

Hnatenko I., Levchenko V., Danylo A.

Kyiv National University of Technologies and Design

State Scientific Research Institute of Informatization and Economic Modeling

PECULIARITIES OF SCIENTIFIC RESEARCH UNDER MODERN CONDITIONS

Abstract. *Conceptual features of scientific research are considered in the article. A description of scientific research in the modern world is given. Attention is focused on the comparison and analysis of the concepts "scientific research" and "scientific intelligence".*

Keywords: *scientific research; scientific intelligence; methodology; tools.*

Гнатенко І. А., проф., д.е.н., Левченко В. В., аспірант, Данило А. І., магістр

Київський національний університет технологій та дизайну

Державний науково-дослідний інститут інформатизації та моделювання економіки

ОСОБЛИВОСТІ НАУКОВИХ ДОСЛІДЖЕНЬ В СУЧАСНИХ УМОВАХ

Анотація. *У статті розглянуто концептуальні риси наукового дослідження. Надано характеристику наукового дослідження у сучасному світі. Зосереджено увагу на порівнянні та аналізі понять «наукове дослідження» та «наукові розвідки».*

Ключові слова: *наукове дослідження; наукові розвідки; методологія; інструментарій.*

Statement of the problem in a general form. Nowadays, the development of science and knowledge is a very urgent issue in modern Ukraine. The high development of knowledge and scientific processes, the need to analyze and plan individual phenomena significantly affect the quality of scientific research and their methodology. Most scientists do not yet fully perceive consciously "all the benefits" of this need.

In our opinion, for the full functioning of technologies, science and scientific research, it is necessary to focus on adaptive methods. In particular, updated methods of analysis and cognition. Scientists believe that the future progress of science depends on timely updated methods, tools and scientific tasks. Therefore, spiritual, political, infrastructural and socio-economic development is impossible without systematic and uninterrupted scientific research.

An important factor in the development of scientific research is, first of all, qualified specialists who are capable of hard work, logical thinking and forecasting the future development of science. So, we can conclude that scientific research in national and world science occupies a conceptual place for the formation of skills, knowledge and expertise in the scientific research activity of an individual.

Analysis of recent research and publications. The problems of scientific research were considered in the works of numerous scientists. O.S. Mantur-Chubata, Yu.A. Dubiley, A.V. Mikhalets, who determined the conceptual essence of scientific research using modern methods of scientific knowledge [1]. I.A. Hnatenko, N.M. Vdovenko, P.V. Puzyryova, L.V. Chuhomlyn, I.G. Bachkir, etc. used adaptive tools of scientific research in their works [2–8]. At the same time, there is a need to rethink the key phenomena of scientific research taking into account modern realities.

Research results. The relevance of this article is that scientific research is very important and significant, as it provides an opportunity to objectively study processes and phenomena, and also has usefulness and educational features for human activity.

The purpose of this work is a conceptual rethinking of the specifics of scientific research in the modern scientific world.

We believe that science is a special form of knowledge of the phenomena and processes surrounding us. It is the result of the creative activity of an individual, and its purpose is to obtain and systematize knowledge for the purpose of its further use.

As an example, a scientific discovery is the joint work of two or more people (group, team). Science, in every period, is the embodiment of the progress of humanity in the knowledge of the modern world.

In order to systematize scientific knowledge, it is first necessary to distinguish two categories of science: social sciences and natural sciences.

The first group of sciences includes history, political science, sociology, medicine, conflict science, psychology and philosophy, etc.

The second group includes chemistry, biology, astronautics, technical sciences, physics, etc. Everyone knows that research and development and experimental works are combined into one single structural term, such as "scientific research". This concept is a rather broad concept that covers all social, political and other processes: from the birth of a project to its commercialization in the form of the creation of a product, service or the latest technologies.

Usually, the concept of "scientific research" characterizes a special type of human activity, the goal of which is to acquire deep, accurate and narrowly focused knowledge for the improvement of social life or the national economy.

Scientists interpret the concept of "scientific research" at their own discretion.

We believe that the tools of scientific research should include:

- 1) a means of comprehensive in-depth knowledge of a scientific hypothesis;
- 2) an extensive complex of methods and techniques;
- 3) understanding of the laws of individual social, political, social, economic, demographic, institutional trends.

In the current turbulent conditions, the procedure for conducting scientific research, as well as the methods of analysis and synthesis of natural phenomena, has changed significantly. An important specific feature of the characteristics of scientific research is the synergistic effect. The synergistic effect is the main feature of modern scientific research.

In the system of the national economy, scientific research is changing, as the integration process is gradually developing. Not just any scientific research is endowed with the signs of "scientific nature". In this sense, the dissimilarity of scientific investigations in relation to other scientific tasks is that they are concentrated in the form of theories, concepts and tables with the necessary connections of communicative reality, which create individuals in the process of studying processes. On the basis of the above, we consider it necessary to highlight specific features that are characteristic only for scientific exploration:

- purposeful conceptual scientific character and original methods;
- systemology with other sciences and disciplines;
- ratio of practice, experience and theory;
- adaptability;
- independence.

Scientific intelligence is divided into types and subspecies:

1) basic scientific research is a creative scientific and innovative activity aimed at achieving the latest knowledge about trends and the life cycle of the development and interconnection of science, society, knowledge, and man. Knowledge of theories, laws governing the combination of systems of the life cycle of scientific research and society, which is the conceptual task of fundamental scientific research.

2) applied scientific research is a purposeful applied scientific, technical and creative activity aimed at increasing and synergizing the acquisition of knowledge, its implementation in practical or everyday activities.

Application of the results of basic sciences in solving economic and social problems is the goal of applied scientific research.

We focus attention on the multi-levels of scientific research: theoretical and practical.

The theoretical level of scientific research is characterized by the presence of specific objects created to understand the circumstances and to learn the conceptual essence of phenomena.

The advantage of the theoretical level of research is adaptive and innovative methods of cognition. At this level, with the help of theories, logical explanations, the obtained results or innovative ideas are investigated. Problem, theory, tools and hypothesis are structural components of theoretical scientific knowledge.

Facts are the sources of the empirical level of research. These facts are obtained in the process of experiments, analysis and observations. Empirical laws often have a probabilistic character, with the help of which cause-and-effect relationships are expressed between which there are no phenomena. Any scientific exploration is carried out personally by the researcher, depending on the creative idea to the finished scientific work. The researcher, relying on the research tools, understands where it is better to start, how to summarize the facts and approach the results of scientific investigations.

In our opinion, scientific explorations that have been carried out for quite a long time are very different from modern ones. Due to the fact that now only the idea and desire of the person himself is needed for the management of scientific intelligence, and everything else, as an example, information support, personnel and technical resources, are available. Since young scientists, students, and teachers have a great passion for conducting scientific research, it should be noted that modern scientific research is developed and implemented at a high level.

According to I. Hnatenko's definition, scientific studies of innovative entrepreneurship acquire special importance. It was the use of a wide range of scientific research tools that allowed the author to determine the signs of entrepreneurship. According to I. Hnatenko, they are as follows [9].

These signs should include:

- the purpose of the innovative activity of the enterprise is the intermediate or final obtaining of innovative products, services, etc. (innovations), both at a separate stage of the enterprise's life cycle and at all its stages;
- innovative entrepreneurship rarely has short-term prospects for its activity and is distinguished by a medium- or long-term, detailed strategy for achieving the general goal (due to a rather long period of time, which is explained by the difficulty, complexity, multifacetedness, intersubjectivity of the process of developing an innovative project and means of its implementation);
- innovative entrepreneurship has increased commercial risks due to a possible change in the market situation, an earlier entry of the innovative product of competitors to the market, uncertainty in its activity due to the instability of the external environment and insufficiently developed infrastructural elements supporting such activity. Such commercial risks are manifested in the fact that in the future it is possible: not to receive the planned innovations due to the lack of investment or the loss of a financial partner, respectively, and income from the implementation of the innovation; suffer resource losses in the case of an incorrectly chosen adaptive development strategy or personnel management methods, and so on [9].
- innovative entrepreneurship must necessarily have a socio-economic effect of public utility both for the population and for the state as a whole, which is associated with an effective policy of diffusion of innovations in the consumer market and obtaining commercial profit in conditions of high demand of the population for a given product or service.

Therefore, a very significant feature of innovative entrepreneurship in the innovative economy is a high degree of instability and uncertainty, which entails great risks and causes the need for their effective strategic management, which contributes to increasing the stability and adaptability of entrepreneurship.

Effective strategic business management promotes the strengthening of innovative activity as an adequate response of business entities to market changes by means of the implementation of tools for forecasting, budgeting, hedging, planning innovative and investment projects, finding and implementing large-scale management tasks that ensure the survival and sustainable growth of the enterprise. Such management includes the entrepreneur's ability to foresee the need for changes in innovative activities both within the enterprise and outside it, due to the identified future impulses of success.

Innovative entrepreneurship, based on internal organization, involves the accumulation of capital and resource potential exclusively within the enterprise through the implementation of policies for the development of innovative projects, production, planning and monitoring of innovative activities at the micro level.

Innovative entrepreneurship, which is based on an external organization, involves the active interaction of the enterprise with the external environment, with the help of logistics, marketing, hedging, and may be based on the involvement of third-party organizations, institutions, personnel or infrastructure elements in the creation of innovative goods or services. On the basis of an external organization, innovative entrepreneurship can function with the involvement of venture capital companies, investment funds, banks, insurers, which are able to attract additional investments for the purpose of implementing an innovative project [9].

Therefore, constant scientific discussions regarding the definition of entrepreneurship, innovative entrepreneurship and its basic concepts in the system of innovative economy indicate that economic theory in the context of procedural consideration of innovations is the result of systematic generalization and aggregation of scientific knowledge with a variable categorical system that includes logic, methods, principles, laws that are at the stage of constant development, expansion and improvement.

The formation of the modern theory of innovation in the system of innovative economy is connected with the synthesis or interweaving of a set of theories (political economy, history of economic thought, innovative activity, entrepreneurship) and a comprehensive study of the object and subject, further improvement and specification of the extensive methodological apparatus. In the scientific circle, there is a continuous formation of theories that allow to substantiate the impulses and reasons for the appearance of innovations, to determine the role of the state, the individual (other stakeholders) and institutions in this process. Therefore, constant scientific discussions regarding the definition of entrepreneurship, innovative entrepreneurship and its basic concepts in the system of innovative economy indicate that economic theory in the context of procedural consideration of innovations is the result of systematic generalization and aggregation of scientific knowledge with a variable categorical system that includes logic, methods, principles, laws that are at the stage of constant development, expansion and improvement.

The main tasks of strategic management of innovative entrepreneurship in the conditions of the innovative economy should be:

- constant forecasting of production activity, implementation of marketing policy in the consumer market, strategizing actions in the short-, medium- and long-term perspective, forecasting crisis phenomena and market "failures";
- prevention and avoidance of technical and technological lag in production;
- systematic introduction of innovations in all or specific spheres of the enterprise's activity;
- continuous investment in labor potential (retraining and professional development of personnel) in order to obtain competitive advantages.

The main goal of strategic risk management in the innovative economy is to find such a level of risk that the innovative enterprise can take on and at the same time obtain the planned

profitability. In order to reduce the uncertainty of entrepreneurial activity, it is possible to apply risk reduction measures proposed, which include: risk forecasting and planning; diversification of production activities; determining the location of risk sources; arrangement of risks by degree of influence; determination of compensatory capabilities of the enterprise; insurance of financial and industrial risks, etc [9].

The mentioned opinions of the author are a manifestation of the use of a wide arsenal of scientific research that deepens scientific exploration and contributes to the formation of the knowledge economy.

Conclusions. In science, it is important to explain the source of scientific intelligence from a scientific point of view in order to confirm their general cognitive, theoretical and practical level. For scientific exploration, the entire process of study has a conceptual role. Focusing on the specific issues of the article, one cannot fail to pay attention to the presence of the factor of unpredictability of institutional traps, which, at first glance, may seem insignificant, but this very case of neglecting them can be a safeguard against detecting the beginning of important scientific breakthroughs.

That is, it is not enough for scientists to focus attention on a new case, it is important to interpret it from the point of view of modern science in order to reveal its essential, general cognitive-fundamental, social and practical significance. Collecting scientific data for research in the scientific process is a rather creative activity, which is always based on the ideas of a scientist.

Scientific intelligence – study and knowledge of a social object, with the help of scientific tools, aimed at obtaining solutions useful for society, science and the state.

In our opinion, scientific research is a very complex and resource-intensive process that requires constant attention and hard work. Their foundation is inspiration, which requires a maximum of thoughts and actions from an individual.

Thus, scientific explorations in modern science are moving at a fast pace. It should be determined that more and more young scientists or students show their desire to experiment, research and systematize information to create comprehensive scientific investigations.

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