

Investigation of Methodological Approaches to Conducting Technological Modernization of Enterprises for the Innovative Development of the Region

Y A Doroshenko¹, I O Malykhina² and I V Somina³

^{1,2,3}Belgorod state technological University V. G. Shukhov, 46, Kostyukovastreet, Belgorod, 308012, Russia.

¹Orcid id: 0000-0003-4250-3186, ²Orcid id: 0000-0003-3053-4516, ³Orcid id: 0000-0002-4365-9839

Abstract

The article analyzes methodological approaches to technological modernization of enterprises for innovative development of the regional economic system. Today, domestic industrial enterprises are faced with the need to find solutions to many problems that hinder their economic and innovative development. The most important is the task of stimulating economic growth through purposeful systemic innovation development, considering environmental requirements, mechanisms for managing technological modernization, and the investment attractiveness of an economic entity as an investment object. Technological modernization as a prerequisite for economic growth is based on investment and innovation development, it means overcoming the contradictions caused by the transition of the Russian economy to an innovative path based on the latest knowledge and technologies. We would like to emphasize that the results of such technological modernization will certainly have a positive impact on improving the competitiveness of the enterprise, and will also contribute to the creation of sustainable prerequisites for the socio-economic and investment-innovative development of not only the enterprise but also the region.

INTRODUCTION

Today, for the development of the regions and the country's economy is necessary to create conditions for the development of the economic environment and the growth of the efficiency of enterprises that can become competitive participants in the domestic and international market. The most important direction to increase the competitiveness of enterprises is precisely technological modernization.

Methodological approaches to the analysis and assessment of the state, development trends and dynamics of technological modernization of the country's enterprises are actively developing. Scientists are exploring the problems of creating and implementing technical solutions for technological modernization of enterprises to realize their effective and dynamic development[2, 5].

It is important to carry out an analysis of the need to introduce technological modernization, which is represented by a laborious process involving research on virtually all areas of the enterprise. The most important step in assessing the need for technological modernization of the enterprise is the formation of a methodological tool for assessing its investment, innovation, technical, organizational and scientific and technical potentials [1].

METHODOLOGY

The main methodological approaches used to study the investment-innovative, technical, organizational and scientific-technical potentials of the enterprise as the basis for carrying out its technological modernization are presented in the works of scientists S. Black, R. Bendix, M. Levy, S. Wago, I. Ponomarev, Sh. Eisenstudt, M. Remizov, S. Belkovsky, E.P. Skornyakova, O.K. Platov and others who describe modernization as a fundamental change in social relations and are convinced that the main criterion in assessing the overall level of production are only indicators of product quality and technical level.

Other scientists adhere to a different point of view, namely V. Ostroshenko, L. Kurakov, N. Azriliyan, L. Kurakov, J. Morozov, I. Makarova, E. Popova and others who believe that it is the transition to advanced production technologies A condition for improving the technical and organizational level of the enterprise. This approach concretizes the essence of modernization reforms and reduces them to updating and improving the facilities considering today's standards and requirements.

Scientists note that when analyzing a technical component, it becomes possible to see in time the opportunities that the development of technology and science open for the creation of new products, the transfer of already available products to a new level of technological modernization as a whole [7].

Problems of research and evaluation of the effectiveness of innovation activity of the enterprise and the region are devoted to the work of domestic and foreign economists, namely J. Schumpeter, P. Drucker, I. Oklunder, N. Kondratyev, T. Grinko, V. Vinokurov, L. Kravchenko, V.

Gunina, Yu. Doroshenko, I. Somina, A. Rudychev, E. Chizhova, Yu. A. Chulok, N. Sirenko and others. However, today there is no common opinion on the use of the methodology for assessing the investment and innovation activity of enterprises and the region.

MAIN PART

Today, almost all technological upgrades are associated with innovation. The priority in technological modernization is precisely the innovative technologies in the improvement of the production process, the renewal of the product range, the reduction of the cost of production, the use of effective management systems and everything that will lead to an increase and strengthening of competitive advantages. It is important to emphasize that the application of innovations at the enterprise level leads to the stimulation of innovation activity in the region, which has a positive effect on strengthening its innovative potential.

However, it is important to consider and evaluate not only the innovative activity of the region, but also enterprises, which understand the complex characteristic of the innovative activity of the enterprise, which includes [3]:

- the degree of timeliness and intensity of ongoing actions to create, operate and commercialize innovations;
- susceptibility of enterprises to organizational and technical innovations;
- the ability to ensure the validity of the methods used;
- the ability to mobilize the scientific, technical, human, financial and resource potential of the required quality and quantity;
- rationality and literacy of the organization of innovation process technology in the sequence of operations and composition.

When formulating a methodology for assessing the innovative activity of enterprises, it is necessary to reflect those indicators that consider the scope of the enterprise's activities, meet the strategic development targets of the enterprise and the region in which it operates [10].

In modern conditions, conducting and organizing a reliable analysis of the innovative activity of enterprises is an urgent task not only for the enterprise itself, but also for the region and the country. However, there is still no single approach to the formation of such a methodology.

Strengthening the connection between science and production, the integration of the processes of specialization and concentration of production, the creation of production associations in the field of activity and the direction of innovation preferences, the improvement of the sectoral structure are all those processes that are the result of achievements in the scientific, technical and innovative fields

of knowledge. That is why when assessing the need for technological modernization, the presence and quality of the scientific, technical and innovation potential of the enterprise plays an important role.

Availability of scientific and technical information, highly qualified personnel, developed experimental base, availability of scientific and technical potential of the enterprise, innovative activity, search for investment sources are the most important factors for ensuring efficient technological modernization.

Different scientists consider the scientific and technical potential differently. Yu.M. Kanygin notes that this is a combination of material and intellectual factors that determine the timing, level and scale of the introduction of new technological systems in production [9].

IN AND. Gromeka describes the scientific and technical potential from the position of unity in the interaction of the educational, scientific, managerial and modernization parts of the technological process [6, 8].

Based on the opinions of authoritative scientists of this subject area of knowledge regarding the definition of the essence of the scientific and technical potential of the enterprise as the basis of its technological modernization, we will present our own definition of this concept. Thus, the scientific and technical potential is the technological equipment of production enterprises with the latest technological models, contributing to the achievement of various types of effect: ecological, economic, industrial, social, etc. Thus, it is possible not only to reduce the cost of production or improve its quality, but that It is very important that the goal of an innovative system of any level is achieved - the introduction of innovations into the real sector of the economy. Undoubtedly, this will lead to activation of innovative activity, strengthening of innovative potential and increase of investment attractiveness of the region.

The most important provisions of the methodical approach to assessing the scientific and technological potential of manufacturing enterprises are [1, 7]:

- creating a list of indicators for key positions that reflect the performance of industry;
- the assessment is carried out in a comprehensive manner, considering the cause-effect relations of the enterprise development;
- priority is the innovative activity of the enterprise;
- define indicators that contribute to the effective reflection of the consequences of the activities of the enterprise[4, 8].

Technological modernization of the enterprise should be based on the analysis of the system of indicators, adjusted considering the industry specificity of production and the possibility of analyzing the innovative potential of the enterprise, which places emphasis on innovative development.

It is also important to determine the qualitative and quantitative indicators of the company's activities, as well as to plan the trends of the company's strategic development, considering the potential for various changes in its performance in the dynamics [5, 8].

CONCLUSION

In conclusion, we note that the process of technological modernization of enterprises is directly related to the creation of an efficiently functioning production structure, which is predetermined by the replacement of inefficient factors of production by efficient resources and technologies.

The technical and technological components of the activities of enterprises are of paramount importance in the process of ensuring the progressive development of enterprises, they determine the possibilities for growth in labor productivity indicators, rational consumption of energy, raw materials and material resources, and significant qualitative parameters of the products manufactured. From technological and technical potentials, intensive and extensive development of production of enterprises depends, achievement of competitive advantages of products and the enterprise itself on the external and internal markets.

However, as technological modernization is based on the use of the latest achievements of science and technology, the demand for them will help stimulate research and innovation activities, which will lead to the strengthening of the innovative potential and increase the investment attractiveness of not only the enterprise itself but also the region and the country.

Results

Summarizing the main results, we note:

1. Technological modernization as a necessary condition for economic growth is based on investment and innovation development.
2. The most important stage in assessing the need for technological modernization of the enterprise is the formation of a methodological tool for assessing its investment, innovation, technical, organizational and scientific and technical potentials.
3. The priority in technological modernization is precisely the innovative technologies in the improvement of the production process, the improvement of the product range, the reduction of its cost, the use of effective management systems and other factors leading to an increase and strengthening of competitive advantages.
4. When forming a methodology for assessing the innovative activity of enterprises, it is necessary to consider those indicators that affect the scope of the

enterprise's activities, meet the strategic development targets of the enterprise and the region in which it operates.

5. Technological modernization of the enterprise should be based on the analysis of the system of indicators, adjusted considering the industry specificity of production and the possibility of analyzing the innovative potential of the enterprise, which places emphasis on innovative development.

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