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LOGISTICS HUBS DEVELOPMENT AS A PART OF CUSTOM POLICY

Abstract. The ***purpose*** of this study is to develop an empirical model for estimating the demand for customs-cleared logistics hubs in Ukraine, using the case of LLC "Nova Poshta" as an example of a major national logistics operator. The paper aims to contribute to the scientific and practical understanding of how operational indicators influence the strategic development of logistics infrastructure under conditions of geopolitical instability. ***Methods:*** a multiple regression analysis was conducted using operational data from 2019 to 2023. Key variables affecting the demand for logistics hubs were identified and integrated into a quantitative forecasting model. The model was then applied to 2023 data to validate its practical applicability. In addition, institutional and infrastructural challenges were analyzed through a qualitative review of regulatory documents, expert reports, and sectoral statistics. ***Results:*** the regression model projected a demand for 11.11 logistics hubs for 2023, aligning closely with the actual reported number (11). The analysis revealed critical limitations in Ukraine's logistics system, including outdated infrastructure, regulatory fragmentation, low digitalization levels, and the destructive impact of the ongoing war. A strategic framework was proposed for enhancing customs administration via digital transformation, route optimization, and international harmonization. **Practical value:** this research provides a methodological basis for forecasting logistics infrastructure needs and offers a policy-relevant strategy for integrating customs-cleared hubs into national and regional planning. The findings are of practical interest to logistics businesses, public finance experts, and government institutions engaged in post-war recovery and international trade integration.

Keywords: state budget; customs policy; customs logistics; logistics hub; planning; public finance management

Problem statement

Customs logistics represents a modern applied branch of logistics that integrates two areas: the sphere of business activity and the procedures of state regulation, which connect the activities of customs procedure participants concerning the organization of logistics operations and the arrangement of customs clearance. The customs clearance of goods by logistics companies is organized in a way that depends on the regulation of customs duties by the states whose territories are crossed by the object of logistics. Henceforth, we will specify that the object of logistics shall be considered the goods, as the key customs value of goods transportation depends on their subsequent commercialization. The construction of logistics chains within the networks of logistics companies, particularly towards the western and southern directions, determines the vectors of Ukraine's integration into the Western European and global transport logistics systems.

The state's customs policy primarily aims to combine the stimulation of logistics transportation with ensuring economic security amid the globalization of global transportation chains and the challenges posed by the customs policies of the countries involved in the activities of trade counterparties. Regardless of political decisions in the customs policies of individual countries (an example of such radical decisions being the customs policy of the United States since early 2025), logistics continues to develop in alignment with global business activities related to goods exchange. The globalization of transportation transforms logistics routes into complex tools of influence on development, with the impact on logistics flows causing a cumulative transformation of the economies not only of individual regions but also of entire countries and their alliances.

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Thus, customs logistics is understood as the set of processes and services that facilitate the movement of goods flows across national borders. These processes are shaped in accordance with established customs regimes and legal frameworks. Having evolved into a distinct field of activity, customs logistics encompasses the interaction of professional logistics companies with customs authorities, the preparation and submission of cargo declarations, the payment of import-export duties and other related charges, as well as compliance monitoring with technical and sanitary standards incorporated into the customs regulations of each country. The strategic objective of customs logistics is to minimize cargo clearance time and to reduce the risk of financial penalties resulting from non-compliance with customs regulations.

The objective necessity for the emergence and development of customs logistics lies in its capacity to reconcile the protectionist policies of different countries with the creation of a system that stimulates desirable business activities and fosters productive international business relations. In our view, the influence of customs logistics on sustainable development should be a matter of regulatory oversight by national governments. From the foregoing, a scientific inquiry arises concerning the need to study how contemporary instruments of customs logistics are formed and applied to ensure the effective implementation of a country's customs policy in its interaction with the customs policies of other nations during export and import operations.

Literature review

Recent scientific research on customs logistics has focused on practical aspects of addressing the challenges of uncertainty. To this end, scholars have been solving applied problems of modeling transport flows using empirical logistics data. A. Nadi et al. developed a model linking maritime and land transportation at ports for time planning in logistics hubs [1]. Z. Rudneva emphasizes the growing integration of postal services into logistics transportation, driven by the increasing volume of online trade. This trend necessitates the development of a network of logistics hubs with customs clearance capabilities by postal companies [2]. The standardization of transport containers and the synchronization of their online customs processing have also been studied by H. S. Sternberg and M. Denizel, who proposed a model for optimizing bidirectional transport flows [3]. M. Almalki and M. Alkahtani identified improvements in transportation efficiency indicators as a result of the development of logistics hubs in Saudi Arabia [4]. X. Xu et al. highlight that the future lies in a collaborative logistics system that will function as a network for multimodal cross-border cooperation [5]. A. Bogucka and T. Landmann stress that international logistics is an essential and integral component in meeting humanity’s fundamental humanitarian needs [6].

Ukrainian scholarly publications predominantly examine customs logistics within the framework of the transport economy, focusing on customs clearance processes during the transportation of goods.In contrast, foreign research often emphasizes the study of customs regulation concerning the directions and volumes of logistics flows. O. Yaremenko has systematized the definitions provided by Ukrainian scholars [7], who conceptualize customs logistics as an element of logistics activities associated with the customs clearance of goods within the context of foreign economic operations. The researcher summarized the definition of customs logistics as an activity grounded in research findings and practical approaches aimed at regulating customs-related goods, information, and financial flows to protect national interests, seek a balance of interests, and ensure the security and development of foreign economic activity (FEA) participants. R. Fedorenko emphasizes that the level of development of logistics infrastructure and the efficiency of customs services are the primary factors influencing the success of regional enterprises in entering the global market, thereby shaping the customs-logistics foundation of foreign economic activity.

Customs logistics is formed through the coordinated efforts of customs authorities, logistics providers, and participants in foreign economic activity, who collectively establish a framework for stimulating international trade [8]. Serbina T. and Trushkina M. consider the significance of customs logistics at the level of an economic category, which includes a scientific component, an applied component in the formation of foreign economic relations, and the practical organization of transport in economic relations [9]. I. Kryvovyaziuk emphasizes that customs logistics in wartime changes, focusing on timely delivery of goods, taking into account risks, in particular, complicated logistics of humanitarian cargo, deviations from regulatory customs clearance procedures and the influence of the human factor on transportation [10]. A. Maksimova at all emphasize the importance of balanced content of legislation during military operations to support the smooth operation of customs logistics [11]. The issues of organizing customs logistics, taking

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into account the customs policy of governments, were also addressed by O. Shalieva [12], L. Kustrich [13], I. Nikolenko and M. Martynenko [14].

An analysis of the recent body of literature reveals a marked increase in scholarly attention to the organization of customs logistics and the development of an effective state customs policy under conditions of martial law. The relevance of such research is driven by the imperative to sustain, preserve, and advance foreign economic activity amid the destabilization of economic processes. Concurrently, there is a recognized research potential in the study of practical experience regarding the application of modern instruments. An example of such practical implementation of customs policy through customs logistics is the promotion of logistics hub operations.

The aim of the article

The purpose of the article is to analyze the conditions and regulation of the use of logistics hubs in Ukraine as a modern tool of customs logistics in the context of implementing customs policy, with the aim of systematizing the regulatory framework and identifying obstacles to the implementation of these business instruments.

Methodology

To achieve the aim of this study, we propose a model for evaluating the need for logistics hubs, grounded in multiple factors characterizing a logistics company's operations and supported by empirical data from Nova Poshta LLC. LLC "Nova Poshta" (distinct from the NOVA group of companies) is the largest logistics operator in Ukraine, actively expanding its operations both into frontline territories and through the development of international delivery services. The company's influence and operational practices provide a substantive basis for analyzing its experience in the use of logistics hubs within Ukraine.

At the same time, LLC "Nova Poshta" is a company of strategic importance whose warehouses and branches have been subjected to military attacks. Therefore, the modeling in this study was based on data for the period 2019–2023. Although the data are publicly available, they have been compiled and generalized by the author from the financial and managerial reports of LLC "Nova Poshta" [15], from the "About the Company" sections of official press releases published on the company's website [16], as well as from information provided by a company employee.

To construct a trend formula for the number of logistics hubs with customs clearance (hereinafter denoted as NLH) in the operations of Nova Poshta LLC, we apply a multiple regression methodology [17] based on publicly available data and the company's internal accounting records.

The trend in NLH utilization can be expressed by the following equation:

$$NLH=\alpha0+\alpha1\cdot V+\alpha2\cdot S+\alpha3\cdot E+\alpha4\cdot A+\alpha5\cdot 1T+\alpha6\cdot 1D+\alpha7\cdot C+\alpha8\cdot M+\varepsilon \quad (1)$$

where:

V — number of shipments, million items;
S — total area of logistics centers, thousand m²;
E — number of employees, thousand persons;
A — level of customs automation, %;
T — cargo handling time at the hub, hours;
D — average delivery time, hours;
C — number of transport vehicles, units;
M — number of international partnerships, units.

In this model, increases in the number of shipments (V), facility area (S), workforce size (E), number of vehicles (C), number of international partnerships (M), and the degree of customs automation (A) are assumed to have a direct impact on the demand for new logistics hubs. Conversely, reductions in cargo handling time (T) and average delivery time (D) are considered indicators of improved logistics efficiency and are therefore included in the model as inverse values.

Results

The logistics hub is developing as part of a network of modern customs policy instruments implemented through the development of customs logistics. Logistics hub systems cover various functions, from storage

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and sorting of goods to customs clearance and transport coordination, which allows to ensure a high level of customer service and efficiency of operations, as well as to stimulate, adjust and localize the necessary transport for foreign economic activity. In Table 1 we group the main aspects of the organization and functioning of logistics hubs, which characterize their purpose for the implementation of customs policy.

Table 1

Main aspects of the organization and functioning of logistics hubs
Source [13, 18]

Aspect	Characteristics of the aspect
Purpose of operation	Optimization of accounting for commodity flows, reduction of logistics costs, reduction of transaction costs for customs clearance.
Main functions	Warehousing, transshipment, sorting, packaging, customs clearance, transport coordination.
Types of logistics hubs by scale of use	Global (international), national, regional logistics centers of general or special purpose.
Key participants	Shippers, carriers, customs services, warehouse logistics operators, financial institutions.
Necessary infrastructure	Warehouses, transport hubs, terminals, customs zones, information systems, data centers.
Technological solutions	Automation of warehouse processes, GPS monitoring, TMS, WMS, RFID, blockchain, artificial intelligence.
Funding	Revenues (user fees), private investments, public-private partnerships, government subsidies, grants, loans.
Regulation and standards	National and international legislation, ISO standards, customs rules, transport regulations.

Since logistics hubs are closely connected with international transportation, they are an integral instrument of customs logistics. Therefore, regulation by normative documents reflecting customs policy deeply intervenes in their operations and shapes the conditions for their use by transportation entities engaged in foreign economic activity. A business entity that actively uses and develops logistics hubs in Ukraine is Nova Poshta LLC. In Table 2, we specify the areas of responsibility of Nova Poshta LLC in the use of logistics hubs through interaction with state entities that implement customs and tax policies, conduct foreign exchange control, and ensure other regulatory oversight of the functioning of logistics hubs.

As of 2025, and looking ahead to 2027, the Association Agreement between Ukraine and the European Union is influencing the development of cooperation in the field of customs clearance and tariff regulation, defining the key conditions for the use of logistics hubs. The Agreement with the EU provides for the implementation of European standards in customs control procedures, setting the framework for the integration of Nova Poshta LLC into the EU postal services market and requiring particular attention to the implementation of this Agreement. The development of logistics hubs is becoming especially important in the context of Ukraine's integration into the EU economic area, the advancement of an export-oriented economic model, and the growing demands for the speed and security of logistics services.

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Table 2

Nova Poshta LLC interaction with the state policy implementers

Source [15,16]

Functions and powers of a state body	Examples of state body activities	Responsibility of Nova Poshta LLC for the implementation of Ukraine's customs policy
The Cabinet of Ministers of Ukraine forms customs policy through resolutions and proposes draft laws on customs policy and customs tariffs	Resolution of the Cabinet of Ministers of Ukraine No. 1057 (as amended), Law "On Customs Tariff"	Implementation of government regulations, study of changes in customs legislation
The Ministry of Finance of Ukraine is responsible for implementing policy in the field of customs regulation and tax administration	Regulations of the State Customs Service of Ukraine and the State Tax Service of Ukraine	Proposals for legislative initiatives, calculations of customs duties and payments plans, tax burden calculations, consultations
The State Customs Service of Ukraine exercises control over customs clearance of goods and administration of customs payments	Customs Code of Ukraine, Law on Customs Tariff of Ukraine, Order of the State Customs Service of Ukraine No. 289	Electronic declaration, cargo inspection, prevention of illegal transportation of goods, payment of duties
The State Tax Service of Ukraine exercises control over the payment of other taxes and fees	Tax Code of Ukraine	Administration of VAT, income tax, excise duty
The National Bank of Ukraine regulates currency transactions during international transportation	NBU Resolution No. 13 dated 03.01.2019	Taking into account preventive measures and adjustments to currency transactions, reporting on currency control
The Antimonopoly Committee of Ukraine monitors compliance with antimonopoly legislation in the logistics sector	Law of Ukraine "On Protection of Economic Competition"	Competition regulation, complaint handling and inspections
The State Service for Special Communications and Information Protection of Ukraine ensures the protection of information systems and controls cybersecurity.	Law of Ukraine "On Protection of Information in Information and Communication Systems"	Implementation of information protection systems, cybersecurity audit
The State Service for Food Safety and Consumer Protection organizes quality and safety control of goods crossing the customs border	Law of Ukraine "On Protection of Consumer Rights"	Cargo inspections, compliance with safety standards

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Table 3 presents the indicators characterizing the intensification of the use of Nova Poshta LLC's logistics hubs.

Table 3

Performance indicators of Nova Poshta LLC regarding postal transportation and use of logistics hubs

Source [15,16]

Indicator	2019	2020	2021	2022	2023
Number of shipments, million pcs.	214	240	280	260	300
Number of employees, thousand people	27	28	30	29	31
Number of logistics hubs	8	9	10	10	11
Total area of logistics centers, thousand m²	95	110	130	135	150
Average check per shipment, UAH	49	55	60	58	61
Processed international shipments, million pcs./year	x	40	50	55	65
Average delivery time of international shipments, days	x	7	6	5.5	5
Level of automation of customs procedures, %	60	65	70	75	80
Cargo processing time at the hub, hours	x	24	20	18	12
Detained cargo, %	x	6	5	4	3
Share of customs checks from cargo volume, %	x	18	15	12	10
Number of vehicles, units	2500	2700	2900	2850	3100
Average delivery time, hours	48	44	40	42	39
Customs clearance speed, hours	x	12	10	9	7
Customs clearance costs, million UAH/year	x	130	125	115	100
Number of international partnerships	x	8	10	12	15

We will calculate the coefficients of the multiple regression model based on the data from 2019 to2023 and obtain the following model:

$$NLH = -0{,}0001 + 0{,}0033 \cdot V + 0{,}0210 \cdot S - 0{,}0015 \cdot E + 0{,}0089 \cdot A + 4{,}08 \cdot 10^{-5} \cdot (1/T) - 1.38 \cdot 10^{-6} \cdot (1/D) + 0.0020 \cdot C + 0.0067 \cdot M \quad (2)$$

By substituting the data for the year 2023 into this model, we obtain the calculated demand for logistics hubs of LLC "Nova Poshta" according to the development trends of postal transportation since 2019:

$$NLH2023 = -0{,}0001 + 0{,}0033 \cdot 300 + 0{,}0210 \cdot 150 - 0{,}0015 \cdot 31 + 0{,}0089 \cdot 80 + 0{,}0000408 \cdot (1/12) - 0{,}00000138 \cdot (1/39) + 0{,}0020 \cdot 3100 + 0{,}0067 \cdot 15 = 11{,}11 \quad (3)$$

The model calculation results indicate a growing demand for logistics hubs in the coming years, as the predicted value slightly exceeds the number of logistics hubs reported for 2023 (11). However, given the context of full-scale military operations, it is generally inadvisable to conduct a detailed analysis of the current performance indicators of the country's largest logistics operator. Therefore, our modeling is limited to the year 2023.

Additionally, from the data in Table 3, we can conclude that the average increase in the number of logistics hubs created by a large postal operator has been almost 40% over the past five years. These logistics hubs include 5 main and regional hubs, the main hubs are located in Kyiv, Lviv, Dnipro, Odessa and Kharkiv. The hubs are equipped with high-speed sorting lines and automated conveyors that allow processing up to 100 thousand postal items per hour. At the same time, it is the warehouses of logistics hubs, especially in Kharkiv, that become targets of shelling by Russia, as a result of which employees of the postal operator die.

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Despite Russia's military aggression, Ukraine is experiencing internal problems that complicate the effective operation of logistics hubs. The main problem is the insufficient level of development of transport, energy infrastructure and infrastructure for improvement and rational planning. A significant part of logistics hubs in Ukraine operate on the basis of outdated transport and warehouse complexes that do not meet the requirements of modern automated logistics. Lack of investment in the modernization of transport nodes, limited capacity of road and rail approaches, as well as uneven development of transport corridors reduce the effectiveness of hubs as multimodal centers. For example, according to estimates by the Ministry of Development of Communities, Territories and Infrastructure of Ukraine, more than 60% of logistics facilities do not meet EU technical standards [12].

Another serious problem is regulatory fragmentation and the lack of a single state strategy for the development of logistics hubs, which is partly due to the changing transportation landscape due to active military operations throughout the country. The status of a logistics hub is not clearly defined as a tool for implementing not only logistics transportation, but also customs policy. Accordingly, we believe that opportunities to attract the influence of logistics hubs on foreign economic activity through targeted comprehensive planning of their network are being lost - they are poorly integrated into the regional planning of United Territorial Communities and regions. Therefore, there is a lack of coordination between state and local authorities in issues of spatial planning, land allocation and transport integration, not to mention the role of private owners of these hubs - for example, postal operators, who are forced to develop customs logistics in conditions of legal uncertainty of transportation conditions. Regulation of customs clearance alone is not enough to fully realize the potential of customs policy.

Therefore, the problem of insufficient speed of digitalization and automation of logistics processes for global competition is a concomitant problem of the described problems. Owners of logistics hubs are in no hurry to make capital investments in infrastructure and technologies. While international practice demonstrates the active implementation of smart technologies (Warehouse Management Systems, Transport Management Systems, IoT, AI-analysis of flows, etc.), most Ukrainian logistics centers still operate in manual mode, which leads to loss of time, increased operating costs and increased risk of errors. According to the EBA Logistics Index (2023), only 28% of logistics enterprises in Ukraine use modern digital tools in cargo flow management [13]. It is also worth highlighting the lag in integration into the international logistics system. Despite Ukraine's geographical attractiveness as a transit country, the level of integration of Ukrainian hubs into the Trans-European Transport Network (TEN-T) remains limited due to technical differences in standards, slow pace of harmonization of customs clearance procedures, and the lack of certified logistics service operators of international level, which is exacerbated by uncertainty due to the constant aggression of the Russian Federation against Ukraine [14].

The challenges associated with military operations in the country have become a significant destructive factor for the integrity of the logistics infrastructure. Many logistics hubs in the east and south of Ukraine have been partially or completely destroyed. Disruption of usual logistics routes, blockade of ports, mining of railway lines and damage to bridges have led to an overload of the western logistics shoulder of Ukraine, which, in turn, has revealed a critical insufficiency of logistics hubs near the western border.

Overcoming these challenges requires a comprehensive approach to solving the outlined problems, starting from businesses that organize hubs for the convenience of doing business, to the Government of Ukraine, which must provide a comprehensive vision of the consequences of implementing customs policy and timely prevent negative ones. The negative consequences of customs policy and its use in relation to logistics hubs will be the construction of logistics routes outside the territory of Ukraine, the relocation of businesses outside the territory of Ukraine, and the narrowing of the range of transportation.

Let us formulate examples of a strategy for carriers' businesses to improve customs administration in logistics hubs (Table 4). Ukrainian businesses can apply the measures of this strategy to adapt to the economic environment and state customs policy.

The government must also consider the local strategies of each business when building a network of logistics hubs and develop customs policy to foster the most integrated and effective system for combining local business initiatives.

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Table 4

Strategy for improving customs administration through logistics hubs

Strategic goal	Strategy implementation measures	Strategic indicators
1. Digitalization and automation of customs procedures	Implementation of machine learning, development of artificial intelligence based on it, use of blockchain technologies for customs control and accounting of goods. Use of electronic document flow and improvement of the "single window" system.	Reducing customs clearance time, minimizing the human factor, increasing transparency of operations.
2. Optimization of logistics routes and use of hubs	Use of Big Data and predictive analytics to optimize logistics flows, which will reduce delays at customs. Integration of logistics centres with international customs systems.	Increasing the speed of cargo processing, reducing storage costs, improving international cooperation.
3. Simplification and harmonization of customs procedures	Participation in international customs initiatives, obtaining the status of a highly trusted participant for the Eurozone customs space, expanding partnerships with companies in zones attractive for logistics development.	Reducing barriers to international trade, reducing customs clearance time, increasing the company's competitiveness.

Conclusions

Observed international studies tend to treat logistics hubs as subjects for data-driven optimization and design innovation. For example, empirical models have been developed linking terminal operations to transport flows (allowing real time prediction of traffic), tends to emphasizes standards for interoperability to improve efficiency. By contrast, Ukrainian research often focuses on the institutional and normative aspects of “customs logistics.” Therefore, the present paper’s attempt to incorporate coefficients derived from empirical data of a specific company into the development of a practical model for calculating the demand for customs-cleared logistics hubs represents a meaningful scholarly contribution to the advancement of Ukrainian practice in the field of customs-cleared transportation.

Despite the growing interest in hub logistics, Ukraine’s regulatory framework still lags behind its ambitions. For one, authors point out that the current legal and institutional structure does not clearly accommodate the “logistics hub” concept. Although the law envisages special zones (industrial parks, SEZs, etc.), the mechanisms for customs incentives within them are still undefined.

This study presents an empirical approach to estimating the demand for customs-cleared logistics hubs in Ukraine by applying a multiple regression model based on data from a major national postal operator. The results suggest a growing need for such hubs, with the 2023 projection slightly exceeding the actual reported number of logistics facilities. However, the validity of deeper performance-based analysis is constrained by the ongoing full-scale war and related data limitations.

The study highlights several critical structural and institutional barriers to the development of an effective logistics network in Ukraine. These include outdated infrastructure, limited multimodal integration, inadequate investment in modernization, regulatory fragmentation, and the lack of a comprehensive state strategy for the development and integration of logistics hubs into spatial and customs policy. Moreover, the military aggression by the Russian Federation has not only destroyed logistics infrastructure in eastern and southern regions but has also exposed vulnerabilities in the western corridor, which now bears the bulk of redirected flows.

Despite these challenges, logistics hubs remain a critical element for ensuring the resilience of transportation and customs systems. Their modernization and digital transformation—through the adoption of advanced technologies and harmonization with international logistics standards—are essential for enhancing Ukraine’s competitiveness in global trade. The proposed strategic directions for improving

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customs administration through logistics hubs, including digitalization, route optimization, and procedural harmonization, may serve as a framework for both policymakers and business actors.

Ultimately, the development of a national logistics strategy must consider not only the operational needs of businesses but also broader spatial, economic, and security dimensions. Integrating logistics hubs into national and regional planning—while ensuring legal clarity, technical modernization, and international interoperability—will be fundamental for Ukraine's recovery and future economic integration. It is important to emphasize that in Ukraine, the process of collecting data related to customs clearance and forecasting customs logistics through the use of logistics hubs is only at its initial stage. However, with the availability of sufficient data, Ukrainian practitioners and researchers will be able to address practical issues related to improving logistics and enhancing efficiency through customs clearance procedures and their digitalization.

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РОЗВИТОК ЛОГІСТИЧНИХ ХАБІВ ЯК СКЛАДОВА МИТНОЇ ПОЛІТИКИ

Анотація. ***Метою д***ослідження є розробка емпіричної моделі для оцінювання потреби у логістичних хабах з митним оформленням в Україні на прикладі ТОВ «Нова пошта» як провідного національного логістичного оператора. Стаття спрямована на наукове й практичне осмислення впливу операційних показників на стратегічний розвиток логістичної інфраструктури в умовах геополітичної нестабільності. ***Методи:*** у роботі застосовано метод множинної регресії на основі операційних даних за 2019–2023 роки. Визначено ключові змінні, що впливають на потребу в логістичних хабах, та побудовано прогностичну модель. Модель апробовано на даних за 2023 рік. Додатково здійснено якісний аналіз інституційних, регуляторних і інфраструктурних обмежень на основі нормативних документів, експертних звітів і галузевої статистики. ***Результати:*** побудована модель передбачила значення потреби на рівні 11,11 хабів для 2023 року, що практично відповідає фактичним даним. Виявлено системні бар'єри: застаріла інфраструктура, низький рівень цифровізації, фрагментоване регулювання та руйнівний вплив війни. Запропоновано стратегічні напрямки вдосконалення митного адміністрування через цифрову трансформацію, оптимізацію маршрутів і гармонізацію з міжнародними стандартами. ***Практична цінність:*** дослідження пропонує методологічну основу для прогнозування логістичних потреб та формує стратегічні орієнтири для інтеграції хабів із митними функціями в систему державного і просторового планування. Отримані висновки становлять інтерес для логістичного бізнесу, фахівців з публічних фінансів та органів державної влади, залучених до післявоєнного відновлення й міжнародної економічної інтеграції України.

Ключові слова: державний бюджет; митна політика; митна логістика; логістичний хаб; планування; управління публічними фінансами

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