

WSPÓŁCZESNE TRENDY I WYZWANIA

PRZEDSIĘBIORCZOŚCI, BEZPIECZEŃSTWA I LOGISTYKI

EDUKACJA ORAZ B+R JAKO POLSKI TOWAR EKSPORTOWY

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Sylwia Skrzypek-Ahmed, Tomasz Wołowicz

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MECHANISMS FOR ENSURING STATE REGULATION OF THE LOGISTICS SERVICES MARKET IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Mechanizmy zapewniające państwową regulację rynku usług logistycznych w kontekście zrównoważonego rozwoju

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Streszczenie

Sektor logistyczny jest jednym z kluczowych elementów gospodarki, który ma znaczący wpływ na produktywność, dystrybucję towarów i usług oraz ogólną konkurencyjność kraju. W Ukrainie, podobnie jak w wielu innych krajach, obserwuje się stały wzrost popytu na usługi logistyczne, napędzany zarówno przez czynniki wewnętrzne, jak i zewnętrzne. Aby jednak rynek ten funkcjonował efektywnie, potrzebne są jasne i przejrzyste państwowe mechanizmy regulacyjne, które zapewnią równowagę między interesami państwa, biznesu i konsumentów. Obecna państwowa regulacja rynku usług logistycznych w Ukrainie boryka się z takimi problemami, jak niedoskonałe ramy prawne, niewystarczające wsparcie instytucjonalne, brak przejrzystości i słaba koordynacja z innymi sektorami. W związku z tym proponuje się rozważenie pewnych aspektów, które przyczynią się do bardziej skutecznej regulacji rynku usług logistycznych.

Słowa kluczowe: mechanizmy wsparcia, regulacje państwowe, rynek usług logistycznych, zrównoważony rozwój, procesy regulacyjne

Summary

The logistics sector is one of the critical elements of the economy, which significantly influences productivity, distribution of goods and services, and the country's overall competitiveness. In Ukraine, as well as in many other countries, there is a steady growth in the demand for logistics services driven by internal and external factors. However, for this market to function efficiently, clear, and transparent state

regulatory mechanisms must balance interests between the state, business, and consumers. The current state regulation of the logistics services market in Ukraine has such problems as an imperfect legal framework, insufficient institutional support, lack of transparency, and poor coordination with other sectors. Therefore, it is proposed that a collaborative approach be adopted to consider certain aspects that will contribute to more effective regulation of the logistics market, ensuring that all stakeholders' voices are heard and their interests are taken into account.

Key words: support mechanisms, state regulation, logistics services market, sustainable development, regulatory processes

Introduction

The logistics services market is a vital sector of the economy that plays a pivotal role in the efficiency of the production and distribution of goods and services, as well as the overall competitiveness of the national economy. In Ukraine, as in many other countries, there is a steady upward trend in demand for logistics services driven by both internal and external factors, underscoring its significance.

For the efficient functioning of the logistics services market, it is imperative to establish clear and transparent government regulation mechanisms. These mechanisms, by ensuring a balance between the interests of the state, business, and consumers, will provide a sense of security and confidence in the proposed changes.

Given the existing challenges, we propose certain aspects of effective state regulation of the logistics services market. This proposal, with its comprehensive solutions, aims to address the imperfect regulatory framework, institutional insufficiency, lack of transparency, and weak coordination with other industries, instilling a sense of hope and optimism about the future of the market.

Ukraine has several legal acts regulating the logistics activities, but they often need to be more cohesive, contain contradictions, and be updated to reflect the current challenges. The absence of a single government agency responsible for the comprehensive logistics regulation leads to a dispersion of powers and complicates the coordination of actions of various government agencies. Decision-making processes for regulating the logistics services market are often non-transparent, which limits public and business participation in the process of policymaking. The regulation of logistics is not sufficiently coordinated with the regulation of other economic sectors, making it difficult to solve complex problems.

The state regulation of the logistics services market in Ukraine faces several problems and challenges that hinder the development of logistics infrastructure and reduce the competitiveness of the national economy. Limited state budget resources lead to underinvestment in the infrastructure, lack of modern equipment and software, and insufficient support for the research. This, in turn, reduces the efficiency of the logistics processes and increases their cost. Widespread corruption schemes in the logistics sector lead to inefficient use of budget funds, impede competition, and

create additional barriers to business. Insufficient integration into global logistics networks limits Ukraine's export potential and reduces its competitiveness on the global market. The lack of a clear division of powers and coordination between central executive authorities and local governments complicates the implementation of state policy in the logistics sector. Complicated and unclear procedures for obtaining permits and frequent changes in legislation create additional barriers and reduce the industry's investment attractiveness. The lack of the qualified personnel in the logistics sector hinders the introduction of new technologies and the efficiency of logistics processes. Lagging behind global trends in the digital transformation of logistics, the need for a single state platform for information exchange and the low level of process automation contribute to the insufficient regulation of the logistics services market¹.

To this end, we offer the author's vision of effective state regulation of the logistics services market, which will be one of the mechanisms to ensure it from the point of view of the strategic priorities and the expected systemic changes (figure 1).

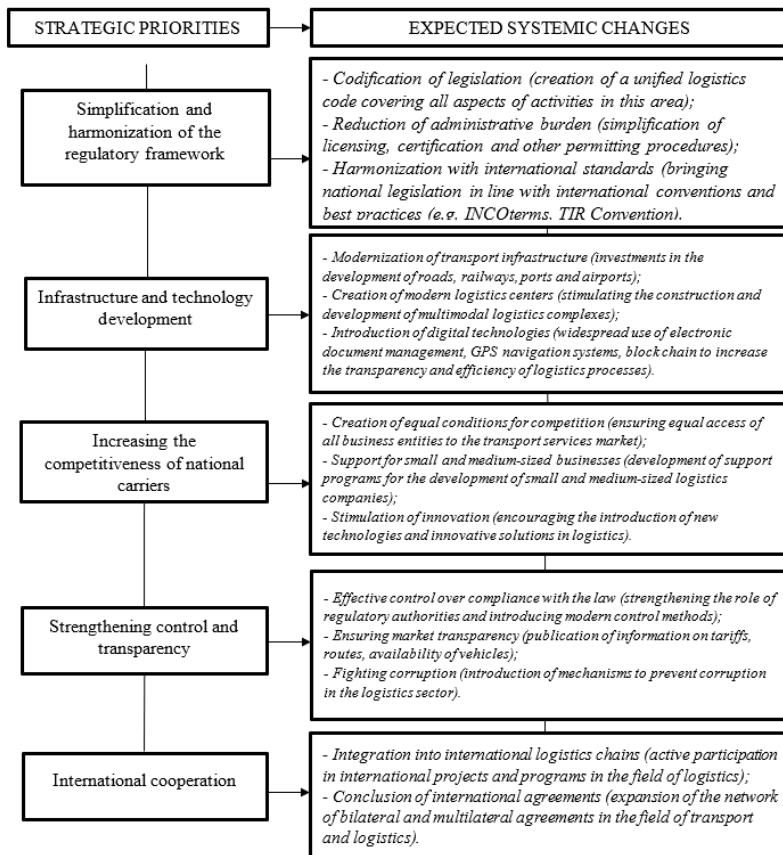


Figure 1. Effective state regulation of the logistics services market

Source: compiled by the authors

¹ H. Pavlova, I. Babii, D. Volovik, Establishment Of Logistics At The Level Of International Economic Relations, "Innovation and Sustainability" 2022; 2: 139–146.

Literature review

The history of the emergence of logistics has been studied by a large number of both domestic and foreign scholars; some of them are: Babiy I.V., Volovyk D.V., Pavlova G.E., Kharsun L., Dychkovskiy R.^{2,3,4,5,6}.

At the same time, the issues of institutionalism and regulatory processes in the logistics sector were the focus of the works of Novosad O.V., Pavlova O.V., Pavlova M.M.: Novosad O., Pavlov K., Pavlova O., Pinchuk A., Serhiychuk O., Wołowiec T., Zaichuk K.^{7,8,9,10,11}.

In our opinion, insufficient attention has been paid to a comprehensive approach to studying the institutional framework for regulating the logistics services market in the country and its regions.

Methods

The efficient functioning of the logistics services market within the overall macroeconomic system requires a comprehensive analysis and synthesis of the logistics processes at different levels of management. This implies the development of a comprehensive methodology based on a solid foundation of logistics concepts. Despite significant achievements in the scientific apparatus of logistics, there are still disagreements about understanding its essence and role in shaping the institutional environment.

² K. Pavlov, O. Pavlova, L. Ilyin et al, Assessment of Innovation and Investment Attractiveness of the Western Ukrainian Regional Market of Tourist Services, "ECONOMICS" 2023; 11(1): 45-68.

³ O. M. Pavlova, O. V. Novosad, A. V. Murzina et al, Development of entrepreneurship in the field of IT business in the conditions of change and communication, "Actual problems of innovative economy and law" 2024; 2: 124-130.

⁴ M. Kononenko, O. Khomanko, E. Cabana et al, Using the methods to calculate parameters of drilling and +blasting operations for emulsion explosives, "Acta Montanistica Slovaca" 2023; 28(v28/i3), 655–667.

⁵ M. Kononenko, O. Khomenko, I. Kovalenko et al, Determining the performance of explosives for blasting management, "Rudarsko-Geološko-Naftni Zbornik" 2023; 38(3): 19–28.

⁶ K. Pavlov, O. Pavlova, T. Kotsko et al, Functioning efficiency of the electricity market of the western region of Ukraine, "Polityka Energetyczna – Energy Policy Journal" 2023; 26(2), 47-64.

⁷ O. M. Pavlova, Human capital development in the context of European integration changes and economic challenges, "International scientific journal "Internauka"" 2024; 6: 1-17.

⁸ O. M. Pavlova, K. V. Pavlov, Logistics interaction between the subjects of the gas transportation industry: implementation mechanism and prospects, "International scientific journal "Internauka"" 2020; 3(35): 46-51.

⁹ T. Wołowiec, K. Pavlov, O. Pavlova, K. Zaichuk, Tourist Services of the Western Region of Ukraine: Rating and Analysis, "ECONOMICS" 2022; 10(1): 183-198.

¹⁰ O. M. Pavlova, O. V. Novosad, A. V. Murzina et al, Development of entrepreneurship in the... op. cit.

¹¹ O.M. Pavlova, K. Pavlov, A. Bortnik et al, Methodological Approaches to Project Evaluation in Business, Logistics and Trade, "Deleted Journal" 2024; 4(4): 1-15.

Results

An analysis of the state regulation of the logistics services market in Ukraine has revealed several problems that hinder the development of this industry. To improve the efficiency of the logistics system, systemic changes are required:

1. Improvement of the regulatory framework, i.e. codification of legislation, reduction of administrative burden, and harmonization with international standards.
2. Modernization of the infrastructure will be carried out based on the development of the transport network, the creation of modern logistics centers, and the introduction of digital technologies.
3. Creating a favorable business environment by ensuring the equal conditions for competition, supporting small and medium-sized businesses, and stimulating innovation.
4. Strengthening control and transparency in the context of effective control over compliance with the law, ensuring market transparency and fighting corruption.
5. International cooperation, including integration into international logistics chains and the conclusion of international agreements, offers a potential for a more promising future for the Ukrainian logistics industry.

Codification of legislation in the field of logistics is the process of systematizing and unifying all legal acts regulating activities in this area into a single code. Such an approach is one of the most effective ways to simplify and harmonize the regulatory framework, which, in turn, contributes to the development of the logistics business and increases its transparency.

The expediency of codification lies in that a single code with clear and understandable wording greatly simplifies the procedures for obtaining permits, accounting, and reporting for business entities. Eliminating duplication of norms and contradictions in different legal acts reduces bureaucratic barriers and shortens the time for paperwork. Clearly defined market rules allow the businesses to plan their activities more efficiently and reduce the risks associated with unexpected changes in legislation¹².

The development of a logistics code is a complex and lengthy process that requires the involvement of a wide range of stakeholders. Each participant, from the government officials to the logistics experts, is instrumental in shaping the future of the industry.

The implementation of codification requires joint efforts from the state, the businesses, and the expert community. It is essential to ensure the broad engagement of all stakeholders to develop an effective and balanced logistics code. Each participant's contribution is essential, as codification of logistics legislation is a technical task and an essential tool for modernizing Ukraine's economy and integrating it into global economic processes.

¹² Z. Siryk, O. Hrafska, K. Pavlov, B. Samoilenko, R. Chorny, Sustainable development trends in the Ukrainian logistics market, "E3S Web Conf." 2024; 567: 1-11.

One of the critical challenges Ukrainian businesses encounters, especially in the logistics sector, is the excessive administrative burden. The multiplicity of laws, regulations, different interpretations, and constant changes in the regulatory environment create significant difficulties for entrepreneurs. Reducing the number of permits will make it possible to cancel the unnecessary permits (the ones that are not justified or duplicate the other ones); the transition to the declarative principle will replace some permitting procedures, because of which a business entity will independently declare compliance with the requirements of the law. The optimization of permitting procedures will reduce the time required for their consideration and the number of required documents¹³.

Harmonization with the international standards is a pivotal strategic priority for Ukraine. This will involve bringing the national legislation in line with the international conventions and best practices in the field of logistics (e.g. INCOTerms, TIR Convention). Specific measures may include adopting these international standards into the Ukrainian law and providing training and support to businesses to ensure compliance. This will facilitate international trade and increase the competitiveness of Ukrainian exporters.

Modernization of the transport infrastructure, creation of modern logistics centers, and introduction of digital technologies are critical factors in developing the infrastructure and technology in Ukraine. These measures are closely interconnected and create a synergistic effect that contributes to increased transportation efficiency, reduced logistics costs, and increased competitiveness of the Ukrainian economy. In particular, we see the expediency of modernizing the transport infrastructure in increasing the speed and efficiency of transportation, which will reduce the delivery time of goods and passengers and the logistics costs.

However, Russia's full-scale invasion of Ukraine has significantly changed the country's logistics processes. The blockade of seaports in the Black Sea and the temporary occupation of the Sea of Azov have led to significant difficulties in transporting goods. In addition, the suspension of air travel, the destruction of logistics centers, and the relocation of production and business to safer regions have become some of the necessary steps to adapt to the new conditions¹⁴.

Auto logistics became the primary mechanism of cargo delivery in the first months of the war. However, the export of agricultural products, which had been established, stopped due to the blockade of seaports. The government is taking steps to improve the logistics situation. In particular, two new projects are planned to optimize road transportation. The first is the creation of a "Green Corridor" between the Reni – Giurgiulesti – Galati checkpoints (Ukraine – Moldova – Romania). The other

¹³ M. S. Seheda, O. S. Beshta, P. F. Gogolyuk et al, Mathematical model for the management of the wave processes in three-winding transformers with consideration of the main magnetic flux in mining industry, "Journal of Sustainable Mining" 2024; 23(1), 20–39.

¹⁴ I. Nastyh, Logistics in Ukraine: changing focus and prospects for recovery. Online: https://propertytimes.com.ua/industrialnaya_nedvizhmost/logistika_v_ukrayini_zmina_fokusa_ta_perspektivi_vidnovlennya.

is the launch of trucks through Krasnoilk-Vicova de Sousse, which is currently used only for empty trucks. As for rail transportation, there is a significant lack of railroad crossings in the border regions of Ukraine, which complicates exports and imports, so it is already necessary to increase the number of railroad crossings¹⁵.

Nevertheless, the modernization of the infrastructure in line with the European standards will allow Ukraine to strengthen its presence in the European market. Although the modernization of transport infrastructure is a long and complex process, its successful implementation will allow Ukraine to achieve significant progress in its socio-economic development, improve the population's quality of life, grow the economy, and strengthen the country's international position.

The modern logistics center is a multifunctional complex that provides comprehensive services for storing, processing, and distributing goods. It is equipped with modern technologies that automate processes, improve accounting accuracy, and ensure the safety of goods. The creation of such centers will help to ensure the necessary conditions for storing various types of goods, including perishable items, electronics, and pharmaceuticals, taking into account their specific requirements, performing additional operations with goods, such as packaging, labeling, order picking, organizing the delivery of goods to end users or other participants in the supply chain, collecting, processing and analyzing information on the movement of goods, which will optimize the logistics processes.

The benefits of creating modern logistics centers are manifold. They include reduced logistics costs, such as optimization of warehouse processes, reduced order processing time, fewer errors in fast delivery, and accurate order fulfillment. Importantly, the creation of these centers will also lead to the creation of new jobs, thereby increasing the competitiveness of the national economy. One of the most promising areas of the logistics development is the creation of the multimodal logistics complexes that will allow combining different modes of transport (road, rail, water, air) at a single site, which will greatly simplify transshipment operations and reduce the time of cargo delivery. In addition, modern logistics centers can significantly improve the quality of customer service, ensuring that end users receive their goods in a timely and efficient manner.

Today, Ukraine is in need of the high-quality logistics terminals and logistics complexes with a full range of 3PL and 4PL services. Foreign investors acknowledge this and see the economic potential of the logistics business in Ukraine. To address this need, the construction of a logistics hub is planned for 2024, a significant and promising step towards the future of the logistics industry in Ukraine. This initiative holds great potential for the growth and modernization of the logistics sector in Ukraine¹⁶.

Digital transformation affects all areas of our lives, and logistics is no exception. The introduction of digital technologies in logistics processes radically changes the

¹⁵ Ibidem.

¹⁶ I. Nastych, Logistics in Ukraine: changing focus and prospects for recovery... op. cit.

approach to supply chain management, increasing efficiency, transparency, and adaptability to changing market conditions. GPS navigation systems and machine learning algorithms allow for calculation of the optimal delivery routes, considering road conditions, traffic jams, and other factors that minimize fuel costs and travel time. Special sensors and software can track cargo movement at all delivery stages, increasing transportation transparency and safety. Robotic systems and warehouse management systems (WMS) help optimize the processes of receiving, storing, and shipping goods, reduce the likelihood of errors, and increase productivity. Transitioning from paper to electronic formats will speed up the information processing, reduce errors, and improve data security. Collecting and analyzing large amounts of data will facilitate identifying patterns, forecasting demand, optimizing inventory, and making more informed decisions. Block chain technology, with its decentralized and tamper-proof nature, will ensure high data security and transparency, which is especially important for tracking the origin of goods and combating counterfeiting.

Implementing digital technologies in logistics may have benefits, such as route optimization, process automation, error reduction, savings on fuel, personnel, and warehouse space, fast delivery, real-time cargo tracking, and information transparency. These benefits translate into more efficient and transparent logistics, enabling companies to offer their customers faster delivery, accurate tracking, and more competitive pricing. This, in turn, can lead to increased customer satisfaction and loyalty, ultimately enhancing the company's competitiveness on the market.

The future of digital logistics is incredibly promising. As technologies advance, the cost of their implementation will decrease, and the level of automation will increase. This will pave the way for more efficient, flexible, and sustainable logistics systems that can effectively meet the demands of the modern market.

Establishing a level playing field is a cornerstone of a healthy market, and the logistics services market is no exception. This principle ensures that all market participants, regardless of their size, ownership, or other factors, have equal opportunities to conduct business without any unfair advantages or restrictions.

The level playing field in the logistics services market is influenced by factors such as the regulatory environment, i.e. clear, transparent, and non-discriminatory rules of the game, absence of excessive regulation and bureaucratic barriers, access to infrastructure, a fair and transparent tax system that does not create advantages for individual companies, control over compliance with antitrust laws, transparency of public procurement, etc.

We propose to create equal conditions for competition in the logistics services market using the following principles.

Decentralization plays a crucial role in acknowledging regional specifics and providing a more flexible response to local needs. However, it is essential to establish clear criteria and limits of powers for the local authorities to prevent regulatory discrepancies.

- simplification of procedures, which includes a reduction in the number of permits, replacing some of the permitting procedures with a declarative principle

when a business entity declares that its actions comply with the requirements of the law, shortening the review period and reducing the number of required documents;

- support for small and medium-sized businesses, for which the financial support programs will be developed, consultations will be provided, and training and seminars will be organized. Preferential tax rates for small businesses will be established, and special conditions for small and medium-sized enterprises to participate in public procurement will be developed;
- attracting private investment, which will be accompanied by a reduction in corruption; ensuring the protection of investors' rights; simplifying the business registration procedure; developing investment projects in the logistics sector that will be of interest to investors; providing state guarantees for investors involved in the implementation of investment projects in the logistics sector, and attracting funds from international financial institutions to finance investment projects;
- strengthen control over compliance with antitrust laws through creating an effective antitrust regulation system, regular market monitoring, fair investigation of violations, and application of effective sanctions.

Therefore, the state's role in creating equal conditions for competition in the logistics services market is crucial. This element of the mechanism for ensuring the state regulation is one of the key factors in the development of the industry. It will increase the efficiency of logistics processes, reduce transportation costs, increase exports, and improve the quality of customer service. This is a significant area where state support and innovation can make a substantial impact.

Small and medium-sized businesses are the driving force behind the economic development of any country, including Ukraine. They provide job opportunities, stimulate innovation, and promote competition. Therefore, state support for small and medium-sized businesses, which can lead to increased employment, accelerated innovation, and enhanced competitiveness, is not just a priority area of economic policy, but a promising avenue for the future.

The state supports small and medium-sized businesses by providing loans on preferential terms or with state guarantees, non-refundable financial assistance for implementing innovative projects, and reducing the tax burden for small businesses. In terms of non-financial assistance, we should emphasize such elements as providing advice on business, marketing, finance, etc., organizing training and seminars for entrepreneurs, providing access to information on markets, technologies, and government programs, reducing the number of permits and simplifying procedures for obtaining them, building industrial parks, technology parks, and other infrastructure facilities necessary for the development of small and medium-sized businesses.

The prospects for this expected systemic change include expanding access to financing, simplifying administrative procedures, improving the efficiency of government programs, and cooperation with business associations. Support for small and medium-sized businesses is not just one of the critical factors in Ukraine's economic growth, but a testament to the integral role these businesses play in our country's progress.

Stimulating innovation is not just an integral part of the logistics sector's development, but also a beacon of progress. New technologies and approaches help to optimize processes, reduce costs, and improve the quality of services. This link in the large mechanism of regulating the logistics services market will not just increase efficiency, reduce costs, and improve the quality of services, but it will also inspire a new era of logistics.

We propose to stimulate such innovations in logistics, which can be applied to develop the Internet of Things (IoT) for real-time cargo tracking, implement artificial intelligence to optimize routes and forecast demand, use block chain to ensure transparency and security of supply chains and develop mobile applications for customers and employees. We also see the feasibility of using green technologies, such as environmentally friendly fuels and vehicles, optimizing routes to reduce CO₂ emissions, using recyclable packaging materials, and new business models that include the creation of platforms for connecting carriers and cargo owners and developing new services such as last-mile delivery or fulfillment. Implementing such technologies and approaches can increase the efficiency of logistics processes, reduce costs, and ensure high-quality services.

As shown in figure 1, a strategic priority of effective state regulation of the logistics services market leads to expected changes such as effective control over compliance with the law, ensuring market transparency, and combating corruption.

In particular, the tools of effective control include scheduled and unscheduled inspections of business entities, which allow for the detection of violations of the law at early stages, the use of data analysis software, GPS navigation systems, drones, etc., which increase the efficiency of control and reduce costs, simplify control procedures, reduce the number of bureaucratic barriers and increase transparency. The involvement of civil society organizations and citizens in monitoring compliance with the law will provide additional information on violations. In contrast, cooperation with international organizations and other countries will allow for the exchange of experiences and implementation of the best international practices.

By implementing modern control methods, increasing transparency, and fighting corruption, we can create a level playing field, ensure consumer protection, and increase the investment attractiveness of the industry.

An equally important element is market transparency, which requires publishing information on tariffs, routes, availability of vehicles, carrier licenses, inspection results, etc. This entails the creation of a unified electronic register of business entities providing logistics services, the development of convenient online services for finding information on logistics services, and the guarantee that information is available to all stakeholders. Establishing mechanisms for public control over the activities of logistics companies, encouraging citizens to report violations, involving business representatives in the development and implementation of transparency measures, and participating in international initiatives to ensure transparency in transport corridors will make the logistics services market in Ukraine more transparent, efficient, and attractive to investors.

The critical areas of fighting corruption in the logistics sector include transparency and openness, strengthening control, reducing discretionary powers, and preventing conflicts of interest.

The importance of fighting corruption in logistics lies in a transparent and predictable market that attracts investment. An effective fight against corruption increases trust in the country as a reliable partner for business. All market participants receive equal opportunities. Reducing corruption will help optimize costs and improve the quality of services. Thus, a comprehensive approach to fighting corruption in the logistics sector, including transparency, control, prevention of conflicts of interest, and witness protection, is a prerequisite for developing the logistics sector and the country's economy. Implementing these measures will create a favorable environment for businesses, increase the efficiency of logistics processes, and ensure sustainable economic development.

The strategic priority is international cooperation that encompasses systemic changes such as integration into international logistics chains and the conclusion of international agreements. These agreements, as depicted in figure 1, play a crucial role in facilitating global trade and economic development.

Since integration into international logistics chains involves inclusion of the national economy or individual companies into the global flows of goods and services, it should be highlighted that this implies active participation in international trade and the creation of efficient delivery and distribution systems in the global market.

The access to global markets will allow companies to expand their customer base and increase sales. The access to the global supply chains will enable companies to purchase raw materials and components at more favorable prices. The development of exports and investments in logistics will create new jobs, and cooperation with international companies will stimulate technological development and increase the competitiveness of the national economy. It is worth noting that the primary function of modern transport corridors is to deliver goods via the shortest route and as quickly as possible. At the same time, such operations include transporting goods from one mode of transport to another, handling, packaging, sorting, etc.¹⁷.

The international network of transport corridors is defined by the Declarations of the First (31.10.1991, Prague), Second (14-16.03.1994, Crete), and Third (23-25.06.1997, Helsinki) European Transport Conferences. The Cretan Conference finally approved the routes of the first ten trans-European international transport corridors, later called "Cretan"¹⁸.

Considering the strategies of integration into the international logistics chains through the development of transport infrastructure, simplification of customs procedures, support for small and medium-sized businesses, development of logistics services, and staff training, we can firmly state that the logistics sector is efficient.

¹⁷ O. M. Sohatska, R. E. Zvarych, V. M. Panasyuk et al, International logistics, "Wunu.edu.ua" 2022.

¹⁸ Kh. Prytula, Y. Kalat, I. Kyryk, Areas Of Influence Of International Transport Corridors As A New Object Of The State Regional Policy Of Ukraine For The Period Up To 2027, "Efektyvna Ekonomika" 2020; 11: 1-8.

Here is an example of countries that have successfully integrated into the international logistics chains¹⁹:

- China – due to significant investments in infrastructure development and the creation of special economic zones, it has become one of the largest exporters in the world;
- Singapore has become one of the leading logistics centers in Asia due to its strategic location and developed port infrastructure;
- Germany is known for its high-quality goods and efficient logistics system.

Thus, integration into international logistics chains is an important factor in the development of the national economy. It helps increase exports, create new job opportunities, and improve competitiveness.

The conclusion of international agreements is a complex process that involves interaction between states and international organizations to regulate the international relations in various areas, including economics, politics, and culture. These documents establish the rules of the game in the international arena, define the rights and obligations of states, and outline cooperation in various fields. Agreements can be a tool for the peaceful settlement of disputes between states and create a legal basis for the activities of international organizations such as the UN, the World Trade Organization, etc.

The importance of international agreements for Ukraine cannot be overstated. These agreements, whether they pertain to free trade, investment, or other areas, open new markets for Ukrainian goods and services. They also facilitate the development of cooperation with other countries and may contain provisions that protect the rights of Ukrainian citizens and companies abroad. Overall, international agreements are a cornerstone of international relations, fostering cooperation between states, the resolution of global problems, and the development of international trade.

In summary, implementing the proposed strategic priorities and expected systemic changes will increase the efficiency of logistics processes, reduce costs, increase exports, improve the quality of customer service, and ensure the sustainable development of Ukraine's economy. However, as already mentioned, the successful implementation of the proposed reforms is possible only if the government, businesses, and the public cooperate closely. The public's role in this process is crucial, as their support and active participation will contribute to creating a modern and efficient logistics system that will meet the requirements of the 21st century.

One critical mechanism of modern state regulation of the logistics market is the creation of a single digital portal for the logistics services. The primary purpose of this portal is to centralize information and simplify interaction between all participants in the logistics chain by increasing the market transparency.

Figure 2 presents the portal's functionality (a set of capabilities and tasks that a digital portal of logistics services can perform).

¹⁹ B. V. Samoilenko, K. V. Pavlov, O. M. Pavlova, O. M. Serhiychuk, Analysis of the development of the Ukrainian logistics services market in the context of European integration processes, "International scientific journal "Internauka" 2024; 10: 1-18.

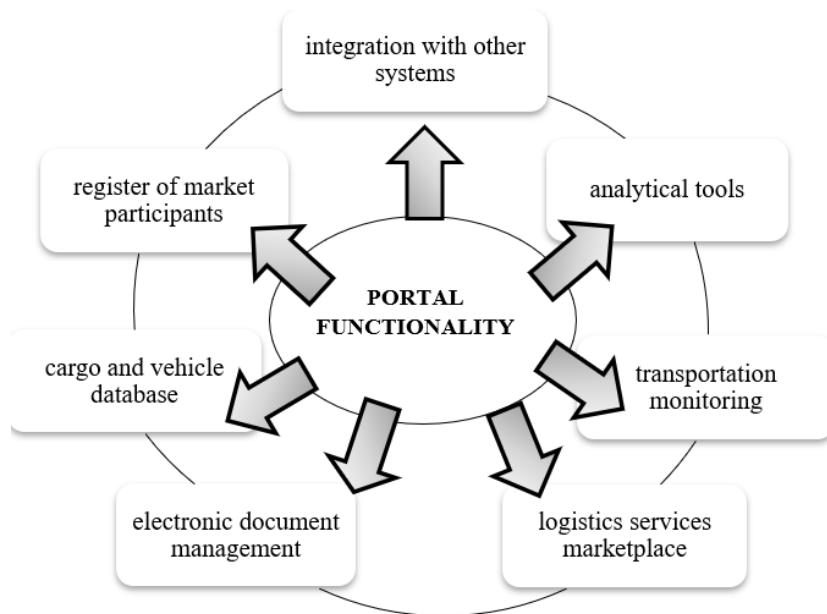


Figure 2. Functionality of a single digital portal of logistics services

Source: compiled by the authors

A digital portal, as a tool for efficient management of logistics processes, is designed to be user-friendly, providing a wide range of services for various participants in the logistics chain. It is constituted of the essential elements depicted in figure 2.

1. The register of market participants includes a simple and intuitive registration procedure for all participants (carriers, freight forwarders, cargo owners, etc.), detailed information about each participant (contacts, licenses, certificates, vehicle fleet, etc.), as well as a quick search for reliable partners by various criteria.
2. The cargo and vehicle database contains a detailed description of the cargo (type, weight, dimensions, and special requirements), transportation route, status and characteristics of vehicles (type, carrying capacity, dimensions), availability, and technical condition.
3. We propose to create an electronic document flow for the documents such as way-bills, contracts, customs declarations, etc. This system will significantly reduce paperwork, streamline processes, and ensure the legal force of documents through electronic digital signatures. A centralized storage of all transportation-related documents will be formed, making it easier to access and manage important information.
4. The logistics services marketplace will include offer publication, i.e. carriers can publish their transportation offers, service search (cargo owners can quickly find the necessary logistics services at the best price), and online booking (the ability to order logistics services online).
5. Transportation monitoring should include GPS tracking (real-time tracking of vehicle movements), status change notification (receiving notifications of

changes in the status of cargo (receipt, dispatch, delivery, etc.)), route analytics (optimizing delivery routes based on traffic data), and other factors.

6. Analytical tools will consist of market statistics (analysis of market trends, supply, and demand for logistics services), personalized analytics (individual reports for each user with an analysis of their activities), and forecasting (prediction of future market trends).
7. Integration with other systems will be formed by electronic customs (automatic data exchange with customs authorities), banking system (payment for services through online banking), and warehouse management system (integration with warehouse management systems).

The advantages of such a portal are manifold and substantial. It will increase the market transparency by making all the information about market participants and their services readily available online. The automation of routine operations and reduction of paperwork will lead to a significant decrease in administrative burden. This, in turn, will increase the efficiency of the logistics processes, create a level playing field for all participants, and support management decision-making. Overall, the portal will revolutionize the logistics sector in Ukraine, making it more efficient, transparent, and conducive to business development²⁰.

Therefore, creating a single digital portal for logistics services is an important step towards modernizing the logistics sector in Ukraine. This tool will increase the efficiency of the logistics processes, simplify the interaction between market participants, and create favorable conditions for business development.

The development and implementation of the National Logistics Development Strategy is a critical mechanism for ensuring state regulation of the logistics services market. This comprehensive document defines priorities, goals, and measures for the development of the country's logistics sector in the medium and long term. It is an essential tool for ensuring the competitiveness of the national economy, increasing the efficiency of foreign trade, and improving the population's quality of life. The strategy will guide and coordinate efforts to modernize the logistics sector, making it more efficient, competitive, and beneficial for the economy and the population.

It is the national logistics development strategy that promotes the integrated development of the logistics infrastructure, technologies, and human resources, it creates favorable conditions for attracting investment in the logistics sector, improves production and export efficiency, reduces administrative barriers and simplifies business procedures, and improves the availability of goods and services and reduces their cost.

The critical elements of the national logistics development Strategy include the construction of new roads, railways, ports, and airports, modernization of the customs system through simplification of customs procedures, introduction of electronic document management, development of logistics centers, including the creation of modern warehouses, terminals and other logistics facilities, support for innovation

²⁰ L. G. Kharsun, Logistics services for trade flows between Ukraine and the EU countries, "Ekonomika Ukrainy" 2016; 4: 112-121.

by stimulating the development and implementation of new technologies in logistics, development of human resources through advanced training of logistics specialists, cooperation with international organizations, and the creation of a new logistics hub.

The national Strategy for logistics development is not just a plan, but also a powerful tool that can transform our country into a modern logistics hub. This transformation will not only contribute to economic prosperity but also significantly improve the quality of life for our population.

By establishing a state fund for the logistics development, we are unleashing a powerful tool that can significantly influence the development of our logistics infrastructure. This fund has the potential to increase the competitiveness of our national economy, promote innovation, and provide stable financing for strategic logistics projects, instilling a sense of optimism and confidence in our proposed changes.

The primary purpose of creating such a fund is to provide the financial resources for the construction and modernization of logistics infrastructure, support for innovative projects, human capital development, and cooperation with international organizations.

The sources of funding may include the state budget, namely direct allocations, investments of state-owned banks in lending to the fund's projects, raising funds from domestic and foreign investors, donations in the form of grants from international organizations, and funds from customs payments, which are partially directed to the development of logistics.

In the course of the fund's work, projects will be selected for funding based on a competitive selection process or by a government order. It will be possible to provide grants, loans, and investments depending on the type of project and its implementation stage. The funds received from the fund will be monitored and controlled, and the effectiveness of investments and the impact of projects on the development of the logistics sector will be assessed.

It is advisable to outline the benefits of creating the fund, which include:

- increased investment in logistics;
- accelerating the development of logistics infrastructure;
- increasing the competitiveness of the national economy;
- creation of new job opportunities;
- increase in foreign trade.

The successful operation of the State Logistics Development Fund requires the following:

- creation of transparent mechanisms for managing the fund, involvement of independent experts;
- introduction of a monitoring and audit system;
- involvement of business representatives in the decision-making process;
- exchange of experience with other countries.

Discussion

Thus, creating a state fund for logistics development is an essential step toward modernizing the logistics sector and increasing the competitiveness of the national economy. However, for the Fund to be successful, it is necessary to ensure a transparent management system and effective control and involvement of all stakeholders.

It is worth noting that Ukraine has introduced several important legislative mechanisms that facilitate the attraction of private investment. These include public-private partnerships, the creation of the industrial parks, and state support for investment projects involving significant investments (over EUR 12 million). The laws governing these areas are constantly being improved. There has also been an increase in support from the international financial institutions. However, there are specific difficulties in implementing these mechanisms, including a lack of investor confidence in the judicial system, risks associated with the war, and low capacity of the responsible government agencies. Ukraine's potential in logistics is indeed significant. This is due to the interest of investors in the country's capabilities, business re-formatting in the context of the war, and the gradual development of the western and central regions despite the numerous difficulties observed today. The main obstacle to attracting foreign investment is military risks, such as a high probability of damage and destruction of logistics facilities²¹.

In general, the analysis of the presented mechanisms of state regulation of the logistics market, i.e. the creation of a single digital portal for logistics services, the development of a national Strategy for the development of logistics, and the formation of a state fund for the development of logistics, leads to the conclusion that they are complementary and synergistic.

A single digital portal, as a key component of the digital transformation of the logistics sector, serves as a tool for the operational management of logistics processes. It ensures transparency, efficiency, and accessibility of information for all market participants. The portal's role in the digital transformation is significant, as it not only facilitates the integration with other government systems but also paves the way for the adoption of the advanced technologies such as IoT, AI, and blockchain in the logistics sector.

The National Logistics Development Strategy, with its inspiring strategic vision, defines the long-term goals and priorities for the industry's development. It creates a robust framework for the implementation of specific projects and activities, providing a beacon of hope for the future of logistics development. This strategy also plays a pivotal role in coordinating the efforts of the state, business, and the public.

The State Logistics Development Fund, a catalyst for growth, provides the necessary financial resources to implement the strategic projects envisaged by the national strategy. It plays a crucial role in accelerating infrastructure development, supporting innovation, and most importantly, promoting private investment. This emphasis on

²¹ I. Nastych, *Logistics in Ukraine: changing focus and prospects for recovery...* op. cit.

private investment encourages the audience about the potential for growth in the logistics sector.

Conclusions

The synergy of these mechanisms allows to:

1. Create an effective management system for the logistics sector. The digital portal provides operational management, the strategy determines the direction of development, and the fund provides financial resources.
2. Increase the competitiveness of the national economy because developed logistics reduces production costs, improves the quality of services, and promotes export growth.
3. Attract additional investment, as transparency, efficiency, and government support make the logistics sector attractive to investors.
4. Create new job opportunities, as the development of logistics stimulates the creation of new jobs in various segments of the economy.
5. Improve the population's quality of life, as developed logistics ensures the availability of goods and services and reduces their cost.

Taking into account the specific features of the presented mechanisms, it is necessary to indicate the perspective visions, in particular:

1. Expanding the functionality of the digital portal, such as integrating with new systems, developing analytical tools, and personalizing services.
2. Deepen cooperation between the state and business in the context of jointly identifying logistics development priorities and involving business in the development and implementation of the strategy.
3. Involvement of international experience, including cooperation with international organizations and companies to implement advanced technologies and practices.
4. The development of green logistics will result from stimulating environmentally friendly technologies and vehicles.

Thus, the comprehensive application of these mechanisms will allow Ukraine to become a modern logistics hub, contributing to economic growth, improving the population's quality of life, and strengthening the country's international position.

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Z RECENZJI

[...] POLSKA JEST ZBYT MAŁYM KRAJEM O ZNIKOMYM POTENCJALE GOSPODARCZYM W SKALI ŚWIATA, ABY DETERMINOWAĆ KSZTAŁTOWANIE SIĘ ŚWIATOWEJ GOSPODARKI. JEJ POTENCJAŁ INNOWACYJNY JEST ZBLIŻONY DO ZERA. PRAKTYCZNIE RZECZ BIORĄC IMPORTUJEMY Z ZEWNĄTRZ WSZYSTKO, CO USPRAWNIA PROCESY GOSPODAROWANIA. TYM WIĘKSZA ROLA NINIEJSZEJ MONOGRAFII, KTÓRA W TRUDNYCH WARUNKACH PODEJMUJE WYZWANIE NAKREŚLENIA STRATEGII WYBRNIĘCIA Z PUŁAPKI ZACOFANIA INNOWACYJNEGO.

DR HAB. ADAM SZAFARCZYK

PREZENTOWANA MONOGRAFIA JEST EFEKTEM WSPÓŁPRACY NAUKOWCÓW REPREZENTUJĄCYCH RÓŻNE DYSCYPLINY NAUKOWE – Z ZAKRESU NAUK EKONOMICZNYCH, O ADMINISTRACJI, POLITYCE, ZARZĄDZANIU, ZDROWIU, INFORMATYKI, PSYCHOLOGII. ROZDZIAŁY UKAZUJĄ PROCES UWALNIANIA SIĘ OD WĄSKIEGO PODEJŚCIA DO ZŁOŻONYCH ZAGADNIEŃ, OSADZONEGO W JEDNEJ DZIEDZINIE WIEDZY, ORAZ WYNIKAJĄCYCH Z TEGO WIELU OGRANICZEŃ BADAWCZYCH. PREZENTOWANE ROZDZIAŁY SĄ WYNIKIEM WSPÓŁPRACY NAUKOWEJ ZARÓWNO NA STYKU WYŻEJ WYMIENIONYCH DYSCYPLIN, JAK I WSPÓŁPRACY MIĘDZYNARODOWEJ POMIĘDZY UCZELNIAMI PARTNERSKIMI, A TAKŻE SZEROKO POJĘTEGO BIZNESU (PRAKTYKI BIZNESOWEJ).

PROF. DR HAB. NAZAR PODOLCHAK

THE PRESENTED MONOGRAPH IS AN INTERESTING ACCOUNT OF THE DIVERSITY OF APPROACHES TO THE PRESENTED RESEARCH PROBLEMS, USING AN INTEGRATED, MULTIFACETED APPROACH TO THE PRESENTED MICRO- AND MACROECONOMIC PROBLEMS, WITH A PARTICULAR FOCUS ON THE COMPONENT OF MANAGEMENT AND QUALITY SCIENCES. THE AUTHORS PRESENT A GOOD SCIENTIFIC WORKSHOP, USE CORRECTLY SELECTED LITERATURE ON THE SUBJECT, AS WELL AS PRESENT THE RESULTS OF THEIR OWN RESEARCH. THE SUBMITTED MONOGRAPH MEETS THE REQUIREMENTS OF A SCIENTIFIC WORK (...).

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