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The Necessity, Specific Characteristics, and Scientific and Theoretical Foundations of The Poultry Industry

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Abstract: This article examines the theoretical and organizational-economic foundations of the poultry industry and its role in ensuring food security, increasing employment, and expanding export potential. The study analyzes economic, technological, biological, ecological, and sociological aspects of poultry sector development. Special attention is given to the implementation of modern innovative and genetic technologies, digitalization of production processes, improvement of veterinary services, and strengthening of the feed base. The paper highlights state support measures aimed at developing the poultry industry in Uzbekistan, including the establishment of large industrial poultry enterprises in the regions and the expansion of poultry meat production capacity. It also provides a comparative analysis of national and foreign scientific approaches to improving economic efficiency, developing cluster and cooperative mechanisms, and introducing innovation-based management models in the sector.

Keywords: poultry industry, food security, economic efficiency, innovation, cluster development, cooperation, export potential, sustainable development.

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1. Introduction

Since ancient times, poultry farming has played an important role in ensuring food security, improving health, and raising the overall standard of living in human life. Products such as meat and eggs have long been recognized as important bioresources [1]. Today, the poultry industry remains relevant not only as one of the main sectors of agriculture, but also as a sustainable source of food that increases the export potential of countries' economies.

Strengthening food security, ensuring employment and expanding the production of high-value-added products in agriculture are among the priority strategic tasks facing countries today. The poultry industry plays an important role in this process due to its fast turnover cycle, relatively low economic costs and high results in a short time [2]. Poultry farming and poultry meat processing are among the highly productive sectors of the economy. This sector was separated from livestock farming in the process of division of labor and has today formed an independent and strategically important sector.

Analysis of literature on the topic.

The development of the poultry industry, improvement of its economic efficiency, and its role in ensuring food security have been widely studied by both domestic and foreign scholars. Existing research covers institutional, organizational-economic, innovative, and intensive development approaches to strengthening the sector's competitiveness and sustainability. Among national researchers, B.B. Berkinov has

extensively analyzed the socio-economic nature of household and small-scale farms within the agrarian system [3]. His studies emphasize the importance of developing poultry production on the basis of family entrepreneurship, improving financial and economic mechanisms, and introducing digital monitoring systems. This institutional approach highlights the role of small-scale poultry farming in increasing employment and stabilizing rural incomes.

2. Materials and Methods

This study used a comprehensive methodological approach to study the theoretical and practical aspects of the development of the poultry industry, assess its socio-economic efficiency, and identify regional development factors. General scientific and special economic research methods were used in the research process.

The theoretical basis of the study is the scientific works of local and foreign scientists on the development of the poultry industry, concepts of institutional and innovative development, cluster and cooperation theories. Also, scientific views on food security and sustainable economic growth served as a methodological foundation.

3. Results

The poultry industry specializes mainly in the breeding of chickens, ducks, turkeys and other types of poultry and in obtaining meat, eggs and other by-products from them [4]. This activity covers not only the production of food products, but also the processes of their processing, storage and sale. From this perspective, poultry farming plays an important role in ensuring food security, filling the domestic market with sustainable products and expanding export volumes.

The importance of this sector in the national economy is manifested in several ways. First of all, poultry meat and eggs are relatively inexpensive and quickly produced products that satisfy the population's need for protein. This provides access to quality food for people with different income levels [5]. At the same time, poultry farming creates many jobs: it provides employment in farms, processing plants, logistics and trade systems. The expansion of the sector increases economic activity in rural and urban areas.

In addition, poultry products are also in demand in foreign markets. Exports of meat and eggs increase foreign exchange earnings, strengthen the country's foreign trade potential, and increase competitiveness in international markets. The industry is inextricably linked with other agricultural sectors and operates in an integrated manner with feed production, the processing industry, and the transport and logistics system [6]. However, intensive production processes can also create environmental issues. Factors such as waste management, rational use of water resources, and prevention of air pollution are important for sustainable development. Therefore, the introduction of modern technologies, the use of innovative management methods, and taking into account environmental requirements serve to increase the efficiency of the industry and reduce its negative impact on the environment [7], [8]. Typically, the theoretical foundations of the poultry industry include the following aspects (Figure 1).

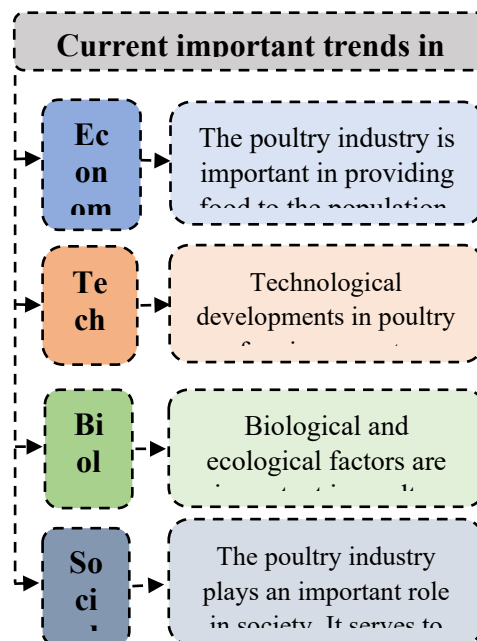


Figure 1. Main theoretical trends influencing the development of the poultry industry ¹.

To ensure sustainable development in the poultry industry, it is important to maintain a balance between economic efficiency of production and social interests. In the process of expanding the industry and introducing modern technologies, special attention should be paid to improving working conditions, improving the skills of employees, and ensuring production safety [9]. In short, the effective functioning of the poultry industry depends on the harmony of economic, technological, biological, and environmental factors. These factors are closely interconnected and create a solid theoretical foundation for the competitive and sustainable development of the industry. Therefore, the implementation of modern scientific achievements in practice, the widespread use of innovative technologies, and ensuring environmental sustainability are considered priority tasks in the further development of the industry [10].

A number of strategic directions have been identified to further develop the poultry industry and increase its efficiency. These directions are aimed at implementing modern technologies, improving genetic resources, ensuring food safety and sanitary requirements, expanding domestic and export markets, maintaining environmental sustainability, developing veterinary services, and strengthening local production systems, ensuring the sustainable and competitive development of the industry.

By implementing these areas, it is possible to increase productivity and reduce costs in the industry. Modern technologies, including artificial intelligence and automated systems, allow for the effective organization of poultry management, feeding and veterinary control processes. Selection of highly productive and healthy breeds, as well as breeding animals resistant to feed quality and resistant to diseases through genetic modification, will increase the efficiency of the industry [11]. Also, the production of clean and healthy products, ensuring sanitary and hygienic requirements in factories and farms, exploring local markets and expanding export opportunities will strengthen the competitiveness of the industry. The implementation of environmentally sustainable technologies, waste recycling and reducing energy consumption will serve the sustainable development of the industry in the long term [12], [13]. Improving veterinary services,

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constant monitoring of animal health and disease prevention will increase product quality. At the same time, by strengthening local production chains and developing close ties with farmers, a system for improving the quality of products and establishing their rapid delivery will be established.

In recent years in our country Large-scale measures are being implemented to consistently develop poultry farming, introduce modern technologies into production, expand cooperation between farms, and direct products to export. In particular, new mechanisms for state support for the sector were introduced by the Resolutions of the President of the Republic of Uzbekistan No. PQ-5146 dated June 14, 2021 "On additional measures aimed at developing poultry farming and strengthening the feed base of the industry" and No. PQ-238 dated June 27, 2024 "On measures to further support the poultry farming sector, introduce modern genetic technologies and a cooperation system. [14]"

These legal documents are aimed at developing the production of poultry products and ensuring the effective use of land allocated for poultry farming. As a result of their implementation, the level of supply of eggs and poultry meat has significantly increased, and the population's need for quality food products is further improving.

In accordance with the resolution "On measures to further support the poultry industry, introduce modern genetic technologies and a cooperation system", the tasks of establishing large industrialized poultry enterprises in the meat sector in the Republic of Karakalpakstan and the Kashkadarya, Surkhandarya and Khorezm regions in 2024-2025 have been set (Table 1).

Table 1. Projected capacities and additional poultry meat production volumes of large industrialized poultry enterprises in the Republic of Karakalpakstan and Kashkadarya, Surkhandarya, and Khorezm regions in 2024-2025²

Republic/Region	Districts	Projected capacity (thousand heads)	Additional poultry meat production (tons)
Republic of Karakalpakstan	Nukus, Khojaly	450	6 750
Kashkadarya region	Chirokchi, Kokdala	400	6 000
Surkhandarya region	Muzrabot, Termez	400	6 000
Khorezm region	Koshkopir, Yangiariq	400	6 000
Total		1 650	24 750

According to this resolution, it is planned to establish large industrialized poultry enterprises in the meat sector in the Republic of Karakalpakstan, Kashkadarya, Surkhandarya and Khorezm regions in 2024-2025. The total projected capacity is 1.65 million heads, which is expected to produce an additional 24,750 tons of poultry meat. It is planned to establish industrial enterprises with an average capacity of 400-450 thousand heads in each region, which can be an important factor in the socio-economic development of the regions. These enterprises will serve not only to ensure local food security, but also to increase export potential.

Such large-scale projects require the implementation of modern technologies and scientifically based management methods, as well as the training of specialized personnel in the poultry sector. At the same time, it is necessary for these enterprises to operate in

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compliance with environmental standards to ensure the sustainable development of the industry [15].

This decision will serve to stimulate regional development, increase employment, and strengthen the country's food security strategy. The expansion of the poultry industry is also expected to increase the industry's export potential, which will have a positive impact on the diversification of the economy.

Nevertheless, some systemic problems remain in the sector. In particular, the issues of improving selection work, creating a solid feed base, strengthening veterinary control, developing logistics infrastructure, and effectively organizing marketing activities remain relevant.

Our analysis shows that the systematic and continuous implementation of the established measures will not only support enterprises engaged in the production and processing of poultry products in the country, but also make it possible to bring this industry to international markets.

In scientific literature, the issues of developing the industry through the production of poultry products have been studied in detail by many foreign and domestic scientists. In particular, the works of researchers such as B.B.Berkinov, U.Q.Akhmedov, B.I.Bashkatov, S.D.Fetisov, and I.I.Golubov have covered important aspects of the poultry industry.

In each period, the continuous production of poultry products and the provision of the population with quality products remain urgent and priority issues. These studies are aimed at a more in-depth analysis of the processes of poultry production in the regions, their economic efficiency and mechanisms for meeting the needs of the population. In the works of many economists, the production of poultry products in the regions and the systems of providing the population with them have been studied in close connection with other economic factors.

Professor B.B.Berkinov's research provides theoretical and practical justification for the socio-economic nature of household and peasant farms in the Republic of Uzbekistan, their role in the agrarian system, and development directions. In particular, the issues of effective organization of these forms of economy, improvement of financial and economic mechanisms, and increasing production capacity within the framework of family entrepreneurship are deeply analyzed. The application of these scientific approaches to the poultry industry shows that the development of poultry farming in small farms is an important factor in ensuring employment and income stability. Also, the digitization of the poultry production process, the introduction of accounting and monitoring systems are emphasized as a priority area for increasing the efficiency of the industry.

In his scientific works, U.Q.Akhmedov comprehensively analyzes the strategic importance of agricultural sectors in the national economy, their current state of development, and factors ensuring sustainable growth in the context of global financial and economic instability. The research covers the content of structural reforms being implemented in the agricultural sector, their impact on production volumes and competitiveness on a scientific basis. The author evaluates the poultry industry as a highly productive and rapidly circulating capital-intensive sector of agriculture, and justifies organizational and economic measures and promising directions for its development. Also, the scientific works develop practical recommendations and proposals for increasing the efficiency of poultry enterprises, rational use of resources, and improvement of market mechanisms.

In his dissertation on "Improving the organizational and economic foundations of the development of the poultry industry," B.I.Bashkatov considers poultry farming as a holistic organizational and economic system. The study fully analyzes the activities of industry entities in their inextricable connection with the production structure, resource allocation, financial flows, and market infrastructure.

The author has put forward a number of scientific approaches to the development of poultry farming. Including:

- widespread introduction of cluster and cooperation mechanisms in the industry ;
- of production and processing stages based on vertical integration ;
- improving the system of economic efficiency indicators aimed at optimizing costs and increasing profitability ;
- increasing competitiveness through strengthening investment activity and introducing innovative technologies.

These approaches allow for a systematic assessment of the economic status of the poultry industry, identification of internal opportunities, and development of sustainable development programs.

Foreign researcher Sergey Dmitrievich Fetisov, in his study "Increasing economic efficiency of industrial poultry farming based on its intensification: based on materials from the Krasnodar Territory", comprehensively analyzed the issues of increasing economic efficiency in industrial poultry farming through intensive development factors. This work identifies the economic essence, specific features and conditions for sustainable operation of industrial poultry farming, and scientifically substantiates the criteria for assessing its efficiency and the system of indicators. Also, using the example of the Krasnodar Territory, the current state of industrial poultry farming and the poultry products market is analyzed economically, and priority areas for accelerating production are identified.

The study focuses on improving the mechanisms of state regulation of the industry, developing a medium-term development forecast, and assessing its economic efficiency. The results justify the need to improve the quality of state services, develop service cooperation, and strengthen processing and slaughter infrastructure in the regions in order to increase the added value in poultry farming.

The study "Economic Development of Poultry Farming Organizations of Russia Based on Innovations" by Ivan Ivanovich Golubov scientifically substantiates the model of economic development of poultry farming organizations based on innovative factors. The author emphasizes that the sustainable growth of poultry farming entities is directly related to the introduction of advanced technologies into production processes, the integration of scientific achievements into practice, and the modernization of the management system.

The study highlights the issues of developing a new generation feed production system based on the achievements of modern biotechnology and its large-scale implementation. This approach expands the possibilities of effective use of the genetic and production potential of poultry and livestock, increases product quality and food safety indicators. As a result, the innovation-based development model is considered an important factor in increasing the profitability of poultry enterprises, optimizing production costs, and strengthening the competitiveness of the national industry in the world market.

An analysis of studies conducted by various scientists shows that institutional reforms, the organizational and economic system of production, intensive and innovative technologies, as well as state regulatory mechanisms play an important role in the development of poultry farming.

For example, B.B.Berkinov emphasized the development of poultry farming on the basis of small farms and family entrepreneurship, as well as the digitalization of production processes. U.Q.Ahmedov indicates the directions of sustainable development through the management of the industry in a macroeconomic context, the combination of reforms and market mechanisms. BIBashkatov emphasizes the need for integrated management of poultry farming through cluster, cooperation and vertical integration approaches. Foreign researchers Sergey Dmitrievich Fetisov scientifically substantiated the directions of increasing the efficiency of industrial poultry farming through intensive

development, and Ivan Ivanovich Golubov - through innovative and biotechnological approaches, strengthening the competitiveness of the national industry in the world market.

Table 1. Analysis of scientific approaches to the development of the poultry industry³

Researchers	Research direction	Basic scientific approach	Priority areas of attention	Practical importance
B.B.Berkinov	Development of poultry farming on the basis of homestead and dehkan farms	Institutional and financial-economic approach	Expanding production in small farms, developing family entrepreneurship, digitalization	Ensuring employment, increasing income stability, strengthening production monitoring
U.Q.Axmedov	Sustainable development of agricultural sectors	Systemic-structural and macroeconomic approach	Network reform, improving market mechanisms, increasing efficiency	Increasing the share of poultry farming in the agrarian economy and strengthening its competitiveness
B.I.Bashkatov	Organizational and economic foundations of poultry farming	Cluster, cooperation and vertical integration approach	Cost optimization, increased investment activity, infrastructure development	Comprehensive network management and increased profitability
S.D.Fetisov	Intensive development in industrial poultry farming	Intensification and state regulation approach	Justification of efficiency criteria, regional forecasting, service cooperation	Increasing value added, strengthening processing infrastructure
I.I.Golubov	Innovation-based economic development	Innovative and technological modernization approach	Biotechnology, new generation feed system, production efficiency	Improving product quality and safety, ensuring competitive advantage in the international market

Table 1 shows that institutional reforms, integration and cooperation mechanisms, intensive and innovative development factors are the priority scientific directions in the development of the poultry industry. These approaches, when combined, will ensure sustainable economic growth of the industry.

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The results of the conducted scientific analyses show that the production of poultry products in the regions is formed under the influence of a multifaceted system of factors. In particular, economic conditions, natural and climatic factors, the stability of the feed base, the level of provision with production resources, and the external market situation are considered important determinants of the development of the industry. Managing these factors in a coordinated and systematic approach allows for the sustainable and highly efficient production of poultry products.

The issue of developing the poultry industry is directly related not only to increasing agricultural production, but also to ensuring the socio-economic stability of the country. This industry has a short production cycle, is characterized by rapid capital turnover, relatively low costs and high demand. The development of the industry as a very important direction helps to form growth points of regional economies. The expansion of the industry has a multifaceted impact on the national economy by increasing employment, increasing incomes, strengthening food security and expanding export potential (Figure 2).

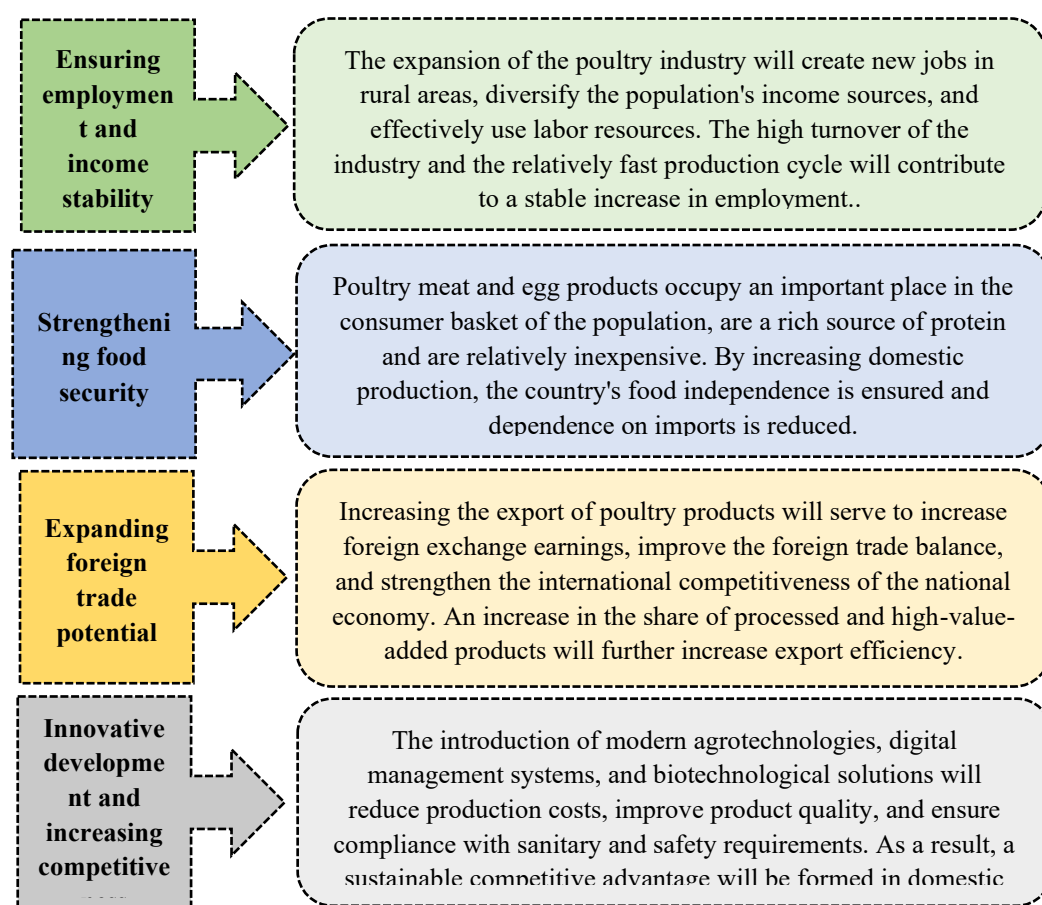


Figure 2. Socio-economic effects of poultry industry development in the regions⁴

4. Conclusion

It is worth noting that in order to increase the efficiency of poultry production, it is necessary to rationally use resources, strengthen feed safety, improve veterinary services, and widely introduce modern technologies. Also, meeting the needs of the domestic market, primarily through national production potential, should be considered an important priority.

In this regard, a deep economic analysis of the process of poultry development across regions, the development of programs for the effective use of existing agricultural

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resources, and the identification of their interrelationships with external economic and environmental factors are important conditions for ensuring the long-term sustainable development of the industry.

REFERENCES

- [1] Resolution of the President of the Republic of Uzbekistan dated June 14, 2021 No. PQ-5146, "On additional measures aimed at developing poultry farming and strengthening the feed base of the industry," Jun. 14, 2021.
- [2] Resolution of the President of the Republic of Uzbekistan dated June 27, 2024 No. PQ-238, "On measures to further support the poultry farming sector, introduce modern genetic technologies and a cooperation system," Jun. 27, 2024.
- [3] B. B. Berkinov, *Uy xo'jaligi iqtisodiyoti: O'quv qo'llanma*, Tashkent, Uzbekistan: Fan va texnologiya, 2014, pp. 130–137.
- [4] U. Q. Ahmedov, "Qishloq joylarida uy xo'jaliklarining qishloq xo'jalik mahsulotlarini yetishtirish faoliyatini rivojlantirish," Ph.D. dissertation, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Tashkent, Uzbekistan, 2018.
- [5] I. N. Achilov, "Parrandachilik tarmog'ini rivojlantirishning tashkiliy-iqtisodiy asoslarini takomillashtirish," Ph.D. dissertation, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Tashkent, Uzbekistan, 2025.
- [6] C. D. Fetisov, "Повышение экономической эффективности промышленного птицеводства на основе интенсификации его развития: по материалам Краснодарского края," Ph.D. dissertation, Krasnodar, Russia, 2010.
- [7] I. I. Golubov, "Экономическое развитие птицеводческих организаций России на основе инноваций," Ph.D. dissertation, Russia, 2015.
- [8] D. O'. Hasanova, "Economic-statistical analysis of the major types of livestock products in Surkhandarya region," *Ekonomika i predprinimatel'stvo*, vol. 19, no. 4, pp. 799–803, 2025.
- [9] D. O'. Hasanova, "Mintaqalarda aholini asosiy turdagi chorvachilik mahsulotlari bilan ta'minlanganlik darajasini baholash mezonlari," *Agrobiznes, fan va texnologiyalar*, no. 5, pp. 25–36, 2025.
- [10] T. A. Jones, *Principles of Agricultural Economics*. 2nd ed. New York, NY, USA: HarperCollins, 2017, pp. 325–340.
- [11] M. P. Adams and L. J. Roberts, *Sustainable Agriculture in Global Development*. London, UK: Routledge, 2020, pp. 120–150.
- [12] E. T. Clarke, *Poultry Farming and Its Economic Impact on Developing Countries*. Cambridge, UK: Cambridge University Press, 2018, pp. 200.
- [13] G. K. Patel, *Advancements in Poultry Genetics and Modern Practices*. Los Angeles, CA, USA: Springer, 2019, pp. 145.
- [14] A. B. Stevenson, "Technological innovations in poultry farming: A study on modernization efforts," *Agricultural Economics Journal*, vol. 34, no. 2, pp. 212–226, 2022.
- [15] R. M. Evans, *Global Poultry Production and Challenges in the 21st Century*. Oxford, UK: Oxford University Press, 2021, pp. 58–78.