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DEVELOPMENT PROSPECTS OF THE ORGANIZATIONAL-ECONOMIC MECHANISM OF AZERBAIJAN'S FOREIGN TRADE ACTIVITY IN THE CONTEXT OF DIGITALIZATION

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Formulation of the problem. This article explores the development trends, organizational-economic mechanisms, and future perspectives of Azerbaijan's foreign trade activity in the context of digitalization. *The purpose of the study.* The purpose of the study is to identify priority areas for improving the organizational and economic mechanism of foreign trade activity of Azerbaijan and to develop scientific and practical recommendations for its development in the context of deepening digitalization of global and national economic processes. *The object of the study* is the organizational and economic mechanism of foreign trade activity of the Republic of Azerbaijan. *Research methods.* Using a descriptive-analytical methodology based on secondary data, regulatory documents, corporate reports, and international assessments, the paper evaluates the extent to which digitalization, automation, data analytics, and continuous control mechanisms have strengthened internal control effectiveness. *The main hypothesis.* Digitalization is a key catalyst for increasing the efficiency, transparency, and competitiveness of the organizational and economic mechanism of Azerbaijan's foreign trade activities. The introduction of innovative digital platforms (e.g., blockchain-based "single window", electronic customs systems, Big Data tools for market analysis) will significantly reduce transaction costs, accelerate logistics and customs procedures, diversify exports, and ensure the country's sustainable economic growth in the long term. *Present of the main material.* The research determines that in recent years, the implementation of digital platforms such as "Asan Customs" and the "Single Window" system in Azerbaijan has significantly increased the efficiency of foreign trade operations. According to 2024 data, the country's foreign trade turnover amounted to USD 47.4 billion, with a positive trade balance of USD 5.3 billion. *Originality and practical significance.* The article also analyzes the impact of digital transformation on customs processes, the effectiveness of digital systems during the pandemic period, human capital development, and cybersecurity issues. *Conclusions and prospects for further research.* The research results indicate that for Azerbaijan to transform into a regional digital trade hub, the application of technologies like artificial intelligence and blockchain, along with the strengthening of international cooperation, is essential.

Keywords:

Azerbaijan, foreign trade, digital transformation, e-customs, "single window" system, organizational-economic mechanism, digital trade, azerbaijani economy, trade turnover, digital infrastructure.

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ПЕРСПЕКТИВИ РОЗВИТКУ ОРГАНІЗАЦІЙНО-ЕКОНОМІЧНОГО МЕХАНІЗМУ ЗОВНІШНЬОТОРГОВЕЛЬНОЇ ДІЯЛЬНОСТІ АЗЕРБАЙДЖАНУ В КОНТЕКСТІ ЦИФРОВІЗАЦІЇ

Постановка проблеми. У цій статті досліджуються тенденції розвитку, організаційно-економічні механізми та майбутні перспективи зовнішньоторговельної діяльності Азербайджану в контексті цифровізації. **Мета дослідження.** Метою дослідження є визначення пріоритетних напрямків удосконалення організаційно-економічного механізму зовнішньоторговельної діяльності Азербайджану та розробка науково-практичних рекомендацій щодо її розвитку в контексті поглиблення цифровізації світових та національних економічних процесів. **Об'єктом дослідження** є організаційно-економічний механізм зовнішньоторговельної діяльності Азербайджанської Республіки. **Методи дослідження.** Використовуючи описово-аналітичну методологію, що базується на вторинних даних, нормативних документах, корпоративних звітах та міжнародних оцінках, у статті оцінюється ступінь, до якої цифровізація, автоматизація, аналітика даних та механізми постійного контролю посилили ефективність внутрішнього контролю. **Основна гіпотеза.** Цифровізація є ключовим каталізатором підвищення ефективності, прозорості та конкурентоспроможності організаційно-економічного механізму зовнішньоторговельної діяльності Азербайджану. Впровадження інноваційних цифрових платформ (наприклад, «єдиного вікна» на основі блокчейну, електронних митних систем, інструментів Big Data для аналізу ринку) значно знизить транзакційні витрати, прискорить логістику та митні процедури, диверсифікує експорт та забезпечить стале економічне зростання країни в довгостроковій перспективі. **Виклад основного матеріалу.** Дослідження визначає, що за останні роки впровадження цифрових платформ, таких як «Asan Customs» та система «Єдиного вікна» в Азербайджані, значно підвищило ефективність зовнішньоторговельних операцій. За даними за 2024 рік, зовнішньоторговельний обіг країни склав 47,4 млрд доларів США, з позитивним торговельним сальдо у 5,3 млрд доларів США. **Оригінальність та практична значущість.** У статті також аналізується вплив цифрової трансформації на митні процеси, ефективність цифрових систем у період пандемії, розвиток людського капіталу та питання кібербезпеки. **Висновки та перспективи подальших досліджень.** Результати дослідження свідчать про те, що для перетворення Азербайджану на регіональний центр цифрової торгівлі застосування таких технологій, як штучний інтелект та блокчейн, разом зі зміцненням міжнародної співпраці є важливим.

Ключові слова:

Азербайджан, зовнішня торгівля, цифрова трансформація, електронна митниця, система "єдиного вікна", організаційно-економічний механізм, цифрова торгівля, економіка Азербайджану, торговельний оборот, цифрова інфраструктура.

Formulation of the problem. The dynamic development of the modern world economy, the expansion of electronic services, and the penetration of information technologies into all fields are causing fundamental changes in global trade relations. Digitalization is completely renewing both the organizational structure and management mechanisms, as well as the analytical aspects of countries' foreign trade activities. In this context, the foreign trade policy of the Republic of Azerbaijan is also changing rapidly, with traditional trade models being replaced by innovative digital solutions.

The reforms implemented in Azerbaijan in recent years have accelerated the digital transformation of foreign trade, minimized obstacles, and created a more transparent, operational, and efficient business environment for entrepreneurs. The implementation of electronic systems in customs authorities, the automation of information flow, and the online acquisition of certificates and permits have

ensured significantly higher efficiency in foreign trade operations compared to previous years.

Analysis of recent research and publications. This research studied the development of Azerbaijan's foreign trade activity under digitalization conditions based on qualitative and quantitative analysis methods. The study relies on official data from the State Statistical Committee, the State Customs Committee, and international organizations. Statistical data analysis, comparative analysis, and theoretical synthesis methods were applied.

The purpose of the study is to identify priority areas for improving the organizational and economic mechanism of foreign trade activity of Azerbaijan and to develop scientific and practical recommendations for its development in the context of deepening digitalization of global and national economic processes.

Presentation of the main research material. Azerbaijan's foreign trade indicators



clearly show the country's position in this area and the impact of digital changes. In 2024, Azerbaijan's foreign trade turnover amounted to USD 47.4 billion, with exports accounting for 55.6% and imports for 44.4% of this figure. A positive surplus of approximately USD 5.3

billion was recorded in the foreign trade balance for the same year. These figures reflect stable development compared to 2023, when the total turnover was USD 44.868 billion and exports were USD 27.583 billion.

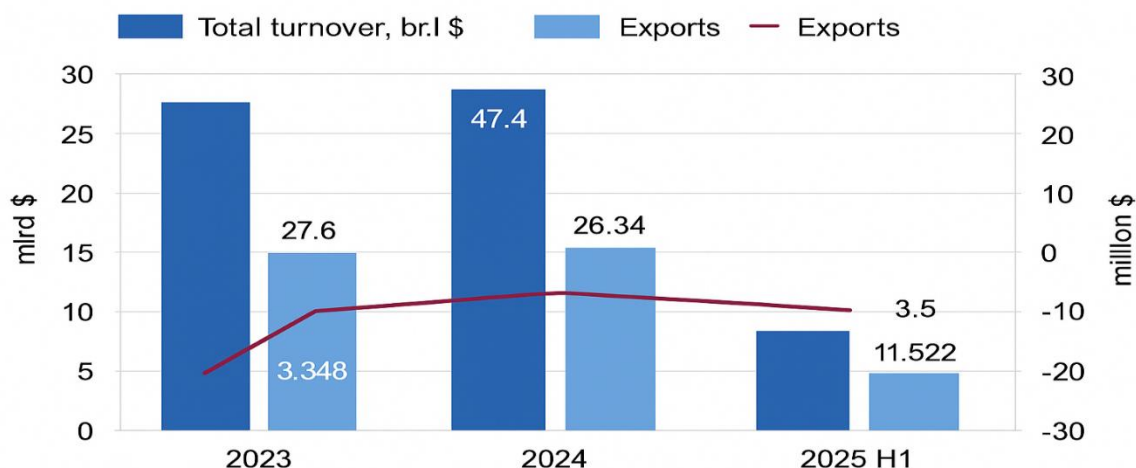


Figure 1 – Azerbaijan's foreign trade turnover and non-oil exports, 2023-2025

Source: Generalized by the authors based on [3]

Particularly noteworthy is that non-oil-and-gas sector exports amounted to USD 3.348 billion in 2023, demonstrating the successful continuation of the economic diversification strategy. In the first half of 2025, the total foreign trade turnover was USD 23.964 billion, exports were USD 12.442 billion, and imports were USD 11.522 billion. Although actual growth was observed in non-oil-and-gas exports during this period, the real growth rate reveals that the country's economy requires stronger support mechanisms.

Among Azerbaijan's main trade partners are Italy, Turkey, Russia, China, Georgia, and Israel. In 2023, 30.6% of the total trade turnover fell to Italy's share, which is related to traditional energy resource exports. However, Turkey and Russia have now taken the leading position in non-oil exports, confirming the expansion of Azerbaijan's economic partnership map.

The changes created by digitalization in foreign trade are mainly concentrated in three areas: the digitalization of data flow, the automation of customs operations, and the optimization of the logistics chain.

Electronic platforms like "Asan Logistics" and "Asan Customs" facilitate the electronic preparation of customs declarations and transport documents. The National Payment System creates conditions for the rapid execution of international payments. The "Single Window"

system provides the ability to obtain all necessary permits for foreign trade from a single platform.

The application of these digital tools is already yielding concrete results. For example, with the implementation of the electronic declaration system, customs clearance time has been reduced from 24-72 hours to 15-60 minutes. The risk management system has reduced the number of customs inspections by approximately 40%, preventing time loss and significantly reducing business costs. These changes not only facilitate the work of state bodies but also create a more transparent and predictable environment for business.

The Pandemic as a Digital Stress Test. The COVID-19 pandemic revealed the weaknesses of traditional trade models worldwide, but at the same time, it acted as a "stress test" testing the effectiveness of digital systems.

It was during this period that Azerbaijan's systems like "Single Window" and "Asan Customs" enabled trade operations to continue under physical distance restrictions. The 2.5-fold increase in e-commerce volume during the pandemic years is not accidental this proved how crucial digital infrastructure is for the country's economic resilience.

During this period, Azerbaijan's digital relations with trade partners strengthened further. Electronic document interchange



systems were created with many countries, and the process of mutual recognition of digital signatures was accelerated. This experience showed that digital transformation is not only a matter of efficiency but also a guarantee of economic stability in the face of global difficulties.

Digital transformation depends not only on technology but also on the professional personnel who can manage it. Increasing digital literacy and training qualified specialists in Azerbaijan is a strategic issue for the future of foreign trade.

Work in this direction includes opening digital trade specialties in higher education institutions, organizing special training programs for specialists of the State Customs Committee and the Ministry of Economy, as well as incentive measures for developing digital skills in the private sector.

Familiarizing young specialists with international experience and their specialization in the digital aspects of foreign trade will shape the country's long-term competitiveness. Particularly, the training of specialists in fields such as data analytics, artificial intelligence, and blockchain technologies is of special importance for the future digital trade ecosystem.

In the modern era, digitalization has become an important tool not only for economic efficiency but also for ecological sustainability. Electronic document circulation reduces paper consumption, automated route planning optimizes fuel consumption, and "smart" customs systems help prevent the transportation of substances harmful to the environment. While Azerbaijan is implementing its "green economy" transition strategy, digital trade mechanisms act as a guarantor of sustainable development.

In this regard, the "digital port" concept envisions not only operational efficiency but also compliance with ecological standards, which can facilitate the export of Azerbaijani products to sensitive markets like the EU. Calculating carbon footprint through digital technologies, monitoring energy efficiency, and automating ecological certification help foreign trade meet sustainability criteria.

As trade processes move to a digital environment, cybersecurity issues become more urgent. Since financial data, commercial secrets, and personal information are circulated en masse on electronic platforms, their protection becomes a national security issue. Azerbaijan is working in this field to strengthen the protection of the

State Customs Committee's databases, the "Asan Xidmət" platforms, and the National Payment System.

The development of cyber forensics capabilities, the creation of transparent audit mechanisms, and the study of international experience are necessary to build trust in the digital trade ecosystem. Entrepreneurs must be confident in the security of their data to fully utilize digital services. Particularly, compliance with global standards for data protection in international trade operations is of special importance.

In the context of digitalization and environmental sustainability, Azerbaijan's foreign trade mechanisms are being developed with innovative approaches. Particularly, the "Green Corridor" system not only increases the speed of customs operations but also reduces the number of physical inspections, which minimizes waiting time at the border, thereby reducing fuel consumption and carbon emissions.

This system creates significant advantages for exporters using it, especially companies sending agricultural products, as the holding time of goods at customs decreases and logistics processes are carried out more efficiently. Digitalized customs procedures minimize paper document flow, thereby reducing the ecological footprint.

Furthermore, security and data protection issues are not overlooked. The "Green Corridor" system operates based on risk assessment, and only law-abiding, high-performance participants can benefit from these advantages. The State Customs Committee monitors user satisfaction and implements digital solutions like electronic payments and databases to ensure the system's transparency. Simultaneously, customs concessions for the import of environmentally clean vehicles are also part of this system.

Regarding the sustainable development perspective, Azerbaijan is improving these mechanisms within the framework of "green economy" projects and international agreements. The "Green Corridor" not only increases operational efficiency but also ensures compliance with ecological standards and strengthens trust in the digital trade ecosystem at national and international levels. As a result of this approach, the Azerbaijani customs authority acts as an actor integrated with environmental policy in promoting "green trade."





The digital transformation process continues, and Azerbaijan plans further steps in this field. Blockchain technology holds great potential for increasing the transparency and security of transactions, while artificial intelligence enables the preliminary assessment of risks. These technologies not only minimize corruption risks but also increase the effectiveness of state services.

Among future development prospects, the "Digital Customs 2.0" model stands out, which envisions a fully automated, AI-managed customs network. Blockchain-based trade documentation can prevent the forgery of goods' origin certificates and logistics documents. The "Digital Port" concept envisions the transition of the Alat Free Economic Zone to a fully electronic logistics system.

Special attention should be directed to the digitalization of small and medium-sized businesses (SMBs). SMBs need training in e-commerce, digital marketing, and data analysis support. Work in this area will help further diversify the country's economy and increase non-oil exports. In this regard, the "Digital Port" model implemented in the Alat Free Economic Zone (AFEZ) provides strategic logistics and electronic documentation opportunities for SMBs. AFEZ is located in a strategic geographical position near the Baku International Sea Trade Port.

The Alat Logistics Center has been established here, and cargo tracking, a reservation system, and real-time data analysis are carried out through its digital platform. Simultaneously, the zone emphasizes "green" and sustainable development strategy, strengthening the ecological aspect of digital infrastructure; special areas have been allocated for clean energy projects.

A multimodal transport center is being formed, integrating road, rail, air, and sea transport. The opening of a cargo airport is planned for 2026, which will both increase the export opportunities of SMBs and make international trade operations more agile.

Thus, the digitalization of SMBs and the "Digital Port" infrastructure created in the Alat Free Economic Zone complement each other, serving to increase Azerbaijan's non-oil exports and diversify the economy. This approach also strengthens national and international trust in the digital trade ecosystem in accordance with the principles of resilient development and environmental sustainability.

Conclusion and prospects for further research. The work done by Azerbaijan in the direction of digitalization is highly appreciated at the international level. In 2025, the country achieved a 92.5% result in the UN's "Digital and Sustainable Trade Facilitation" report, becoming one of the regional leaders. This rating is related to the digital management of trade operations, the implementation of modern customs procedures, the expansion of electronic inspections, and a high level of international integration.

The prospect of the country becoming a regional digital trade hub also attracts attention. Increasing transit volume through projects like the Zangezur Corridor, the Baku-Tbilisi-Kars railway, and the Trans-Caspian Corridor can transform Azerbaijan into not only an energy but also a logistics and digital trade center. In this process, the harmonization of digital trade standards with neighboring countries, the integration of electronic document interchange systems, and the creation of joint digital platforms are of particular importance.

Digitalization affects all stages of Azerbaijan's foreign trade from customs to the logistics chain, from e-commerce to state regulation and increases economic efficiency. Azerbaijan has already taken significant steps in forming a digital trade ecosystem. Eliminating existing problems and fully applying digital technologies will further strengthen the country's global trade competitiveness.

Future success depends on continuous innovation, international cooperation, and human capital development. By combining its geographical location, energy resources, and now its digital infrastructure, Azerbaijan has the potential to become a significant economic player not only regionally but also globally. Digital transformation has become the most powerful tool for realizing this potential.

The most important directions for the country's future development are the application of advanced technologies like artificial intelligence, blockchain, and big data analytics; supporting the digital transformation of small and medium-sized businesses; establishing cybersecurity systems compliant with international standards; and forming trade models aligned with sustainable development principles. Work in these directions can transform Azerbaijan into a regional center for digital trade.

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