The Role of Digital Logistics in the Formation of Financial and Economic Security Systems of Industrial Enterprises

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Abstract

In the article, the impact of digital technologies (DT) on the transformation of logistics system of industrial enterprises (IE) and the role of this system in the formation of the financial and economic security (FES) system of these enterprises is considered. First, the essence of FES was investigated, its characteristic features for the operation of IE were specified. This was implemented within the study of the FES system, definition of its components and support spheres. The essence of logistics was also considered and its role in functioning of IE was substantiated. Based on results of the study, a scheme of this logistics system was produced. It was established that in current conditions, logistics system of the IE is transformed due the DT impact. This contributed to emergence of the digital logistics concept, which essence was investigated in the article. Features of using digital logistics by IE were also specified, the logistics system and its main advantages to ensure effective operation of IE were determined. The detailed consideration of digitalization features of the logistics system of these enterprises allowed us to formulate directions to stimulate further digital transformation of this system.

Keywords: Logistics, Digital Logistics, Financial and Economic Security, Industrial Enterprise, Logistic System, Transport Logistics, Warehouse Logistics, Digitalization, Digital Technologies, Financial Stability.

Introduction

Development of IE in the national economy system is one of the most important components to ensure its stable and long-term development. In modern conditions, IE are faced with many threats and risks that complicate their work. Among them, the following should be highlighted: significant level of competition in the world markets for goods and products, instability of economic environment, difficulties to ensure stable supply of necessary components and other products to provide for uninterrupted operation. The particularly important factor in supporting their operation is available financial resources that IE need to ensure stable operation and, in particular, implementation of innovative

development, and involvement of modern DT to increase their own efficiency to increase competitiveness and operational effectiveness.

Industrial enterprises today are forced to attract innovative technologies, including information and communication technologies, to increase efficiency of their own work, optimize current costs. Using digital innovations allows these enterprises obtaining significant advantages both in production of goods and in the management system organisation. These innovations play an important role in all subsystems of IE, including the logistic system.

Digital logistics is an integral part of building innovativeoriented IE, since using advanced technologies allows to significantly optimize logistics mangement, reduce costs, increase transparency of this management and movement of financial resources. This has positive effect on increasing the FES level of the IE. The above-mentioned necessitates the need for additional research to specify the role of digital logistics to ensure growth of the specified security level.

Literature Review

The important role in supporting effective operation of IE is played by logistics, i.e. ensuring uninterrupted supply of necessary resources for organization of operational work and rationally constructed system for the sale of finished products. The effectively functioning system also affects financial results of IE, including their FES level. According to the authors (Wan Yanchun et al., 2024), digital transformation and sustainability are main challenges in the logistics. Using the resource-based approach and dynamic capabilities theories, the authors developed the model, clearly focusing on the possible coordination and integration.

Articles Yao Y. et al. (2024), Siqi D. et al., (2024) show that ecological innovations can help logistic enterprises the improve environmental performance. Na L. et al. (2024), Zhytar M. et al., 2022; Melnyk V. et al., 2021; Vovk O., 2021) propose the scientific approach to assess diagnostics of economic security of the economy, investigate current trends in the development of digital green finance.

Research results (Ye Fenfang et al., 2024) prove that the DT rapid development has brought new momentum and new

value to logistic enterprises. The researchers indicated direction of digital transformation for logistics enterprises to promote their digital transformation. Researchers (Pu Y. et al., 2024) believe that using combined methods promotes the development of collaborative relationships between different stakeholders oft supply chains, including manufacturers, distributors, and suppliers.

Zhuang Xueyan et al. (2024) emphasize a synergistic component of the system as management activity, harmonious combination of various components to achieve overall effect of the system. In the paper (Xiao Yi et al., 2023), it is demonstrated that digital platforms help participants communicate with each other seamlessly. The authors (Popelo O. et al., 2025; Ivanova N. et al., 2022) devoted their research to relevant aspects of the DT development in business and regional development, and also analyzed the role of the blockchain technology in the effective functioning and sustainability of the enterprise.

Le Viet H. et al. (2023) investigated that five factors significantly affect digital transformation in logistics. Articles of Yang Xue et al. (2023), Xiao Haiqi (2023) are based on the study of factors influencing digital transformation on supply chain management of logistic enterprises. According to researchers, this indicates that digital transformation has affected the supply chain management. Lagodiienko V. et al. (2023) outlines the problems and opportunities of the DT implementation into the marketing and logistics system of the enterprise.

Pravdyvets O. et al. (2024), Grzelak M. et al. (2024) are based on the analysis of economic efficiency of vehicle operation from the point of view of financial security of enterprises. The authors of the article (Nogoibaeva E. et al., 2024) developed the approach that allows assessing economic security of enterprises. Within the study (Yakushev O. et al., 2023), the main aspects to ensure FES of the enterprise's activities, by which its management should be guided by, are systematized; the FES structure of the enterprise is determined, and the FES concept of business entities is formulated. Article (Viknianska A. et al., 2021) is aimed at determining the role of artificial intellectualization in the assessement system of the safe development of business entities.

Taking into account the importance of existing research, we would like to draw attention to the fact that studying the role of digital logistics in the FES formation of IE is extremely relevant area of research, which is due to the outline of new opportunities to improve management practices, increase sustainability of enterprises, and ensure their long-term development.

Methodology

The article uses a range of scientific approaches and methods to conduct research on the role of digital logistics in the FES formation of IE, namely: method of the content analysis and the system approach - when determining the essence, functioning features and the structure of the FES system of the IE; methods of abstraction, grouping, analysis, synthesis - when describing the essence of the logistics of the IE and studying its system; the systematization method - when determining features of using digital logistics by IE and describing advantages of its application in the activities of these entities. Using the methods of induction, deduction, and logical generalization allowed us to determine main directions of stimulating digital transformation of the logistics of IE and to specify the impact of digital logistics on their FES level. Using the graphic method made it possible to build visual diagrams of the FES system, logistics systems and digital logistics.

To substantiate the importance of logistics development in the activities of industrial enterprises, correlationregression analysis was used, namely, a single-factor cubic regression model was constructed. For this purpose, statistical data on the development of industrial enterprises and logistics companies in Ukraine were used.

The cubic single-factor model can be represented as:

$$y = b_0 + b_1 x^3 + b_2 x^2 + b_3 x + \varepsilon, \tag{1}$$

where y - the internal variable that is affected;

x - the external variable that exerts the influence

b - the parameters of the influence model that reflect the specificity of the dependence;

 ε - a certain level of error.

In correlation-regression analysis, it is customary to use computational models that describe real relationships as much as possible, but do not fully reflect real models, since this is objectively impossible. The type of computational model can be written in the following form

$$\hat{y} = \hat{b}_0 + \hat{b}_1 x^3 + \hat{b}_2 x^2 + \hat{b}_3 x , \qquad (2)$$

where $b^{\hat{}}$, $b^{\hat{}}$ 1, $b^{\hat{}}$ 2, $b^{\hat{}}$ 3 – the estimated parameters of the econometric model. Accordingly, we can determine that equation (1) and equation (2) differ only by the error ε , i.e.

$$e = y - \hat{y} \tag{3}$$

Considering that the outlined error ε should be minimal in calculations, we can write the following expression:

$$\sum_{i=1}^{n} (y - (\hat{b}_0 + \hat{b}_1 x^3 + \hat{b}_2 x^2 + \hat{b}_3 x)) \to \min$$
(4)

Solving this equation and taking into account the basic provisions of the least squares method, which is used in correlation-regression analysis to search for parameters, we can accordingly find them for the calculation equation. Also, in the article, the correlation coefficient R will be calculated to verify the model, the analysis of which allowed us to find out the influence between individual economic indicators that characterize the activities of industrial enterprises and logistics companies in Ukraine.

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Results

Economic security of an enterprise is associated with ensuring stable access of these business entities to financial resources, which allows supporting continuous operation, ensuring implementation of new projects, development and implementation of innovative products, technologies. Available financing is the basic need of any IE to ensure its continuous operation. Moreover, the FES of the IE is associated with protection of its main subsystems of

functioning, namely: production, marketing system, logistics, financial subsystem, and mechanisms for the information management, personnel support from external and internal threats.

The FES of the IE is the state that ensures stable gradual achievement of the main strategic and tactical goals of the enterprise, supports continuous functioning, minimizing the impact of external and internal threats based on using some methods, tools, and principles of their prevention, detection, and monitoring.

Ensuring FES of the enterprise primarily means preventing unforeseen, crisis situations in its functioning, which can lead to potential financial losses and, in some cases, to bankruptcy of this enterprise. Ensuring the proper FES level this enterprise is possible only through construction of the effectively functioning management system, supporting harmoniously operating subsystems of functioning of the IE.

Among characteristic features of the FES of the IE, the following ones include the following characteristics, namely:

- reflects effective functioning of all subsystems of the IE as the holistic economic system (marketing, logistics, production, finance, personnel, information);
- the ability of the IE to identify internal and external risks in its operation;
- the support is exclusively in cases where the IE has potential to counteract new threats that arise in the external environment;
- can be measured analytically, which allows monitoring the security level and making appropriate decisions to increase it in the long term;
- is significant available access to financial resources, available internal financial potential and ability to attract these resources from other business entities;
- the effective risk management system, which allows building effective system for identifying internal and external risks and developing measures to counter them;
- effective information support system for activities of the IE, efficiency of collecting and analyzing data on all

operational and management processes;

- rational use of the enterprise's financial resources, which must be accompanied by cost optimization and effective management of these resources;
- required involvement of qualified specialists in financial planning;
- the basis to ensure stable operation of the IE, impact on the level of its competitiveness and effectiveness of functioning;
- contribution to ensure financial interests of the owners of the IE, etc.

Fig. 1 presents the FES system the IE.

Let us now consider the essence of logistics and its role in ensuring development of the enterprise. It should be noted that logistics is an integral part of functioning of all business entities and it ensures their stable operation with correct organization of the logistic system. Logistics is an activity related to organization, planning, procurement, storage, transportation, management and control of movement of material, information, and financial resources from their producers to consumers, which is carried out to optimize operational activities of the IE, provide it with necessary resources for its stable operation, and increase work efficiency.

For IE, providing for proper functioning of the logistic system is especially important, given their geographical location and inability to quickly transfer production facilities to other regions where it is easier to ensure effective functioning of this system.

The impact of logistics on the functioning of the IE is as follows:

- contributes to the costs optimization for delivery, storage, transportation of raw materials, and other necessary resources for production of goods;
- ensures rapid delivery of finished products to its consumers, plays important role in timely fulfillment of its obligations to customers by the IE;
- contributes to the production optimization, more efficient use of raw material stocks, control over storage of finished products, which leads to reduction in production costs;

- -helps ensuring smooth operation of the IE;
- contributes to the increased competitiveness of the enterprise, its ability to meet consumer demand for relevant goods and products in timely manner;
- increases the level of flexibility and adaptability of enterprises to new economic realities, disruption of established relationships with suppliers, etc.

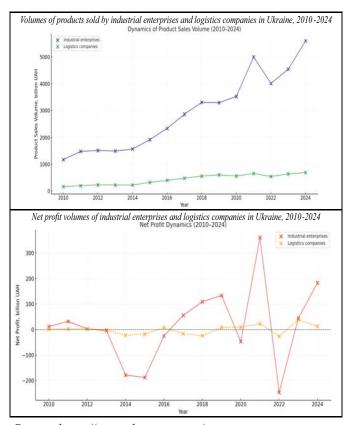
To ensure effectively functioning of the logistic system of the IE, it is necessary that it be harmoniously integrated into the economic system of enterprises, which is especially relevent to ensure the uninterrupted operation. The logistic system is inherently a complex object, since it consists of many different processes, which implementation allows the IE receiving necessary resources for production in timely manner and fulfilling its obligations to customers. Fig. 2 shows the logistic system of IE.

Fig. 1. Financial and economic security system of the industrial enterprise stability of work risk minimization reduction of fraudulent activities in the financial adequate level of financial resources optimization of financial resource flows financial balance of the enterprise financial balance of the enterprise growth of the company's capitalization consequences of providing SYSTEM OF FINANCIAL AND ECONOMIC SECURITY OF AN INDUSTRIAL ENTERPRISE components Snowyd measures, methods, tools managerial informational financial economic components (by security type)

Source: compiled by the authors

The role of logistics in the development of industrial enterprises can be investigated through the use of correlation-regression analysis to study the relationship between economic, including financial, performance indicators of industrial enterprises and logistics companies. We will conduct such an analysis based on statistical information on the development of these business entities in Ukraine. In this case, logistics companies are considered by us as a set of enterprises in the field of transport, warehousing, postal and courier activities. The necessary information is given in Fig. 2.

Fig. 2. Selected economic indicators of the development of industrial enterprises and logistics companies in Ukraine



Source: https://www.ukrstat.gov.ua/

The data in Fig. 2 indicate the generally positive development of industrial enterprises and logistics companies in Ukraine over the past fifteen years. At the same time, the growth rate of the total volume of sold products of industrial enterprises grew faster than that of

logistics companies. However, it is the volume of net profit that is more stable in the dynamics of these companies. Unlike the indicator of net profit of industrial enterprises, which reacts much more deeply to social, economic and political crisis situations, this indicator for logistics companies is more stable.

Let us conduct a study of the existence of a relationship between individual economic indicators that characterize the activities of industrial enterprises and logistics companies in Ukraine. So, let us build the following cubic single-factor regression models: the impact of the volume of sold products of logistics companies on the volume of sold products by industrial enterprises; the impact of the volume of net profit of logistics companies on the volume of net profit of industrial enterprises. The modeling results are shown in Fig. 3.

Thus, the modeling results allow us to draw the following conclusions. Today, there is a relationship between the volumes of products sold by industrial enterprises and logistics companies, which only confirms the importance of logistics development for accelerating the pace of industrial development in the country. The indicator R2=0.9609 only confirms the presence of such a relationship. At the same time, there is not enough information yet to clearly outline whether the development of industry stimulates the development of logistics companies, or whether it is the development of these companies that creates the conditions for the further development of industry in the country. However, it is clear that in the system of the national economy these processes occur in parallel. It is also important to understand that quite often industrial enterprises are actively involved in creating their own logistics in order to have greater control over its functioning. The results of modeling the impact of the net profit of logistics companies on the volume of net profit of logistics companies indicate a not so high level of influence. This is confirmed by the indicator R2=0.4546. It confirms the presence of a relationship between the specified parameters.

Results of modeling the impact of the volume of products sold by logistics companies on the volume of products sold by industrial enterprises

Cubic Regression: Industrial Production vs Logistics Volume

Actual data

Cubic regression line

Cubic Regression: Net Profit of Industrial vs Logistics Companies

Cubic Regression line

Cubic Regression: Net Profit of Industrial vs Logistics Companies

Cubic Regression line

Actual data

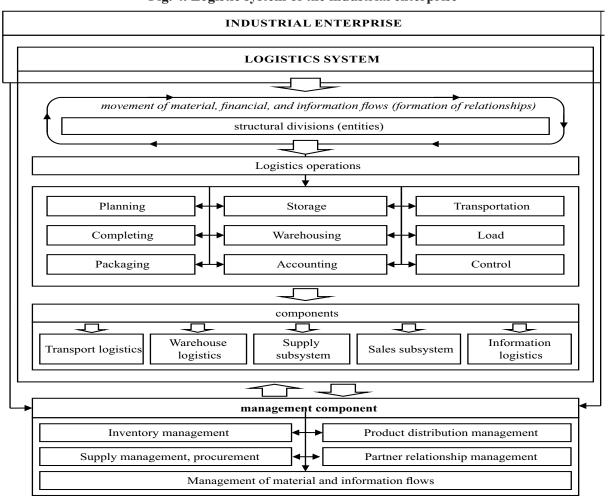
Cubic

Fig. 3. Results of modeling the impact of logistics companies' performance indicators on industrial enterprises' performance indicators

Source: determined by the authors

The active DT use by IE in modern conditions transforms all subsystems of these enterprises. The DT are also actively used in the logistic system, as they allow improving efficiency of its functioning based on implementation of the ready-made digital products (Fig. 4).

Fig. 4. Logistic system of the industrial enterprise

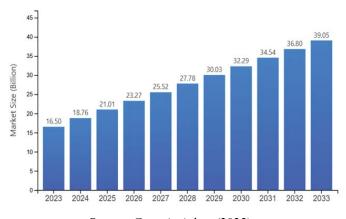


Source: compiled by the authors

Their use helps accelerating the delivery of raw materials, goods, and, most importantly, increasing the transparency level of these processes, providing the opportunity to track movement of resources in real time. The gradual DT introduction into the logistic system of the IE contributed to emergence of the "digital logistics" category as separate concept in economic science, within which framework digitalization of logistic activities of the enterprises are considered. Let us consider this logistic type in more detail.

The active DT use in this sphere is confirmed by the constant development of the digital logistic sector and positive forecasts of experts regarding its further development. Fig. 3 shows data on the volume of the digital logistics services market in the world.

Fig. 5. Digital Logistics Market Report (2023 - 2033)



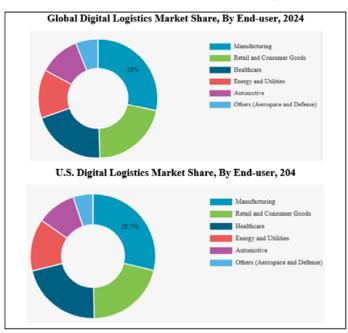
Source: Consainsights. (2025)

According to the data in Fig. 5, we can state that by 2033, the market for digital logistics services will double according to expert forecasts, which indicates the interest of both the enterprises in using these services and logistic companies in the constant DT implementation to improve the quality of their own services.

Digital logistics can be characterized as a set of technological, software solutions, approaches, and tools that are used to optimize logistic operations, namely: transportation, warehousing, storage, packaging, accounting, and control of inventories, raw materials, and products, and contribute to improving the management quality of these processes.

Digital logistics is associated with using the DT potential, which are currently being actively improved of IE. Digital logistics contributes to automation, transparency, flexibility, control over logistic operations, which increases the adaptation level of the IE to internal and external threats, increases the quality level of management of these threats. It's about IE that today play a key role in the development of the global digital logistics. This is confirmed by the information presented in Fig. 6.

Fig. 6. Development of digital logistics in certain sectors of the economy



Source: Fortune Business Insights. (2025).

According to the data in Fig. 6, we can conclude that in 2024, 28% of the digital logistic services market was occupied by IE. The market for these services in the USA is the most developed and in this country, IE occupy 28.7% of the entire market for these services.

Fig. 7 presents information on the DT implementation level in transportation and storage.

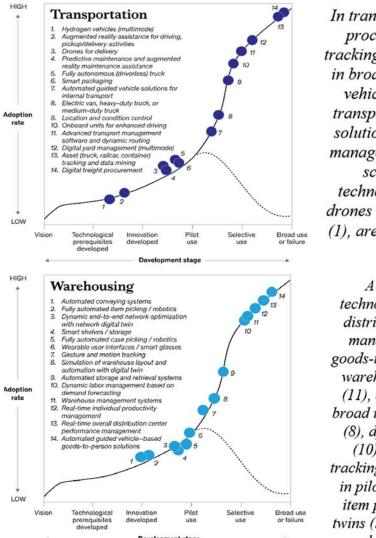
Among the features of using digital logistics by IE, the following can be identified:

- IE must attract investments, both internal and external, to modernize existing logistics systems;
- required retraining of personnel to increase their knowledge of using new software and technological

solutions in the logistic system of the IE;

- required cooperation with companies and institutions that develop and implement software products for their further use in logistic activities of the DT IE;
- contributes to the increased dependence of the IE on the specified companies and supply of necessary components to collect information about the production;
- gradual DT introduction into the logistics organization,
 which must correspond to the main strategic and tactical
- goals of the development of the IE, take into account its financial, organizational, technical, and personnel capabilities to support effective use of these technologies;
- emergence of new risks and threats associated with the active use of information and communication technologies, which requires simultaneous implementation of effective cyber protection systems in the operation of the IE preventing cyber attacks, production disruption and loss of financial resources. Fig. 8 presents the model of the digital logistic system of the IE.

Fig. 7. Technological solutions in transport and warehouse logistics by the development stage and implementation speed, expert assessment



In transportation, digital freight procurement (14) and asset tracking and data mining (13) are in broad use. Automated guided vehicles (AGVs) for internal transport (7), enhanced driving solutions (10), and digital yard management (12) are starting to scale up. Cutting-edge technologies, such as delivery drones (3) and hydrogen vehicles (1), are at much earlier stages of development.

A cluster of warehousing technologies, including real-time distribution center performance management (13), AGV-based goods-to-person solutions (14), and warehouse management systems (11), are already in (or nearing) broad use. Digital warehouse twins (8), dynamic labor management (10), and gesture and motion tracking (7) have proven themselves in piloting, while fully automated item picking (2), network digital twins (3), and smart shelves (4) are demonstrating feasibility.

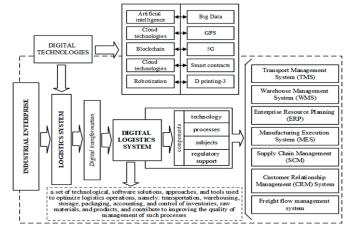
Source: (McKinsey & Company, 2023)

Main advantages of using the digital logistics in activities of IE are the following:

- costs optimization for the transportation and storage of raw materials, goods and components;
- reduction of personnel costs, taking into account possible reductions in the number of employees due to the DT use;
- increased efficiency of the warehouse space, as the DT allow for more rational use of the space of these premises;
- control and monitor of the movement of raw materials, goods, and components in real time, analyzing the entire transportation and storage;
- ability to automatically adjust transportation routes, taking into account deadlines to fulfill obligations;
- contributes to selection of the best delivery options both to the IE and to consumers, which also allows reducing delivery costs;
- allows for better analysis of potential threats to the IE and its logistics system, which is carried out using artificial intelligence technologies, BigData, which allow for rapid processing of significant amounts of available information;
- improving the quality of preservation of goods and raw materials through constant monitoring of climatic conditions of warehouses, and to analyze their condition during transportation;
- improving the quality of the delivery to consumers through automation of the entire transportation, which customers can also track and, if possible, make adjustments to delivery routes;
- possible implementation of effective resource of conservation systems, which has positive impact on energy conservation of IE and utility costs;
- possible obtaining the reports in automatic mode on any logistics processes that are carried out in real time or were performed in the past, which increases the awareness level of the employees of IE on the delivery efficiency and timely settlement of counterparties;
- -reduced time required to complete a logistics operation;
- increasing the synchronization level with the production to minimize the time spent storing resources and goods in warehouses:

- the opportunity to increase the information security level of the IE and its logistic system using of the DT to detect cyber threats, analyze their potential impact on the business entity, and make automatic decisions to prevent and counter these threats;
- improved quality of interaction with producers of raw materials, necessary components, and buyers of finished products;
- using the blockchain and artificial intelligence reduces the risk of errors by employees of IE in terms of inventory management, transport logistics, storage of confidential corporate information, etc.

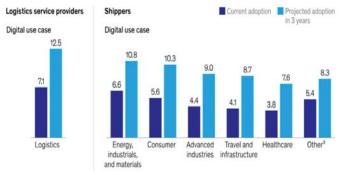
Fig. 8. Digital logistics system of the industrial enterprise



Source: compiled by the authors

Thus, available certain advantages of using digital logistics in the activities of IE ensures the further active development both of the demand for relevant logistics services (Fig. 9).

Fig. 9. Average number of the used cases, by large enterprises, by industry



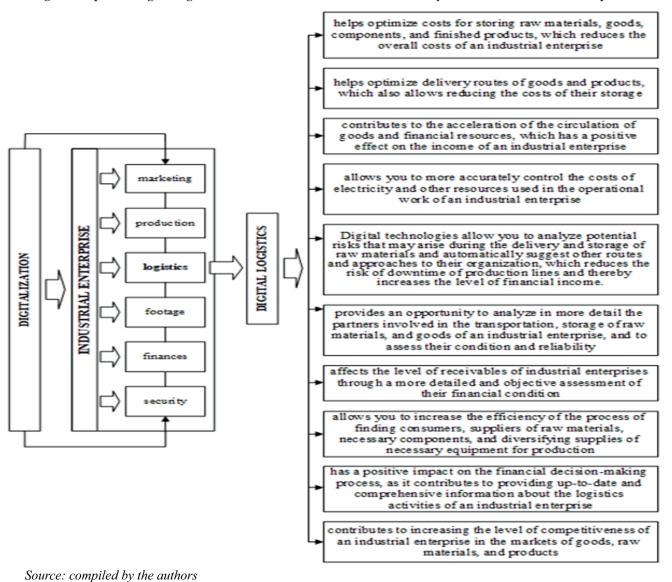
Source: McKinsey & Company. (2025)

From the data in Fig. 9, we can conclude about the prospects for the DT use in the logistics systems of the IE. According to experts, some cases of using these technologies in the next 3 years will increase significantly, especially in the industrial sector.

The outlined advantages of the DT use in logistic activities of the endustrial enterprise have a positive impact on its financial condition, and therefore contribute to the increased FES level. Fig. 10 presents theoretical and applied provisions of the impact of digital logistics on the formation of the security type of the IE.

Positive impact of digital logistics on the FES level of the enterprise primarily lies in possible reducing the costs of these business entities, which ultimately contributes to the growth of profits and increase in the level of their financial stability, capitalization, and innovative development. Digitalization of the logistic system is directly a part of the systemic process of digital transformation of the IE and is integral part of this transformation, increasing its competitiveness, and the innovative development level. This has positive impact on reputation of IE among their partners, clients, and their perception as innovatively oriented and reliable partners.

Fig. 10. Impact of digital logistics on the financial and economic security level of the industrial enterprise



Among the main areas of stimulating digital transformation of the logistics system of the IE, the following can be distinguished:

- available preferential loans for using digital innovations in the activities of IE to increase their efficiency;
- support at the state level in digital transformation of the logistics of the state-owned IEs;
- funds investment by state authorities in the digitalization of transport companies, postal operators, and other logistics entities that are state-owned and occupy a monopoly position in the market, providing their services to IE;
- using public-private partnership mechanisms to improve the efficiency of the transport logistics system, transportation of goods, and raw materials of IE;
- improved quality of Internet communication to accelerate digitalization of the logistics facilities that provide their services to IE;
- deepened cooperation between IE to invest funds in the development of transport logistics, warehouse logistics located in the certain territory, and using mechanisms for their joint use;
- development of the investment plan for digital transformation of the logistics system of the IE for its development and positive impact on the results of its activities;
- advanced training of employees working in the logistics system of the IE;
- involving specialists from relevant companies that develop and support the DT implementation in logistics activities of IE, also involving them to ensure cybersecurity;
- deepened cooperation with international partners and enterprises involved in international logistics networks, if the IE carries out foreign economic activities, etc.

The analysis of expert data also makes it possible to identify the centers of the digital logistics development. Accordingly, the leadership in this sector will remain with the USA, where the pace of the digital logistics development is still one of the fastest today (Fig. 11). The data in Fig. 9 also show that experts predict the development of digital logistics worldwide. In most developed countries of the world, except for the USA, the gradual development of this sector will be observed. However, they are confident that this development will primarily be determined, on the one hand, by the pace of the world economy development, and on the other hand, by the pace of the digital economy formation. The DT use helps to reduce the operational costs of logistics companies and this increases their profitability. This will ultimately have a positive effect on its financial condition.

Fig. 11. Digital Logistics Market CAGR (%), Growth Rate by Region, 2025–2030



Source: Mordorintelligence. (2025)

Development of digital logistics of IE requires both appropriate investment resources, which sources can be both internal and external funds, and also deepening cooperation with own partners, competitors, government bodies, international companies, organizations and institutions that specialize in the digital transformation of the logistic activities of these business entities. The DT in this direction are also constantly developing, improving and making it possible to obtain even greater benefits from digitalization of all logistic operations. For example, approximately in 2020 only 12 of supply chain professionals have relied on the AI technology. As of 2023, the adoption rate among key logistics companies has reached 27%, and this trend is continuing. Those who manage to integrate the AI win. Early adopters of the AIbased supply chain approaches have achieved significant success, reducing logistics costs by 15%, reducing inventory levels by 35%, and increasing service levels by

65%, outpacing competitors that were slower to adapt (McKinsey & Company, 2024). The important component of digital transformation of the logistic system is also its harmonious integration into overall digitalization of the functioning of the IE, since only in combination with other DT used in the marketing, production, human resources management, and finance can it truly ensure the effective functioning of the digital logistics system within the IE.

Conclusions

Development of IE today takes place in the digital economy emergence and active DT involvement in all, without exception, links of their functionig. Information and communication technologies already play important role in the logistics system of modern IE. The active involvement of these technologies has allowed obtaining significant advantages, which in the future began to positively affect the financial stability of these IE and thereby contributed to the increased level of their FES.

The article pays considerable attention to study of the FES essence of the IE, specifying characteristic features of this type of security. This made it possible to describe the FES system of the IE. It was found that this system depends in its functioning on the impact many factors of the external and internal environment. An important role in ensuring its effective operation is played by effective management system of the IE and individual components of its activities. It was established that ensuring the adequate FES level of the IE is the basis for supporting its further development, introducing innovations into its work and ensuring stable income, increasing competitiveness.

It is established that logistics plays a key role not only in ensuring effective operation of IE, but also forms the basis for its innovative development, formation of reputation among consumers of goods and other counterparties. The effective logistic system at the IE plays an important role in increasing its competitiveness in the domestic and foreign markets of goods. This was also confirmed by conducting econometric modeling of the impact of sales volumes, net profit of logistics companies on the corresponding indicators of industrial enterprises in Ukraine. It was established that there is a close relationship between such indicators. Almost synchronous changes in this indicator

are observed in the volume of sales of products. However, the impact of net profit of logistics companies on the volume of net profit of industrial enterprises is no longer so obvious. There is a relationship between these parameters. However, it was determined that unlike industrial enterprises, which often react more quickly and more strongly to socio-economic changes occurring in the country and on world markets, logistics companies are able to adapt to such changes more quickly and ensure their own effective work in the long term, since the receipt of net profit by such companies is more stable.

The DT impact on the functioning of the logistic system of the IE has been studied, which is implemented through definition of the essence of digital logistics and the description of its systems. Digital transformation of this system in modern conditions is an objectively necessary process of increasing efficiency of the functioning of the IE, is an integral part of its digitalization. The article details features of using digital logistics by the IE, which made it possible to substantiate the advantages of its use. It has been established that the involvement of digital innovations in the logistics system allows, first, to optimize the costs of logistics operations and thereby contributes to increasing the income of the IE. In addition, it has been determined that the digitalization of the specified system allows for a significant number of auxiliary advantages. Taking this into account, directions for activating the digital transformation of the logistics system of an IE have also been developed. Thus, available free financial resources is an important condition for the DT development and involvement to increase the efficiency of the logistics system of the IE.

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