

Article

Mechanisms for Increasing The Competitiveness of Agricultural Products in International Markets

Tulibaeva Kamola Bakhrom kizi*¹

1. Doctoral student (PhD) of department of regional economics, Tashkent State University of Economics

*Correspondance: tulibaevakamola@gmail.com

Abstract: The article examines the key mechanisms for increasing the competitiveness of agricultural products in international markets, with particular attention to product quality, certification, processing, logistics, digital technologies, market diversification, and export-oriented value chains. The study analyzes Uzbekistan's recent agricultural export performance and identifies the main factors limiting the expansion of high-value agricultural exports. Official statistics show that Uzbekistan exported 2.2 million tons of fruits and vegetables worth USD 2.1 billion in 2025, representing a 36.9% increase in export value compared with the previous year. The research demonstrates that improving international competitiveness requires a transition from primarily raw-product exports toward processed, certified and value-added agricultural products. Particular emphasis is placed on international quality standards, cold-chain infrastructure, digital traceability, branding and diversification of export markets. The study proposes an integrated mechanism for strengthening the position of agricultural producers and exporters in international markets.

Citation: Bakhrom kizi, T. K. Mechanisms for Increasing The Competitiveness of Agricultural Products in International Markets. American Journal of Economics and Business Management 2026, 9(9), 1088-1093.

Received: 30th Jul 2026

Revised: 15th Aug 2026

Accepted: 05th Sept 2026

Published: 30th Sept 2026



Copyright: © 2026 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license

(<https://creativecommons.org/licenses/by/4.0/>)

Keywords: Agricultural Products, International Markets, Competitiveness, Agricultural Exports, Value Chains, Certification, Logistics, Digitalization, Processing, Uzbekistan

1. Introduction

Agriculture remains an important component of Uzbekistan's economic development, employment and export potential. The country's favorable climatic conditions, diverse agricultural resources and established production base create significant opportunities for expanding the export of fruits, vegetables, grapes, nuts and other high-value agricultural products. At the same time, international agricultural markets are characterized by strong competition, increasingly strict quality and phytosanitary requirements, changing consumer preferences and growing demand for traceable and environmentally sustainable products [1].

In these conditions, increasing agricultural exports cannot be achieved only through expansion of production volumes. Competitiveness increasingly depends on product quality, consistency of supply, international certification, packaging, logistics, processing and the ability of producers to respond rapidly to market requirements [2]. Therefore, agricultural competitiveness should be considered as an integrated system covering the entire value chain from production to the final international consumer.

Uzbekistan has demonstrated considerable progress in agricultural exports. According to the National Statistics Committee, in 2025 the country exported 2.2 million tons of fruits and vegetables worth USD 2.1 billion. The value of these exports increased by 36.9% compared with the previous year, while their share in total exports reached 6.3%

[1]. These results demonstrate the growing role of agricultural products in the country's export structure.

However, the further development of international competitiveness requires improvements in post-harvest handling, certification, storage, processing, transportation, branding and market diversification. FAO also emphasizes the importance of strengthening value chains, improving production technologies and expanding access to international markets for Uzbekistan's horticultural sector [3].

The purpose of this study is to identify the major mechanisms for increasing the competitiveness of agricultural products in international markets and to develop practical directions for strengthening the export potential of agricultural producers and exporters.

Literature Review

International competitiveness of agricultural products is closely related to productivity, quality, production costs, market access and the ability to comply with international standards. Porter's approach emphasizes that sustainable competitiveness is determined not only by natural advantages but also by productivity, innovation and the development of interconnected value chains [4].

FAO research demonstrates that agricultural trade competitiveness should be evaluated through production capabilities, trade structures, value-chain performance, market opportunities and policy conditions [5]. This approach is particularly relevant for developing countries seeking to diversify agricultural exports and move toward higher-value products.

The literature also highlights the importance of international standards and certification. Compliance with food safety, phytosanitary and quality requirements allows exporters to enter more demanding markets and reduce the risks associated with rejected or delayed shipments. In horticulture, post-harvest losses, inadequate storage and insufficient cold-chain infrastructure can significantly reduce the economic value of exported products.

Recent FAO initiatives in Uzbekistan have emphasized the development of modern horticultural practices, climate-resilient production, traceability, improved post-harvest management and stronger connections between farmers and international markets [3; 6]. These measures indicate that competitiveness increasingly depends on the coordinated development of the entire agricultural value chain rather than on production alone.

2. Materials and Method

The study applies a combination of statistical, comparative and systematic approaches. Official statistical information on Uzbekistan's agricultural exports was used to evaluate recent export dynamics and product composition. Comparative analysis was applied to identify changes in export values and volumes, while a value-chain approach was used to examine the relationship between production, processing, certification, logistics, marketing and international market access.

The research also incorporates findings from FAO and other international organizations concerning agricultural trade competitiveness, quality standards and value-chain development. Based on the analysis, an integrated mechanism for improving agricultural competitiveness is proposed, combining production efficiency, quality management, certification, processing, logistics, digital technologies and market diversification.

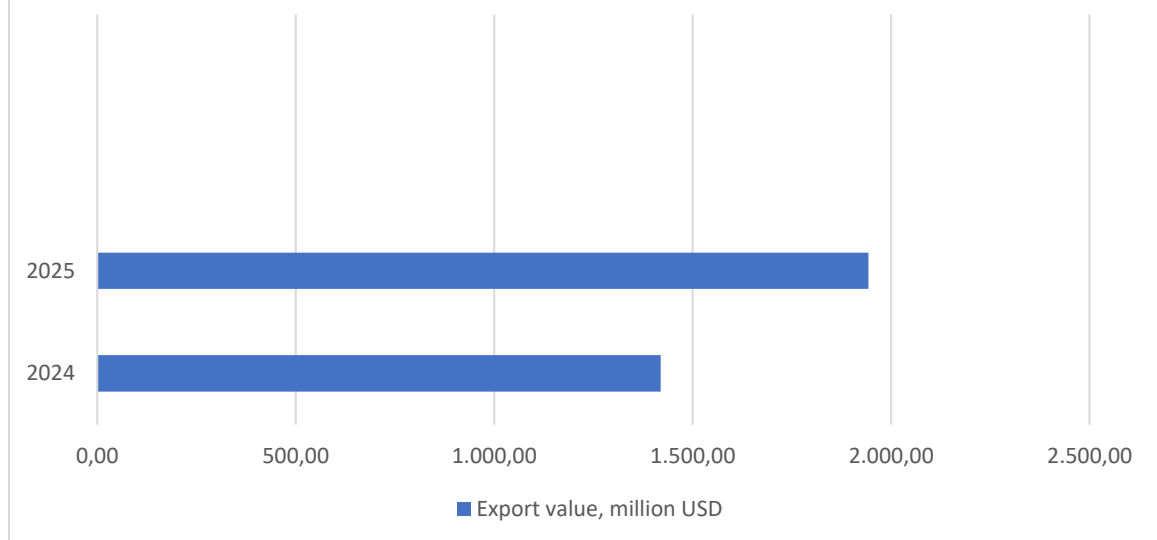
3. Results and Discussion

Uzbekistan's agricultural export performance has strengthened considerably in recent years. According to the National Statistics Committee, fruit and vegetable exports reached 2.1 billion US dollars in 2025, with 2.2 million tons of products exported. Export value increased by 36.9% compared with the previous year [1].

Table 1. Dynamics of Uzbekistan's Fruit and Vegetable Exports

Indicator	January–November 2024	January–November 2025	Change
Export volume, thousand tons	1,902.7	2,022.2	+6.3%
Export value, million USD	1,419.8	1,942.8	+36.8%
Fruits, thousand tons	485.1	580.9	+19.7%
Fruit export value, million USD	492.7	651.4	+32.2%

The data indicate that export value increased much faster than physical export volume. During January–November 2025, export volume increased by 6.3%, while export value increased by 36.8% [7]. This suggests an improvement in the value generated per unit of exported agricultural products and creates opportunities for further development through product differentiation, quality improvement and value-added processing.

Figure 1. Dynamics of Uzbekistan's Fruit and Vegetable Export Value, January–November 2024–2025**Figure 1.** Dynamics of Uzbekistan's fruit and vegetable export value, January–November 2024–2025

The graph demonstrates a substantial increase in export value from USD 1.42 billion in January–November 2024 to USD 1.94 billion during the same period of 2025. This growth indicates expanding international demand and the increasing role of agricultural products in Uzbekistan's export potential [7].

Mechanisms for Increasing International Competitiveness

The first mechanism is improving product quality and compliance with international standards. International buyers increasingly require stable quality, food safety, traceability and phytosanitary compliance. Therefore, the implementation of Good Agricultural Practices, appropriate certification systems and standardized production procedures should become an integral part of export-oriented agricultural production [3; 6].

The second mechanism is development of processing and value-added production. Exporting processed products such as dried fruits, juices, frozen vegetables, canned products and packaged horticultural products can increase the economic value generated

from agricultural resources. Processing also reduces dependence on seasonal price fluctuations and enables exporters to serve international markets for longer periods.

The third mechanism is modernization of logistics and cold-chain infrastructure. Agricultural products are highly sensitive to transportation time and storage conditions. Investments in refrigerated warehouses, sorting and calibration facilities, modern packaging and temperature-controlled transportation can reduce post-harvest losses and improve product quality when it reaches foreign consumers.

The fourth mechanism is digitalization and traceability. Digital technologies can provide information about production conditions, product origin, certification, storage and transportation. FAO's recent work in Uzbekistan highlights the importance of traceability, innovative technologies and improved value-chain management in strengthening access to international markets [3].

The fifth mechanism is export-market diversification. Dependence on a limited number of markets creates vulnerability to changes in prices, regulations, logistics and demand. According to Invest Uzbekistan, major destinations for Uzbekistan's fruit and vegetable exports in 2025 included Russia, Kazakhstan, Pakistan and Afghanistan [8]. Expanding into additional markets can reduce concentration risk and create opportunities for higher-value products.

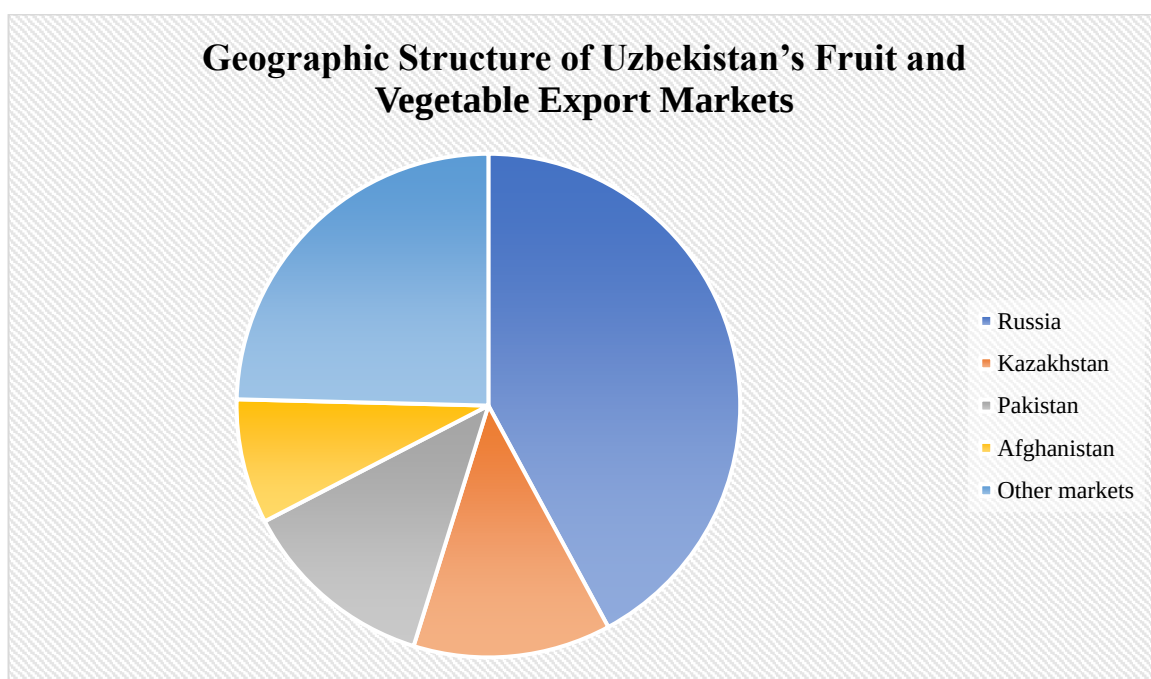


Figure 2. Geographic Structure of Uzbekistan's Fruit and Vegetable Export Markets

The pie chart demonstrates a relatively high concentration of exports in several regional markets. Russia accounted for 42.1%, while Kazakhstan and Pakistan represented 12.7% and 12.6%, respectively [8]. This structure indicates the importance of geographical diversification as a mechanism for reducing external market risks. At the same time, proximity to major regional markets provides Uzbekistan with logistical advantages that can be strengthened through improved transport infrastructure, cold-chain systems and export-oriented packaging [9].

Another important direction is strengthening cooperation among farmers, processors, exporters and logistics companies. Fragmentation of agricultural production can make it difficult to ensure uniform quality and stable export volumes. FAO notes that smallholder producers account for a large share of horticultural production in Uzbekistan, while fragmentation can create difficulties in meeting international standardization, quality and volume requirements [6], [10].

Consequently, producer cooperatives, contract farming arrangements and integrated value-chain models can help consolidate production volumes, standardize quality and improve access to international buyers. Such mechanisms can also strengthen farmers' bargaining positions and facilitate investments in modern technologies [11]-[15].

4. Conclusion

To strengthen the international competitiveness of agricultural products, the following measures are recommended:

1. **Expand international certification** by increasing access to quality, food-safety and phytosanitary certification systems required by target markets.
2. **Develop agricultural processing** to increase the share of value-added products in total agricultural exports.
3. **Modernize cold-chain infrastructure**, including refrigerated warehouses, sorting centers, packaging facilities and temperature-controlled transportation.
4. **Introduce digital traceability systems** that allow international buyers to verify product origin, production conditions, certification and logistics history.
5. **Diversify export markets** by identifying countries with growing demand for Uzbek fruits, vegetables, dried fruits, nuts and processed agricultural products.
6. **Strengthen producer cooperation** through cooperatives, contract farming and integrated agricultural value chains capable of supplying stable volumes and uniform quality.
7. **Develop international agricultural branding** by promoting Uzbek agricultural products through unified quality positioning, geographical indications and targeted digital marketing.
8. **Increase investment in agricultural innovation**, particularly modern irrigation, protected cultivation, post-harvest technologies, climate-resilient varieties and precision agriculture.

The competitiveness of agricultural products in international markets is determined by a combination of production efficiency, product quality, certification, processing, logistics, digitalization and market access. Uzbekistan's recent export performance demonstrates significant potential: fruit and vegetable exports reached USD 2.1 billion in 2025, while export value increased by 36.9% compared with the previous year.

However, long-term competitiveness requires moving beyond the expansion of raw agricultural exports toward higher-value and better-differentiated products. The development of processing, international certification, cold-chain logistics, digital traceability and market diversification can increase the added value generated by agricultural exports.

The proposed mechanism therefore combines production modernization with value-chain integration and international market orientation. Its implementation can contribute to improving export stability, reducing dependence on individual markets, increasing the value of agricultural products and strengthening the position of Uzbekistan's agricultural producers in international markets.

REFERENCES

- [1] National Statistics Committee of the Republic of Uzbekistan, "Uzbekistan exported fruits and vegetables worth \$2.1 billion," Feb. 2, 2026.
- [2] World Bank, "Uzbekistan: Agriculture and Rural Development," World Bank, Washington, DC, USA.
- [3] Food and Agriculture Organization of the United Nations (FAO), "Uzbekistan: One Country One Priority Product – Strengthening Agricultural Value Chains and Access to International Markets," FAO, 2026.
- [4] M. E. Porter, *The Competitive Advantage of Nations*. New York, NY, USA: Free Press, 1990.

- [5] Food and Agriculture Organization of the United Nations (FAO), "Boosting Agrifood Trade Competitiveness," FAO, 2025.
- [6] Food and Agriculture Organization of the United Nations (FAO), "One Country One Priority Product: Uzbekistan – Sweet Cherry Value Chain," FAO.
- [7] National Statistics Committee of the Republic of Uzbekistan, "Foreign Trade Turnover of the Republic of Uzbekistan: January–November 2025," 2025.
- [8] Invest Uzbekistan, "Agriculture Sector: Export Performance," 2026.
- [9] Government of the Republic of Uzbekistan, "Additional Measures to Increase the Export Potential and Develop the Processing Chain of Agricultural Products," Presidential Resolution PP-136, Apr. 8, 2025.
- [10] Food and Agriculture Organization of the United Nations (FAO), "Smart Farming: Good Horticultural Practices, Market Orientation and Digital Technologies," FAO.
- [11] M. Markelova, R. Meinzen-Dick, J. Hellin, and S. Dohrn, "Collective action for smallholder market access," *Food Policy*, vol. 34, no. 1, pp. 1–7, 2009.
- [12] M. P. D. Ton, S. Desiere, W. Vellema, S. Weituschat, and M. D'Haese, "The effectiveness of contract farming for raising income of smallholder farmers in low- and middle-income countries: A systematic review," *Campbell Syst. Rev.*, vol. 13, no. 1, pp. 1–131, 2017.
- [13] C. R. Barrett et al., "Agricultural innovation and inclusive value-chain development: A review," *J. Agribusiness Developing Emerging Economies*, 2018.
- [14] R. Kuijpers and J. F. M. Swinnen, "Value chains and technology transfer to agriculture in developing and emerging economies," *Amer. J. Agric. Econ.*, vol. 98, no. 5, pp. 1403–1418, 2016.
- [15] P. Marion, E. Lwamba, A. Floridi, S. Pande, M. Bhattacharyya, S. Young, P. Fenton Villar, and S. Shisler, "The effects of agricultural output market access interventions on agricultural, socio-economic, food security, and nutrition outcomes in low- and middle-income countries: A systematic review," *Campbell Syst. Rev.*, vol. 20, no. 2, 2024, doi: 10.1002/cl2.1411.