process (Oslo Manual, 2018). Another document is the Frascati Manual, which focuses on the measurement of human and financial resources involved in research and development (R&D) (Tabellini, 2010).

Within the framework of this approach, the authors identifies the main directions of the State's activities aimed at economic and legal stimulation of innovation processes:

– Regulatory and legal support for the implementation of applied research and development;
– registration of infrastructure for their state support;
– development of the system of higher professional education and specialised training;
– creation of project-specific financing systems;
– formation of new and improvement of existing mechanisms of budget financing, public-private partnership, and so forth (Faulkner, 2009).

As a rule, the focus is on the following areas of economic and legal regulation:

– Formation of an institutional environment conducive to the investment attractiveness of innovative projects;
– liberalisation of the policy on the use of intellectual property rights financed from the state budget;
– promotion of the accelerated transfer of intellectual property to the industrial sector;
– expansion of the organisational and legal preconditions for the use of various forms of cooperation between public and private organisations both within the scientific sphere itself and between science and industry;
– support for small- and medium-sized research and innovation businesses.

The instruments for implementing state policy aimed at stimulating innovation and high-tech production in industrialised countries are various national programmes, which usually formulate tasks and specific ways of solving them with clear quantitative benchmarks. Examples of such programmes are the UK government's national long-term Science and Innovation Strategy and the Innovation Nation White Paper, the French Innovation Development Plan and the National Action Programme for Science and Technology Development, the US National Competitiveness Initiative: Global Leadership in Innovation, the Japanese Science and Technology Development Plan, and more (Brownsword, 2021).

In the future, special laws may be adopted to support economic and legal programmes. For example, the implementation of the measures envisaged by the US technological innovation programme is enshrined in the US Competition Act. In order to provide economic and legal support for the main provisions of the French National Action Programme for Scientific and Technological Development, a special programme law "On Scientific Research" was adopted, which establishes the legal framework for relations between the state and citizens in conducting scientific research.

Each of the considered approaches to state regulation of the innovation sphere is based on fundamental differences in the understanding of the terms "innovation" and "innovation activity".

In the first approach, the concepts under study are used rather as characteristics associated with the scientific and technological sphere (especially its high-tech component). It follows that:

– The goal of innovation is to obtain a social and economic effect from the use of intellectual potential;
– innovations should be evaluated and motivated by the state or science;
– the state should facilitate the implementation of the results of innovative activities in production, products and processes.

As a result, the legislative activity is focused on a purely vertical aspect (the state is the subject of innovation), as well as the need for an extensive set of state regulation tools.

"Innovation" is understood quite differently in industrialised countries. In particular, the Oslo Manual defines innovation as the introduction into circulation of a new or significantly improved product (product or service), a process, a new marketing method, an organisational method in business practice, the organisation of workplaces or the external relations of an enterprise (Oslo Manual, 2018).

In US business practice, innovation is defined as the use of a new product (service, method) that immediately follows its discovery; a new approach to product design, production and marketing that allows to outperform competitors. The point is as follows:

– The goal of innovation is to make a profit;
– innovation is not necessarily related to new knowledge (it can be the result of a new use of e xisting knowledge);
– science cannot be equated with innovation;
– innovations must be motivated and valued by the market;
– the task of the state is to eliminate the shortcomings that prevent different parts of the innovation system from harmoniously cooperating with each other (Faulkner, 2009). In this approach, it is possible to talk about special regulation of certain aspects of innovation activity only with a certain degree of conventionality.

4. Peculiarities and Improvement of Economic and Legal Regulation in the Innovation Sphere of Ukraine

The main legal basis for economic and legal regulation of innovation in Ukraine is the Law of Ukraine "On Innovation Activity" No. 40-IV of July 4, 2002. This profile law clearly defines the principles of the state innovation policy, the main goal of which is to create socio-economic, organisational and legal conditions for the effective reproduction, development and application of the scientific and technical potential of the state, as well as to provide modern environmentally friendly, safe, energy and resource-saving technologies, production and sale of new types of products with high competitiveness (The Law of Ukraine "On Innovation Activity" No. 40-IV, 2002).

The main objectives of the state policy in the innovation sphere of Ukraine can be defined as follows:

– To find innovative ways to develop the Ukrainian economy;
– to define state priorities for innovation development;
– to form a regulatory framework in the innovation sector;
– to create conditions for the preservation, development and use of domestic scientific, technical and innovative potential;
– to ensure the interaction of science, education, production and the financial and credit sector in the development of the innovation sector;
– to effectively use market mechanisms to support innovation, to promote entrepreneurship, in particular in the research and production sector;
– to efficiently support international scientific and technical cooperation and technology transfer;
– to protect domestic products on the domestic market and effectively promote them on the foreign market;
– to provide financial support, favourable credit, tax and customs policies in the innovation sector;
– to develop innovative infrastructure;
– to provide the innovation sector with the necessary information;
– to provide training in the field of innovation.

In accordance with the Law of Ukraine "On Innovation Activity" No. 40-IV dated July 4, 2002, state regulation in the innovation sphere is carried out as follows:

– Priority areas of innovation activity were identified and supported;
– state, sectoral, regional and local innovation programmes are developed and implemented;
– a regulatory framework and economic mechanisms are being created to support and encourage innovation;
– protect the rights and interests of innovation entities;
– financial support is provided for the implementation of innovative projects;
– stimulate the activities of commercial banks and other financial institutions that provide loans for the implementation of projects in the innovation sector;
– preferential taxation for innovation entities is established;
– support for the functioning and development of modern infrastructure in the innovation sector (The Law of Ukraine "On Innovation Activity" No. 40-IV, 2002).

Taking into account the successful experience of developed countries, when choosing the legislative guidelines for improving the economic and legal regulation of the innovation sphere in Ukraine, it is advisable to proceed from the fact that the primary need is met on the basis of the introduction of various innovations. However, it should be emphasised that if the strategic priority is set only in the form of introduction of innovations, the scientific, technical and innovative sphere will be condemned to unattractive investments and will require a wider range of state economic and legal regulation (Faulkner, 2009).

Taking into account the activation of innovation processes, it is necessary to significantly expand the statistical observation of the innovation sphere in Ukraine. This applies in particular to the statistical monitoring of small innovative enterprises, the systematisation of data on innovation infrastructure objects and innovation clusters, the volume and structure of venture investments, etc.

As for the relevant Law of Ukraine "On Innovation Activity" No. 40-IV of July 4, 2002, this law should be based on the impossibility of administering and structuring both innovation activity and state support measures, and therefore should be not restrictive but expanding. It should also be borne in mind that the results of innovation activities, which are defined by law as "activities aimed at the use and commercialisation of research and development results and leading to the launch of new competitive goods and services" (The Law of Ukraine "On Innovation Activity" No. 40-IV, 2002), do not have any peculiarities that exclude them from the scope of civil law regulation, as well as innovation activities themselves:

– Characterised by the diversity of both its manifestations and property relations arising in the process of its implementation;
– do not contain in the subject matter of civil law regulation separate innovative relations other than those denoted by such general, generic categories as "property relations";

– do not have an independent range of subjects other than civil law.

Since innovation activity is a type of entrepreneurial activity, in the economic and legal regulation of the sphere of innovation relations, the public legal system should be auxiliary and not destroy the basic system of private legal regulation. Thus, the subject of the law should not be the regulation of specific private legal relations between the subjects of innovation activity (Cecere, 2016).

Given that the Law of Ukraine "On Innovation Activity", No. 40-IV of July 4, does not fully encompass all the property relations that characterize it, and also conflicts with the sectoral principle of Ukrainian legislation, it appears suitable to regulate certain implementation issues of innovation activities by adopting appropriate auxiliary sectoral laws. Additionally, agreed revisions and supplements should be made to both relevant laws and regulations governing scientific research, scientific, technical and educational activities, as well as general systemic legislative acts (The Law of Ukraine "On Innovation Activity" No. 40-IV, 2002).

When improving the regulatory framework of economic and legal regulation in the field of innovation, it is necessary to start from the fact that innovative projects are attractive for investment not because of the special significance of the technologies and scientific achievements used (implemented) in them, but because of the high market potential (public demand) of their final product. Accordingly, the main focus of legislative activity should be on stimulating innovation processes in the real sector, including the introduction of the results of innovation activities into economic turnover, as well as ensuring the organic "embedding" of the innovation system in the market environment (Brownsword, 2021). First of all, this implies:

– Market formation (demand, competitive environment, government orders);

– market regulation (creating competitive advantages for certain producers in priority areas);

– formation of the external environment, rules and regulations ("rules of the game"), which are a condition for the development of innovative entrepreneurship, as well as set and regulate the activities of innovation entities.

At the same time, the regulatory framework for innovation should be brought in line with the innovation policy, in particular, it should be closely linked to the measures envisaged by the relevant state programme documents and should actively promote their implementation.

The economic and legal regulation of the activities of public administration entities in the innovation sphere should not restrict innovation processes (including through excessive structuring and detailing), but should set the direction of their evolution, constantly improve, dynamically monitoring changes in the situation.

Legal support of the innovation system is provided in various directions, but priority should be given to legal issues of the functioning of the country's economy as a whole, as well as laws and regulations in the field of standardisation, metrology, certification of goods and services, consumer protection. In order to achieve the effectiveness of innovation activities, it is necessary to adopt a new approach to solving the problems of antimonopoly policy, product quality management, safety and labour protection. To this end, it is necessary to adopt new laws and regulations, which should reflect legal issues related to the development of production, resource conservation, environmental protection, etc.

5. Conclusions

The most important form of state support for innovation development is economic and legal regulation of innovation activities, support for small innovative businesses, and creation of a favourable innovation climate. The goal of government policy in this area is to move to an innovative path of development based on selected priorities.

The state economic and legal regulation of innovation activity is carried out to ensure progressive transformations in the field of material production, increase the competitiveness of the national product in the world market, improve the environmental situation, and strengthen the country's security and defence capabilities.

An analysis of the global practice of regulatory and legal regulation of innovation shows that there are two main approaches to addressing this issue. The first approach is typical for most Eastern and post-Soviet countries. Its distinctive features are: the focus of legislative activity on a purely vertical aspect: the state as a subject of innovation activity; regulation of innovation activity by means and methods of public law and public administration, primarily by administrative law provisions establishing relations between executive authorities and business entities. The second approach is typical of Western industrialised countries. Here, the main role in stimulating innovation activity is played by legal acts regulating private law, horizontal relations between innovation actors.

In order to achieve the effectiveness of innovation activities, it is necessary to take a fresh approach to addressing the issues of antitrust policy, product quality management, and occupational health and safety. To do this, new laws and regulations must be adopted that reflect legal issues related to

production development, resource conservation, environmental protection, etc. The regulatory framework for innovation should be brought in line with the innovation policy, in particular, it should be closely linked to the measures envisaged by the relevant state programme documents and should actively promote their implementation.

The economic and legal regulation of the activities of public administration entities in the innovation sphere should not restrict innovation processes (including through excessive structuring and detailing), but should set the direction of their evolution, constantly improve, dynamically monitoring changes in the situation.

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