

accidents, lower emissions, and more free time—are too great to ignore.

The transition will likely be gradual, starting with highways and closed urban zones before reaching full global adoption. As the technology matures, it will not just change our cars, but the very fabric of our cities and our economy. The future of transport is not just about moving faster, but about moving smarter and safer.

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CUSTOMS OPERATIONS AS AN ELEMENT OF PROFESSIONAL TRAINING OF FUTURE TRANSPORT SPECIALISTS

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The modern transport industry is impossible without properly organized customs control. Today, customs operations play an important role in ensuring the safety and legality of the movement of goods and vehicles across the border. In addition, they affect delivery times, transportation costs, and the overall efficiency of logistics processes. Therefore, knowledge of customs procedures is an important component of training future specialists in the field of transport.

For students studying in the transport field, learning customs operations provides not only theoretical knowledge but also practical skills. These include the ability to correctly process cargo, fill in customs documents, choose appropriate customs regimes, and anticipate possible problems during international transportation. Such knowledge makes it possible to effectively plan the work of transport enterprises and avoid unnecessary delays at the border.

The purpose of this paper is to demonstrate the role of customs operations in the training of future transport specialists using the example of education at Kharkiv National Automobile and Highway University. The article examines the main theoretical aspects of customs activities, practical cases, interconnections with other disciplines, and modern trends that help to understand how important customs operations are for the professional development of students. [1]

Customs operations are a set of actions and procedures carried out by customs authorities to control and process goods and vehicles crossing the state customs border. They include document verification, customs control, application of customs regimes, and collection of customs payments.

The essence of customs operations lies in ensuring the legality of foreign economic activity, protecting the economic interests of the state, and creating conditions for the safe and orderly international movement of goods and transport.

For transport specialists, understanding customs operations is essential, as they directly affect the timing, cost, and organization of transportation. Customs activity is a complex system and includes several interconnected components. The main one is customs control, which is aimed at verifying compliance with customs legislation when goods and vehicles cross the border.

Another important component is customs clearance, which involves fulfilling established customs formalities and granting permission for import, export, or transit of goods. The system of customs regimes also plays a significant role, as it determines the procedure and conditions for the movement of goods depending on the purpose of the operation. A separate element of customs activity is customs payments, which perform fiscal and regulatory functions. [2]

Customs regulation is carried out on the basis of national legislation and is aimed at regulating customs relations in the field of foreign economic activity. The main legal act is the Customs Code of Ukraine, which defines the procedure for customs operations, the rights and obligations of participants in customs relations, as well as the functions of customs authorities.

In scientific literature, issues of customs operations and customs regulation of

international transportation are actively studied by Ukrainian scholars. A significant contribution to the development of theoretical and practical aspects of customs has been made by such scientists as I. H. Berezniuk, P. V. Pashko, and O. P. Hrebelnyk, who in their works examine the functioning of the customs system, the organization of customs control, and mechanisms of state regulation of foreign economic activity.

In particular, the works of I. H. Berezniuk explore the organization of customs control and improvement of state customs policy. P. V. Pashko pays considerable attention to issues of customs security, combating customs offenses, and improving the efficiency of customs authorities. The works of O. P. Hrebelnyk examine economic mechanisms of customs regulation and their impact on the development of international trade.

The discipline “Customs Operations” at Kharkiv National Automobile and Highway University is taught by Associate Professor Nataliia Volodymyrivna Potaman, who has significant scientific and pedagogical experience in transport logistics, organization of transportation, and training of transport specialists. In her work, she combines theoretical training with practical examples of cargo customs clearance, which contributes to the formation of professional competencies of future transport specialists.

Customs operations occupy a key place in transport and logistics activities, as the efficiency of international transportation depends on their proper execution. Professional knowledge of customs procedures allows planning routes, delivery times, and transportation costs, taking into account customs payments and regimes. For future transport specialists, understanding customs operations helps avoid delays at the border, properly prepare documents, and ensure timely clearance of goods. This is especially important in organizing transit transportation, where any mistake or delay can lead to additional costs and disruption of logistics schedules.

Thus, customs operations are not an isolated discipline—they are integrated into the practical activities of transport specialists and influence every stage of the process. [3] The study of customs operations is closely related to a number of other disciplines studied in the transport field, such as:

Logistics and supply chain management

International transportation

Documentation and transport documentation

Thus, customs operations form a practical basis that connects theory with real transport processes and helps future specialists comprehensively assess transportation Situations.

During the study of customs operations, students develop both professional and analytical competencies, including:

Knowledge of customs legislation

Ability to carry out customs control and clearance of goods

Analytical skills

Practical logistics skills

Customs control is a key operation in transport activities, as it determines the legality of the movement of goods and vehicles across the border. It includes document verification, inspection of goods and vehicles, and risk assessment.

Customs clearance is the process of granting permission for import, export, or transit of goods after completing all necessary procedures. It includes submission of a customs declaration, verification of documents, calculation of customs payments, and obtaining a release decision.

Customs regimes determine the procedure and conditions for the movement of goods. The most common are:

Import

Export

Transit

Temporary import/export

Document processing is an integral part of customs operations. Key documents include customs declarations, transport documents (CMR, TIR, bills of lading), certificates, and permits. [4]

The training of transport students in customs operations is based on modern scientific research in international transportation, logistics, and customs. While

studying the discipline “Customs Operations,” I became familiar not only with theoretical foundations but also with real practical examples, which allowed me to better understand customs processes.

Analyzing these cases, I realized that customs procedures are not just formal rules but real actions that directly affect delivery times, company costs, and legal responsibility.

I also studied common mistakes made by transport companies, such as:

Errors in goods classification

Incomplete documentation

Incorrect determination of customs regime

These practical tasks taught me to anticipate risks and prepare documents in advance.

The course provided me with practical skills that I will confidently apply in my future profession, including understanding customs processes, preparing documentation, analyzing risks, and planning logistics operations. [5] Customs operations face several challenges today:

Increasing complexity of international trade

Technological changes

Risks of violations and fraud

Legislative changes

At the same time, the customs sphere is developing through:

Electronic declaration systems

Automation of customs control

Integration of international standards

Professional development of specialists

Customs operations are an integral part of professional training for future transport specialists. They ensure legality and safety in the movement of goods and significantly affect logistics efficiency.

Studying customs procedures at Kharkiv National Automobile and Highway University provided me with both theoretical knowledge and practical skills, forming a

strong foundation for my future professional activity.

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TECHNOLOGY'S IMPACT ON MODERN LOGISTICS OPERATIONS

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In the current context of global economic development, logistics plays a key role in ensuring the effective functioning of businesses and national economies. Whereas logistics processes were previously viewed primarily as a support function related to the transportation and storage of goods, today they have taken on strategic importance, determining the competitiveness of businesses in the market.

The relevance of this study stems from the rapid development of digital technologies and their active implementation in supply chain management. In the context of globalization and increasing competition, effective management of logistics processes has become a key factor in a company's success. The use of technologies such as artificial intelligence, the Internet of Things, blockchain, and automated logistics systems contributes to the optimization of supply chains, cost reduction, and improved operational efficiency. At the same time, their implementation is accompanied by a number of challenges, including the need for highly qualified personnel, significant financial costs, and cybersecurity risks [1].