State impact on innovative development of business structures

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Abstract. The article considers the issues of development of business structures in Russia in the conditions of transition to a new technological order through innovative development and modernization of the economy. The author defines the key problems of functioning of innovative development institutions in Russia according to their sources and key functions of the state in creating an innovative and entrepreneurial environment. The features of the regional component of the national innovation system are revealed and the role of small and medium-sized businesses in the development of regional clusters is reflected. Special attention is given to the successful functioning of innovative clusters and the important role of small innovative enterprises as a link between the leading enterprise and the research environment.

1. Introduction

In the context of Russia's integration into the world market and accession to the WTO, mechanisms for ensuring the stability of qualitative changes in the economic growth are the only way to survive in the global world and further effective economic development due to the growth of a competitive product, as well as socialization of society. The problem of stability of enterprise structures, and the way how the entire economy is tied to a rapidly changing situation on the market and also with the acceleration of scientific and technological progress and transition of world economy to new technological way.

A crisis state always implies there exist a way out of it with a new qualitative basis of economic development. In this regard, most researchers of macro- and micro-economical processes of economic development at the present stage believe that the main task of the modern Russia is to find a new quality of economic growth, to form the processes of development of the national economy, which, on the one hand, will be based on human capital, and on the other hand – on the knowledge of economy and scientific and technical progress. It should be emphasized that the processes of innovative development and modernization of the economy are an integral part of ensuring the sustainability of the formation and development of a qualitatively new economy. In the conditions of overcoming the global crisis, dynamic growth in the modern world is possible only on the basis of the development of a qualitatively new economy with its access to a new technological order.

2. Methods

The theoretical and methodological basis of the research consists of fundamental concepts and applied research presented and justified in the works of Russian and foreign classics of economic science, in the works of modern scientists-economists on the problems of functioning of market relations, as well as theoretical and methodological tools. The research tools are based on a systematic methodology and combine various methods of scientific knowledge, such as monographic, economic and statistical,
comparative economic and sociological assessments, methods of experimental and theoretical level (logical method). The initial data for the work were as follows: normative documents and specialized literature, branch journals.

3. Results
Sustainable business development and activation of their innovative processes are possible only in the innovative and entrepreneurial environment [6]. In our opinion, the innovation and business environment represents the environment established in a certain area of socioeconomic, political situation, institutional, technological, organizational, legal, informational environment, as well as a set of innovation and entrepreneurial infrastructure, innovative capacity of business entities that are used to provide (or hinder) the development process of innovative development of the business sector site in the interaction of the participants of the generation process, dissemination and use of new knowledge through certain organizational and managerial influences.

The innovation and business environment is formed under the influence of certain groups of factors that stimulate or restrain the innovative activity of business structures.

We consider the following factors that contribute to the development:
- high level of economic development of the territory, including a developed small and medium-sized business sector;
- high innovative potential of the territory, including research centers, Universities, research laboratories, innovation clusters, etc.
- high demand for innovative products from consumers, primarily in the sphere of industrial consumption, innovative activity of the business sector;
- developed innovation (technological parks, research and technology centers, patent offices, etc.) and entrepreneurial (business incubators, support funds, business associations, consulting offices, etc.) infrastructure;
- active measures of government participation in innovation activities of the business;
- effective system for controlling and monitoring the results of business innovation activity, and a most-favored-nation regime for innovative business entities.

The factors that hinder the development of the innovation and business environment should include:
- predominance of raw materials, which prevents the concentration of scientific, industrial and research centers, low innovation potential of the territory, lack of investment for its development;
- insufficient development of certain types of infrastructure of the territory (logistics, transport, energy, innovation, business, etc.);
- low innovation activity and innovative receptivity of the enterprise sector, lack of demand for R & D results;
- difficulties in implementing innovative development programs due to the lack of an effective mechanism for stimulating innovation activity;
- high cost of innovation, high risks of innovation activity;
- low activity of regional authorities in the development and implementation of programs to support entrepreneurial and innovative activity;
- low level of economic trust between business entities caused by socio-cultural features of the national economy.

The national innovation system includes a pronounced regional component, which is due to the following objective factors:
- presence of regions located far from the center. The world practice shows the following: the greater the distance of the region from the center is, the less opportunities there are to lobby narrow interests, the less opportunities the business sector has to achieve commercial success through political lobbying. Due to this pattern, most regions that are situated far from the center rely more on their own
strengths and advantages, taking into account the opportunities provided by the regional market system, rather than the configuration of political forces;

- presence of deprived regions, which business sector is more ready for innovation. In such regions, there is an urgent need to overcome crisis phenomena by implementing modern technological solutions that reduce costs (provided that the structure of industrial production is preserved) or, on the contrary, create new products or economic entities for their production (with the parallel extinction of types of production activities that brought the enterprise into a crisis state or, at least, did not allow to smooth its negative manifestations). On the other hand, in those regions where the structure of industrial production is able to "give" economic entities a stable income and thus create conditions for socioeconomic and political stability, the propensity to innovation will be much lower;

- there are significant differences between the regions of the country in terms of prevailing industrial specialization.

The actual result of business innovation does not fully meet the current needs of the Russian economy and the goals set in the strategy for innovative development of Russia until 2020 [1]. A number of structural problems remaining in this area (figure 1).

![Key problems of functioning of innovative development institutions in Russia](image)

**Key problems of functioning of innovative development institutions in Russia**

| State                         | The science | Business               | Institute of Innovation Development |
|-------------------------------|-------------|------------------------|-------------------------------------|
| - imbalance of the national innovation system; | - shortage of high-quality innovative projects; | - lack of focus on innovative entrepreneurial thinking; | - target indicators of development strategies of innovative development institutions do not always allow an objective assessment of performance; |
| - lack of optimal connections between the management system of innovation development institutions; | - the gradual exhaustion of scientific and technical groundwork; | - low level of openness of organizational and managerial decisions; | - applied principles for evaluating the activities of innovation development institutions are more focused on measuring direct results with an emphasis on formal indicators characterizing the use of resources; |
| - lack of clear tactical decision-making mechanisms; | - products created by innovation development institutions do not fully meet the needs of national business. | - low level of development of small innovative entrepreneurship; | - low amount of free funds for investment in innovative projects; |
| - lack of separation of responsibility between institutions of innovative development for decisions with government representatives; | | - low level (or lack) of private capital participation in the activities of innovative development institutions. | - orientation to obtaining additional state resources; |
| - underfunding presowing and sowing stages of development of innovative activity. | | | - gradual "drift" to less risky areas of activity. |

**Figure 1.** Key problems of functioning of innovative development institutions in Russia.

*Source: author's.*

In the world practice, there is a tendency to concentrate large economic entities on the basic directions of production and economic activity and delegate the process of production of intermediate products (services) to other, including small and medium-sized enterprises. Taking into account this trend, the creation and functioning of clusters have a powerful impact on small and medium-sized businesses (SMEs).
As for Russia, the effective restructuring of the former "industrial giants" required deeper interaction and partnership between large, small and medium-sized businesses, public authorities, scientific organizations, etc., and here the cluster approach provides participants with the necessary tools and analytical methodology. Using the cluster approach allows small and medium-sized businesses to achieve expanded development and increase their competitiveness.

Research of problems of activation of innovative and entrepreneurial activity of small and medium-sized businesses and methods of their solution by means of the cluster approach is expedient to be carried out in the following stages [5].

The first step is to consider the "problem field" of innovative activities that are directly related to the organization, namely: analyzing the innovation potential of business entity you need to focus on the innovative potential of the staff, including the primary intellectual capital of the business; the transfer mechanism is necessary to investigate the motives of economic behavior on the market of the owners of the enterprise and its managers in relation to innovation and know-how, as well as the process of coordination of interaction of labor and teams.

At the second stage, the object of research should be a cluster approach to business organization at the regional level as one of the innovation-oriented and large-scale directions of sustainable development, within which a favorable external environment is formed for the activation of innovation activities of all cluster participants.

This includes, first of all:
- business participation in targeted regional development programs, which allows businesses to forecast their activities in the medium term;
- professional audit and marketing support for their activities;
- active position of local authorities and the scientific community;
- «facilitated» lending process.

Participation in innovation clusters allows small and medium-sized enterprises to objectively assess the effect of innovative transformations of fixed capital and their competitive positions among a limited number of competitors within the cluster.

At the third stage, it is necessary to consider the possibility of creating and successfully functioning cluster structures (i.e., clustering potential) that unite businesses in the borders of administrative territories, as well as to determine the branches of regional specialization.

An important role in the Association belongs to the leading regional industrial enterprise, whose strategic goal is to produce competitive innovative products. The main enterprise relies on small innovative enterprises that provide research functions, as well as on a variety of specialized small enterprises that provide the functions of suppliers of raw materials, components, implementing product releasing, servicing the main production. These relations are characterized by the cluster's competitive struggle among small enterprises, partnership relations with the leading organization based on support and trust through the provision of short-term loans, advance payments, deferred payments, mutual guarantee of bank loans, etc. The formal framework of the innovation cluster does not limit the development of each of the small enterprises. Their additional features can be implemented with external partners. Competition between small enterprises acts as a stimulating factor for improving their economic innovation activities based on interaction with the research sector of the cluster.

4. Discussion
To implement the challenges facing the Russian economy, it is important to create a favorable innovation and business environment. The main role in resolving this issue belongs to the state. Table 1 provides a list of specific functions of the state in creating an innovative business environment. The tools and methodology for implementing each of these functions of the state are different. All of them should take into account the current specific features of the Russian economy.
Table 1. Key functions of the state in creating an innovative and entrepreneurial environment.

| State function | Specifying the functions of the state in the field of innovative entrepreneurship |
|----------------|----------------------------------------------------------------------------------|
| Governing      | - selection of priority directions and schemes for sustainable development of innovative entrepreneurship;  |
|                | - transfer of new technologies from the public sector to the industrial sector.  |
| Managerial     | - maintaining and promoting the development of national scientific, technical and entrepreneurial potential;  |
|                | - maximizing the effect of public investment in innovation;  |
|                | - organization, financial and legislative support of the system of training/retraining of domestic personnel for innovation activities. |
| Control        | - competitive selection of innovative projects based on the expertise of their scientific value for the national economy;  |
|                | - tracking low-performing and low-effective innovative projects and stopping their financing. |
| Distributive   | - development of a system of funding priorities: financing of state orders; state participation in the financing of innovative projects; targeted lending; reduction of tax rates; tariff policy; subsidizing costs for international certification;  |
|                | - targeted financing and support of leading entrepreneurial Universities and accelerated development of their competencies in order to form the "innovation core" of the national economy. |
| Organizational | - cooperation between Federal agencies, the industrial sector, Universities, scientific and research organizations for the implementation of joint innovative projects;  |
|                | - development of joint promising scientific, technical and research cooperation with foreign organizations;  |
|                | - organization of innovation activities in state-owned enterprises. |
| Protective     | - support and protection of the interests of organizations that offer innovative products and developments on the international market;  |
|                | - improvement of intellectual property protection mechanisms. |
| Motivational   | - state incentives for activities aimed at preserving, improving and changing the skills of intellectual capital;  |
|                | - formation of a system of tax incentives;  |
|                | - formation of public positive, loyal attitude to innovations and innovations. |
| Scientific-analytical | - development of targeted industry programs for innovation and research activities in the business sector;  |
|                | - definition of targets, criteria and methods for evaluating the effectiveness of current innovative projects;  |
|                | - development of systems for alternative forecasting of innovation activity. |
| Informational  | - facilitating rapid access of business entities to relevant information resources;  |
|                | - formation of a unified information space. |
| Institutional  | - creation and integration of territorial, industrial and technical-technological national innovation systems;  |
|                | - the formation and development of market infrastructure of innovation;  |
|                | - formation of a modern system of development institutions in the field of innovation (venture funds with state participation, institutions of pre-seed and seed financing, etc.). |
| Normative-legal| - creation of a regulatory framework for regulating the market aimed at stimulating and developing innovative entrepreneurship. |

Source: author's, compiled by [7].
The main forms and methods of state influence on entrepreneurial activity of the innovative type are shown in figure 2.

**State impact on innovative type of business activity**

| Macro-, meso-level | DESIGNATED PURPOSE | Microlevel |
|--------------------|--------------------|------------|
| effective socio-economic, scientific-technical, innovation policy of the country (region); increasing the competitiveness of national (regional) products on the world market; improving the environmental situation of the country (region); strengthening of defense and security in the country (region). | regulation of conditions for innovative activities for optimal progressive development and maintaining the competitiveness of business structures; stable participation of the country's business structures in the international division of labor, including promoting the development of their trade, scientific, technical, and information relations with foreign partners. | |

**FORMS OF BUSINESS IMPACT**

- Support: in order to maximize the use and development of all components of the potential of economic entities (production, innovation, environmental, social, intellectual, etc.)
- Regulation: in order to ensure optimal favorable conditions for the progressive development of innovative entrepreneurship and achieve a balance of interests of all its participants and stakeholders.
- Stimulation: in order to stimulate innovation processes, expand areas of activity and cooperation, taking into account their current needs, aspirations, interests, goals and behavioral motivation.

**METHODS**

- direct grant and targeted financing, targeted lending, provision of state guarantee for targeted projects; subsidizing the costs of international certification; creation of technoparks, technopolises and other promising formations, public-private partnership; preferential licensing.
- development of the legal framework in the field of scientific and innovative activities; development of innovative infrastructure, control over the credit system, pricing, and revenue, antimonopoly policy, introduction of legal and / or administrative restrictions that do not affect the movement of cost factors, information and communication impact.
- lower tax rates, preferential taxation of profits; tariff policy; right to accelerated depreciation of equipment; the right to pool capital for R & D; conducting competitions for the execution of state contracts, etc.

*Figure 2.* Goals, forms and methods of state influence on innovative business activity. Source: author's.
State regulation and support of innovative entrepreneurship is necessary due to the presence of "failures" in the market of innovations and know-how. These "failures" are related to the fact that innovation has the property of a public good, and innovation activities are subject to a high degree of uncertainty and risk. All external incentives for the development of innovative processes in the sphere of entrepreneurial activity act as incentives that contribute to actively reorient the production activities of economic entities, taking into account its innovative orientation [3].

The process of state stimulation of entrepreneurship to innovative activity is an impact on business structures that takes into account their current needs, aspirations, interests, goals and behavioral motivation. These forms of state influence on innovative business activity-support, regulation and stimulation – are complementary to each other and generally form a state mechanism for activating innovative activity in the business sector of the economy.

Methods of state influence on innovative business activity can be classified into direct and indirect. Direct methods have a direct innovative impact on the activities of enterprises. They force the management level of an economic entity to make new decisions for it, which are based not on independent free economic choice, but on clear prescriptions of state authorities at different levels of management. Indirect methods of influence imply the use of not only existing, but also new, innovative tools and forms of state influence on private entrepreneurship in terms of ensuring the macroeconomic proportions of expanded reproduction [4].

The goals, forms and methods of state influence on innovative business activity systematized in figure 4 will allow public authorities to assess the extent, completeness and level of use of existing methods of support, stimulation and regulation of innovative business activity in the country. In addition, the tools used serve as a basis for assessing the degree of implementation of the state's goals of impact on the business sector at various levels of management.

5. Summary
Thus, today the Russian economy faces a difficult task-to switch to the innovative path of sustainable development, which means not only the growth of innovation activity, but also qualitative changes in all areas of the economy. For the objectives set by the state to small businesses, a qualitative change in industry structure requires a significant increase in the number of small businesses, with rapid growth in the number of small innovative enterprises in high technology sectors and other strategically important industries. The share of MIPS should be predominant in the overall structure of the economy. The key direction of such changes can be partnership between groups of enterprises, Universities, research institutes, and the state, in other words, cooperation within clusters that include small scientific enterprises [2].

6. References
[1] Strategy of innovative development of the Russian Federation for the period up to 2020: decree of the Government of the Russian Federation of December 8, 2011 No. 2227-R Moscow. – [Electronic resource] Mode of access: http://base.consultant.ru
[2] Baranova I A, Putilov A V 2018 The role of higher education in shaping human capital development (Modern Economy Success) 1 4-9
[3] Bykovskaya U V, Ivanov L N, Sapkina E A 2018 Small and medium business in modern Russia: status, problems and directions of development (Bulletin of Eurasian science) 5
[4] Zarayskaya O A 2018 The Role of the state in the formation of the innovative economy of Russia (State administration. Electronic Bulletin) 68
[5] Musaev R A, Bukharova E M 2016 Formation of innovative systems of Russian regions: structural approach (Proceedings: Institute of national economic forecasting RAS) 1
[6] Petrov A M 2019 Methodological approaches to preparing sustainable development reports (Russian Economic Bulletin) 2 (5) 108-115
[7] Chabuca N V, Solomatina E D 2015 State innovation policy of Russia: history and prospects (Journal of Forestry) 4 (20)