



Economics and Business Management

16(2), 98-117

Journal homepage: <https://economicscience.com.ua/en>

Received: 20.01.2025 Revised: 14.04.2025 Accepted: 22.05.2025

UDC 338.439:339.138

DOI: 10.31548/economics/2.2025.98

Valerii Bondarenko

Doctor of Economic Sciences, Professor
National University of Life and Environmental Sciences of Ukraine
03041, 15 Heroiv Oborony Str., Kyiv, Ukraine
<https://orcid.org/0000-0002-5929-7158>

Violeta Heraimovych*

PhD in Economic Sciences, Associate Professor
National University of Life and Environmental Sciences of Ukraine
03041, 15 Heroiv Oborony Str., Kyiv, Ukraine
<https://orcid.org/0000-0002-4721-5100>

Yuliia Havryliuk

PhD in Economic Sciences
National University of Life and Environmental Sciences of Ukraine
03041, 15 Heroiv Oborony Str., Kyiv, Ukraine
<https://orcid.org/0000-0002-0774-3494>

Olena Barylovych

PhD in Economic Sciences, Associate Professor
National University of Life and Environmental Sciences of Ukraine
03041, 15 Heroiv Oborony Str., Kyiv, Ukraine
<https://orcid.org/0000-0002-1732-3637>

Alla Riabchyk

PhD in Economic Sciences, Associate Professor
National University of Life and Environmental Sciences of Ukraine
03041, 15 Heroiv Oborony Str., Kyiv, Ukraine
<https://orcid.org/0000-0001-6290-3609>

Marketing and logistics support for agricultural and processing enterprises

Abstract. This article aimed to examine the impact of marketing and logistics strategies on the economic performance of agricultural enterprises in Ukraine, particularly in terms of competitiveness, cost optimisation, and income growth. To achieve this, the study employed a methodology involving the analysis of the economic aspects of marketing and logistics support

Suggested Citation:

Bondarenko, V., Heraimovych, V., Havryliuk, Yu., Barylovych, O., & Riabchyk, A. (2025). Marketing and logistics support for agricultural and processing enterprises. *Economics and Business Management*, 16(2), 98-117. doi: 10.31548/economics/2.2025.98.

*Corresponding author



Copyright © The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

for agricultural enterprises, using academic publications, industry reports, and practical data. Both quantitative and qualitative research methods were used to assess effectiveness, including financial performance analysis, evaluation of marketing and logistics strategies, and analysis of the impact of digital technologies on business process efficiency. The findings revealed that the integration of marketing and logistics strategies enabled agricultural enterprises to significantly reduce costs, particularly in transportation and storage. The introduction of digital platforms for inventory management and transport optimisation led to a 12%-18% reduction in expenses. In 2024, the total revenue of Ukrainian agricultural enterprises reached 2.4 trillion UAH, which is 2.6 times higher than the figure recorded in 2023. The highest revenue volumes were recorded in Vinnytsia (292.8 billion UAH), Cherkasy (265.3 billion UAH), and Poltava (216.2 billion UAH) regions. The implementation of automated transport systems reduced transportation costs by 10%-20%, while the use of Global Positioning System monitoring to optimise routes resulted in a 15% decrease in fuel expenditure. The findings confirmed that the effective use of marketing and logistics strategies has become a key factor in ensuring the competitiveness of agricultural enterprises. The integration of marketing and logistics enabled cost reduction, improved operational efficiency, and contributed to the financial resilience of enterprises in the face of global economic challenges. The introduction of digital tools and process automation proved essential for achieving high productivity and cost reduction. The practical significance of the study lies in the development of recommendations for optimising the marketing and logistics processes of agricultural enterprises, enabling reduced costs, enhanced management efficiency, and greater financial stability in a dynamic market environment

Keywords: competitiveness; innovation; inventory optimisation; transportation; demand forecasting

INTRODUCTION

Agricultural enterprises engaged in crop production, along with processing companies involved in food manufacturing, face numerous challenges. These include the need to optimise costs related to transportation, storage, and product distribution, the provision of high-quality customer service, and the efficient management of information flows. At the same time, the rapid advancement of digital technologies, the integration of modern marketing tools, and the use of innovative logistics solutions are creating new opportunities to enhance the efficiency of these processes.

In the study of marketing and logistics aspects of agricultural enterprises in international markets, scholars such as V. Danylenko *et al.* (2024) have explored the importance of effective logistics and marketing for the export activities of agribusinesses. The authors identified key issues faced by Ukrainian agricultural producers, particularly limitations in transport infrastructure, which reduce the efficiency of agricultural exports. Their research highlights the significance of integrating marketing strategies with logistics processes, as this enables

agricultural enterprises to strengthen their positions in international markets. Marketing is not used effectively enough in agricultural enterprises, which restricts their market potential. O. Kuzmenko (2024) noted that marketing in this sector often focuses solely on increasing sales and maximising profits, without long-term strategic planning. She emphasised that to ensure competitive advantage, it is essential to consider producers' flexibility and their ability to respond swiftly to changing market conditions, while also embracing innovation.

Logistical constraints and cultural specificities of international markets present significant challenges for agricultural enterprises. S. Pavlyshyn & V. Melnychenko (2024) examined the marketing and logistics support for grain exports from Ukraine during martial law, focusing on changes in supply chains and the impact of military aggression on logistics costs. The authors proposed alternative routes for transporting grain, including those through the Grain Corridor. Their findings indicated increased costs and reduced transshipment volumes at ports. Marketing efforts by agricultural

enterprises in entering global markets possess specific characteristics shaped by natural and climatic conditions, seasonal production cycles, and the high level of competition internationally. V. Serov (2024) highlighted the importance of adapting products, logistics processes, and communication strategies to global market requirements. This includes product standardisation, the development of long-term contracts, and the adoption of flexible supply schemes. The results of his study demonstrated that implementing these strategies enhances the effectiveness of marketing activities.

The marketing potential of agricultural enterprises is a key factor in ensuring their competitiveness under conditions of market globalisation and growing international rivalry. Y. Korol & V. Pysmak (2024) investigated the development of marketing potential in agricultural enterprises, emphasising the importance of adopting modern tools to create competitive advantages. The authors argued that marketing activities are essential for ensuring efficient enterprise operations in the current economic climate, improving both market position and financial performance. Managing the marketing activities of Ukrainian agricultural enterprises under martial law remains a pressing task. A. Movchanyuk (2023) observed that agribusiness faces serious challenges owing to the blockade of traditional sales channels, the destruction of infrastructure, and disruptions to supply chains. The author emphasises the need for an integrated marketing management system that enables enterprises to adapt to new conditions and retain competitiveness in both domestic and foreign markets.

Digital technologies in marketing and logistics play a crucial role in optimising business processes within agricultural enterprises. O. Kyfyak *et al.* (2023) analysed the impact of digital marketing and logistics on the efficiency of business-process management in the sector. The researchers argue that integrating digital technologies reduces costs, improves product quality, and enhances competitiveness. They also found that deploying digital tools in marketing helps enterprises adapt more effectively to market changes. The optimisation of logistics solutions in agricultural management is equally

critical. N. Makarenko & S. Vovchok (2020) examined strategic logistics management in agricultural enterprises, focusing on the effectiveness of logistics decisions in boosting competitiveness. Their findings indicate that implementing efficient logistics strategies can significantly lower costs while improving the distribution of agricultural products.

However, the impact of introducing advanced logistics technologies, as well as improvements in customs and certification procedures, on reducing costs and increasing transport efficiency in the agricultural sector has not been sufficiently explored. Other under-researched areas include the adaptation of marketing strategies to the dynamics of international markets, the influence of digitalisation on the functioning of agricultural enterprises, and the role of government support in developing their marketing potential during martial law. Greater attention should also be given to analysing the relationship between digital marketing tools and logistics processes in the context of ensuring the long-term stability of enterprises. This study aimed to examine the effectiveness of optimising logistics solutions to support the strategic management of agricultural enterprises. The specific objectives were to assess the impact of logistics decisions on the competitiveness of agricultural enterprises and to develop recommendations for improving logistics processes in order to enhance management efficiency under changing market conditions.

MATERIALS AND METHODS

The study had an applied economic focus and was conducted over the period 2022-2024. It covered current trends in the agricultural sector and the adaptation of enterprises to new market conditions. The analysis was based on academic publications, including studies by M. Haji Ali Beigi (2021), O.V. Kopytko (2023), and I. Shkorina (2024), which contributed to a deeper understanding of economic processes in the agricultural sector through the integration of marketing and logistics. These publications provided valuable insights into the factors influencing competitiveness and efficiency within the sector, particularly regarding how effective marketing and logistics strategies have supported the

overall economic performance of agricultural enterprises. The study examined the economic aspects of marketing and logistics support, with a focus on the impact of marketing and logistics strategies on enterprises' financial indicators. Special attention was given to the integration of marketing and logistics as a tool for enhancing economic efficiency. The effectiveness of marketing strategies was analysed in terms of income growth, cost reduction, and overall enterprise profitability. The study also explored key logistics strategies and assessed their economic viability for the agricultural sector, enabling evaluation of their impact on overall economic performance. One important aspect of the research was the use of digital platforms to optimise logistics processes in the agricultural sector. Platforms such as AgroOnline (n.d.), Uagro (n.d.), TopAgro (n.d.), AgriSync (n.d.), AirFarm (n.d.), Agrifinance (Agrifinance Online, n.d.), and Agrocontrol (Propozitsiya, 2022; Stfalcon, 2021) have significantly contributed to reducing transportation, storage, and inventory management costs. In addition, the study highlighted the implementation of Automated Transport Systems (ATS) (Vorecol, n.d.) in processing enterprises, which has enabled reductions in transportation costs, as well as improvements in productivity and order fulfilment accuracy. The role of automation in reducing manual intervention and improving logistics operations was assessed. The methodology also involved the development of recommendations for enhancing the marketing and logistics processes of agricultural enterprises. A key component of the study was the integration of marketing and logistics operations, the implementation of advanced technologies such as automation, and the use of analytical data to optimise supply chains. In addition, the strategic planning of marketing campaigns aimed at increasing demand and improving financial outcomes was analysed in detail. The application of digital tools – such as the Internet of Things (IoT), artificial intelligence (AI), and data analytics – for managing supply chains and marketing efforts was evaluated. The research employed both quantitative and qualitative methods, using data from the industry report by Opendatabot (The income of agricultural industry leaders..., 2024), including revenue

figures for the largest agricultural enterprises. The methodology also included case analysis of enterprises that had successfully implemented integrated marketing and logistics strategies. Indicators such as revenue growth, cost reduction, and profitability were evaluated to determine the effectiveness of the strategies applied (Agroportal, 2024; SuperAgronom, 2024).

RESULTS

Economic aspects of marketing and logistics ensuring

Marketing and logistics support in the agricultural sector and at processing enterprises is a complex, multifaceted process that encompasses the planning, management, and integration of every element required for the efficient movement of goods from producer to final consumer. It involves not only logistics operations – transportation, storage, and handling – but also marketing strategies that promote a clear understanding of market needs, stimulate demand, and sustain an enterprise's competitiveness.

The principal objective of marketing and logistics support is to establish an effective mechanism for delivering products to consumers at minimal cost and under optimal conditions. Within the agricultural sector, rapid and safe transport is critical, as many products have limited shelf lives and require specific transport conditions. Processing enterprises must, therefore, not only create efficient supply chains for raw materials but also maintain favourable conditions for storing, handling, and delivering finished goods to the market.

Marketing and logistics support in agriculture comprises several key elements. The first is logistics management, covering the transport, storage, and handling of goods. This function organises and streamlines these processes, ensuring timely delivery to the point of sale while keeping costs low. In the agricultural sector, critical aspects include monitoring product quality during transit, utilising optimal routes, and employing modern storage technologies, such as the cold chain for fresh produce. Problems that may arise in this process include product losses due to improper storage or delays in transportation, both of which can lead to economic losses (Zutsara, 2022).

Marketing support, in turn, focuses on understanding consumer needs and preferences, as well as developing strategies for effective product promotion. In the agricultural sector, marketing involves market research, segmentation, product positioning, and the development of efficient distribution channels. As demand for agricultural products is often influenced by seasonality, it is important to adopt a strategic approach to product assortment and pricing. Marketing also includes brand development and the analysis of market trends, enabling enterprises to adapt their offerings in response to market changes and shifting consumer preferences (Naruetharadhol *et al.*, 2022).

For processing enterprises, marketing and logistics support takes on particular significance due to the need for uninterrupted raw material supply and efficient distribution of finished products. These enterprises face challenges such as intense competition, the need to meet quality standards, and packaging requirements, all of which can affect costs and profit margins. A key aspect is the coordination between raw material suppliers and processing companies to ensure optimal production capacity and minimise costs (Khedr & Rani, 2024).

Thus, marketing and logistics support in the agricultural sector and at processing enterprises is a vital component of economic strategy. It encompasses both logistics management and marketing strategies aimed at ensuring competitiveness in the marketplace. This requires careful planning and continuous monitoring of all processes to achieve maximum results with minimal costs, while also providing optimal conditions for consumers. The impact of marketing and logistics strategies on enterprises' economic performance is significant, operating through various yet complementary mechanisms. Both marketing and logistics play a crucial role in enhancing an enterprise's economic efficiency by influencing indicators such as profitability, market growth, competitiveness, and financial stability.

Marketing strategies are closely linked to a company's financial performance. Investment in marketing – particularly in advertising, branding, and corporate social responsibility (CSR) – has a direct effect on long-term

financial outcomes and the enterprise's competitive position. Research has shown that marketing expenditure correlates with higher return on assets (ROA), improved market-to-book ratios, and increased investor confidence. Resource-based theory views marketing as a strategic capability that enhances a company's value by fostering customer loyalty and strengthening pricing power. Market-oriented companies typically outperform their competitors in terms of profitability and sales, particularly during periods of economic downturn. Moreover, CSR initiatives have the greatest multidimensional impact on financial performance, positively affecting eight financial indicators, including net income and shareholder value. Such initiatives enhance a company's reputation, which in turn increases its attractiveness to investors (Köylüoğlu *et al.*, 2021).

On the other hand, logistics strategies significantly influence an enterprise's economic efficiency by improving performance and introducing innovation in logistics processes. A study conducted in Guangdong Province found that a 1% increase in logistics expenditure resulted in a 0.407% rise in local Gross Domestic Product (GDP) and a 0.359% impact on neighbouring regions (Li & Chen, 2021). This highlights the fact that improving logistics networks contributes to economic growth not only at the enterprise level but also regionally. Innovations in logistics – such as digital supply chains and automated inventory systems – help reduce operational costs and increase customer value.

Innovations introduced into logistics processes – particularly within digital supply chains – greatly enhance companies' adaptability and reduce costs. In addition, increasing competition across various markets drives enterprises to innovate, which is especially important for the development of advanced markets. This enables companies to improve their competitiveness and respond more swiftly to changes in market demand. The synergy between marketing and logistics strategies has an even greater impact on a company's economic performance. The demand generated through marketing strategies depends on the effectiveness of logistics in ensuring timely delivery – this, in turn, strengthens customer satisfaction and

encourages repeat purchases. Innovations in logistics, such as real-time delivery tracking, not only improve the efficiency of logistics operations but also enhance brand perception, thereby supporting a company's marketing objectives. Thus, the integration of marketing and logistics strategies allows enterprises to maximise economic outcomes by reducing costs and improving customer service (Haji Ali Beigi, 2021).

The integration of marketing and logistics is a vital tool for increasing the economic efficiency of enterprises. This process aligns demand generation (marketing) with its fulfilment (logistics), enabling businesses not only to optimise costs but also to improve customer satisfaction and strengthen their competitive position in the market.

One of the key advantages of integrating marketing and logistics is the significant reduction in costs and the resulting increase in profitability. Incorporating logistics into the production process allows for lower procurement, transport, warehousing, administrative, storage, handling, and inventory management costs. By 2022, the logistics cost of transporting one tonne of grain from the central region to the ports of Odesa was approximately 30 USD. Following the blockade of seaports and the shift towards western borders, this figure rose to 170-180 USD per tonne. However, companies that implemented in-house logistics solutions and optimised their routes were able to reduce reliance on external carriers and partially mitigate rising costs. For instance, the cost of transporting grain via Ukrzaliznytsia (UZ) increased to 85 per tonne USD, but through route optimisation and the integration of logistics and marketing, some enterprises managed to reduce this cost by 10%-15% (Kopytko, 2023).

The integration of marketing and logistics also enhances company productivity and flexibility. The application of logistics methods can reduce inventory volumes by 30%-70%, cut production costs by 30%, and lower product movement expenses by 20% (The impact of logistics on the efficiency..., n.d.). Route optimisation, process automation, and the reduction of administrative costs contribute to lower overall expenditure and improve production rhythm – factors that are essential for maintaining

market stability and ensuring rapid responses to shifts in demand. Enhancing customer-service quality and response speed is another result of integrating marketing and logistics. Enterprises that successfully align these two functions can react more rapidly to changes in consumer demand while maintaining a high standard of service. Consequently, repeat orders and customer loyalty increase, strengthening the firm's market position. For example, Kernel's Open Agribusiness programme (n.d.), which combines digital services with innovative logistics solutions, has improved the company's reputation and client trust, leading to greater satisfaction and long-term partnerships (Drive the Agribusiness of Ukraine, 2018). Flexibility and adaptability are further benefits of integration: the swift adjustment of production and supply to demand fluctuations enables firms not only to remain competitive but also to capture new market share.

Effective integration also allows companies to harness digital technologies that accelerate order processing, enhance fulfilment accuracy, and boost customer satisfaction. Research indicates that automating logistics processes can increase order-fulfilment speed by 30%-50% and accuracy to 98%-99% (Shkorina, 2024). Digital tools such as Big Data analytics, artificial intelligence (AI), the Internet of Things (IoT), and Global Positioning System (GPS) monitoring provide supply-chain transparency and improve the management of logistics operations.

Overall, the integration of marketing and logistics enables agricultural companies to reduce costs, improve efficiency, enhance service quality, and maintain sustainable development even during times of crisis. This strategic alignment allows companies to strengthen their competitive position, expand into new markets, and secure strong customer loyalty – foundations for long-term growth and resilience.

Assessing the economic effectiveness of marketing and logistics strategies

The integration of marketing and logistics in Ukrainian agricultural enterprises has become a key driver of increased revenues and reduced costs. Through the adoption of modern marketing strategies, agricultural companies have optimised their operations, improved profitability,

and achieved notable economic outcomes – even in the face of war and economic hardship.

Revenue growth has been one of the main benefits of combining marketing and logistics strategies. In 2023, the total revenue of the top ten agricultural companies increased by 35%, reaching 86.57 billion UAH – almost 1.5 times higher than before the onset of the full-scale war. In 2024, the total revenue of Ukrainian agricultural enterprises reached 2.4 trillion UAH, which is 2.6 times greater than in 2023. The highest revenues were recorded in Vinnytsia (292.8 billion UAH), Cherkasy (265.3 billion UAH), and Poltava (216.2 billion UAH) regions (Grain-Trade, 2025). Notably, Myronivska Poultry Farm increased its revenue by 1.5 times, while the Kernel Group grew by 27% compared to 2022. This growth was made possible by rising prices for agricultural raw materials, the recovery of export activity, and the reduction of logistics costs. For certain companies, such as Ptakhokompleks Dniprovskiyi and Zakhidnyi Buh, revenues increased by 30% and 25% respectively, demonstrating the effectiveness of marketing strategies even under challenging conditions (The income of agricultural industry leaders..., 2024).

Cost reduction is another significant achievement following the integration of marketing strategies. The use of digital platforms for transport monitoring and inventory management enables agricultural enterprises to avoid unnecessary expenses, respond quickly to delays, optimise routes, and minimise losses during transport and storage. The adoption of innovative technologies such as GPS tracking, automated inventory management systems, and blockchain has helped reduce loss-related risks and improve control over the conditions in which goods are transported and stored – particularly crucial for perishable products. These measures contributed to a 15%-20% reduction in storage and transportation costs and a 10%-15% decrease in product losses (NISS, 2024).

Inventory optimisation and accurate demand forecasting have also become essential tools for lowering operational costs. Marketing strategies allow agricultural companies to plan production and storage more precisely, which in turn reduces excess inventory and cuts storage expenses. This led to a 10%-15% reduction in

operational costs. In 2023, inventory optimisation and the implementation of digital management tools enabled large agricultural companies to reduce storage and logistics expenses by 12%-18% (NISS, 2024). By 2024, the digitalisation of logistics processes resulted in a significant reduction in export logistics costs across Ukraine's agricultural sector. The cost of delivering agricultural products to the ports of Greater Odesa fell by 33% compared to 2022. The introduction of digital platforms for transport monitoring, route optimisation, and automated document processing allowed agricultural enterprises to manage inventory more effectively, avoid unnecessary expenses, and increase supply chain efficiency (Mind, 2024).

Profitability in the agricultural sector also improved following the implementation of marketing strategies. In 2023, the profitability rate of the sector stood at 14.1% – a considerable decline from 37.8% in 2021. However, 78% of agricultural enterprises remained profitable, with net profits from the cultivation of grain, leguminous, and oilseed crops reaching 45.5 billion UAH (Agroportal, 2024). In 2024, the profitability of rapeseed approached 60%, soya up to 40%, and sunflower up to 30%. This marked growth, compared to 2023, was largely attributed to higher agricultural commodity prices, renewed export activity, and reduced logistics costs. For example, the profitability of sunflower in 2024 reached 45 USD per tonne (compared to a loss in 2023), soya reached 83 USD per tonne (69 USD per tonne in 2023), and rapeseed reached 78 USD per tonne (5 USD per tonne in 2023) (SuperAgronom, 2024). In 2023, most livestock products remained profitable, and in January 2024, the profitability of milk and poultry meat production increased due to lower feed costs. However, the profitability of beef and pork declined due to falling meat prices (Opendatabot, 2024). In 2024, the agricultural sector's revenues grew by 33%, while profits nearly doubled. The total turnover of the sector reached 1.3 trillion UAH, with profits amounting to 127 billion UAH – a significant increase compared to 74 billion UAH in 2023 (Agroreview, 2025). Thus, the integration of marketing strategies in Ukraine's agricultural enterprises not only contributed to increased revenues but

also helped reduce costs, optimise inventory management, improve profitability, and ensure financial resilience under challenging economic conditions. These outcomes confirm that modern marketing approaches are a key factor in ensuring the stability and continued development of Ukraine's agricultural sector.

Logistics strategies are essential tools for enhancing the efficiency of agricultural enterprises, as they enable cost reduction and optimisation of production, transportation, and storage processes. The integration of marketing and logistics helps enterprises maintain sustainable development while remaining competitive amid ongoing economic challenges. Inventory management is one of the key strategies for reducing costs and improving the operational efficiency of agricultural enterprises. By implementing modern inventory management systems, such as automated platforms, it is possible to minimise surplus stock, reduce storage costs, and improve capital turnover. This allows enterprises to lower expenses associated with warehouse maintenance and reduce the risk of product shortages or overstocking (Rakytá et al., 2022).

Transportation of goods is another vital component of logistics strategies. By 2024, the average cost of grain delivery to Ukrainian ports stood at 33 per tonne USD – twice as high as in EU countries and 50% higher than in the USA – due to inefficient logistics schemes and complex documentation. According to transport

companies, inefficiencies in logistics caused Ukrainian agricultural producers to lose up to 20 USD per tonne of product (Agrokebety, n.d.). Following the implementation of optimisation measures – such as cooperation with experienced logistics operators, automation of accounting and planning, and route optimisation – transportation and storage costs decreased by an average of 12%-18%. These improvements significantly reduced fuel and storage expenses, thereby enhancing the overall efficiency of the supply chain (Agrologistics, n.d.).

Storage of products is also a critical component of logistics strategies. The use of automated warehouse management systems not only helps reduce storage costs but also minimises the risk of product losses due to spoilage or damage. Investments in automation and warehouse condition monitoring – such as temperature and humidity control technologies – enable enterprises to maintain product quality and lower processing costs. Table 1 presents the key logistics strategies and their economic viability.

According to the logistics strategies outlined above, optimising inventory, transportation, and storage significantly reduces costs and improves the efficiency of agricultural enterprises. Optimising every stage of the logistics process is essential for maintaining competitiveness in an unstable market. Table 2 presents digital platforms that are actively used to optimise logistics in the agricultural sector.

Table 1. Key logistics strategies and their economic viability

Logistical strategies	Economic viability
Inventory management	Optimising inventory levels helps reduce storage costs, lowers the risk of shortages or overstocking, and improves capital turnover
Transportation	Optimising transport routes reduces the cost of product delivery, improves supply chain efficiency, shortens delivery times, and cuts fuel expenses
Storage	Proper organisation of product storage reduces the risk of losses from spoilage or damage, lowers storage costs, and creates better conditions for incoming deliveries

Source: compiled by the authors based on YC.Market (2023), Agrologistics (n.d.), Agrokebety (n.d.)

Table 2. Digital platforms for optimising logistics in the agricultural sector

Digital platforms	Description
AgroOnline	A comprehensive online platform for automating agricultural business management. It includes warehouse accounting, inventory control, production planning, financial analytics, electronic document management, and agronomic oversight
Uagro	An information platform for a transparent agricultural market that facilitates trade in grain, fertilisers, and other goods. It features a call centre that gathers real-time data on supply and demand

Table 2, Continued

Digital platforms	Description
TopAgro	A software product for managing agricultural enterprises, offering transparency in document flow, financial and economic analysis, crop yield tracking, equipment monitoring, and market pricing
AgriSync	A platform supporting farmers via video communication with technical experts. It assists with resolving production issues and implementing new technologies
AirFarm	A mobile application for farmers that provides analytics on seeding, irrigation, fertiliser application, and weed control. It operates offline and fosters user communities
Agrifinance	An online platform for accessing finance, helping farmers obtain credit and financial services through cooperation with certification bodies and exporters
Agrocontrol	A system for integrated management of agricultural enterprises, including crop harvesting oversight, automated accounting, and minimisation of human error

Source: compiled by the authors based on Stfalcon (2021), Propozitsiya (2022)

Digital platforms play a crucial role in improving the logistics processes of agricultural enterprises. They facilitate the automation of inventory management, transportation, and storage, leading to significant cost reductions and improved efficiency. The use of such platforms enables agricultural businesses to adapt to rapidly changing market conditions while maintaining their competitiveness. The integration of marketing and logistics strategies, alongside the implementation of modern digital platforms, allows agricultural enterprises to reduce costs, enhance operational efficiency, and strengthen their market position. Optimising logistics processes and adopting digital tools have become essential for the development of the agricultural sector, ensuring stable growth and long-term resilience.

The introduction of Automated Transport Systems (ATS) in processing enterprises represents a significant step towards enhancing logistics processes' efficiency and reducing costs. The deployment of advanced technologies such as autonomous transport robots, automated conveyor lines, and route optimisation powered by artificial intelligence can substantially cut expenses related to transportation, storage, and inventory management. In particular, automating transport operations can reduce logistics costs by 10%-20% (Vorecol, n.d.). This is achieved through the elimination of manual handling, the streamlining of material flows, and the reduction of unnecessary product movement, which collectively lower transport costs, minimise waiting times, and help prevent bottlenecks.

In addition to reducing transportation costs, automation also significantly lowers labour expenses. Automated systems reduce the need for manual intervention in the movement, packaging, and sorting of goods, thereby decreasing personnel costs. With the ability to operate continuously, automation increases throughput while reducing the need for overtime and variable labour expenses. This substantially improves the overall operational efficiency of the enterprise, while keeping labour costs low.

Automation also enables the optimisation of warehouse space usage. Reducing the need for excessive storage helps to lower warehousing expenses and enhances the efficiency of existing space utilisation. Synchronising transportation with production requirements, along with the use of automated high-bay warehouses and real-time inventory monitoring systems, contributes to lower storage costs by optimising inventory levels and minimising risks associated with overstocking or stockouts (MyCarrier, 2024).

The integration of technologies for real-time monitoring, predictive maintenance, and route optimisation reduces unexpected delays and enhances transport reliability. The implementation of these technologies improves the accuracy of demand forecasting, which in turn lowers inventory holding costs and improves delivery timeliness. Moreover, real-time monitoring and the optimisation of logistics processes reduce the capital required for maintaining large inventories, thereby decreasing financial expenditure. Table 3 outlines the key performance indicators for the implementation of automated transport systems in processing enterprises.

Table 3. Key performance indicators for the implementation of ATS in processing enterprises

Indicator	Reduction in costs (%)
Transportation costs	10-20
Storage costs	10-15
Labour costs	40
Increase in productivity	25
Inventory cost reduction	20

Source: Vorecol (n.d.)

The implementation of automated transport systems in processing enterprises enables a reduction in transportation, storage, inventory management, and labour costs. These economic benefits contribute to increased productivity and lower operational expenses, enhancing the competitiveness of enterprises in the market. The most notable reduction is observed in labour costs – which was observed by up to 40% – reflecting a significant decrease in the need for manual labour due to the automation of in-plant logistics and loading/unloading operations. At the same time, transportation costs are reduced by 10%-20%, largely owing to more efficient route planning, decreased downtime, and the integration of ATS with supply chain management systems. Reductions in storage costs (10%-15%) and inventory costs (20%) indicate improvements in demand forecasting accuracy and more flexible warehouse resource management. A 25% increase in productivity represents a generalised indicator of the comprehensive impact of ATS, encompassing faster product handling, reduced idle time, and greater efficiency throughout the operational cycle. Taken together, these indicators confirm that the implementation of ATS not only reduces costs but also enhances the competitiveness of enterprises in the processing industry. In 2023-2024, the processing enterprise Odeskyi Food Plant implemented an automated transport system to facilitate the movement of raw materials and finished products between production lines and the warehouse. This enabled a 28% reduction in cargo movement time within the enterprise, a 19% decrease in in-plant logistics costs, and a 35% reduction in equipment downtime caused by transport delays. Moreover, the implementation of ATS contributed to improved occupational safety by reducing the number of accidents (Logistics in Ukraine, 2024).

Thus, the introduction of automated transport systems in processing enterprises facilitates cost reduction, improved efficiency, and enhanced profitability. Automation not only cuts expenses but also increases organisational flexibility and the ability to swiftly adapt to market changes.

Recommendations for improving marketing and logistics processes

Marketing and logistics processes in agricultural enterprises are key components that directly affect their efficiency and economic stability. In the face of volatile market conditions, rapid shifts in supply and demand, and high logistics costs, effective management of marketing and logistics operations becomes a critical success factor for agribusinesses.

Financial risks associated with instability in the agricultural commodity market can significantly impact enterprises. Rising raw material prices, currency fluctuations, and seasonal changes in supply and demand may lead to serious financial challenges. To mitigate these risks, agricultural enterprises are advised to adopt hedging strategies and financial planning measures. These approaches help minimise exposure to price volatility in agricultural commodities. The use of futures contracts and other hedging instruments allows enterprises to lock in prices for future delivery, thereby ensuring greater income stability. It is also advisable to invest in analytical platforms for demand forecasting and pricing. The use of systems that automatically analyse data on demand, supply, weather conditions, and market trends enables businesses to prepare in advance for changes in prices and consumer demand, thereby reducing financial risks.

Risk diversification is another important tool for minimising financial losses. A key strategy in this context is the diversification of

marketing and logistics approaches. This may include working with multiple suppliers, pursuing export strategies targeting different markets, and applying various marketing tools. Diversification helps reduce dependence on a single income source or sales market, thereby enhancing financial stability.

Effective logistics process management is one of the critical factors influencing the cost structure of agricultural enterprises. Given the high costs associated with transportation and storage, particular attention must be paid to optimising these processes. Below are several recommendations to improve logistics efficiency. The use of automated inventory management systems significantly reduces storage costs, as these systems support more accurate planning of production volumes and deliveries while also minimising human error. The integration of digital platforms for inventory and transport management helps reduce manual mistakes, improve forecasting accuracy, and avoid overstocking or stockouts. This, in turn, lowers the cost of storage and transportation by enabling more efficient planning of production volumes and delivery schedules.

Route optimisation is another key measure for reducing transportation costs. With technologies such as GPS tracking, businesses can streamline delivery routes, leading to savings on fuel and reduced delivery times. Optimisation also minimises unnecessary movements and lowers overall transport expenses. The use of innovative technologies in product storage can significantly reduce storage costs, particularly for perishable goods. Automated warehouses and real-time monitoring of storage conditions

help lower expenses while ensuring better quality preservation.

Integrating marketing and logistics strategies enhances the profitability of agricultural enterprises by reducing costs and improving coordination between marketing and logistics departments. Combining marketing tools with logistics processes enables companies to respond more effectively to fluctuations in demand and ensure timely delivery. This improves customer satisfaction and increases repeat orders, thereby contributing to revenue growth.

The development of strategic partnerships with suppliers and customers helps optimise supply chains, reduce expenses, and improve service quality. Such partnerships benefit both parties by lowering operational costs and boosting competitiveness. The use of digital platforms for marketing campaign management enables agricultural enterprises to better target consumer needs, leading to more efficient marketing planning and reduced advertising expenditure.

The implementation of effective marketing and logistics strategies in agricultural enterprises is a key factor in reducing costs, improving efficiency, and increasing profitability. Optimising logistics routes, introducing automated inventory management systems, and integrating these with marketing strategies can deliver significant financial benefits, supporting the stable development of enterprises in a competitive market. Data illustrating the impact of such technologies on costs and operational efficiency are presented in Table 4, which outlines the main statistical indicators related to cost reductions and efficiency gains following the implementation of new logistics systems.

Table 4. Statistical data on the implementation of innovative logistics technologies in agricultural enterprises

Technology	Reduction in costs (%)	Increase in efficiency	Implementation period
Automated inventory management systems	10-15	Improved stock forecasting accuracy	6-12 months
Logistics route optimisation	10-12	Reduced fuel costs, shorter delivery times	3-6 months
Automated warehousing	12-18	Lower storage costs	12-18 months

Source: compiled by the authors based on I. Zrybnieva (2024)

Table 4 illustrates the impact of implementing innovative logistics technologies on

the efficiency of agricultural enterprises. The greatest cost reduction is achieved through

automated warehousing – up to 18%, highlighting the high potential of this technology for lowering storage expenses. Meanwhile, automated inventory management systems can reduce costs by 10%-15% by improving forecasting accuracy and reducing excess stock. Although logistics route optimisation demonstrates a slightly lower level of savings (10%-12%), it delivers a significant reduction in fuel costs and delivery times – crucial for enterprises with large-scale transport operations. In terms of implementation periods, route optimisation solutions are the quickest to deploy (3-6 months), whereas automated warehouses require the longest (12-18 months) due to the complexity of technical and infrastructure requirements. Thus, automated warehousing offers the highest potential for cost savings, while route optimisation stands out in terms of implementation speed.

The adoption of effective marketing and logistics strategies in agricultural enterprises is a key factor in reducing costs, enhancing efficiency, and increasing profitability. Optimising logistics routes, implementing automated inventory management systems, and integrating these processes with marketing strategies enable enterprises to achieve substantial financial benefits, supporting their stable development in a competitive market.

DISCUSSION

Digital technologies have become indispensable tools for improving the efficiency and resilience of supply chains in the contemporary agricultural sector. By integrating marketing and logistics through digital platforms, agricultural enterprises can reduce costs, enhance resource management, and strengthen their competitiveness. Adapting to new market conditions, therefore, demands the adoption of innovative strategies and technologies that optimise operational processes. The analysis confirmed the pivotal role of logistics in lowering costs and boosting the efficiency of agricultural enterprises, aligning with the findings of Y. Li (2024). However, whereas Y. Li's research highlighted e-commerce as a means of supply-chain integration, the present study concentrated on the interaction between logistics and marketing as a driver of Ukrainian agricultural enterprises' economic

performance. In addition, Y. Li developed econometric models to assess the impact of logistics on economic growth, while the current study formulated practical recommendations for enterprises operating with limited resources.

In the study by D.H.S. Keefe *et al.* (2024), which focused on the digitalisation of agricultural supply chains in Association of Southeast Asian Nations countries, particular attention was given to the implementation of IoT and blockchain technologies to enhance resilience and efficiency. In contrast, the present research examined the potential for adopting similar technologies within the local context of Ukraine's agricultural market and its specific challenges. The research of M. Sauvagerd *et al.* (2024) explored global trends in platformisation, with an emphasis on processes of oligopolisation and interactions between agricultural and technology corporations. By comparison, this study concentrated on the use of digital platforms by regional agricultural enterprises to reduce costs and improve competitiveness. There were also thematic intersections with the research by R.R. Panigrahi *et al.* (2024), which addressed supply chain digitalisation with a focus on sustainable development and the needs of small and medium-sized enterprises. While R.R. Panigrahi *et al.* highlighted barriers such as financing and infrastructure, the present study focused on practical approaches to integrating marketing and logistics in order to reduce costs and improve efficiency in the Ukrainian context.

A comparison with the study by N. Wei *et al.* (2022) revealed a shared approach to the use of digital technologies for enhancing the efficiency of agricultural supply chains. Both studies confirmed the importance of logistics as a tool for reducing costs. However, while N. Wei *et al.* focused primarily on addressing the challenges of high logistics costs and inadequate infrastructure in China – particularly the improvement of cold chain systems to preserve product quality – this study explored logistics in conjunction with marketing. The emphasis here was placed on the integration of marketing and logistics solutions to optimise costs for Ukrainian agricultural enterprises, applying practical strategies tailored to the specifics of the domestic market.

The study by M. Yuan *et al.* (2024) also shared the central idea of integrating logistics and marketing to improve the efficiency of the agricultural sector. However, the conceptual approaches differed. In M. Yuan *et al.*, the focus was on employing blockchain technologies and the Internet of Things (IoT) to ensure resilience and transparency in global agricultural supply chains. In contrast, the present study focused primarily on local Ukrainian enterprises operating under resource constraints. The primary objective here was to optimise costs and enhance operational efficiency through the implementation of integrated digital solutions. This study and that of G. Zhao *et al.* (2024a) shared a common emphasis on digital technologies for improving the resilience and efficiency of agricultural supply chains. Both articles highlighted the importance of adopting advanced technologies such as IoT, blockchain, and digital platforms to reduce costs and increase transparency in agri-supply systems. The study by G. Zhao *et al.* (2024b) placed greater focus on analysing the barriers to implementing Industry 4.0 technologies, particularly in developing countries, where challenges such as limited funding, inadequate infrastructure, and low levels of digital literacy prevail. It addressed the difficulties agricultural enterprises face when adopting innovative technologies on a global scale. In contrast, M. Oklander *et al.* (2024) explored the economic dimensions of implementing Industry 4.0 marketing technologies within Ukraine's agroindustrial sector, with an emphasis on their impact on business efficiency and the sector's adaptation to digital transformation. This study also acknowledged the broader challenges faced by agricultural enterprises during the global transition to innovation-driven practices.

This study, along with the research by N. Kanellos *et al.* (2024), emphasised the importance of digital technologies in enhancing the efficiency of agricultural supply chains, with a particular focus on marketing strategies for cost reduction. However, while N. Kanellos *et al.* concentrated more on optimising advertising expenditure through web data analysis; the present study focused on the integration of marketing and logistics to optimise costs in Ukraine's

agricultural sector. Both studies underlined the importance of efficient resource utilisation, though their approaches to technology application and research contexts differed significantly. Similarly, the study by M. Puma-Flores & I.M. Rosa-Díaz (2024) recognised the value of marketing strategies in improving the performance of agricultural companies. However, their emphasis was placed on tools such as participation in international exhibitions, brand presence, and product certification to enhance reputation and facilitate access to foreign markets. In contrast, this study considered marketing and logistics as an integrated system aimed at reducing costs within the domestic market and improving the operational efficiency of large agricultural enterprises in Ukraine.

The research conducted by L. Nguyen-Thi-Thuy *et al.* (2024) shared a similar objective with the present study – improving the efficiency of agricultural supply chains. However, their focus was on the technical efficiency of agro-processing enterprises, highlighting the role of political support and infrastructure development in Vietnam. In contrast, this study was more concerned with the application of digital technologies to optimise agricultural supply chains in Ukraine through the integration of marketing and logistics. Both studies emphasised the importance of government support; however, the present research placed greater focus on technological innovation rather than on technical or political aspects.

The study by E. Begimkulov & D. Darr (2023) concentrated on scaling solutions for small and medium-sized enterprises in the agri-food sector. In contrast, the current study targeted large agricultural enterprises, demonstrating how the integration of marketing and logistics strategies can lead to systematic cost savings and increased productivity. Both E. Nnko *et al.* (2024) and this study shared a common emphasis on the use of digital technologies to improve the efficiency of agricultural enterprises. Each highlighted the importance of integrating marketing and logistics to reduce costs. However, while E. Nnko *et al.* focused on the resilience of agricultural supply chains in the context of climate change, the current study placed greater emphasis on economic indicators and the financial sustainability

of enterprises. E. Nnko *et al.* examined the social and environmental dimensions, whereas this research focused on cost optimisation through advanced technologies.

Digital technologies are a vital driver of transformation in agricultural supply chains, as they support cost reduction, enhance operational efficiency, improve information exchange, and enable more effective logistical planning. The use of marketing-logistics strategies that integrate cutting-edge technologies allows enterprises not only to optimise costs but also to enhance their adaptability in an increasingly volatile market and competitive environment. The integration of such technologies is key to achieving sustainable development, ensuring flexibility, and strengthening the competitiveness of the agricultural sector in a global context.

CONCLUSIONS

The study demonstrated that the integration of marketing and logistics strategies in agricultural enterprises is a key factor in enhancing their competitiveness amid shifting economic conditions and global challenges. According to the data obtained, effective management of logistical processes and the application of targeted marketing strategies can significantly reduce costs, improve operational efficiency, and ensure financial stability.

In 2024, the total revenue of agricultural enterprises in Ukraine reached 2.4 trillion UAH, which is 2.6 times higher than in 2023. Notably, the company Myronivska Poultry Farm increased its revenue by 1.5 times, while the Kernel group of companies saw a 27% rise compared to 2022. These results were driven by rising prices for agricultural raw materials, the recovery of export activity, and a reduction in logistics costs. For example, the cost of transporting grain fell by 10%-15% following the optimisation of logistics routes, which helped reduce expenses related to both transportation and storage. Furthermore, the introduction of digital platforms for inventory and transport management enabled agricultural enterprises to lower storage and transportation costs by 12%-18%. This has helped reduce the risk of product losses due to improper storage or

delays in delivery. For example, automated inventory management systems reduce storage costs by 10%-15% and improve the accuracy of stock forecasting. The use of GPS technologies to optimise logistics routes has lowered grain transportation costs from 170-180 USD to 85 USD per tonne, resulting in an overall reduction of 10%-15% in transport expenses.

Analysis also showed that the profitability of agricultural enterprises increased following the integration of marketing strategies. In 2023, the profitability of the agricultural sector stood at 14.1%, a significant decline compared to 2021 (37.8%), yet the majority of enterprises (78%) remained profitable. A marked increase in profitability was recorded in the production of oilseed crops such as rapeseed and soybeans. For instance, rapeseed profitability reached 60% in 2024, a substantial rise compared to previous years. In 2024, agricultural revenues grew by 33%, with profits nearly doubling. The total business turnover reached 1.3 trillion UAH, and profits amounted to 127 billion UAH – significantly higher than 74 billion UAH in 2023. The integration of digital technologies into logistics processes was another key factor in reducing operational costs. The automation of workflows and the use of enterprise management platforms enabled a reduction in transport and storage expenses by 12%-18%. These innovations also improve product quality and reduce the risk of losses during transportation and storage – particularly important for goods with limited shelf life. Through the digitalisation of logistics processes, Ukraine's agricultural sector significantly reduced export logistics costs in 2024. Compared to 2022, the cost of delivering agricultural products to the ports of Greater Odesa fell by 33%. The integration of marketing and logistics processes has enabled enterprises not only to cut costs but also to boost productivity – particularly through the automation of inventory management and logistics routing. As a result, transport costs decreased by 10%-20%, while labour costs fell by 40%.

Future research prospects include a deeper exploration of the impact of digital technologies on the integration of marketing and logistics processes, as well as an analysis of how

agricultural enterprises adapt to changes in international markets amid global economic challenges. The limitations of the study lie in the lack of detailed analysis of the role of government support in the effectiveness of marketing-logistics strategies and the limited number of concrete examples from agricultural enterprises operating under wartime conditions.

None.

ACKNOWLEDGEMENTS

None.

FUNDING

None.

CONFLICT OF INTEREST

REFERENCES

- [1] Agrifinance Online. (n.d.). Retrieved from <https://latifundist.com/kompanii/1761-agrifinance-online>.
- [2] AgriSync. (n.d.). *Imagine farmlands that combines IAP and IoT to revolutionize agricultural practices*. Retrieved from <https://www.agrisyncer.com/>.
- [3] Agrokebety. (n.d.). *Optimization of transport logistics in Ukraine*. Retrieved from <https://blog.agrokebety.com/optymizatsiya-transportnoyi-lohistyky-v-ukrayini>.
- [4] Agrologistics. (n.d.). *What are the features of logistics in agricultural business that should be taken into account?* Retrieved from <https://agrologistyka.in.ua/iaki-osoblyvosti-lohistyky-v-ahrarному-biznesi-varto-vrahovuvaty/>.
- [5] AgroOnline. (n.d.). Retrieved from <https://latifundist.com/kompanii/1267-agroonline>.
- [6] Agroportal. (2024). *78% of Ukrainian agricultural enterprises became profitable last year*. Retrieved from <https://agroportal.ua/news/finansy/pributkovimi-torik-stali-78-ukrajinskih-agropidpriyemstv>.
- [7] Agroreview. (2025). *Profits of agricultural companies in Ukraine almost doubled in 2024*. Retrieved from <https://agroreview.com/top/prybutky-agrokompanij-ukrayini-zrosly-majzhe/>.
- [8] AirFarm. (n.d.). Retrieved from <https://midbar.com/airfarm/>.
- [9] Begimkulov, E., & Darr, D. (2023). Scaling strategies and mechanisms in small and medium enterprises in the agri-food sector: A systematic literature review. *Frontiers in Sustainable Food Systems*, 7, article number 1169948. doi: 10.3389/fsufs.2023.1169948.
- [10] Danylenko, V., Borovyk, T., & Mayboroda, O. (2024). Features of marketing and logistics in the infrastructure provision of external economic activities of agricultural enterprises. *Efficient Economy*, 11. doi: 10.32702/2307.2105.2024.11.49.
- [11] Drive the agribusiness of Ukraine everyday. (2018). Retrieved from https://www.kernel.ua/wp-content/uploads/2019/03/NKK_TOP-podij-2018-roku.pdf.
- [12] GrainTrade. (2025). *In 2024, the profits of the Ukrainian agricultural sector exceeded pre-war levels*. Retrieved from <https://graintrade.com.ua/novosti/u-2024-r-pributok-ukrainskogo-agrarnogo-sektoru-perevishiv-dovoenni-pokazniki.html>.
- [13] Haji Ali Beigi, M. (2021). *External knowledge diversity, competition intensity, and innovation performance in logistics: Implications for less versus more innovative industries*. *Ilmenau Economics Discussion Papers*, 27(157).
- [14] Kanellos, N., Karountzos, P., Giannakopoulos, N.T., Terzi, M.C., & Sakas, D.P. (2024). Digital marketing strategies and profitability in the agri-food industry: Resource efficiency and value chains. *Sustainability*, 16(14), article number 5889. doi: 10.3390/su16145889.
- [15] Keefe, D.H.S., Jang, H., & Sur, J.M. (2024). Digitalization for agricultural supply chains resilience: Perspectives from Indonesia as an ASEAN member. *The Asian Journal of Shipping and Logistics*, 40(4), 180-186. doi: 10.1016/j.ajsl.2024.09.001.
- [16] Khedr, A.M., & Rani, S. (2024). Enhancing supply chain management with deep learning and machine learning techniques: A review. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(4), article number 100379. doi: 10.1016/j.joitmc.2024.100379.

- [17] Kopytko, O.V. (2024). Marketing and logistics approach to ensuring the effective functioning of wholesale agricultural and food markets. In *European integration prospects for the development of the agricultural economy of Ukraine* (pp. 382-408). Lviv: Stepan Gzhyskyi National University of Veterinary Medicine and Biotechnologies of Lviv. doi: [10.32782/978-966-2384-21-5-10](https://doi.org/10.32782/978-966-2384-21-5-10).
- [18] Korol, Y., & Pysmak, V. (2024). Development of marketing potential of agricultural enterprises. *Modeling the Development of the Economic Systems*, 3, 394-400. doi: [10.31891/mdes/2024-13-56](https://doi.org/10.31891/mdes/2024-13-56).
- [19] Köylüoğlu, A.S., Tosun, P., & Doğan, M. (2021). [The impact of marketing on the business performance of companies: A literature review](https://doi.org/10.31891/mdes/2024-13-56). *Journal of Social Sciences of Muş Alparslan University*, 9(1), 63-74.
- [20] Kuzmenko, O. (2024). The role of marketing in agricultural enterprise management. *Society. Economy. Digitalization*, 2(2), 22-33. doi: [10.31379/sed.2.2.2024.11](https://doi.org/10.31379/sed.2.2.2024.11).
- [21] Kyfyak, O., Kyfyak, V., Kindzerskyi, V., Kovbas, H., Finagina, O., & Todoriuk, S. (2023). The role of digital marketing and logistics in the optimization of business processes of agricultural enterprises. *Management Theory and Studies for Rural Business and Infrastructure Development*, 45(3), 213-220. doi: [10.15544/mts.2023.21](https://doi.org/10.15544/mts.2023.21).
- [22] Li, X., & Chen, F. (2021). Impact of logistics development on economic growth: An empirical research from Guangdong Province in China. *Complexity*, 2021, article number 9950935. doi: [10.1155/2021/9950935](https://doi.org/10.1155/2021/9950935).
- [23] Li, Y. (2024). Optimization of digital marketing strategies for agricultural product circulation in the e-commerce supply chain. *Computer-Aided Design and Applications*, 24(S4), 91-102. doi: [10.14733/cadaps.2024.S3.91-102](https://doi.org/10.14733/cadaps.2024.S3.91-102).
- [24] Logistics in Ukraine. (2024). *Automated vehicles: A review of the current situation*. Retrieved from <https://surli.cc/sdeqcg>.
- [25] Makarenko, N., & Vovchok, S. (2020). Optimization of logistics solutions to ensure strategic management of agricultural enterprises. *Sumy State University Bulletin. Series "Economics"*, 4, 65-75. doi: [10.21272/1817-9215.2020.4-8](https://doi.org/10.21272/1817-9215.2020.4-8).
- [26] Mind. (2024). *The cost of export agro-logistics to the ports of Greater Odesa decreased by one third – Ministry of Agrarian Policy*. Retrieved from <https://mind.ua/news/20270658-vartist-eksportnoyi-agrologistiki-do-portiv-velikoyi-odesi-zmenshilasya-na-tretinu-minagropolitiki>.
- [27] Movchanyuk, A. (2023). Features of marketing activity management of enterprises of the agricultural sector of Ukraine in the conditions of martial law. *Economy and Society*, 54. doi: [10.32782/2524-0072/2023-54-27](https://doi.org/10.32782/2524-0072/2023-54-27).
- [28] MyCarrier. (2024). *Logistics revolution: Cost savings through IoT*. Retrieved from <https://mycarrier.telkom.co.id/en/article/revolusi-logistik-penghematan-biaya-melalui-iot>.
- [29] Naruetharadhol, P., Ketkaew, C., & Aekthanate Srisathan, W. (2022). Innovative price-setting approaches to high-value products: A pricing method for agribusiness farmers. *Heliyon*, 8(9), article number e10726. doi: [10.1016/j.heliyon.2022.e10726](https://doi.org/10.1016/j.heliyon.2022.e10726).
- [30] Nguyen-Thi-Thuy, L., Ngo-Tuan, N., To-The, N., Hoang-Duc, C., Nguyen-Thu, H., Dao-Viet, A., Do-Hoang, P., & Nguyen-Thi-Lan, H. (2024). Unleashing the association between technical efficiency of agro-processing industry and economic growth: A pathway towards development sustainability. *Discover Sustainability*, 5, article number 69. doi: [10.1007/s43621-024-00248-9](https://doi.org/10.1007/s43621-024-00248-9).
- [31] NISS. (2024). *The agricultural sector of Ukraine in 2023: Components of sustainability, problems and future tasks*. Retrieved from <https://niss.gov.ua/doslidzhennya/ekonomika/ahraryy-sektor-ukrayiny-u-2023-rotsi-skladovi-stiykosti-problemy-ta>.
- [32] Nnko, E., Ismail, I.J., & John, E. (2024). Learning orientation and response of micro and small food agro-processing enterprises to the customers' needs in Tanzania. *Cogent Business & Management*, 11(1), article number 2334058. doi: [10.1080/23311975.2024.2334058](https://doi.org/10.1080/23311975.2024.2334058).

- [33] Oklander, M., Yashkina, O., Petryshchenko, N., Karandin, O., & Yevdokimova, O. (2024). Economic aspects of Industry 4.0 marketing technologies implementation in the agricultural sector of Ukraine. *Ekonomika APK*, 31(4), 55-66. doi: [10.32317/ekon.apk/4.2024.55](https://doi.org/10.32317/ekon.apk/4.2024.55).
- [34] Open Agribusiness. (n.d.). *Developing the potential of agricultural producers in Ukraine*. Retrieved from <https://openagribusiness.kernel.ua/>.
- [35] Opendatabot. (2024). *The Ministry of Agrarian Policy has given a forecast for the year regarding the profitability of crop and livestock production*. Retrieved from <https://www.ukrinform.ua/rubric-economy/3835593-u-minagropolitiki-dali-prognoz-na-rik-sodo-rentabelnosti-roslinnictva-i-tvarinnictva.html>.
- [36] Panigrahi, R.R., Singh, N., & Muduli, K. (2024). Digital technologies and food supply chain: A scoping view from 2010 to 2024. *International Journal of Industrial Engineering and Operations Management*, 7(2), 150-174. doi: [10.1108/IJIEOM-05-2024-0030](https://doi.org/10.1108/IJIEOM-05-2024-0030).
- [37] Pavlyshyn, S., & Melnychenko, V. (2024). Marketing logistics support for the export of cereals from Ukraine under the conditions of martial state. *Ukrainian Journal of Applied Economics and Technology*, 9(2), 189-196. doi: [10.36887/2415-8453-2024-2-32](https://doi.org/10.36887/2415-8453-2024-2-32).
- [38] Propozitsiya. (2022). *IT solutions for the agricultural sector*. Retrieved from <https://propozitsiya.com.ua/it-rishennya-dlya-agrarnoyi-sfery>.
- [39] Puma-Flores, M., & Rosa-Díaz, I.M. (2024). Promoting sustainable agri-food systems through sustainability and responsible marketing: The case of Peruvian companies at international trade shows. *Journal of Cleaner Production*, 448(5), article number 141568. doi: [10.1016/j.jclepro.2024.141568](https://doi.org/10.1016/j.jclepro.2024.141568).
- [40] Rakyta, M., Bubenik, P., Binasova, V., Micieta, B., & Staffenova, K. (2022). Advanced logistics strategy of a company to create sustainable development in the industrial area. *Sustainability*, 14(19), article number 12659. doi: [10.3390/su141912659](https://doi.org/10.3390/su141912659).
- [41] Sauvagerd, M., Mayer, M., & Hartmann, M. (2024). Digital platforms in the agricultural sector: Dynamics of oligopolistic platformisation. *Big Data & Society*, 11(4). doi: [10.1177/20539517241306365](https://doi.org/10.1177/20539517241306365).
- [42] Serov, V. (2024). Analysis of the effectiveness of marketing measures of agricultural enterprises in the process of entering global markets. *Ukrainian Journal of Applied Economics and Technology*, 9(3), 373-378. doi: [10.36887/2415-8453-2024-3-67](https://doi.org/10.36887/2415-8453-2024-3-67).
- [43] Shkorina, I. (2024). Marketing of logistics services in the context of global economic trends. *Actual Problems of Economics*, 6(276), 228-239. doi: [10.32752/1993-6788-2024-1-276-228-239](https://doi.org/10.32752/1993-6788-2024-1-276-228-239).
- [44] Stfalcon. (2021). *Digitalization of agriculture and smart farming – the objective reality of today*. Retrieved from <https://stfalcon.com/uk/blog/post/agriculture-digitization>.
- [45] SuperAgronom. (2024). *Oilseed profitability is increasing, grain crops will continue to be unprofitable – Minagro*. Retrieved from <https://superagronom.com/news/19097-rentabelnist-oliynih-kultur-pidvischuyetsya-zernovi-y-nadali-budut-zbitkovimi--minagro>.
- [46] The impact of logistics on the efficiency and competitiveness of enterprises. (n.d.). Retrieved from https://stud.com.ua/41353/logistika/vpliv_logistiki_efektivnist_konkurentospromozhnist_pidpriemstv#google_vignette.
- [47] The income of agricultural industry leaders increased by 35% in 2023. (2024). Retrieved from <https://opendatabot.ua/analytics/index-agriculture-2024>.
- [48] TopAgro. (n.d.). Retrieved from <http://top-agro.com.ua/>.
- [49] Uagro. (n.d.). Retrieved from <https://uagro.trade/>.
- [50] Vorecol. (n.d.). *Integrating IoT devices into supply chain optimization software*. Retrieved from <https://vorecol.com/blogs/blog-integrating-iot-devices-into-supply-chain-optimization-software-172544>.
- [51] Wei, N., Chen, D., & Wang, D. (2022). Improving strategy of agricultural products logistics on the basis of supply chain. *Proceedings of the 2021 international conference on smart technologies and systems for Internet of Things (STS-IOT 2021)*, 2, 44-49. doi: [10.2991/ahis.k.220601.010](https://doi.org/10.2991/ahis.k.220601.010).

- [52] YC.Market. (2023). *Agro-industrial complex of Ukraine, review of niches and current realities*. Retrieved from <https://blog.youcontrol.market/aghropromislovii-komplikatsii-ukrayini-oghliad-nishi-ta-rieliyi-soghodiennia/>.
- [53] Yuan, M., Hu, H., Xue, M., & Li, J. (2024). Framework for resilience strategies in agricultural supply chain: Assessment in the era of climate change. *Frontiers in Sustainable Food Systems*, 8, article number 1444910. doi: [10.3389/fsufs.2024.1444910](https://doi.org/10.3389/fsufs.2024.1444910).
- [54] Zhao, G., Chen, X., Jones, P., Liu, S., Lopez, C., Leoni, L., & Dennehy, D. (2024a). Understanding the drivers of Industry 4.0 technologies to enhance supply chain sustainability: Insights from the agri-food industry. *Information Systems Frontiers*. doi: [10.1007/s10796-024-10539-1](https://doi.org/10.1007/s10796-024-10539-1).
- [55] Zhao, G., Ye, C., Dennehy, D., Liu, S., Harfouche, A., & Olan, F. (2024b). Analysis of barriers to adopting Industry 4.0 to achieve agri-food supply chain sustainability: A group-based fuzzy analytic hierarchy process. *Business Strategy and the Environment*, 33(8), 8559-8586. doi: [10.1002/bse.3928](https://doi.org/10.1002/bse.3928).
- [56] Zrybnieva, I. (2024). Analysis of the newest technologies, methods and approaches in logistics, their impact on supply chain optimization and increase of productivity. *Economy and Society*, 60. doi: [10.32782/2524-0072/2024-60-60](https://doi.org/10.32782/2524-0072/2024-60-60).
- [57] Zutsara, F. (2022). Supply chain management in the agricultural industry. *Journal La Lifesci*, 2(6), 18-24. doi: [10.37899/journallalifesci.v2i6.539](https://doi.org/10.37899/journallalifesci.v2i6.539).

Валерій Бондаренко

Доктор економічних наук, професор
Національний університет біоресурсів і природокористування України
03041, вул. Героїв Оборони, 15, м. Київ, Україна
<https://orcid.org/0000-0002-5929-7158>

Віолета Гераймович

Кандидат економічних наук, доцент
Національний університет біоресурсів і природокористування України
03041, вул. Героїв Оборони, 15, м. Київ, Україна
<https://orcid.org/0000-0002-4721-5100>

Юлія Гаврилюк

Кандидат економічних наук
Національний університет біоресурсів і природокористування України
03041, вул. Героїв Оборони, 15, м. Київ, Україна
<https://orcid.org/0000-0002-0774-3494>

Олена Барілович

Кандидат економічних наук, доцент
Національний університет біоресурсів і природокористування України
03041, вул. Героїв Оборони, 15, м. Київ, Україна
<https://orcid.org/0000-0002-1732-3637>

Алла Рябчик

Кандидат економічних наук, доцент
Національний університет біоресурсів і природокористування України
03041, вул. Героїв Оборони, 15, м. Київ, Україна
<https://orcid.org/0000-0001-6290-3609>

Маркетингово-логістичне забезпечення підприємств аграрного сектору і переробних підприємств

Анотація. Метою статті було вивчення впливу маркетингово-логістичних стратегій на економічні показники аграрних підприємств в Україні, зокрема на їх конкурентоспроможність, оптимізацію витрат та зростання доходів. Для досягнення цієї мети використовувалася методологія, що включала аналіз економічних аспектів маркетингово-логістичного забезпечення аграрних підприємств, використовуючи наукові публікації, галузеві звіти та практичні дані. Для оцінки ефективності застосовувалися кількісні та якісні методи дослідження, зокрема аналіз фінансових показників підприємств, дослідження логістичних та маркетингових стратегій, а також аналіз впливу цифрових технологій на ефективність бізнес-процесів. Результати дослідження показали, що інтеграція маркетингово-логістичних стратегій дозволила аграрним підприємствам значно знизити витрати, зокрема на транспортування і зберігання продукції. Впровадження цифрових платформ для управління запасами та оптимізації транспортування призвело до скорочення витрат на 12-18 %. У 2024 році загальний дохід аграрних підприємств України досяг 2,4 трлн грн, що перевищило показник 2023 року у 2,6 рази. Найвищі обсяги доходів зафіксовано у Вінницькій (292,8 млрд грн), Черкаській (265,3 млрд грн) та Полтавській (216,2 млрд грн) областях. Впровадження автоматизованих транспортних систем знизило витрати на транспортування на 10-20 %, а застосування Global Positioning

System-моніторингу для оптимізації маршрутів призвело до зниження витрат на паливо на 15 %. Отримані результати підтвердили, що ефективне використання маркетингово-логістичних стратегій стало ключовим чинником для забезпечення конкурентоспроможності аграрних підприємств. Інтеграція маркетингу і логістики дозволила знижувати витрати, покращувати ефективність операцій і забезпечувати фінансову стійкість підприємств в умовах глобальних економічних викликів. Впровадження цифрових інструментів і автоматизація процесів стали важливими факторами для досягнення високої продуктивності та зменшення витрат. Практичне значення дослідження полягає в розробці рекомендацій щодо оптимізації маркетингово-логістичних процесів аграрних підприємств, що дозволяє знизити витрати, підвищити ефективність управління та забезпечити фінансову стабільність у умовах змінюваних ринкових умов

Ключові слова: конкурентоспроможність; інновації; оптимізація запасів; транспортування; прогнозування попиту