Innovation Potential as a Basis for a Sustainable Economy

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ABSTRACT
The paper deals with the problem of forming a stable economy that can withstand the challenges and threats of the external environment. The basis for developing a sustainable economy of the Russian Federation now is creating a national system of support for innovation and technological progress. Within the framework of this system, the ways of innovative development and increase of innovative activity of business are determined through forming an environment favorable for innovation and stimulating it. The authors review the current state of innovative activity of industrial enterprises in Russia; the role of innovations in the formation of a sustainable economy of the country determined, the innovative activity of the Russian Federation analyzed in comparison with other countries, the problems that hinder the effectiveness of innovation activity identified. Both the state and business should be involved in solving the above problem.

Keywords: *innovative potential, innovative activity, innovative actions, competitiveness, sustainable economy.*

1. INTRODUCTION

The priority direction of scientific research is issues related to building a stable competitive economy. Sustainable development is understood as the state of the economic system characterized by positive dynamics of the main economic indicators of activity provided and conditioned by the presence of the innovation factor, adaptability to changes in the external and internal environment [1].

Each country uses three directions in its development: extensive (raw materials), intensive (investments) and innovative (due to the growing volume of commercialization of intellectual activities). Among the possible sources of further consistent economic development, Russia should give preference to the latter. It can be explained quite simply. The first two factors lead to increasing dependence of the national economy on the conjuncture of the world market and the general state of the world economy. As the world practice proves, innovations contribute more to overcoming crisis phenomena and help to solve a number of important socio-economic tasks: forming a stable economy, raising quality of life, ensuring national security. At the same time, it should be understood that the priority should be given to intensifying innovation in the field of basic knowledge-intensive industries that are drivers of the development of the Russian economy.

2. MATERIALS AND METHODS

Today, Russian science lacks a clear conceptual apparatus related to understanding the concepts of "innovative activity" and "innovative potential", which leads to the problem of making systemic indicators that can be used to make intra-country and inter-country comparisons to determine the growth factors of a sustainable economy in order to maintain its competitiveness in the world market.

In the scientific economic literature of the late XX-early XXI centuries, attention is focused on the following interpretations of the term “innovation”. Representatives of the first approach (B. Twiss, F. Nixon, B. Santo) [2] consider innovations as a process of quantitative improvement, i.e. replacement of existing elements with new ones. The second approach is followed by A.M. Medynsky, R. A. Fatkhudinov, A.V. Plekhanov [3]. They define the term "innovation” as the final result of the creative process in the form of new products, methods, technologies, so innovations are understood to be qualitative changes. The third approach was introduced by E. L. Barsukova and V. A.

Sarycheva [4], it combines the previous points of view and considers innovation as a systemic, economic concept.

In domestic economic literature there are no scientifically established formulations and such concepts as "innovative actions" and "innovative activities." The situation with concepts requires detailed consideration and discussion in order to further systematize them. Such a systematic approach will allow us to choose a more correct approach to the analysis of the modern state of the innovative system of the Russian Federation.

The main methods used in the study are observation and collection of facts, comparative and systematic analysis and synthesis.

3. RESULTS AND DISCUSSION

The concept of “innovative activity” is closely related to the concept of ‘innovative actions". Many researchers consider them to be synonyms, although they have fundamental differences. For example, A. N. Vasiliev and A. Ya. Shchukina define "innovative actions" as the intensity of activities by economic entities to develop and involve new technologies or improved products in economic turnover [5]. According to the definition of V. P. Barancheeva [4], innovation actions are understood as a generalized characteristic of its innovation activity, which includes susceptibility to innovation, the degree of intensity of the actions carried out to transform the innovation and its timeliness, the ability to mobilize the potential of the necessary quantity and quality, the ability to ensure the validity of the methods used [4].

Innovation activity is understood as a type of activity that is aimed at using and commercializing the results of scientific research and development to expand and update the nomenclature and improve the quality of products, goods, services, improve their manufacturing technologies with subsequent implementation and effective implementation on the market [5]. Thus innovative actions are a set of actions, while innovative activity involves participation in them. The definition of “investment potential” is associated with the above-mentioned concepts. Summarizing the existing points of view for further research, the authors understand the investment potential as "a measure of its readiness to perform tasks that ensure the achievement of the set innovation goal, i.e. a measure of readiness to implement an innovative project or program of innovative transformations and innovation implementation" [3]. It is the innovative potential of innovative-active enterprises that in total forms the basis for a national sustainable economy.

To date, there are no uniform criteria for classifying an organization as innovative and active. For example, the Federal State Statistics Service refers to innovation-active enterprises as the ones that have completed innovations over the past three years (they have launched new, improved products, goods, services, as well as methods of their production on the market), have been engaged in the introduction of new production processes into practice [4]. Summing up the above, the authors consider innovation activity as an activity (scientific, technological, organizational, financial and commercial activities included) aimed at implementing innovative projects, as well as creating an innovative infrastructure and ensuring its activities [6]. Further, the terms defined in the legislative and subordinate acts will be used.

The innovative type of economic development requires the most favorable conditions for entrepreneurial initiative, increasing competitiveness and investment attractiveness of Russian private companies, expanding their ability to work in open global markets in conditions of tough competition since it is private business that is the main driving force of economic development. The theses of innovative development of Russia are described in detail in the "Concept of Long-term Socio-economic Development of the Russian Federation for the Period up to 2020" (hereinafter – the Concept), approved by the decree of the Government of the Russian Federation of November 17, 2008 N 1662-p [7]. According to the Concept, the innovative development of the Russian economy in the period of 2008-2020 has 2 stages [7], different in terms of conditions, factors and risks of socio-economic development, and priorities of economic policy.

The purpose of creating a national system to support innovation and technological development is a large-scale technological renewal of production facilities based on advanced scientific and technical developments, formation of a competitive national research and development sector that ensures the transition of the economy to an innovative path of development, etc. [2]. This will ensure Russia's scientific and technological leadership in the world in areas that determine its competitive advantages and national security. The main indicators for achieving this goal are defined in the Concept:

— the share of enterprises implementing technological innovations will increase to 40-50 % in 2020 (in 2010 – 15 %);

— Russia's share in the world markets of high-tech goods and services, nuclear energy, aircraft, space equipment and services, special shipbuilding, etc. included, will reach at least 5-10% in seven or more sectors in 2020;

— gross value added of the innovation sector in the gross domestic product will be 17-20% in 2020;

Table 1. Main indicators of innovation activity for 2017-2019 [9], [10], [11].

Indicators	2017	2018	2019
1. Number of enterprises that carried out R&D	3944	3950	4051
2. Percentage of enterprises that carried out technological innovations in the total number of enterprises surveyed (calculation according to the updated methodology)	20,8	19, 8	21,6
3. Number of organizations that carried out research and development of industrial production in their own R&D departments	380	419	450
4. Level of innovative activity of enterprises by types of economic activity	14,6	12,8	9,1
5. Innovation costs of enterprises, billion rubles	1219,2	1484,9	1954,1
6. Internal R&D costs as a percentage of GDP	1,11	1,0	1,03
7. Internal research and development costs by funding source			
- budget funds	63,8	64,3	64,4
- extra-budgetary funds	36,2	35,7	35,6

— the share of innovative products in the total volume of industrial production will increase to 25-35 % in 2020 (in 2010 – 6-7 %);

— domestic expenses on research and development will increase to 2.5-3 % of GDP in 2020 (in 2010 – 2 %), of which more than half is due to the private sector [7].

Undoubtedly, the crisis of 2020 caused by the spread of coronavirus infection has made adjustments to the development of innovation activity. In September 2020, the report "Global Innovation Index" containing the results of comparative analysis of the innovative state of 131 countries and their rating was published [8]. In 2013-2016 the Russian Federation moved from the 62nd to the 43rd place, then according to the report, in 2019 it rose to the 46th place (the higher, the worse). In 2020, the downward trend continued, and Russia took the 47th place. It is also worth comparing the positions of Russia in the “innovation resources” sub-index and in the “innovation results” sub-index. Russia's position in terms of resources (the 42nd place in the rating) has traditionally been significantly higher than in terms of results (the 58th place), which indicates inefficient using of innovations. Taking into account the increase in the number of countries in the rating, we can make a conclusion about the average level of competitiveness of the Russian innovation system in comparison with economically developed national innovation systems. According to the rating, which is confirmed by domestic statistics (Table 1), the effectiveness of innovations in Russia as for such criteria as GDP per capita, the volume of investment in science and others is below the expected level in the analyzed period. In 2020, Switzerland, Sweden, the United States, the United Kingdom, the Netherlands, Denmark, Finland, Singapore, Germany and the Republic of Korea entered the top ten of the Global Innovation Index rating [8]. These countries are characterized by the highest level of innovation efficiency - the ratio between resources and results. The rating of Russia reflects the processes called catch-up development in the professional literature, whereas the state of technological upgrade of national economies is characteristic of the top ten countries. In

Table 2. Innovative activity of industrial enterprises of different forms of ownership, 2019 [9], [10], [11].

Type of ownership	Total number of industrial enterprises, thousand	Number of innovative-active industrial en-terprises, units.	Share of innovative-ac-tive industrial enterprises %	The aggregate level of innovative activity (the proportion of organizations that carried out technological, marketing, organizational innovations, in the total number of organizations), %
State and municipal	1,3	485	3,73	2,2
Private	286,1	6151	2,15	1,25
Other forms, including mixed, foreign and joint ones	1,6	95	7,24	4,32
Total	303,5	6731	2,22	12,8

fact, this is how modern economists define a successful model of ensuring consistent economic growth, which forms the stability of the national economy [4].

The main indicators characterizing innovation activity allow us to conclude that, in general, there were minor changes in 2019 compared to 2018.Thus, the share of enterprises implementing innovative developments since 2017 increased (from 20.8% to 21.6%). This is primarily due to the change in the methodology for classifying enterprises as innovative (two more criteria added). But when recalculating according to the old methodology, it can be noted that the growth was insignificant – only 0.2%.

Another important indicator characterizing the innovative state of the economy - "internal research and development costs as a percentage of GDP" practically did not change. The value of this indicator from 2015 to 2019 ranged from 1.0-1.13%. In 2019 it remained within the same limits -1.03%. According to this indicator, Russia is significantly behind the leading countries of the world, by 2-3 times. While the same indicator (in 2018) in Germany was 3,103%, Switzerland-3,293%, Sweden -3,321%, the Netherlands -2, 164% [8].

It should be noted that innovations are introduced not only in high technologies. They are used in all spheres of the Russian economy. The introduction and development of innovations is actively implemented through information and communication technologies in various fields: transport, healthcare, education, industry, as well as government agencies. Thus, using the scientific potential through the interaction of the private and public sectors, introduction of high technologies in various spheres leads to transformation at all levels: the macro and micro levels, which is reflected in the main indicators [1]; [5]; [4]; [12]; [13].

One of interesting indicators in this analysis is the calculation of the share of innovative-active industrial enterprises, based on belonging to different forms of ownership (Table 2).

According to the table, the most innovative-active enterprises were enterprises of mixed ownership, including foreign and joint ones. It was assumed that this group of industrial enterprises would become leaders in innovation, developing and implementing more advanced technologies. In fact, they are not outsiders of the Russian innovation market, but their innovation strategy is unstable, which contributes little to the formation of economic stability.

As for the enterprises of state and municipal property, the following situation has developed here. The main reason for the low innovation activity of state-owned enterprises is their specific infrastructure functions and limited sources of financing. At the same time, this indicator of state-owned enterprises is about 11 times higher than the innovative activity of municipal-owned enterprises, which can also be explained by their infrastructure tasks.

Table 2 shows that private industrial enterprises have the least innovative activity due to high cost of credit resources, limited access to budget resources, instability of production in a highly volatile economy, which means that it is impossible to use internal resources to maintain innovation activity at a sufficient level. As a result, industrial enterprises, being carriers of technological innovations, practically do not participate in their financing and development.

According to Rosstat, the development of a significant amount of technological innovations is carried out at the expense of the state, which does not correspond to world practice.

A special role in progressive innovative development in the country is played by economic entities having state strategic functions and operating at the national level. First of all, this group includes business entities and corporations fulfilling not only defense functions, but also being the basis for the development of high-tech industry, as well as having a significant impact on the socio-economic situation in the country [14].

In Russia, the most successful are the backbone companies of the raw materials sector. They do not show a high demand for innovative products and technologies, although they do large scientific and technical projects. However, the importance of such projects for the country's innovation potential does not correspond to either their economic significance for the national economy, or to the results of the innovative activities of the world market leaders.

Thus, the lack of interest of industrial enterprises in financing research and development of innovative technologies can be explained by focusing on the current market situation and gaining short-term profits. The main reasons for this situation are:

— inefficiency of legislation in the field of innovation activity;

— lack of strategic development programs based on the promotion of a high-tech product to the market;

— privatization, as a result of which scientific and technical complexes were destroyed;

— nonparticipation of the state from conducting a sound industrial policy;

— a number of others.

4. CONCLUSION

The identified problems require decision-making both by the state and by the enterprises themselves. It is necessary to understand that at present, Russian

business cannot become an innovative factor in the formation of a sustainable economy without serious federal assistance. Therefore, it is not enough for the state to adopt a Strategy for the innovative development of the Russian economy, it is necessary to determine specific goals and methods by which these goals can be achieved. Within the framework of the existing Strategy, there are two main directions for increasing the innovative activity of business [15]:

— creating favorable conditions for the innovation process by developing competition that motivates companies to innovate; developing a system of technical regulation; involving in the turnover of rights to the results of intellectual activity created with the financial support of the state; improving the tax conditions for innovation; stimulating the influx of qualified specialists.

— stimulating innovation by making innovative development programs for large companies with state participation; grants (subsidies) to companies in priority areas of innovation activity; providing tax incentives for R & D in companies; supporting new high-tech enterprises and their development at early stages [15].

As for the manufacturing business, its representatives should realize that traditional industries will not have demand prospects either in the country or abroad without constant innovative development. Experience shows that advanced western companies do not reduce investment in innovation, even in a severe recession. [16] This is explained by a number of reasons:

— innovation has become a central element of the corporate strategy;

— companies in most sectors of the economy, as a rule, focus on the development of product cycles that extend over many years;

— many companies consider the downturn in the economy as an opportunity to get an advantage over their competitors [1].

Ultimately, the implementation of the decisions of all interested market participants will increase the innovative activity of business, which will create the best conditions for further formation of the basis of a sustainable economy.

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