AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-9| 2025 Published: |30-10-2025|

ЎЗБЕКИСТОН РЕСПУБЛИКАСИДА “Е-ТРАНЗИТ” АВТОМАТЛАШТИРИЛГАН АХБОРОТ ТИЗИМИНИ АМАЛИЁТГА ЖОРИЙ ҚИЛИНИШИ ИСТИҚБОЛЛАРИ.

https://doi.org/10.5281/zenodo.17498663

Хамраев Мираъзам Мирахматович
Божхона қўмитасининг Божхона институти бошлиғи в.в.б.
e-mail: mirakhmatovich7@mail.ru

ПЕРСПЕКТИВЫ ВНЕДРЕНИЯ АВТОМАТИЗИРОВАННОЙ ИНФОРМАЦИОННОЙ СИСТЕМЫ «E-TRANSIT» В РЕСПУБЛИКЕ УЗБЕКИСТАН.

Хамраев Мираъзам Мирахматович,
Исполняющий обязанности начальника Таможенного института при Таможенном комитете.
e-mail: mirakhmatovich7@mail.ru

PROSPECTS FOR THE IMPLEMENTATION OF THE AUTOMATED INFORMATION SYSTEM “E-TRANSIT” IN THE REPUBLIC OF UZBEKISTAN.

Khamrayev Mirazam Mirakhmatovich
Acting Head of the Customs Institute under the Customs Committee.
e-mail: mirakhmatovich7@mail.ru

Аннотация

Ушбу мақолада товарларни транзит қилиш жараёнини рақамлаштириш йўналишидаги илғор халқаро тажрибалар таҳлил қилиниб, уларнинг Ўзбекистон шароитида қўлланилиши имкониятлари кўриб чиқилган. Хусусан, “Е-Транзит” автоматлаштирилган ахборот тизимининг меъморий тузилиши, асосий функциялари, фойдаланиш сценарийлари ва унинг ишончлилиги ҳамда халқаро стандартларга мувофиқлигига оид жиҳатлар атрофлича ўрганилган. Мақолада мазкур тизимнинг техник ва ахборот хавфсизлиги талабларига мос келиши илмий таҳлил асосида баҳоланган ҳамда уни янада такомиллаштириш ва модернизация қилиш бўйича аниқ таклиф ва тавсиялар берилган.

Шу билан бирга, ички ва ташқи транзит юкларнинг божхона назорати ва расмийлаштирилишида учрайдиган муаммолар, юкларни божхона назорати остида божхона ҳамроҳлигида манзилга етказиб бериш жараёнидаги камчиликлар таҳлил қилинган. Ушбу муаммоларни бартараф этиш бўйича амалий ва институционал ечимлар таклиф этилган. Тадқиқот натижалари Ўзбекистон Республикасида замонавий рақамлаштирилган транзит тизимини шакллантириш ва такомиллаштиришда муҳим амалий аҳамият касб этади.

Калит сўзлар

Автоматлаштирилган ахборот тизимлари, электрон транзит тизими, божхона назорати ва назорат усуллари, рақамли маълумотлар алмашинуви, транзит юкларни кузатиш, транзит декларациялаш, юк ҳужжатларини рақамлаштириш, мослашувчан логистика ечимлари, божхона органлари ўртасидаги ҳамкорлик, жўнатувчи ва манзил божхона органлари, ташқи савдони рақамлаштириш, электрон расмийлаштириш жараёнлари, хавфсизлик ва мувофиқлик стандартлари, "E-Transit" ахборот платформаси, товарларнинг ҳаракатланишини мониторинг қилиш.

Аннотация

В данной статье проанализированы передовой международный опыт в области цифровизации системы транзита товаров и возможности его применения в условиях Республики Узбекистан. Особое внимание уделено архитектуре автоматизированной информационной системы «E-Transit», её основным функциям, сценариям использования, а также требованиям надёжности и соответствия международным стандартам. На основе научного анализа дана оценка соответствия системы требованиям технической и информационной безопасности, а также представлены конкретные предложения и рекомендации по её дальнейшему совершенствованию и модернизации.

Кроме того, в статье рассмотрены существующие проблемы, связанные с таможенным контролем и оформлением внутреннего и внешнего транзита грузов, а также с их доставкой под таможенным контролем в сопровождении таможенных органов. Предложены практические и институциональные решения по устранению данных недостатков. Результаты исследования представляют собой важную практическую ценность для формирования и развития современной цифровой транзитной системы в Республике Узбекистан.

Ключевые слова

AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-9| 2025 Published: |30-10-2025|

Автоматизированные информационные системы, система электронного транзита, таможенный контроль и методы контроля, обмен цифровыми данными, отслеживание транзитных грузов, оформление транзитной декларации, цифровизация товаросопроводительных документов, адаптивные логистические решения, взаимодействие между таможенными органами, отправляющий и назначенный таможенные органы, цифровизация внешней торговли, электронные процедуры оформления, стандарты безопасности и соответствия, информационная платформа «E-Transit», мониторинг перемещения товаров.

Abstract

This article analyzes advanced international practices in the digitalization of goods transit systems and examines the potential for their application in the context of the Republic of Uzbekistan. Special attention is given to the architecture of the "E-Transit" automated information system, its core functions, operational scenarios, and its compliance with reliability and international standards. Based on scientific analysis, the system's ability to meet technical and information security requirements is evaluated, and concrete proposals and recommendations for its further development and modernization are presented.

Additionally, the article explores existing issues related to customs control and clearance of both domestic and international transit cargo, as well as the challenges encountered during the transportation of goods under customs supervision with the escort of customs authorities. Practical and institutional solutions are proposed to address these challenges. The results of the research provide valuable practical insights for the formation and enhancement of a modern digital transit system in the Republic of Uzbekistan.

Key words

Automated information systems, electronic transit system, customs control and control methods, digital data exchange, tracking of transit goods, transit declaration processing, digitalization of shipping documents, adaptive logistics solutions, cooperation between customs authorities, dispatching and destination customs offices, digitalization of foreign trade, electronic clearance procedures, security and compliance standards, "E-Transit" information platform, monitoring of goods movement.

1. Introduction.

In the current global economic climate the development of fast and efficient goods transit systems is becoming a priority for economies. Processes of

AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-9| 2025 Published: |30-10-2025|

digitization and automation are also becoming increasingly important in the customs field, helping to improve the transparency, security, and efficiency of transit operations. In this regard, an important tool for improving the transit of goods in the Republic of Uzbekistan is the introduction of automated information systems using advanced international experience and modern technologies, including the E-Transit electronic transit system.

The creation and improvement of the digital transit system in Uzbekistan is one of the most important stages of the work being carried out to strengthen customs control, stimulate international trade and expand foreign economic relations. Therefore, this article is of great scientific and practical importance and will help to find solutions to actual issues in this field [1].

The possibilities were examined of the VAIS information system of the customs authorities of Azerbaijan. The VAIS information system is a program based on the principle of "paperless technology" a system aimed at the electronic processing of customs control and clearance of goods and vehicles moving across the customs border and the implementation of state control activities through a single program. [2].

When developing the automated information system E-Transit attention was also paid to maximizing the electronicization and automation of registration processes and reducing paper documentation. In addition, recommendations from DP World of the United Arab Emirates were used. The TIR-EPD, developed by the United Nations Economic Commission for Europe and the International Road Transport Union, and ASYCUDA, developed by the United Nations Conference on Trade and Development, were studied, and their interfaces are shown in Figure 1. [3].

AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-9| 2025 Published: |30-10-2025|

Figure 1. Start page of the TIR-EPD and Asycuda programs.

These systems were developed by leading experts from around the world in the fields of trade and economics, customs, transport and logistics, and information technology, with the aim of reforming customs clearance processes, simplifying and digitizing procedures, and creating conditions for foreign economic activity.

The capabilities of the United Arab Emirates' electronic information system "Cargo Customs" were also used.

The World Customs Organization's "Cargo Customs" information system developed in accordance with the "WCO Data Model 3.7" standards, there are "client" and "customs" platforms. [4].

Each user of the system is provided with a login and password after completing the relevant authentication processes in order to access the platform.

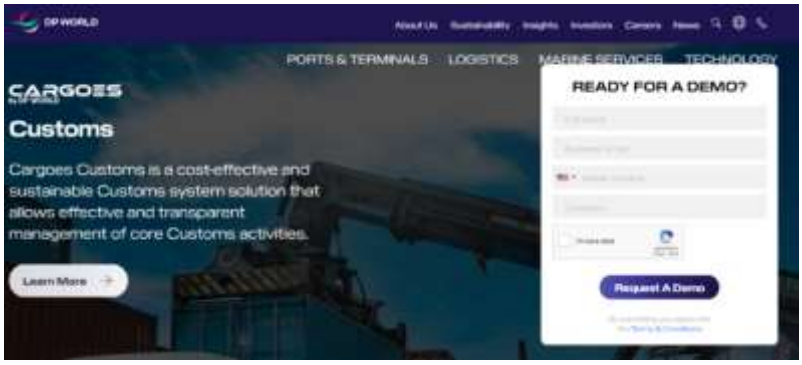

Figure 2. Start page of the "Customs Cargo" program.

With this login and password, the system user is assigned a status (carrier, broker, customs inspector, administrator, etc.) and a permissible limit is set for their work in the system.

The system was developed by leading IT specialists at DP World (currently numbering more than 400), with separate interfaces for economic entities and customs officials, and brings together all the control measures carried out by customs authorities.

AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-9| 2025 Published: |30-10-2025|

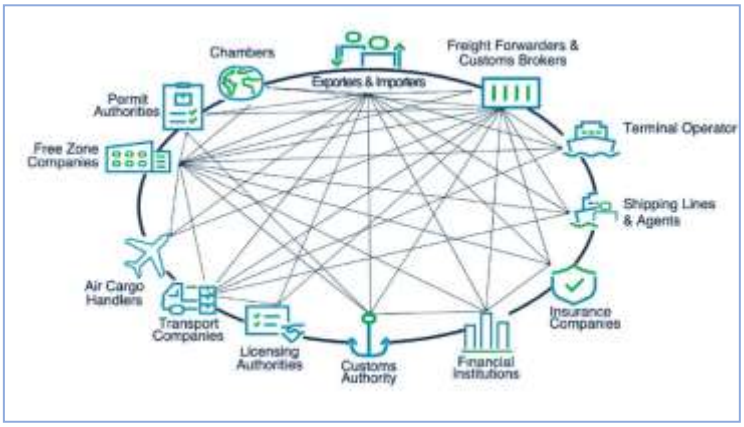

Рисунок 3. Интерфейс программы “Таможня грузов”.

Accordingly, e-Transit was based on the principle of a “step-by-step” transition with a view to creating a clear and accessible automated information system.

Particular attention was paid to the system interface, in which graphic forms were used. This is evidenced by the fact that there is a modern approach to the appearance of the system. [4].

Main part.

Today, digitization and automation of transit freight transportation processes is one of the most important areas for improving efficiency in customs affairs. For the Republic of Uzbekistan, the introduction of modern information technologies and automated systems in the management of processes for the import of goods into the customs territory and transit through it remains a topical issue. [5].

There is a need to control foreign trade cargo transported by vehicles using a single document, to provide information prior to foreign trade cargo crossing the customs border by means of a single declaration, which significantly reduces the time and costs incurred by entrepreneurs, and to develop a system that speeds up the customs control and clearance process for cargo, increase in tax and customs duties. Therefore, customs authorities conducted research work on the development of an E-Transit system. [6].

The main objective of the system development:

- to create the possibility of controlling foreign trade cargo transported by vehicles using a single form document, information provided by participants in foreign economic activity before foreign trade cargo crosses the customs border, as well as “temporary” storage by providing entrepreneurs with a single “transit declaration” to replace the submission of customs cargo declarations to the customs regime;

- reduce the time spent on customs control and clearance of foreign goods transported in transit through the territory of the Republic of Uzbekistan at the border, and carry out customs control and clearance promptly;

- ensure the correct calculation and full collection of tax and customs revenues to the state budget, ensure compliance with international standards for customs procedures, and ensure the collection of fees at border customs posts by regulatory authorities on the basis of a single document;

- achieve a significant reduction in the time spent on customs control and customs clearance;

- radical reform of the public services system, cancellation of the registration of goods and vehicles at border customs posts by customs authorities, digitization of these processes using available information;

- preparing reports on the volumes of natural gas and electricity from energy resources transported via pipelines and power lines across the customs border, as well as establishing effective customs control over the movement of natural gas and electricity and providing broad opportunities for participants in foreign economic activity [7].

The main tasks of the developed system:

In order to control foreign goods imported into the customs territory of the Republic of Uzbekistan and transiting through the territory of the Republic of Uzbekistan, it is necessary to complete an electronic transit declaration submitted by the declarant to the customs authority, from the customs authority of dispatch to the customs authority receiving the goods;

Provides for the provision of electronic information to customs authorities on the volumes of natural gas and electricity from energy resources transported by pipelines and power lines across the customs border, by attaching to the programme in electronic form the acts drawn up at border crossing points;

In the modern digital society, the use of automated information systems for effective management and efficient implementation of customs operations is becoming increasingly important. One such system is the E-Transit information system, which allows the activities of the customs committee to be digitised, goods to be declared electronically and their movement to be tracked. This article analyses the functional structure of this system and its compliance with information technology requirements.

The E-Transit information system has 5 modular structures and provides for the following:

1. module for creating declarations – information about vehicles and cargo is entered electronically and a customs declaration is created.

2. new declarations – here are stored declarations that have been created but not yet sent.

3. posted declarations – accompanying documents officially sent to customs authorities.

4. additional information – consist of information about the shipment, consignees, goods and card.

5. informations and classifiers – consist of the necessary database for preparing the declaration [8].

The system is designed according to a "modular principle" which allows each module to be improved independently and new functions can be added. This ensures the flexibility and scalability of the system.

The main requirements for the information systems being developed are their security and reliability. In this regard, to ensure the integrity and security of information in the information system, such mechanisms have been introduced as authentication and authorization using an electronic digital signature, the storage of login and login data in log files, the presence of backup copies and recovery scenarios on the server in case of an emergency, an error-resistant architecture in hardware and software, and the implementation of data storage and processing processes in the system in accordance with the standards O'zDSt 2590:2012 and O'zDSt 1135:2007 [9].

According to the system usage scenario, the user logs into the system using an electronic key and connects to their personal account. Then it enters the details into the declaration. Documents relating to road, rail and energy resources are uploaded and analysed. The system logically analyses the data submitted and prepares the declaration for processing.

To organize work according to this scenario, the system has a number of technical and organizational requirements. In other words, the system operates in 24/7 mode, ensuring uninterrupted operation even when 1,000 users are connected simultaneously and the speed of data storage, analysis and visualisation does not exceed the established standards. In this case, the web interface response time – no more than 5 seconds, and the ability to work in the boot is 50,000 requests per hour.

The E-Transit system not only automates electronic declarations, but also allows the system to be integrated with other information systems via web services. This allows for the centralisation of information exchange, expanding the scope of its service. The fact that the system uses modular architecture provides great opportunities for its development and scalability.

Conclusion.

The E-Transit information system is an important step in the digital development of the national customs system. This system effectively handles the following tasks:

- Provides electronic tracking of goods movement;
- Automates the declaration process;
- Ensures information security.

In the future, there are plans to expand the system with mobile applications, introduce high-performance servers to increase speed and integrate more broadly with the information systems of other government agencies.

REFERENCES.

1. M.M. Khamraev/ International experience in establishing customs control over transit cargoes / Customs Information Bulletin of Uzbekistan / 2023. Special issue. P.16-20.

2. S.Haziyeva/Assessing Azerbaijan's Preparedness for Transitioning to a Green Economy: A Legal Analysis of the "Green Customs" Concept/ Gümrük ve Ticaret Dergisi. DOI:10.70490/gumrukticaretdergisi.1556767 February 2025. 12(37):46-56.

3. G.Lewis/The Impact of ICT on Customs/World Customs Journal April 2009 Volume 3, Number 1 P. 3-11.

4. B.Brende, A.J.Al Zaabi, A.Al Zeyoudi/Artificial Intelligence for Efficiency, Sustainability and Inclusivity in Trade Tech/World Economic Forum Insight report january 2025 P. 4-35.

5. https://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/data-model/ehandbook/ehandbook-v3_7_0.aspx

6. Customs legislation and normative acts of Customs Committee of the Republic of Uzbekistan.

7. State standard of the Republic of Uzbekistan 2590:2012 — Information systems. Compliance requirements.

8. State standard of the Republic of Uzbekistan 1135:2007 — Information technology and data protection.

9. ISO/IEC 27001:2022 – Information Security Management Systems.