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A JUSTIFICATION OF THE IMPORTANCE OF STRATEGIC AND INNOVATIVE DEVELOPMENT OF INDUSTRIAL ENTERPRISES

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The article studies theoretical and methodological foundations of the formation of innovation strategies for managing the economic activity of industrial enterprises. It has been established that innovations and innovative processes are the main source of increasing the competitiveness of enterprises. It has been also noted that the level of state intervention greatly affects the development of new technologies. The main criteria, which the strategy of the enterprise must meet, have been determined. Creating a strategy for innovative development of enterprises is a set of actions and methods for managing innovation activities of the subjects of enterprise. This ensures their competitive advantage. The scheme of formation of strategic innovative development of the enterprise in the interplay of goals of the enterprise and resource components has been given. The main components of the strategy of innovative development of enterprises have been determined. The recommendations on how to improve innovation activities of industrial enterprises have been developed. It is noted that due to the events of the current year, the war may hinder the already existing direction of science and innovation in the industrial environment. It should be noted that the process of development and production potential of the enterprise for achieving certain strategic goals is a series of systematic interconnected actions, but not a one-time process. It has been noted that the share of implemented innovative products in the volume of industry in 2019 was 1.3%. It is confirmed that an indicator of the efficiency of the innovation strategy implementation is the innovation activity of the enterprise. It was found that the competitiveness of products is a multifaceted concept, which includes: the conformity of the goods to market conditions; necessary needs of consumers not only for their quality, technical, economical, environmental, commercial; and other conditions of their implementation. Therefore, each level of planning at the enterprise must be aligned to innovative development. Thus implementation of innovation strategy within any enterprise lies in the management of innovation transformations, which combines the methods of strategy, innovation management and project management.

ОБҐРУНТУВАННЯ ВАЖЛИВОСТІ СТРАТЕГІЙ ІННОВАЦІЙНОГО РОЗВИТКУ ПРОМИСЛОВИХ ПІДПРИЄМСТВ

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У статті розглянуто теоретико-методичні засади формування інноваційних стратегій управління економічною активністю промислових підприємств. Встановлено, що інновації та інноваційні процеси є основним джерелом підвищення конкурентоспроможності підприємств. Також зазначено, що ступінь втручання держави в великій мірі впливає на процес розвитку інноваційних технологій. Визначено основні критерії, яким має відповідати стратегія підприємства. Створення стратегії інноваційного розвитку підприємств - це комплекс дій і методів управління інноваційною діяльністю суб'єктів підприємництва, що забезпечують їх конкурентні переваги на інноваційній основі. Наведена схема формування стратегічного інноваційного розвитку підприємства у взаємодії цілей підприємства та ресурсної складової. Виділено основні складові стратегії інноваційного розвитку підприємств. Розроблено рекомендації щодо покращення

інноваційної діяльності промислових підприємств. Зазначено, що події сьогодення, війна може остаточно поховати вже існуючі напрацювання науки та інновацій в промисловому середовищі. Слід зазначити, що управління розвитком і використання виробничого потенціалу підприємства задля досягнення певних стратегічних цілей є серією систематичних взаємопов'язаних дій, а не одноразовим процесом. Визначено, що частка реалізованої інноваційної продукції в обсязі промисловості у 2019 році становила 1,3 %. Підкреслено, що показником ефективності застосування інноваційної стратегії є інноваційна активність підприємства. Визначено, що конкурентність продукції багатогранне поняття, що включає відповідність товару умовам ринку, необхідним потребам споживачів не тільки за своїми якісними, технічними, економічними, естетичними, комерційними та іншими умовами їх реалізації. Отже, кожен рівень планування на підприємстві повинен спрямовуватися на інноваційний розвиток. При цьому реалізація інноваційної стратегії на підприємстві полягає в організації управління інноваційними перетвореннями, що за своїм змістом поєднує в собі методи стратегічного, інноваційного управління та менеджменту проектів.

Problem statement

Sustainable development of businesses in the modern economy depends on the innovative component of enterprises. Modern science does not have any dogma. Current theory and practice approaches to managing innovation activities of enterprises and assessment of the level of its development do not contain clear, unambiguous interpretations of the criteria for choosing the strategy of innovative development as well as the tools and methods of stimulating the implementation of innovations in specific situations.

Analysis of recent studies and publications

Significant attention to the formation of innovation strategies in industry is given in the works of such scientists Shmatko N.M., Pantelieiev M.S., Karminska-Belobrova M. V., Yepifanova I.Y., Kriukova I.O., Nepochatenko V.O., Karpov A.L., Nekrasova L.A., Monich O.V.

Analyzing the research of the above-mentioned scientists, we can conclude that innovation and innovation processes are the main source of increasing the competitiveness of enterprises and the state.

Formulation of goals

The main purpose of this work is to analyze the innovation activity of industrial enterprises in Ukraine. In particular, identifying disadvantages under the current conditions of economic management.

Laying out the main material of the research

One of the ways to ensure dynamic development of innovation potential of industrial enterprises is not only a way to success, but also a way to ensure the safety and sovereignty of the enterprise and its competitiveness in today's world.

Globalization and modern communication technologies provide opportunities for the development and creation of successful innovative enterprises and clusters, despite the general technological backwardness, low purchasing power of consumers and territorial remoteness, through the inclusion in the international lanes of value creation [1].

Reluctance of private investors to invest money in innovative development, leads to the limiting of the process

of development of innovative technologies. The level of intervention of the state greatly affects the process of development of innovative technologies. It must not only carry out the financing of innovation activities, but also to conduct policies aimed at creating a favorable economic climate for the implementation of innovation processes. When we formulate a strategy of innovation development of an individual business, two indicators must be taken into account: innovation activity of the enterprise and general innovation potential of the region [2].

The enterprise strategy must meet the following criteria:

- the most important direction of development of business activities;
- originality of the enterprise;
- resources (financial, labor, material) required for exploitation;
- possible profits obtained as a result of the development [3].

Creating the enterprise's innovative development strategy is a complex of actions and methods of management of innovative activity of the subjects of the enterprises. This will provide them a competitive advantage due to their innovation.

The choice of innovative development strategy is made on the basis of the impact of the totality of factors of the external and internal environment of the functioning of the subject of management, priority directions of innovation policy of the state, the actual state of development of scientific and technological and human resource potential in the economy of the country, etc. At the same time such strategies allow to solve social and economic problems due to the use of modern achievements of science and technology, which are determined by the set and structure of functional elements of strategies (Fig. 1). The analysis of scientific research of theoretical and methodological aspects of innovation development strategies in domestic and foreign practice allows us to identify the main components:

- 1) goals and main objectives of the innovative development strategy;
- 2) innovation policy of development of a particular branch of production and its elements;

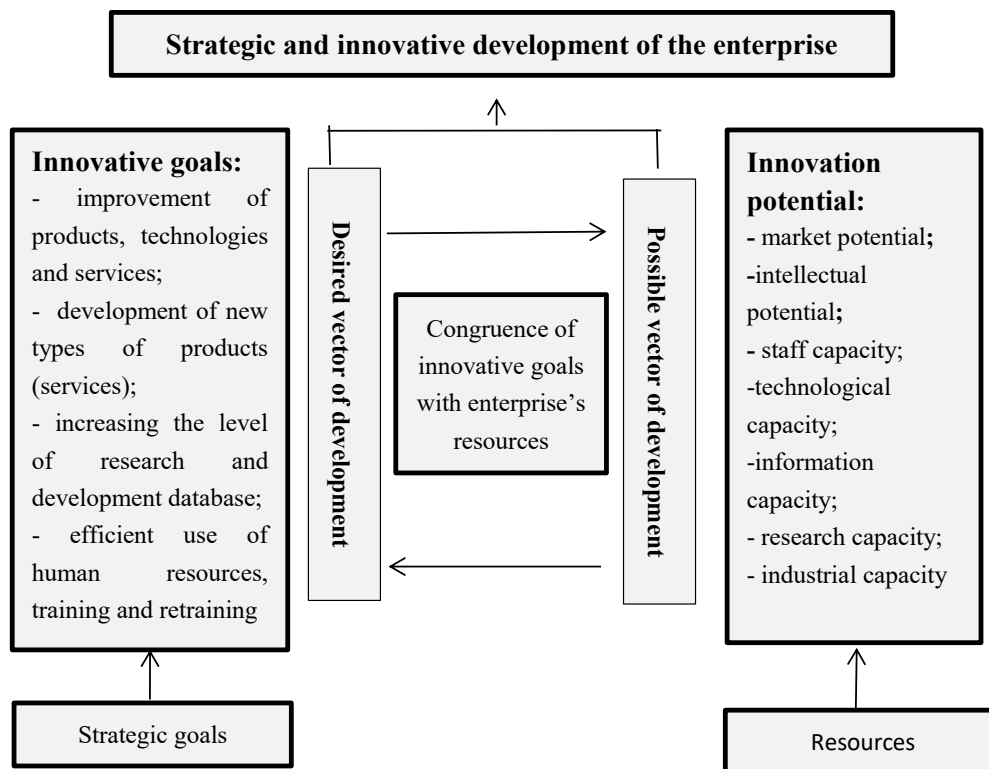


Fig. 1. Formation of innovative development strategy of the enterprise in the interaction of the objectives of the enterprise and the resource constituent

- 3) Priority areas of ensuring the implementation of innovation policy;
- 4) structural changes in the sphere of institutional management;
- 5) available resource and production potential of the company;
- 6) implementation of innovation potential [4].

During the last few years Ukraine has not had an effective innovation strategy that would be taken into account and supported by all categories of domestic innovators and experts. The situation in the industrial sector is very difficult – all the governments of the previous years could not introduce substantial changes in this area, and the trend of general deindustrialization of the economy of the country became dominant in the last few years. Due to the events of the current year, the war may hinder the already existing trends of science and innovation in the industrial environment. On the other hand, it provides new opportunities. Will we be able to use them fully and properly utilize the innovative ecosystems of recent years? Or, maybe, it is necessary to change such relations radically? [5].

Efficient innovation strategy of an enterprise must combine different approaches and take into account both internal and external factors. Also innovation strategies of large, medium and small enterprises will differ significantly, taking into account their resources and capabilities.

It should be noted that the management of development and use of production potential of the enterprise to achieve certain strategic goals is a series of systematic interconnected activities, rather than a one-time process. At

the same time, the organizational and economic mechanism of management of productive potential must act both in the short and long terms. The diversity of factors of the external and internal environment and methods of influence on them necessitates adherence to the principles of consistency and complexity when selecting the management mechanism, which will allow to obtain the optimal result from the impact on the object of management.

An integrated approach to the examination of the production potential of an industrial enterprise requires:

- the identification of the technological element as a profiling one;
- determination of criteria that allow the current state of this component to be evaluated;
- determination of the level of influence (dependence) of the criteria of the profiling component on other components;
- development of methods of calculation of specific indicators and determination of their standard values;
- determination of sources of financing of modernization projects as an external, internal or complex factor.

In 2019 782 enterprises carried out innovative activities in industry. At the same time, the share of the number of industrial enterprises that implemented innovations (products and/or technological processes) in the total number of industrial enterprises was 13.8%.

From the total number of innovatively active enterprises the following was performed: internal and external RD (research and development) – 24.4%; purchase of machinery, equipment and software – 64.7%, purchase of external knowledge – 4.5%, other works – 20.6% of

enterprises. In terms of economic activity, the largest share of innovatively active enterprises is in the production of food products – 16.8%, production of machinery and equipment, N.I.O.U. (not included in other units) – 10.2%.

In 2019 enterprises spent UAH 14220.90 million on innovations, including procurement of machines, equipment and software – 10185.11 million, for internal and external research and development – 2918.85 million, 37.49 million for acquisition of other external knowledge (acquisition of new technologies) and 1079.45 million for other work related to creation and implementation of innovations (other costs). The share of costs for the purchase of machines, equipment and software compared to 2018 increased from 68.1% to 71.6%. At the same time, the share of spending on research and development (RD) decreased from 26.3% in 2018 to 20.5% in 2019, for the procurement of other external knowledge – from 0.4% to 0.3%. At the same time the share of spending on other costs has increased, including marketing and advertising from 5.2% to 7.6%.

The share of expenses for scientific and scientific-technological works in GDP (gross domestic product) in 2019 was 0.43%.

The share of implemented innovative products in the volume of industry in 2019 was 1.3% [6].

The steady industrial development of technologically developed countries is impossible without the development of the Ukrainian aviation industry, which continues to take one of the leading roles in the field of aviation development and belongs to the group of nine countries that have a closed technological cycle of creation and production of aviation technology [7].

An example is Motor Sich, one of the largest companies in the world, which develops aircraft engines and industrial gas turbine units. The company implemented a full cycle of production of aviation engines, ranging from design, manufacturing and validation and ending with the supervision of the operation and repair. Competitiveness of products is a multifaceted concept, which includes the compliance of goods with market conditions, the necessary requirements of consumers not only for their quality, technical, economic, environmental, commercial and other conditions of their implementation (price, delivery dates, distribution channels, service, advertising).

Motor Sich, being a leader in the Ukrainian aircraft industry, produces a wide range of aviation engines for airplanes and gynecycles of various purposes.

During the 4th quarter of 2021 the company «Motor Sich» faced the following risks:

Spreading of the pandemic virus COVID-19 in Ukraine and worldwide led to the introduction of strict quarantine measures, which caused a maximum limitation of functioning of public and private institutions. Due to the sharp decrease in the volume of export-import activities the pace of production was reduced, which led to significant financial losses.

Risks in the sector are caused by the specifics of the company's products, which are not of great demand on the Ukrainian market until the beginning of the events in 2022 (the order from the State Concern Ukroboronprom, which

is the strategic producer of armor and military equipment in Ukraine). At the same time, the work on foreign markets requires constant competition with foreign manufacturers. That is why an active and consistent marketing policy, focused on finding new counterparties and expanding markets is the main task of the company to ensure a stable pace of production.

Financial (currency) risks. JSC (Joint Stock Company) «Motor Sich» became the most vulnerable at the time of the introduction of military operations on the territory of Ukraine. As the company remains export-oriented with a very long cycle of production, it has to face currency risks, caused by adverse changes in foreign currencies. It can be counteracted by choosing currencies with stable exchange rate indicators, such as the U.S. dollar and the euro, as the currency of the contract.

Legal Risks. The war on the territory of Ukraine, incomplete and excessive legislative and regulatory framework, as well as the introduction of legislative restrictions and sanctions from the side of other countries, lead to legal risks, such conditions have a negative impact on the external economic activities of the company.

In the fourth quarter of 2021 while performing export operations, Motor Sich had problems with receiving approvals from the State Service for Export Control of Ukraine (SSECU): the procedure of obtaining permits for international transfers of military and dual-use goods was lengthy and time-consuming; difficulties with prompt fulfillment of warranty obligations for exported products due to the need to obtain permits for export of both the service under the warranty and the goods for its implementation (spare parts, tools and others).

To reduce legal risks, Motor Sich regularly monitors changes in legislation and, if it is necessary, initiates amendments to existing regulations in the field of export control and customs clearance of goods [8].

Conclusion

Enterprise management is the basis of enterprise efficiency. Opportune and correct management decisions ensure full achievement of strategic goals and further development of the enterprise.

Today it is necessary to take additional measures to enliven the production, scientific and innovative potential. It is essential to use positive foreign experience of creating innovation ecosystems in the domestic practice in order to accelerate the activation of innovative activities of industrial production in modern conditions. The most widespread practice is to create an ecosystem of innovations for the medium and small innovative business to satisfy its own needs and productive export. The widest practice in this field is industrial parks as an effective tool to influence the social and economic development of the country and to increase the level of competitiveness of a particular region.

Therefore, each level of planning at an enterprise must target the innovative development. In this case, implementation of innovation strategy at the enterprise means organization of management of innovation transformations which combines methods of strategy, innovation and project management.

References

1. Drucker, P. (1994). *Yak zabezpechyty uspikh u biznesi* – [How to ensure business success]. Kyiv. 314 p. [in Ukrainian]
2. Petrova, I.L., Shpilova, T.I. & Sisolya, N.P. (2010). *Innovatsiyna diyal'nist': stymuly ta pereshkody* – [Innovation: incentives and barriers]. Kyiv. 320 p. [in Ukrainian]
3. Salikhova, O.B. & Sheludko, N.M. (2020) *Instytutsiyni ta finansovi mekhanizmy stymulyuvannya tekhnolohichnykh innovatsiy u promyslovosti: dosvid Frantsiyi, uroky dlya Ukrayiny* – [Institutional and financial mechanisms for stimulating technological innovation in industry: the experience of France, lessons for Ukraine]. *Ekonomika promyslovosti – Industrial Economics*. No. 2(90). P. 5–27. [in Ukrainian]
4. Shkarlet, S.M. (2007). *Ekonomichna bezpeka pidpryyemstva: innovatsiynny aspekt* – [Economic security of the enterprise: innovative aspect]. Kyiv. 435 p. [in Ukrainian]
5. Petrova, I.L., Borysenko, Z.M. & Dyshlyuk H.I. (2012). *Innovatsiyni zasady ta vymiry stratehichnoho rozvytku pidpryyemstv Ukrayiny* – [Innovative principles and dimensions of strategic development of enterprises of Ukraine]. Kyiv. 355 p. [in Ukrainian]
6. *Naukova ta innovatsiyna diyalnist v Ukrayini* – [Scientific and innovative activity in Ukraine]. URL: <http://www.ukrstat.gov.ua> [in Ukrainian]
7. Golovatyuk, V. *Innovatsionnoye razvitiye ukrainskoy ekonomiki – mirovoy kontekst* – [Innovative development of the Ukrainian economy – world context]. URL: <http://gazeta.zn.ua/science/innovacionnoe-razvitie-ukrainskoy-ekonomiki-mirovoy-kontekst> [in Ukrainian]
8. *Kontseptsiya podalshoho rozvytku innovatsiynoyi diyalnosti v Ukrayini. Proekt* – [The concept of further development of innovation in Ukraine. Project]. URL: www.minindustry.crimea-portal.gov.ua/rus/downloads/koncept.doc [in Ukrainian]
9. Lobunska, S.V. (2012). *Podkhody shchodo formuvannya pokaznyka innovatsiynoyi spromozhnosti v zahalnyi systemi ekonomichnoyi bezpeky pidpryyemstva* – [Approaches to the formation of the indicator of innovation capacity in the general system of economic security of the enterprise]. *Visnyk ekonomiky transportu i promyslovosti – Bulletin of Transport Economics and Industry*. No. 39. P. 55–59. [in Ukrainian]