

## **INNOVATIVE APPROACHES TO MANAGEMENT IN THE AGRICULTURAL SECTOR: CHALLENGES AND PROSPECTS OF DEVELOPMENT IN THE CONDITIONS OF THE MODERN MARKET**

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The modern agricultural sector is in conditions of constant transformations caused by both internal and external challenges, such as climate changes, growing competition on world markets, as well as the introduction of the latest technologies. In these conditions, effective management becomes a decisive factor for ensuring sustainable development and competitiveness of agricultural enterprises. Management in the agricultural sector is faced with the need for quick adaptation to new realities, the search for optimal management solutions and resource provision.

Innovative approaches to management, in particular the use of information technologies, automation of production processes and digital solutions in the field of monitoring, planning and resource management, are becoming a driving force for increasing production efficiency. Such technologies allow not only to optimize costs, but also to increase productivity and quality of products, which is of crucial importance in the conditions of a changing market.

In addition, an important aspect is the management of human resources, which involves the development of employee competencies, the introduction of innovative forms of work organization, and the creation of motivational systems. All this requires new approaches and strategies from managers that will ensure the long-term sustainability of enterprises [2].

In modern conditions of agricultural development, the implementation of innovative approaches to the management of agricultural enterprises is of particular relevance. Given the challenges of globalization, climate change, growing competition in world markets and the decline of natural resources, management in the agricultural sector must constantly adapt and implement the latest technologies to ensure sustainable development. The following areas can be distinguished among the most significant innovative approaches:

### **1. Implementation of information and digital technologies**

Digitization is one of the most important areas of agricultural management development. Modern information systems make it possible to significantly increase the efficiency of management processes, automate routine operations and ensure accurate planning and control. The main tools used in this context are agricultural enterprise management systems (ERP systems), geographic information systems (GIS) and analytical platforms.

ERP systems allow integration of all enterprise processes, starting from resource accounting and financial operations, ending with production and logistics management. This contributes to the transparency of business processes, cost optimization, and makes it easier to make informed management decisions.

Geoinformation systems make it possible to monitor land, the condition of crops, and analyze agro-climatic conditions in real time. The use of such technologies allows more effective planning of agrotechnical measures, which contributes to increasing yields and optimizing the use of resources.

Analytical platforms based on big data (Big Data) and artificial intelligence (AI) make it possible to analyze large volumes of information, forecast trends in the agricultural products market, and simulate various business development scenarios. This allows you to reduce risks and adapt more quickly to changes in the external environment.

## 2. Automation of production and management processes

Modern automation technologies make it possible to significantly increase labor productivity, reduce production costs and ensure product quality at a high level. In agriculture, such solutions as automated irrigation systems, GPS-based machinery management systems, robotic complexes for harvesting and managing livestock farms are being actively implemented.

Automation of irrigation management, for example, makes it possible to provide plants with the required amount of water depending on their growth phase and soil condition, which contributes to the rational use of water resources and increased productivity. Automated solutions are also used to apply fertilizers and plant protection products, which minimizes the human factor and helps reduce costs.

Robotization of agricultural production allows automating the most time-consuming processes, such as harvesting, sorting products, managing livestock farms, which reduces the need for manual labor and increases the efficiency of operations.

## 3. Optimization of resources using the latest technologies

In conditions of limited natural resources and increasing costs for production processes, optimizing the use of resources is one of the key tasks of agricultural management. Modern technologies allow more efficient use of land, water and energy resources.

One of the innovative solutions is precision agriculture, which allows using GPS technologies, drones and satellite images to analyze soils and determine the most optimal modes for processing fields. This makes it possible to minimize crop losses and improve the quality of agricultural products.

Energy efficiency is also an important component of innovation management. The use of renewable energy sources, such as solar panels, biogas plants and wind power plants, allows to significantly reduce the energy costs of enterprises, making them more environmentally friendly and resistant to external economic factors.

## 4. Electronic platforms for business and logistics management

Online platforms for business management, logistics and sales of agricultural products are becoming more and more widespread. Such platforms allow agricultural enterprises to effectively organize the processes of procurement, transportation and sale of products, minimizing the risks of delays and costs.

Electronic platforms also contribute to the development of e-commerce in the agricultural sector, which opens up new sales markets and allows farmers to interact directly with end consumers without the involvement of intermediaries. This ensures the transparency of transactions and helps increase the income of agricultural enterprises.

## 5. Digital technologies for risk management

Risks in agriculture are an integral part of the process, but modern digital solutions can significantly improve their management. Crop insurance, weather monitoring, forecasting of market fluctuations and the impact of external factors with the help of digital platforms reduce the level of risks and help enterprises to better plan their resources and operations.

The application of innovative approaches to the management of agricultural enterprises becomes a key factor in ensuring their sustainable development and increasing



competitiveness. Initiatives in the field of digitization, automation and optimization of resources form a new paradigm of conducting agricultural business, which allows not only to increase productivity, but also to achieve high indicators of economic efficiency [1].

Human resources management is one of the most important aspects of the effective functioning of agricultural enterprises. In the conditions of rapid changes in the labor market, technological innovations and constantly growing requirements for the qualifications of employees, improving the efficiency of personnel management is a critical necessity for achieving high productivity and competitiveness. The main directions of improving the efficiency of human resources management include the development of employee competencies, the introduction of innovative forms of work organization, and the creation of effective motivational systems.

One of the key factors in the successful functioning of an agricultural enterprise is the high level of professional skills of its employees. The implementation of the latest technologies in the agricultural sector requires qualified personnel capable of adapting to new working conditions. The system of continuous training, which includes advanced training, retraining and training in new methods and technologies, should become a permanent process at agricultural enterprises.

Professional development programs should include not only technical training, but also the development of management skills, especially among middle and senior managers. An important role is played by trainings in digital technologies, automated control systems, project and risk management, which allow for effective management of all stages of the production process.

Innovative approaches to work organization allow for more flexible and efficient work processes. One of the important innovations is the introduction of flexible work schedules and remote work for those employees whose activities allow it. This increases the level of motivation of employees and their productivity.

It is also important to implement a team approach to tasks. Within the framework of this approach, employees are united in small groups or project teams, which allows to improve the quality of task performance, speed of decision-making and interaction between different divisions of the enterprise.

Creating an effective motivation system is necessary to ensure high productivity and staff stability. Employee motivation should include not only material incentives, such as salary and bonuses, but also intangible factors that contribute to increased job satisfaction. Among such factors are opportunities for professional development, social guarantees, corporate culture and a positive work climate.

Motivation systems should be based on individual and collective achievements of employees, as well as take into account the specifics of agricultural production, in particular seasonality of work (table 1). For example, differentiated bonuses for performing complex tasks or for successful completion of the agricultural season can become an effective tool for increasing productivity.

Table . The main tools for improving the efficiency of human resources management

Direction	Description	Expected results
Professional development	Continuous training, professional development and retraining of employees	Increasing the professional level, work efficiency, quick adaptation to new technologies
Flexible work organization	Implementation of flexible schedules, remote work	Increasing employee motivation, reducing workplace costs, and increasing productivity
Team approach	Formation of small groups or project teams to perform tasks	Improving communication between departments, improving the quality of task performance and the speed of decision-making
Motivational systems	Creation of material and non-material incentives for employees	Increasing productivity, reducing staff turnover, improving the moral climate at the enterprise
Psychological support and development	Support of employees through trainings, consulting, creation of a comfortable working environment	Increasing overall job satisfaction, reducing stress and increasing employee loyalty

Social aspects also play an important role in building an effective personnel management system. The implementation of social responsibility programs, support of employees' families, creation of social insurance and health care programs contributes to increasing trust and loyalty on the part of the staff. Agribusinesses that invest in employee social protection have a more stable and productive team [3].

Effective human resources management in the agricultural sector involves a comprehensive approach that includes the development of professional competencies, innovative forms of work organization, effective motivational systems and social support of employees. These measures not only help increase productivity, but also ensure the sustainable development of enterprises in the conditions of modern market challenges.

Conclusion: Effective management of agricultural enterprises in the conditions of modern challenges is impossible without the introduction of innovative approaches in the management and human resources management. Digitization of production processes, automation of resource management, integration of information technologies and development of professional competencies of personnel are key factors for ensuring sustainable development of enterprises in the agricultural sector.

The use of modern digital technologies, such as ERP-systems, geo-information systems and analytical platforms, allows to increase the efficiency of planning, monitoring and management of resources, which helps to reduce costs and improve productivity. Automation of production processes not only simplifies the work of employees, but also allows for rational use of natural resources, which is important in the context of environmental sustainability.

Innovative approaches to the management of human resources, including the development of competencies, the introduction of flexible forms of work organization and the creation of effective motivational systems, are critical for maintaining high levels of productivity. Flexible work organization and a team-oriented approach contribute to the optimization of work processes, increasing the efficiency of decision-making and reducing production costs.

Providing social protection and support for employees is also an important element of human resource management, which contributes to the stability and long-term development of



enterprises. The support of employees' families, social guarantees and the creation of comfortable working conditions ensure the motivation and loyalty of staff, which is especially important in the agricultural sector, where human resources are one of the key success factors.

Therefore, innovative approaches to management in the agricultural sector open up new opportunities for increasing the economic efficiency, sustainability and competitiveness of enterprises. To ensure the sustainable development of agrarian business in conditions of rapid changes, it is necessary to combine modern technologies with effective management of human resources. This will allow agricultural enterprises not only to remain competitive on the market, but also to actively develop, introducing innovations and increasing productivity in the long term.

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### SECTORS OF BUSINESS ENVIRONMENT AND THEIR IMPACT ON BUSINESS DECISIONS

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In today's economic conditions, the role of the business environment is critical to the success of enterprises. Business does not operate in a vacuum – it interacts with both internal and external factors that determine its functioning, development, and competitiveness. Our research examines the key elements of the business environment, the impact of external and internal factors on business activities, and the peculiarities of analyzing and diagnosing the business environment.

The business environment is a complex set of interconnected external and internal factors that influence all aspects of a company operations. According to research, the term “business environment” lacks a unified definition in the scientific literature, but it is commonly viewed as a combination of elements that define the conditions for conducting business activities [1].