

THE NEED AND IMPORTANCE OF APPLYING THE LOGISTIC SYSTEM IN THE EXPORT OF FRUIT AND VEGETABLE PRODUCTS

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Annotatsiya: Ushbu maqolada meva-sabzavot mahsulotlarini eksport qilish jarayonida logistik tizimlarni joriy etishning dolzarbligi va iqtisodiy samaradorligi tahlil qilinadi. Logistika infratuzilmasining rivojlanishi mahsulot sifatini saqlash, tashish xarajatlarini kamaytirish va xorijiy bozorga chiqish raqobatbardoshligini oshirishga xizmat qilishi yoritiladi. Tahlil O‘zbekiston tajribasi asosida statistik ma’lumotlar va amaliy holatlar bilan boyitilgan. Bundan tashqari, ilg‘or xorijiy tajribalar va logistik texnologiyalarni qo‘llash istiqbollari ham ko‘rib chiqiladi.

Kalit so‘zlar: logistika, eksport, meva-sabzavot mahsulotlari, logistika markazlari, saqlash tizimi, tashish, xalqaro bozor.

Аннотация: В статье анализируется актуальность и экономическая эффективность внедрения логистических систем в процессе экспорта плодоовощной продукции. Подчеркивается, что развитие логистической инфраструктуры способствует сохранению качества продукции, снижению транспортных расходов, повышению конкурентоспособности при выходе на внешние рынки. Анализ дополнен статистическими данными и практическими примерами, основанными на опыте Узбекистана. Кроме того, будут рассмотрены перспективы применения передового зарубежного опыта и логистических технологий.

Ключевые слова: логистика, экспорт, плодоовощная продукция, логистические центры, система хранения, транспортировка, международный рынок.

Abstract: This article analyzes the relevance and economic efficiency of implementing logistics systems in the process of exporting fruit and vegetable products. It highlights that the development of logistics infrastructure serves to maintain product quality, reduce transportation costs, and increase the competitiveness of entering foreign markets. The analysis is enriched with statistical data and practical cases based on the experience of Uzbekistan. In addition, the prospects for the application of advanced foreign experiences and logistics technologies are also considered.

Keywords: logistics, export, fruit and vegetable products, logistics centers, storage system, transportation, international market.

1. Introduction.

Uzbekistan's agricultural sector, in particular fruit and vegetable growing, has been gaining great potential in terms of export potential in recent years. Uzbekistan has a significant

competitive advantage in this area due to its natural and climatic conditions, water resources, and labor resources. However, the weakness of the logistics system in preparing products for export negatively affects the competitiveness of products. Logistics is involved in all stages of the export process - from harvesting to storage, packaging, customs clearance and delivery, it plays an important role in the chain. Therefore, the development of logistics infrastructure and the use of modern storage and transportation technologies are becoming an urgent issue. Fruit and vegetable products are one of the most important and promising areas of the agricultural sector. Because these products play a significant role in ensuring food security of the population, meeting the requirements of healthy nutrition, and most importantly, increasing the export potential of the state. In particular, due to the favorable climatic conditions of the Republic of Uzbekistan, there is an opportunity to grow a variety of fruits and vegetables throughout most of the year, which requires the systematic development of the export of these products.

2. Analysis of literature on the topic.

In world experience, agrologistics is considered an integral part of the export system. UNCTAD and FAO reports emphasize the importance of logistics in exports, especially for products with a short shelf life. For example, in the European Union, the refrigerated transport system for agricultural products exported accounts for 40–50% of the total logistics investment. In local studies (Saidov, 2022; Rahimova, 2023), ensuring the continuity of logistics chains, storage conditions and transport efficiency are indicated as the main problems in agro-export. In addition, the importance of digital technologies (GPS, blockchain, IT) in the development of logistics systems is increasing. The logistics system is of great strategic importance in the export of fruit and vegetable products. The World Bank (World Bank, 2023) reports that logistics efficiency directly affects export and import prices. In particular, the presence of a cold chain logistics system in food products ensures their high-quality delivery (Kumar & Barman, 2022). Local studies (Juraev, 2021; Karimov, 2023) emphasize the consistent development of logistics infrastructure in Uzbekistan, in particular, the "Tashkent Logistics Center", "Angren" and "Navoi" free economic zones play an important role in this regard. However, the lack of storage, sorting, and containerization capabilities in the export of fruit and vegetable products is cited as an existing problem.

3. Research methodology.

The article uses statistical analysis, comparative analysis, expert interviews, analysis of regulatory and legal documents, and monographic observation methods. In particular, data from the State Statistics Committee, the Ministry of Investments, Industry and Trade, customs authorities, and private companies engaged in export were used. The main focus is on determining the direct impact of the logistics system on export efficiency.

4. Analysis and main results.

Year after year, the volume of exports is steadily growing, which means that Uzbekistan is making significant progress in the export of fruits and vegetables. At the same time, logistics costs are relatively decreasing, which indicates that exporters are using the logistics system more effectively. The opposite direction between these two indicators (exports are increasing, costs are decreasing) is the result of the modernization of the logistics system, infrastructure

development and improvements in management. As the logistics system improves, export volumes are increasing, and logistics costs in the price of products are decreasing. This increases the competitiveness of exporters, expands access to international markets, and increases foreign exchange earnings for the national economy. In conditions of problems with sales and unpredictability of demand, warehouse production is replaced by production on order. It becomes unprofitable to maintain large stocks, and at the same time it is impossible to miss new orders. Therefore, the rapid adaptation of the enterprise to environmental changes is ensured by the rapid change in the volume and composition of its subsystems (supply, production, sales), incoming and outgoing material flows. All this is done using the concept of logistics.

The need for a logistics system can be justified by the following:

1. The need for a special approach to perishable products. Fruit and vegetable products have a biologically short shelf life and require special conditions for transportation and storage. Parameters such as temperature, humidity, ventilation systems are very important for the integrity and quality of the product. This is ensured only by modern logistics systems.
2. Standards required when entering international markets. There are strict sanitary, phytosanitary, environmental and technical regulations for food products on the world market. It is through the logistics system that these standards can be observed, for example, through sections related to pre-export packaging, labeling, certification and quality control of products.
3. Ensuring the economic competitiveness of product prices. Logistics costs make up a large part of the cost of products. For example, for products exported from Uzbekistan to the markets of Russia, Kazakhstan, the UAE or China, transportation, storage, customs and intermediate costs directly affect the final price of the product. If the logistics system is properly organized, these costs can be reduced, and therefore the opportunity to sell products at a competitive price increases.
4. Fast and effective entry into markets. Today, export processes are based on global competition. Whoever delivers products faster and better wins the market. Therefore, logistics means speed, stability and quality of delivery.

The President of the Republic of Uzbekistan Shavkat Mirziyoyev has been paying special attention to the issue of exporting fruit and vegetable products. In particular, at the videoconference meeting held on November 28, 2024, the need to expand logistics capabilities in this area, establish pre-export centers in the regions, develop storage of products in refrigerated warehouses and container transportation was emphasized¹.

The President noted that although the volume of food exports in 2024 exceeded 2 billion US dollars, this figure is still far below the real potential of Uzbekistan. Despite the growth in export volumes in some regions (Kashkadarya, Navoi, Tashkent), the existing potential has not been fully utilized. This is primarily due to limited logistics capabilities, weak infrastructure, and the lack of a unified system for exporters².

Today, export logistics should be organized in such key areas as the use of refrigerated vehicles and warehouses, the processing of export documents on the basis of the "Single Window" principle, multimodal transportation systems (road + rail + air), and the introduction of

¹ A videoconference meeting on measures to increase the production, processing, and export of fruits and vegetables will be held on November 28, chaired by President Shavkat Mirziyoyev.

² <https://president.uz/oz/lists/view/7736>

ecological logistics (green logistics). Also, logistics clusters, pre-export preparation zones, inspection and certification centers, and special economic zones serve as important links in the systematization of logistics.

5. Conclusion

Analysis of best practices in the production, storage, processing and sale of fruit and vegetable products shows the need to effectively stimulate the development of cooperation between producers of these products. As the volume of agricultural production increases, their storage and processing should also be properly regulated, for this purpose it is advisable to build new modern warehouses and processing enterprises, apply scientific and technical achievements and advanced technologies in them, study foreign experience and widely introduce them into production.

Improving logistics systems in fruit and vegetable exports will further increase Uzbekistan's export potential. By eliminating factors that negatively affect the development of the industry and introducing advanced technologies, it is possible to increase the volume and quality of exports. The following are recommended:

- Establish modern logistics centers in each agro-region, especially in the Kashkadarya, Surkhandarya and Khorezm regions;
- Subsidized financing of refrigerated containers and vehicles, support for local manufacturers;
- Organization of logistics training for entrepreneurs engaged in export, improvement of skills in using digital platforms;
- Widely attracting investments in logistics infrastructure based on public-private partnerships.

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