The main institutional instruments of intellectual property protection

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Abstract. The paper contains complex interdisciplinary analysis of legal, economic, political aspects of innovation activity infrastructure development in Russia. The conceptual apparatus is defined, factors of successful creating of innovation system in Russia are revealed. The system of criterions and assessment indicators of effective innovation institutional infrastructure functioning is being working out. Typical problems of innovation activity in Russia and its regions are considered. The recommendations for the development of innovation activity based on cluster form organization of industrial and scientific and technical policy within certain territories are formulated. It is revealed that innovation activity in Russia relies on the development of national and regional institutional infrastructures and state programmes stimulating innovation activity.
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Introduction

The development of innovation activity infrastructure is one of the main aims of social, economic and scientific development in Russia. It is proved that innovativeness of the society and economy can be reached by active implementation of new knowledge obtained through intellectual activities into all spheres of life. It is necessary to build an effective system stimulating the scientists and researchers to create new generation of knowledge, its implementation [1-3].

Globalization of innovation activity stimulates the dissemination of knowledge and practice of "open innovation", activate innovation processes. Globalization means intensive cooperation in world division of labour between mass production and providing of services and high-technologies and innovations. National borders are becoming more archaic [4]. Globalization opens market for all enterprises and spreads new methodology and instruments, increasing in that way the progress of information technologies and stimulating innovation activities.

Russia has some specific features, it experiences the same problems as foreign countries. Russia is a very complex and diversified country – multiethnic, multi-linguistic, multi-religious, etc. Moreover, Russia is a quite differentiated society in both social dimension (great social inequality) and spatial dimension (regionalization as the result of huge territory).

It is necessary to study the international experience in order to promote knowledge and disseminate the information about the opportunities of centers of technologies transfer, about institutional instruments of intellectual property protection among researchers and scientists working at universities and institutions of high education. The analysis of foreign experience makes it possible to work out recommendations for legislation improvement to promote the legal norms adoption and stimulate development of innovation activity infrastructure.

2. Theoretical and methodological background

2.1. The theory.

The research is based on the foreign researchers' theoretical theses in the fields of the institutional model of innovation activity infrastructure development and intellectual property protection. The first is analysis of the globalization role in innovation activity development [5]. The second is research of universities participating in the innovation activity infrastructure [6-9]. The third is comparative analysis of foreign legislation of intellectual property protection in the sphere of scientific and technical activity, for example, the analysis of Bayh-Dole Act (BDA-1980) in USA [10-13]. Many researches consider intellectual property to be one of the main sources of power and wealth and it is necessary to build an effective system stimulating the scientists and researchers to create new generation of knowledge, creating university-industry connections [14].

2.2. The methodology of research.

The research is based on the principles of interdisciplinary analysis, that can be explained by the complex character of examining problems. The authors used the method of comparative analysis, the analysis of current situation, analysis of legislation.

The method of comparative analysis is used to evaluate the effectiveness of institutional instruments use for intellectual property regulation and creating the innovation activity infrastructure in Russia.

During the research process methods of bibliographic analysis and publication analysis were used. The paper presents complex interdisciplinary analysis of legal, economic, political aspects of innovation activity infrastructure development in Russia.

3. Results and discussions

3.1. The analysis of Russian innovation activity infrastructure.

Institutionalization of intellectual property protection is determinated by the necessity to create Russian national innovation system as cumulative coordinated actions in all management and production spheres of innovation support.

The main institutional instruments of intellectual property regulation are:

1) legislation activities on all state levels;

2) creating and development of organizations, specialized in registering and protection of intellectual property;

3) effective system of intellectual property commercialization and innovation transfer.

Unfortunately all these elements of innovation activity institutional infrastructure are poor developed and contradict each other.

Institutional model of innovation activity development includes several main directions [15].

The first is improving of legislation of intellectual property protection in educational and research spheres. Matching the legal regulation in the sphere of intellectual property with world practice and modern trends of innovation development is forming a special direction. It is important to take into account the peculiarities of legal regulation of intellectual property created with state support and budget funding.

State and regional authorities ought to pay much attention to regulating the process of intellectual property creating and realization in all spheres of economy and vital activity of the society.

Increase of scientists and researchers motivation in scientific and innovation activity form one of the directions of innovation activity institutional infrastructure. It is very important for commercializing intellectual property and transfer new knowledge to different sectors of economy.

Another elements of innovation activity infrastructure are centers of technologies transfer. Such centers still don't have much influence upon the processes of intellectual property commercialization in universities. Cooperation and interaction with centers of technologies transfer is expected to become an important part of Russian universities innovation culture. One of the main aims of institutional model of innovation activity infrastructure development is to spread the information among university scientists and researchers about technologies transfer services provided by such centers. It is necessary to stimulate an active participation of researchers in technologies transfer and intellectual property commercializing.

Now some universities of Russia with a high quality academic potential (from Perm, Omsk, Izhevsk, Chelyabinsk, Ekaterinburg) are national research universities. Several research centers were founded within national universities. Such a base will further promote successful development of innovation activities in Russia. Russian universities are interested in strengthening the intellectual property protection. The foreign experience of intellectual property protection and commercialization is a phenomenon of great importance for global politics. There is a strong need in Russian regions for the creating an institutional base, public space in order to promote the efficient practices of developed countries in intellectual property commercializing and transfer.

3.2. The foreign experience of intellectual property protection and commercialization. The Bayh-Dole Act.

The experience of foreign countries showed that an opportunity to obtain intellectual property rights on inventions and know-how by universities, small innovation enterprises and research centers, which received state support and funding can stimulate innovation activity in such branches as medical research, gender studying, biotechnology and others. The legislation of the USA stimulates research work conducted by private companies, universities, research centers by creating favorable intellectual property protection conditions for research centers, scientists, universities.

Up to the Bayh-Dole Act (BDA-1980) small enterprises and universities received and opportunity to register intellectual property rights on scientific results achieved by conducting research funded by the state. An opportunity to obtain licenses and patents stimulated investments of many companies into research work, because licenses and patents provide competitive advantages on market. All these made it possible to create the world biggest biotechnological cluster.

Bayh-Dole Act made somewhat like revolution in American high-tech technologies. It gave universities an opportunity to patent the results of their research works and commercialize

intellectual property, to obtain exclusive licenses. Bayh-Dole Act stimulated innovation activity in the USA. The number of patents more than two times increased.

Bayh-Dole Act changed the ownership of innovations made with federal funding. Prior to the enactment of Bayh-Dole inventors (universities, research centers) under federal research funding contracts were obligated to assign inventions they made to the federal government. Bayh-Dole Act permitted research centers and universities to patent their inventions and preference to the government. Before the Bayh-Dole Act, the US government had accumulated about 28000 patent but fewer than 5% of those patents were commercially licensed.

Bayh-Dole Act regulates intellectual property rights which arise from research funded by federal government. It included research centers and institutions of high education into the process of technological transfer. Universities received an opportunity to create their own transfer programs taking into account technological potential, unique circumstances, etc. One of the main aims of Bayh-Dole Act was to stimulate commercializing of state-funded research. In USA about 70% of research works at Universities were funded by state government. But universities practically could not obtain ownership on inventions and commercialize them.

Several similar steps are taken by the Russian government. The first is the Federal law of Russian Federation № 217 "On changing the several legal acts of Russian Federation on matters of creating enterprises by budget scientific and educational institutions for the purposes of practical implementation of intellectual activity results" adopted in 2009 [16]. The Ministry of economic of Science and education are working out suggestions for changing intellectual property regulation in Russia. It is suggested to give an opportunity to research centers to register intellectual property rights on scientific results, created during works, funded by the state.

The reality of market economy, proves that the system of innovation activity stimulating ought to be more adequate and flexible. It is rather difficult to sell an original technical idea and attract investors of receive funding to continue research works.

4. Conclusions

Nowadays the institutional model of innovation activity infrastructure development in Russia cannot provide neither stimulating of innovation development nor effective competitiveness among independent researchers, universities, scientific institutions that is very important for activation of research and intellectual property commercializing.

In order to change the existing situation it is important to found a number of special research universities corresponding to the criteria of leading universities abroad, to provide an important influence of intellectual property upon innovation development of Russia, to suit the Russian economy.

Providing the effective use and protection of intellectual property plays an important role in the process of innovation economy forming and development.

It is necessary:

1) to complete legislation improving in the sphere of scientific and technical policy and innovations,

2) to correct collusions in legislation,

3) to provide creating a number of arrangements for securing intellectual property rights of researchers and scientists,

4) to fix intellectual property rights on inventions funded by state and regional budgets.

All these can activate research in high-tech production development, provide intellectual property commercializing and effective transfer if intellectual property into real production in order to improve innovation strategies of enterprises and trends of economy.

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