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FORMATION AND IMPLEMENTATION OF THE INNOVATION STRATEGY FOR THE DEVELOPMENT OF AGRICULTURAL ENTERPRISES IN UKRAINE

Olha Fedyk. "Formation and implementation of the innovation strategy for the development of agricultural enterprises in Ukraine". The article examines the theoretical foundations and practical aspects of developing an innovation strategy for Ukrainian agricultural enterprises in the context of globalization and integration into the European economic space. It substantiates the necessity of systematically introducing technological, organizational, financial, and marketing innovations as decisive factors in ensuring the competitiveness and sustainability of the agrarian sector. The study emphasizes that an innovation strategy should be viewed as a comprehensive system of managerial decisions and coordinated measures aimed at modernizing the material and technical base of enterprises, optimizing resource use, enhancing productivity, and introducing new mechanisms of business management adapted to global challenges.

Special attention is devoted to technological innovations, including the adoption of precision farming practices, automation of production processes, the use of sensor systems, unmanned aerial vehicles, and advanced biotechnologies. These tools not only increase yields and product quality but also contribute to reducing environmental pressures and achieving more sustainable agricultural development. Organizational innovations are highlighted as an essential dimension of strategic modernization. The establishment of agricultural clusters, cooperatives, and partnerships with research institutions generates synergetic effects, improves the dissemination of knowledge and technologies, and fosters a higher level of innovation culture within enterprises.

Financial innovations are analyzed as a prerequisite for the implementation of modernization projects. Access to grant programs, governmental support instruments, and private or foreign investments provides the financial stability required to introduce advanced technologies, diversify risks, and ensure resilience in conditions of economic fluctuations. Equally significant are marketing innovations, which represent the final stage of implementing an innovation strategy. They encompass branding, positioning on international markets, the use of digital trading platforms, and direct-to-consumer channels, all of which enhance the effectiveness of sales, strengthen product identity, and facilitate successful integration into the highly competitive European and global agrifood markets.

The article proposes a structural and logical framework for developing an innovation strategy, which includes the diagnosis of the internal condition of enterprises, comprehensive analysis of the external environment, identification of innovation priorities, formulation of a detailed strategic plan, and the establishment of a monitoring and evaluation system to ensure adaptability and continuity of the strategy. The research demonstrates that the successful implementation of such a strategy contributes not only to improving the competitiveness of enterprises but also to enhancing ecological safety, strengthening economic stability, and accelerating integration into the international agrarian market.

The findings have both theoretical and practical significance. They may be used in further academic research, in the formulation of policy recommendations for improving managerial approaches, in the optimization of financial mechanisms for the agrarian sector, and in the practical introduction of advanced technologies into agricultural production. Ultimately, the article highlights that innovation-driven strategies are not merely a tool for economic modernization but also a pathway for Ukraine to secure a strong position in the global food market while meeting European standards of quality, safety, and sustainability.

Keywords: innovation strategy, agricultural enterprises, technological innovations, organizational innovations, financial innovations, marketing innovations, competitiveness, sustainable development, agrarian sector

Ольга Федик. «Формування та реалізація інноваційної стратегії розвитку агропідприємств України». У статті розглянуто теоретичні та практичні аспекти формування інноваційної стратегії розвитку агропідприємств України в умовах глобалізації та інтеграції до європейського економічного простору. Обґрунтовано необхідність системного впровадження технологічних, організаційних, фінансових і маркетингових інновацій як ключових чинників забезпечення конкурентоспроможності аграрного сектору. Визначено, що інноваційна стратегія є цілісною системою управлінських рішень і заходів, спрямованих на модернізацію матеріально-технічної бази, оптимізацію використання ресурсів, підвищення продуктивності та формування нових механізмів господарювання. Особлива увага приділена технологічним інноваціям, зокрема впровадженню точного землеробства, автоматизації виробничих процесів, використанню сенсорних систем, безпілотних апаратів і біотехнологій, що дозволяють підвищити врожайність, якість продукції та знизити екологічне навантаження. Розкрито роль організаційних інновацій, спрямованих на створення аграрних кластерів, кооперативів і партнерств із науковими установами, що забезпечують синергійний ефект та сприяють підвищенню рівня інноваційної культури підприємств. Важливе місце займають фінансові інновації, пов'язані із залученням грантових коштів, державної підтримки та інвестицій, які створюють умови для реалізації модернізаційних проєктів і зменшення виробничих ризиків. Маркетингові інновації розглянуто як завершальний етап реалізації інноваційної стратегії, оскільки вони визначають ефективність збуту, вихід на нові ринки, формування бренду та використання цифрових платформ для просування продукції. Запропоновано структурно-логічний підхід до етапів формування інноваційної стратегії, що охоплює діагностику внутрішнього стану підприємства, аналіз зовнішнього середовища, визначення інноваційних пріоритетів, розробку стратегічного плану та систему моніторингу реалізації. Доведено, що успішна реалізація інноваційної стратегії забезпечує підприємствам зростання конкурентоспроможності, підвищення екологічної безпеки, зміцнення економічної стабільності та інтеграцію у міжнародний ринок. Результати дослідження мають як наукове, так і практичне значення та можуть бути використані для розробки рекомендацій з удосконалення управлінських підходів, оптимізації фінансових механізмів і впровадження новітніх технологій у діяльність аграрних підприємств.

Ключові слова: інноваційна стратегія, агропідприємства, технологічні інновації, організаційні інновації, фінансові інновації, маркетингові інновації, конкурентоспроможність, сталий розвиток, аграрний сектор.

The relevance of the problem. The contemporary development of Ukraine's agricultural sector is taking place under conditions of increasing competition in global markets, intensifying climate challenges, and the urgent necessity of integration into the European economic area. Traditional approaches to production organization are gradually losing their effectiveness, as they no longer ensure a sufficient level of competitiveness and stability for agricultural enterprises. Under these circumstances, innovation emerges as the key factor in enhancing productivity, product quality, and environmental safety of agricultural production. The formation of an innovative development strategy enables enterprises not only to modernize their material and technical base and introduce advanced technologies, but also to develop modern forms of management, financing, and marketing. At the same time, an orientation toward sustainable development and compliance with European standards creates opportunities for strengthening Ukraine's position as one of the leading producers of agricultural products in the world. Therefore, research into the process of forming an innovative development strategy for agricultural enterprises is of exceptional relevance both in theoretical and practical dimensions.

An analysis of the latest research. The problem of forming and implementing innovation strategies in the agricultural sector of Ukraine has attracted considerable attention from domestic scholars in recent years. Nehoda and Novak (2023) emphasize the importance of innovation support for the agrarian sector, arguing that systematic implementation of technological and organizational innovations is a decisive factor in ensuring competitiveness and sustainable growth. Similar ideas are developed by Lutsii

and Korniichuk (2022), who explore the peculiarities of shaping innovation development strategies for agricultural enterprises, highlighting the role of managerial approaches and resource optimization.

Breus and Dudnyk (2023) investigate the role and significance of innovations in the formation of development strategies for agro-industrial enterprises. Their research underlines that innovative tools not only modernize production processes but also create new opportunities for strategic positioning in both domestic and international markets. A more comprehensive approach is presented by Sus, Yemets, Movchun, Onyshko, and Tsiupa (2022), who focus on the formation of innovation strategies at the sectoral level. They pay particular attention to financial mechanisms for implementing innovations, including the use of state support, grant programs, and investment resources.

Taken together, these studies form a solid scientific foundation for understanding the structural components and practical mechanisms of innovation strategies in Ukraine's agrarian sector. At the same time, they point to the need for a holistic and integrated approach that combines technological, organizational, financial, and marketing innovations, ensuring long-term competitiveness and sustainable development of agricultural enterprises in the context of globalization and European integration.

Formulation of the purpose of the study. The purpose of this study is to provide a theoretical justification and a practical analysis of the process of forming an innovative development strategy for agricultural enterprises in Ukraine. Particular attention is devoted to identifying the structural elements of the innovation strategy

and their interrelations, assessing the impact of technological, organizational, financial, and marketing innovations on improving the efficiency of agricultural production, as well as substantiating the role of innovation in ensuring competitiveness and sustainable development of the agrarian sector. An important objective is to develop methodological foundations for designing an innovation strategy that takes into account both the internal capabilities of enterprises and the external conditions of their functioning. Achieving this purpose will make it possible to create a comprehensive model of innovative development for agricultural enterprises, capable of ensuring their economic stability, environmental safety, and integration into the European and global markets.

Presentation of the main research. The results of our research demonstrate that an innovative development strategy for agricultural enterprises represents an integrated system of long-term managerial decisions and practical measures that ensure the renewal and improvement of agricultural production. This strategy involves not only the introduction of modern technologies and the modernization of the material and technical base, but also the application of new approaches to labor organization, resource and financial management. An important aspect of such a strategy is the development of effective product distribution channels, the use of digital tools for monitoring and planning, as well as the establishment of agricultural clusters and cooperatives.

Particular significance is attached to the orientation toward environmental safety and sustainable development, which aligns with

European standards and opens opportunities for integration into the international market. As a result of implementing an innovative strategy, enterprises are able to enhance their competitiveness, reduce production risks, and ensure long-term economic stability.

Today, Ukraine's agricultural sector faces the dual challenge of not only maintaining its position as one of the world's leading producers of agricultural products but also advancing toward deeper integration into the European market, improving productivity, and strengthening the environmental safety of production. These objectives cannot be achieved without the systematic implementation of innovations encompassing technological, organizational, financial, and marketing dimensions of enterprise activity (Fig. 1).

Technological innovations in agriculture play a leading role, as they form the foundation of modern production. This primarily concerns the implementation of precision farming, which is based on the use of GPS navigation, unmanned aerial vehicles, sensor systems, and specialized software. Such technologies make it possible to apply fertilizers and crop protection products in a differentiated manner, optimize the use of machinery and energy resources, and reduce the environmental burden on soils. Process automation contributes to minimizing the human factor in production and increasing labor productivity, while biotechnology enables the development of new plant varieties and hybrids resistant to climate change and diseases [3]. Taken together, these measures enable agricultural enterprises to significantly improve both crop yields and product quality.

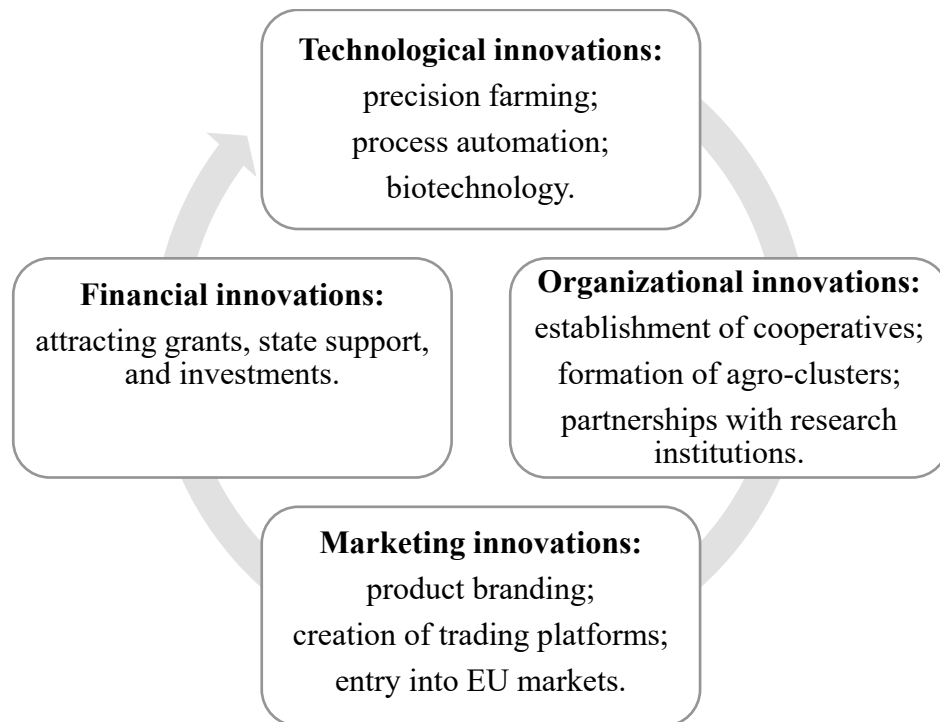


Figure 1 – Structural elements of the innovation strategy for the development of agricultural enterprises in Ukraine

Organizational innovations concern the improvement of management and governance models in the agricultural sector. One of the important directions is the establishment of cooperatives, which allows small and medium-sized producers to pool resources, reduce costs, and enhance the efficiency of product distribution. The formation of agro-clusters fosters the integration of enterprises of different levels and specializations into a single production and distribution chain, thereby generating a synergistic effect. Of particular importance is cooperation with research institutions, which provides enterprises with access to advanced technologies and scientific developments. This raises the level of innovation culture within agribusiness and stimulates the implementation of modern management practices.

Financial innovations represent a necessary condition for the adoption of any novelty in agriculture. The attraction of grants, state support, and investments ensures stable financing for projects associated with production modernization. This is particularly relevant for small and

medium-sized enterprises, which often lack sufficient financial capacity to implement advanced technologies. Investment resources make it possible to purchase new machinery, introduce automation systems, develop infrastructure, and enhance export potential. Equally important is the diversification of funding sources, which reduces risks and increases the resilience of enterprises to economic crises.

Marketing innovations constitute the final stage in the implementation of the innovation strategy. Under conditions of intense competition in both domestic and international markets, marketing largely determines the success of product sales. One of the key directions is branding, which creates a unique product identity and increases consumer recognition. The development of modern trading platforms provides enterprises with direct access to consumers, reducing dependence on intermediaries. Particularly significant is entry into the European Union markets, where high requirements for product quality, certification, and safety prevail. For Ukrainian enterprises, this is not only a challenge but

also a strong incentive to raise production standards and adapt to international norms.

All these components of the innovation strategy form an integrated system of development in which each element reinforces the others. Technological innovations are impossible without adequate financing, organizational changes facilitate more efficient use of investment resources, and marketing innovations ensure the effective commercialization of products manufactured with advanced technologies. Thus, the innovation strategy serves as the foundation for the sustainable development of agriculture, the enhancement of its competitiveness, and the strengthening of the country's economic stability.

The adoption of innovations in Ukrainian agricultural enterprises carries not only economic but also social significance. The introduction of modern technologies contributes to increased employment in rural areas, the formation of a new production and consumption culture, and the strengthening of food security. Ukraine, with its significant agricultural potential, has the capacity to become one of the global leaders in food production; however, this is achievable only under the condition of systematic and comprehensive innovation implementation.

Therefore, the structural elements of the innovation strategy for the development of agricultural enterprises encompass a wide range of measures: from technological re-equipment and organizational improvement to financial support and marketing advancement. Their coordinated implementation is the key to establishing a modern and competitive agricultural sector capable of functioning effectively under conditions of globalization and integration into the European economic space.

In today's context of globalization and the rapid spread of technological innovations, agriculture faces the necessity of adopting new approaches to the organization of production processes. Growing demand for environmentally friendly products, intensified competition in domestic and international markets, and climate-related challenges make innovation the key factor in enhancing the efficiency of agricultural enterprises. In this regard, the process of forming an innovation-driven development strategy acquires particular significance, as it defines the long-term orientations of enterprise functioning, ensures the rational use of resource potential, and strengthens their competitiveness [1].

The innovation strategy is a system of managerial decisions aimed at implementing technological, organizational, and product innovations in the production and commercial activities of an enterprise. It ensures the formation of an integrated development model that combines traditional management methods with modern advances in science and technology [4].

The theoretical foundations of developing an innovation strategy are based on the necessity of considering both the internal capabilities of an enterprise and the external conditions of its operation. The combination of these factors provides the basis for selecting optimal development directions and shaping long-term competitive advantages [2].

Figure 2 presents the structural and logical framework of the stages of forming an innovation strategy for the development of agricultural enterprises, which is based on the comprehensive consideration of internal and external factors influencing agricultural production.

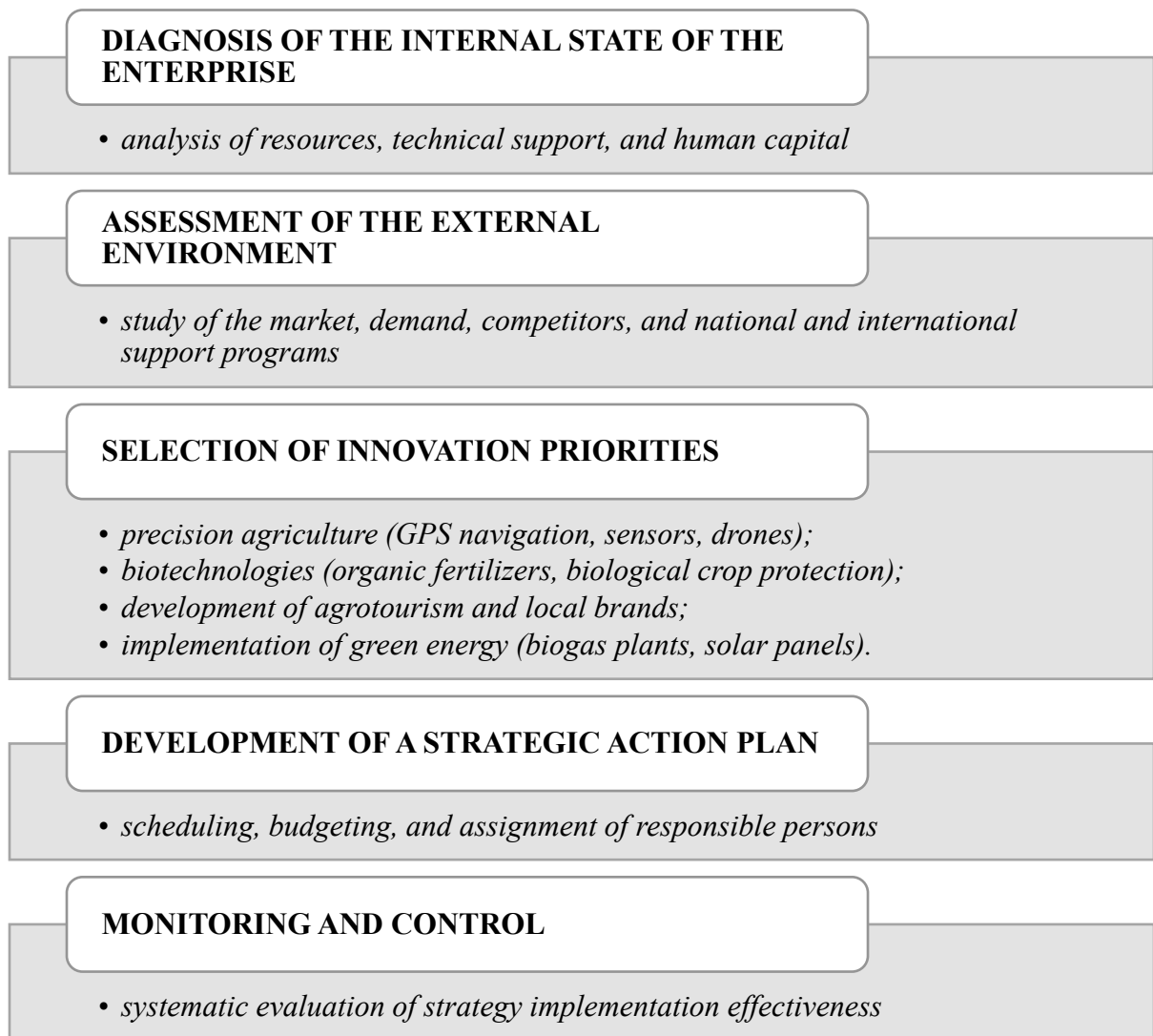


Figure 2 – The process of formulating the innovation development strategy for agricultural enterprises in Ukraine

The first and highly important stage in the process of formulating an innovation strategy is the diagnosis of the enterprise's internal state. At this stage, a comprehensive analysis of available resources, the level of technical provision, the condition of material and technical infrastructure, and human capital is conducted. Particular attention is paid to identifying the enterprise's strengths and weaknesses, determining its strategic reserves, and identifying opportunities to enhance operational efficiency. The SWOT analysis method is frequently employed for this purpose, as it allows for the systematic organization of information on the enterprise's internal characteristics and their

correlation with external threats and opportunities. This approach provides a more complete understanding of the enterprise's strategic position and forms the basis for a well-founded selection of innovation priorities.

The next step involves assessing the external environment, since the activities of an agricultural enterprise largely depend on market dynamics. The analysis covers trends in demand for agricultural products, the level of competition, changes in consumer preferences, as well as government policies supporting agribusiness. International programs play a significant role as well, providing access to investment resources and

advanced technologies, while also creating opportunities for integrating Ukrainian enterprises into global agricultural value chains. A thorough study of the external environment makes it possible to identify those areas of innovation activity that will yield the greatest effect, considering existing constraints and future prospects.

Based on the results of internal and external diagnostics, a system of innovation priorities is formed. For modern agricultural enterprises, promising areas include precision agriculture, which relies on GPS navigation, sensor systems, and unmanned aerial vehicles to increase the accuracy and efficiency of agrotechnical operations; the application of biotechnologies, including the production of organic fertilizers and biological plant protection products; the development of agrotourism and the creation of local brands as tools for business diversification; and the implementation of renewable energy sources, such as biogas plants and solar panels, which reduce energy costs and enhance the enterprise's environmental image. The selection of specific priorities is carried out taking into account resource availability, financial capacity, and the enterprise's strategic goals.

The next stage involves the development of a strategic action plan, within which the selected areas of innovation development are detailed. The plan includes scheduling of activities, budget preparation, identification of funding sources, and the allocation of functional responsibilities among structural units and individual performers. The effectiveness of this stage largely depends on the quality of managerial decisions, coordinated teamwork, and the presence of motivational mechanisms capable of encouraging staff to actively implement innovations. An important task is also the establishment of a risk management system, as innovation activities are inherently accompanied by uncertainty and require flexible responses to changes in external and internal conditions.

The final stage of the process is the monitoring and control of the innovation strategy implementation. This involves systematically tracking the results of planned activities, assessing the degree to which objectives are achieved, and timely identification of deviations. Monitoring is conducted both through quantitative indicators, such as productivity, profitability, and production costs and qualitative criteria, including the level of environmental safety, consumer satisfaction, and the enterprise's market image. The results obtained serve as a basis for strategy adjustments, ensuring its adaptability and capacity to respond to changing operational conditions.

Thus, the process of formulating an innovation development strategy for agricultural enterprises is multi-stage and systematic. It encompasses the diagnosis of the enterprise's internal state, assessment of the external environment, determination of innovation development priorities, formulation of a strategic action plan, and organization of effective monitoring and control. The proposed approach allows agricultural enterprises to combine traditional production practices with modern technologies, creating the prerequisites for enhanced competitiveness and sustainable development. In the long term, an innovation strategy will become a key factor in integrating the Ukrainian agricultural sector into the global economic space.

Conclusions. The innovation development strategy for agricultural enterprises in Ukraine emerges as a comprehensive system of managerial decisions and measures aimed at modernizing agricultural production, enhancing its competitiveness, and increasing resilience to the challenges of the global environment. It integrates technological, organizational, financial, and marketing innovations, which complement each other to form a unified development model. The implementation of precision agriculture, automation of production processes, biotechnologies, and digital tools

enables the rational use of resources, improves productivity, and reduces environmental risks. Organizational changes, such as cooperation and the creation of agro-clusters, ensure synergy among producers, science, and the market, while financial instruments, including investments and grants, provide new opportunities for the development of even small and medium-sized enterprises. At the same time, marketing innovations focused on branding and entering international markets allow Ukrainian enterprises to establish themselves within the European economic space.

Thus, the innovation strategy carries not only economic but also social significance: it contributes to increased employment in rural areas, the formation of a new culture of production and consumption, and the strengthening of food security. Its comprehensive implementation lays the foundation for sustainable development of the agricultural sector, ensures adaptability to contemporary challenges, and opens up prospects for Ukraine's integration into the global food market.

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