

Olha Melnyk,
PhD in Economic Sciences, Associate Professor,
Olena Bodnar,
assistant lecturer,
Olha Pokrovska,
assistant lecturer

FEATURES OF INFLUENCE OF INNOVATIVE ENTREPRENEURSHIP ON THE DEVELOPMENT OF AGRICULTURAL SECTOR OF ECONOMY

In modern conditions, the sources of economic growth in any sector of the economy are profound knowledge, scientific products, on the one hand, and their effective use by those who are capable of risking and seeing prospects in them, on the other. The combination of these sources is possible provided the system approach to the model of innovative development at the level of the country, industry, region and individual enterprises. Socio-economic phenomena and processes taking place in the world objectively predetermine the transition of countries to the model of innovative development. Taking this into account, Ukraine has developed the Strategy for Innovative Development for 2010-2020 under the conditions of globalization challenges, the result of which should be the adoption of an innovative model of its economic and social development, increasing the efficiency of using the intellectual potential of the country, all its human and natural resources, ensuring competitiveness of national economy, achievement of stable sustainable development and increase of welfare of citizens [10]. Implementation of the Strategy will create opportunities for the successful advancement of Ukraine on the way to development of a knowledge-based economy and society.

An assessment of the level of Ukrainian economy innovation shows that the innovative processes in it have not gained significant proportions yet, so Ukraine's move to the stages of innovative development will require significant efforts, resources, political will and high mobilization of society. At the same time, as the Strategy states, certain sectors of domestic economy need these efforts to be even greater than in economy as a whole. First of all, it concerns the agrarian sector, light industry and pharmaceuticals [10].

Recognizing the agrarian sector of Ukraine as a complex open system that develops in accordance with general developmental patterns adjusted to the effects of various parameters of external and internal character, O. Tarabrin and I. Pimienov identify the following sources of influence on it:

- 1) processes of globalization (inducing primary sectors and the industry as a whole to strengthen their own competitive positions through integration with scientific and innovative systems);
- 2) the requirements of national security of the country for saving of its sovereignty, independence, welfare of the whole nation and restoration of ecology, which require the renewal of social order and relations through modernization processes;
- 3) the elimination of the stage of society development based on physical labor and characterized by the struggle for material goods, for the domination of commodity relations, for social status, in which the main role assigned to a person, his spiritual perfection and creative implementation, predetermines the need for innovation development and its socio-environmental orientation [9].

The main feature of the development of innovative entrepreneurship in the agrarian sector of the economy is to overlap the specific conditions of innovation and agricultural activity one on another, which greatly increases the level of uncertainty of these types of activities. In particular, agricultural activity is associated with climatic conditions, biological organisms whose level of control is always limited, but innovative activity is associated with low predictability of final results, a significant payback period of projects, a false choice of the latter, dependence on external financing, etc. On the one hand, these factors together create preconditions for obtaining super-profits in the industry in the case of successful innovative entrepreneurship, and, on the other, for a high level of risk of resources loss if the implementation of the innovation initiative does not ensure achievement of the goal.

At the same time, while supporting the position of the scientists [9, 7], we believe that the use of potential opportunities for innovative development of the agrarian sector should occur primarily through the change in the paradigm of social thinking and the positioning of this sector as a "point of dynamic growth" of the Ukrainian economy, since the latter is an agrarian country. It ranks first in Europe in terms of arable land and the third largest in the world in terms of black earth (25% of the world areas). In addition, Ukraine is the first in the world to export sunflower and sunflower oil, the second one is for the export of barley, the fourth is for

the export of chicken eggs, and the sixth for rye and corn exports. That is why the experts of the Institute of Economic Development of Ukraine are reasonable to state that Ukraine's benefits for investors who can afford to capitalize in the international division of labor in energy, agriculture and mathematical education [2, P.61].

Experience of developed countries shows that science, technologies and active innovation activity are the driving force for the entire economic life, and the growth of agricultural production is mainly ensured by the practical implementation of scientific and technological achievements [11]. In particular, Stewart T. concludes that scientific researches will ensure the formation of 50% of the cost of oil and 75% of the cost of grain in future [8]. Hence, more and more scientists are paying attention to the growing role of biotechnology, genetics, the introduction of information and communication technologies and the automation of various processes in modern agriculture.

The practical realization of scientific and technological achievements takes place under the conditions of a developed system of innovative entrepreneurship, the main subject of which is the entrepreneur-innovator. In modern conditions, at the national level, it is foreseen to achieve a number of strategic goals concerning the innovative provision of agricultural development in the country, including the components of innovative entrepreneurship (in particular, increase the level of commercialization of researches, activation of small innovative business, increase in number of agrarian enterprises that carry out technological innovations, etc.) (Table 1).

Table 1. The main strategic objectives of innovative provision of the agrarian sector development of the Ukrainian economy

Goals	Development indicators for the year 2020
Adaptation of the national innovation system to the conditions of globalization and increase its competitiveness	Increasing the level of inventive activity in the system of innovation - by 20%
	Increasing the level of scientific researches commercialization in agrarian sector of economy – by 35%
Reorientation of the system of production of innovations to the consumer market demand	Increasing the number of agrarian enterprises providing technological innovations– 7 times
Improvement of staffing in scientific-innovation sphere and creation of attractive conditions for the creators of innovations	Increasing the proportion of scientists under the age of 40 - up to 45%
Creation of the institutes of innovative infrastructure	Activation of small innovative agrarian business (% of the total number of enterprises) - up to 70%
	Creation of new enterprises of innovative infrastructure in agrarian sector of economy
Implementation of a systematic approach in the management of innovative provision of agricultural development	Increase in domestic current expenditures (at the expense of revenues from the state budget of Ukraine) for carrying out scientific and technical works in the field of agrarian economy (% of the level of gross domestic product) - up to 1.7%

Source: compiled by the author based on the data [4]

In support of our own position regarding the development of innovative entrepreneurship in the agrarian sector of the economy by the categorical apparatus (Table 2), we believe that, first of all, the first priority among the main directions of achieving the above strategic goals should be the working-out of an effective organizational and economic mechanism for the development of innovative entrepreneurship and formation favorable infrastructure for entrepreneurship support.

Table 2. Categorical provision for the development of innovative entrepreneurship in the agrarian sector of the economy

Category	Definition
Innovative entrepreneurship	The system of interrelated elements (scientific and educational, innovation transfer, diffusion of innovations, production), aimed at the permanent accelerated growth of the agrarian sector on the basis of the integrated use of the latest achievements of science and technologies for obtaining positive long-term economic, organizational, environmental, social, technological and innovative effects
Innovative process	The discrete process of the sequential transformation of new types, forms and methods of human life into socio-cultural norms and patterns that ensure their institutional design, integration and consolidation in the culture of society, determined by the successive chain of works of innovation activity
Innovative activities	A complex of scientific, technological, organizational, economic and other measures in the system of innovative entrepreneurship, the target orientation of which is to transform the innovative product into innovative products and its commercialization.
Infrastructure for supporting innovative entrepreneurship	A set of interconnected and complementary systems and their corresponding subsystems, necessary and sufficient to ensure the efficiency and effectiveness of innovative entrepreneurship.

Source: the authors' research

Considering innovative entrepreneurship in the context of a specific phenomenon of the knowledge society, first of all, it is necessary to pay attention to the problem of professional conservatism of managers at agrarian enterprises. This, in turn, does not provide the proper innovation climate and culture of business entities in agrarian sector of the economy as a whole.

It is more and more frequent that the scientific literature recognizes the factors of innovation development as readiness of an organization, management and management team for this process. Thus, O. Tarabrin and

I. Pimienov note the factors influencing the perception of innovations by domestic agricultural enterprises, external and internal trends, and the need for diagnosis and evaluation of the factors of success must be taken into account. They are aggressiveness of strategies, integration, intervention, the level of self-regulation in the organization, the level of the ability of the think tank to predict the direction of change, the level of the team's readiness to change, the growth rate of the team competence, the direction of changes in values, beliefs, in technology, in the philosophy of thinking [9]. And therefore, it is necessary to monitor and evaluate the values of entrepreneurs, as well as the values and type of thinking of students at agricultural institutions of higher education (as future specialists of the industry) in order to implement measures to enhance the innovational culture.

In the environment of innovative entrepreneurship as a component of the innovation process in the agrarian sector of the economy, the management of a specific object - agroinnovation is carried out. By classification, agroinnovations are divided into: breeding-genetic, biological; technical and technological; chemical; organizational and managerial; marketing; social; ecological. At the same time, as noted by V. Kyrychenko and V. Tymchuk, there is a certain disparity between selection and technological innovations nowadays. While breeding innovations are commercially available in the form of seeds and protected in the

legal environment as an intellectual property object, the overwhelming majority of technological innovations in the field of plant growing are considered as know-how or technology elements that are superimposed on already existing basic technologies. Such a situation leads to the fact that the commercial use of technological innovations is accompanied by significant complications, and the demand for them as for the objects of intellectual property is rather limited [3, P.63].

Quite often, information coming to the managers of agricultural enterprises regarding different types of innovations is not adapted to the zonal and technical and economic conditions of a particular enterprise, it cannot be used without proper preparation and revision, and therefore it does not make practical value for most of them. Attempts to master scientific development only by the efforts of scientists are accompanied by negative results such as the uncertainty of the research process, the distraction from the basic scientific work, unjustified replication of scientific and technological achievements, etc. Thus, a link must be established between science and practice to ensure the transfer of scientific results (technologies) [5, P.21].

Transfer of innovations as the transfer of the rights to use scientific and technical knowledge and experience (carriers of new value) by other subjects of the innovation process to produce innovative products may be commercial and non-commercial in nature and may be carried out by subjects of state and non-state ownership.

In Ukraine, the transfer of innovations in the agrarian sector is not well-developed and is carried out mainly by scientific organizations. The world experience evidences the informational and consulting system is quite effective in implementing the functions of the innovations transfer. But it is almost not involved in this process.

We believe that in order to ensure the proper transfer and diffusion of innovations in agroindustrial production, it is also necessary to ensure a clear coordination of agricultural sector management bodies at both the state and regional levels; training and retraining of management personnel, specialists and workers of agrarian enterprises; to promote the development of advisory services for the proper level of information and consulting activities, including dissemination of information on innovative researches and scientific support of their implementation.

A promising direction in the development of innovative entrepreneurship is to involve innovative business service providers that provide intermediary services into the process of innovative products introducing to find the necessary scientific developments and sources of their financing on mutually beneficial terms. Thus, under the Ukrainian Academy of Agrarian Sciences the Institute of Innovative Providing was created. It became the first non-state scientific research institution with the highest state attestation and is a leading organization on market integration issues, innovation and investment development of the scientific and industrial sphere of agroindustrial complex, intellectual property, technology transfer, venture business at a science-intensive agrarian market.

Nowadays, the dual structure of agriculture has developed: on the one hand, there is the monopoly corporate sector (agroholdings, business partnerships, etc.), and on the other hand there is the individual sector (farmers and private peasant farms). The corporate sector focuses on development in accordance with the needs of global markets, and the individual sector is directed mainly to the development of the traditional consumer market [1]. This, in turn, has an impact on the introduction of innovative researches in the agrarian sector of the Ukrainian economy.

We agree with O. Romanchuk that large agrarian enterprises play a decisive role in the processes of creation, implementation and dissemination of innovations. Agroholdings expand land plots, implement modern high-tech technologies, widely use innovations in their own activities. However, they mainly use intensive and innovative production and are oriented on highly liquid crops (cereals, sunflower seeds, rape) on the stock exchange, while farms provide significant volumes of labor-intensive production like potatoes, fruits, milk, beef [6, P. 83].

In the future, it is necessary to provide a coherent mechanism for the functioning of scientific and educational subsystem and its further integration with production in the system of innovative entrepreneurship. Because according to researches of scientists, innovative development of the agrarian sector of the economy by 25% is constrained by the low quality of research work and the low level of integration of science with production [9].

The scientific and educational potential in the agrarian sector of the economy is concentrated in the National Academy of Agrarian Sciences of Ukraine, other research institutions and higher educational institutions.

The main task of the NAAS of Ukraine is the scientific support of the development of the branches of the agro-industrial complex of Ukraine: the implementation of fundamental and applied scientific research in the field of agro-industrial complex, as well as development of scientific products for the innovative

development of the agro-industrial complex on the basis of new knowledge, the use of which will help increase the production of competitive agricultural products; development of new and improved existing forms and methods of scientific work; definition of priority directions of development of agro-industrial complex; preparation of scientific personnel of higher qualification.

An important role in this should be given to research enterprises, which are the experimental production base for conducting research, testing and refinement of scientific works, advocating achievements of science and technology, and introducing them into production.

So, the development of innovative entrepreneurship in the agrarian sector of the economy has a number of peculiarities in comparison with other sectors, which are manifested, first of all, in the high level of risk and specificity of the creation, dissemination and development of agroinnovations, the determining role of research institutions and institutions of higher education (innovation-oriented training specialists, intellectualization and generation of new knowledge) and the need to reorient the goals and values of managerial personnel in the agroindustrial complex. The main factors contributing to the further development of innovative entrepreneurship in the agrarian sector of the economy is the formation of innovative infrastructure, as well as the development of an agrarian cluster network on an innovative basis.

References

Borodina, O.M., Heiets, V.M., & Hutorov, A.O. (2012). Ukrainian model of agrarian development and its socioeconomic reorientation: scientific reports. Kyiv: NAS of Ukraine, Institute of Economics and Forecasting, 56p.

Honcharov, A. (2014). Investments are always a game “risk - profit”. *FxFaktor*, 6, 60-61.

Kyrychenko, V.V., & Tymchuk, V.M. (2008). Market models for implementation of breeding innovations. *Herald of Agrarian Science*, 8, 62-64.

Lupenko, Yu. (2012). Strategic directions of the development of agriculture in Ukraine for the period till 2020. Kyiv: NNC “IAE”.

Mamay, O.V. (2011). Management of innovative development of the agrarian sector of the regional economy: the author's abstract of the thesis for the degree of Doctor of Economic Sciences: specialty 08.00.05 - Economics and management of the national economy: regional economy; innovation management. Samara, 48p.

Romanchuk, O. M. (2013). Innovative potential of agrarian formations of Zhytomyr region. *Strategic directions and priorities of formation of competitiveness of the agrarian sector: materials of the 3rd conference of young economists, November 21, 2012*. Zhytomyr: Zhytomyr National Agroecological University, 82-85.

Sirenko, N. M. (2010). Management of the Strategy of Innovative Development of the Agrarian Sector of Ukraine's Economy: Monograph. Mykolayiv: MDAU.

Stewart, T. (1998). *Wealth from the mind*. Minsk.

Tarabrin, O. Ye. Innovational development of the agrarian sector of economy in Ukraine in modern circumstances. Electronic resource. Retrieved from: http://inb.dnsgb.com.ua/2011-2/11_tarabrin.pdf.

Verkhovna Rada of Ukraine; Committee on Science and Education. *The Strategy for Innovative Development of Ukraine for 2010-2020 under the conditions of globalization challenges*. Electronic resource. Retrieved from: <http://kno.rada.gov.ua/komosviti/doccatalog/document?id=48719>.

Zubets, M.V. (2010). About the strategy of the adoption of an innovative model for the development of agrarian economics. *Economy of Agroindustrial Complex*, 12, 23-28.