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ASSESSMENT OF THE COMPETITIVENESS OF FOOD EXPORTS IN UZBEKISTAN

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Abstract

The study analyzes the competitiveness of Uzbekistan's food exports and proposes strategic recommendations for its development. The comparative advantage of products in the international market is assessed using the Balassa index, while key export factors are examined through Porter's model. The findings indicate a strong export potential for fruits and vegetables, as well as stable growth in grain and flour product exports. To expand export volumes and strengthen global market positions, it is crucial to develop logistics infrastructure, improve international certification systems, and enhance deep processing of agricultural products. The results provide valuable insights for agricultural exporters, entrepreneurs, and policymakers in shaping effective sectoral strategies.

Keywords: food exports, competitiveness, Balassa RCA index, Porter's diamond model, international trade, agriculture, export strategy, logistics infrastructure, certification system, market diversification.

INTRODUCTION

Uzbekistan's agriculture is one of the main sectors of the country's economy, and has the potential to contribute to economic development not only by providing the population with food products, but also by increasing its export potential. In an environment where global food markets are becoming increasingly competitive, strengthening Uzbekistan's position in international trade is one of the most important issues. Diversifying food exports, developing new markets, and adapting to international quality standards should be one of the main directions of the country's export strategy [5], [8], [12], [15], [23]. In recent years, the government of Uzbekistan has been implementing a number of reforms to increase exports, adapt agricultural products to international markets, and develop the logistics system. To strengthen its position in international markets, the country needs to produce products that meet the requirements of international trade and improve its export infrastructure [6]. In addition, the instability in the global food supply chain and the impact of climate change are creating new

challenges for export markets, which requires the development of effective strategies to ensure the sustainability of Uzbekistan's exports [7].

The competitiveness of Uzbekistan's food exports depends on internal and external factors, and aspects such as production efficiency, logistics system, compliance with international certification requirements, and increasing the added value of products play an important role [9]. It is necessary to analyze what strategies the country's main competitors in international markets are using and how Uzbekistan can use their experience [10].

This study aims to assess the current state of Uzbekistan's food exports, identify the main factors affecting export competitiveness, and develop strategic proposals to strengthen the country's position in the international market [11]. The Balassa RCA index is used to assess the level of dominance of products in the international market, and the Porter Diamond model is used to analyze the main factors affecting exports [1].

The relevance of the topic is that increasing exports not only brings additional income to the Uzbek economy, but also allows for the creation of new jobs, the introduction of innovative technologies, and strengthening international trade integration [14]. In the context of constant changes in international markets and the formation of new trade requirements, Uzbekistan needs to flexibly improve its export strategy [16].

The results of the study are expected to be important for the scientific community, agricultural exporters, entrepreneurs, and politicians, as they will help determine specific strategic measures to increase export competitiveness [18]. Therefore, the study is based on reliable results through a realistic analysis based on international experience, national statistics, and economic models [20].

The following sections will provide a detailed description of the theoretical foundations, practical situation, key competitiveness factors, and recommendations for its development [22], [24].

LITERATURE REVIEW

The research on Uzbek food exports has been conducted within the framework of international trade theories, export competitiveness factors, and the country's agricultural policy. This section provides a review of existing scientific studies and reports, and analyzes the main scientific approaches related to Uzbekistan's food exports.

International trade theories and economic models play an important role in analyzing export competitiveness. Balassa (1989) in his study expressed his opinion on the importance of

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competitiveness for open economic systems and the use of the Balassa Relative Advantage Index (RCA) in its assessment [1]. The RCA index is one of the main tools for analyzing the relative advantages of agricultural exports [1].

The "Diamond Model of Competitiveness" developed by Porter (1990) is also widely used in analyzing the country's agricultural export potential. This model shows the importance of taking into account factors such as production factors, domestic demand, company strategies and government policies in increasing a country's export competitiveness [2].

Dunning (1981) analyzed the export strategies of developing countries using the "OLI" model in his study, which emphasizes the role of foreign investment and transnational companies in the export of agricultural products [3].

Uzbekistan's agricultural exports are growing, but there are also a number of problems in this process. According to the State Statistics Committee of Uzbekistan (2023), the country's food exports increased by 12% compared to 2022, but competition has intensified in the main markets - Russia, China and the European Union [23].

Mogilevskii & Akramov (2014) in their study of Central Asian agricultural trade show that, although Uzbekistan is a leading exporter of fruits and vegetables, its export volume is limited due to the lack of logistics infrastructure and quality certification requirements [24].

Kurmanalieva & Parpiev (2023) assessed the prospects for Uzbekistan's agricultural exports and emphasized the need to diversify export markets and develop the agricultural processing industry [16].

Export competitiveness is affected by various factors, including climate change, financial support, tariff and non-tariff barriers, and the logistics system.

Research by Vakulchuk & Overland (2023) shows that climate change directly affects the sustainability of agricultural exports, so Uzbekistan needs to develop long-term environmental adaptation strategies [18].

Bitabarova (2023) emphasizes the importance of financial assistance and subsidies in supporting agricultural exports and emphasizes the need for the government to expand credit and grant programs for farmers [17].

Pomfret (2023) provides a detailed analysis of how tariff and non-tariff barriers affect agricultural exports in Central Asian countries. According to her, Uzbekistan can increase its exports by introducing certification systems that meet international standards [25].

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Tursunov B.O. [42] investigated mechanism for determining optimal management of use of production capacity at the textile enterprises, Maksudunov, A., & Avci, M. researched the color of the future in green marketing.[43,44]

In addition, Saidov & Rakhimova (2022) assessed the logistics system of Uzbekistan and expressed the opinion that it is necessary to improve transport infrastructure and expand cold storage systems for exports [28].

It is important to study the experiences of other countries to develop Uzbekistan's food exports.

Aydin & Tetik (2021) analyzed Turkey's agricultural export strategies and showed that competitiveness can be increased by protecting the domestic market and subsidizing exports [27].

A study by Sharafeyeva (2020) analyzed the effectiveness of Kazakhstan's agricultural export strategy towards the Russian and Chinese markets [26].

The FAO (2023) annual report highlights key trends in world agricultural exports and the impact of trade agreements [8].

METHODOLOGY

This study used combined analytical methods to assess the competitiveness of Uzbek food exports. The study was based on empirical data and combined quantitative and qualitative methods. As part of the quantitative analysis, the competitiveness of Uzbek food exports in the international market was assessed using the Balassa RCA index. RCA calculations are based on data from Spot.uz [32], the State Statistics Committee of the Republic of Uzbekistan [23], FAO [8], WTEx [33] and the World Bank [7]. Qualitative analysis was conducted using Porter's Diamond model to study internal and external factors affecting exports. This model allows us to assess aspects such as production factors, domestic demand, industry structure and government policy [2]. The RCA (Revealed Comparative Advantage) index was used to measure the competitiveness of a product in the international market. Calculation formula [1]:

$$RCA = \frac{\left(\frac{X_{ij}}{X_i}\right)}{\left(\frac{X_{wj}}{X_w}\right)}$$

here:

- X_{ij} – Value of products exported by Uzbekistan

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- X_i – Uzbekistan's total food exports
- X_{wj} – Global exports of this product
- X_w – World food exports.

The calculation results are reflected in the analysis results, and the level of competitiveness of products according to RCA values was determined. [3]

This model assessed the internal and external factors affecting Uzbek food exports. The Diamond model consists of the following four main factors and two auxiliary factors [2], [4].

Table-1.

Evaluation through Porter's Diamond Model [2]

Factor	Evaluation criterion
Factors of production	Resources, infrastructure, technology
Domestic demand conditions	Domestic market size and consumer demand
Industry structure and competition	Strategy and level of development of enterprises
Public policy and infrastructure	Government subsidies and export policy
Enablers	Packaging, storage and logistics system
International factors	Global demand and price changes

Porter's model indicates the need to increase production efficiency, introduce quality standards that are compatible with the international market, develop logistics infrastructure, and improve the financial support system for exporters to increase exports [2], [6].

ANALYSIS AND RESULTS

This section analyzes the competitiveness of Uzbekistan's food exports based on the Balassa RCA index, export dynamics, and impact on key markets. The analysis is based on official 2023 statistical data and international trade data.

To assess the competitiveness of Uzbekistan's food exports in the international market, an analysis was conducted based on the Balassa RCA index, the Porter competitiveness model, the diversification of export markets, and logistics infrastructure.

a) Data used (2023):

Official data on Uzbekistan's exports [32]:

• Total food exports: 1.77 billion USD

• Fruit and vegetable exports: 1.19 billion USD

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• Grain and flour products exports: 478.8 million USD

• Meat and dairy products exports: 3.4 million USD

b) World food export statistics 2023 [8], [33]:

• Total food exports: 1.634 trillion USD

• Grain and flour products exports: 164.1 billion USD

• Fruit and vegetable exports: 141.9 billion USD

• Meat and dairy products exports: 268.9 billion USD

Calculation of the RCA index

2.1. RCA for fruits and vegetables: $\mathrm{RCA}_{\mathrm{Meva}} = \frac{\left(\frac{X_{meva}}{X_{Uzbekistan}}\right)}{\left(\frac{X_{Meva\ Global}}{X_{World}}\right)}$

We will provide information.:

$$\mathrm{RCA}_{\mathrm{Meva}} = \frac{\left(\frac{1190}{1770}\right)}{\left(\frac{141900}{1634000}\right)}$$

$$\mathrm{RCA}_{\mathrm{Meva}} = \frac{0.6729}{0.0869} = 7.74$$

Fruits and vegetables RCA = 7.74 → High competitiveness.

RCA for grain and flour products:

$$\mathrm{RCA}_{\mathrm{G'alla}} = \frac{\left(\frac{X_{G'alla}}{X_{Uzbekistan}}\right)}{\left(\frac{X_{G'alla\ Global}}{X_{World}}\right)}$$

We will provide information.

$$\mathrm{RCA}_{\mathrm{G'alla}} = \frac{\left(\frac{478.8}{1770}\right)}{\left(\frac{164100}{164000}\right)}$$

$$\mathrm{RCA}_{\mathrm{G'alla}} = \frac{0.2705}{0.1004} = 2.69$$

Grain and flour products RCA = 2.69 → High competitiveness.

RCA for meat and dairy products:

$$\mathrm{RCA}_{\mathrm{G`o`sht}} = \frac{\left(\frac{X_{G`o`sh}}{X_{Uzbekistan}}\right)}{\left(\frac{X_{G`osht}}{X_{World}}\right)}$$

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$$RCA_{G`o`sht} = \frac{\left(\frac{3.4}{1770}\right)}{\left(\frac{268900}{164000}\right)}$$

Table-2.

Calculation results RCA results

Products	**RCA index**	Competitiveness Level
Fruits and vegetables	7.74	High
Grain and flour products	2.69	High
Meat and dairy products	0.0117	Low

The main factors affecting the competitiveness of Uzbek food exports in the international market were assessed based on Porter's Diamond Model [2] (Table 3):

Table 3.

The main factors affecting the competitiveness of Uzbek food exports in the international market

Factor	**Impact on Uzbekistan's exports**
Factors of production	The potential for fruit and vegetable production is high, but the processing industry is underdeveloped. [12], [8], [14]
Domestic demand conditions	Low domestic demand is affecting exporters' ability to adapt to global requirements. [5], [7], [10]
Industry structure and competition	Food export companies are small businesses and face difficulties in adapting to international standards. [9], [11], [6]
Public policy and infrastructure	Agricultural subsidies are available, but the logistics system and certification processes are not well established. [3], [39], [40]
Enablers	The packaging and storage industry is underdeveloped, which reduces the shelf life of products and leads to a decrease in export quality. [13], [15]
International factors	Fluctuations in global food prices have a significant impact on Uzbek exports. [40], [7]

Table-4

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Logistika samaradorligi va eksport jarayoni muammolari

Yil	LPI reytingi (1-5 ball)	Dunyo bo‘yicha o‘rni
2018	2.57	99
2020	2.69	92
2022	2.85	85

• Uzbekistan’s logistics efficiency has improved in recent years, but still lags behind developed countries [7].

• The complexity of customs procedures poses challenges for exporters [7].

• Improving cold chains and transport infrastructure could help increase export volumes [7].

CONCLUSIONS

The results of the study show that Uzbekistan's food exports have high potential in the international market. Fruit and vegetable exports are the country's most competitive direction (RCA = 7.74), while grain and flour products also have stable growth (RCA = 2.69). There is an opportunity to significantly increase export revenues by increasing the share of these products in the international market. The competitiveness of meat and dairy exports is low, and strategic investments in the sector will contribute to its rapid development.

The main obstacles to export development were identified as the underdevelopment of the processing industry, difficulties in adapting to international certification requirements, shortcomings in the transport and logistics system, and low market diversification. Although fruit and vegetable exports are highly competitive, the lack of deep product processing means that the value chain is not fully formed. Export markets are mainly focused on the CIS countries, and expanding the direction to countries in Europe, Asia, and the Middle East will increase export stability.

To increase export volumes, it is necessary to increase production efficiency, introduce quality standards that are compatible with the international market, develop logistics infrastructure, and expand the financial support system for exporters. It is necessary to create added value and expand high-profit export segments through the development of deep food processing. The widespread introduction of GLOBALG.A.P., HACCP, and ISO certificates will accelerate the entry of products into international markets.

In the logistics sector, the development of cold chains and logistics centers, reducing transportation costs, and simplifying customs procedures will serve to accelerate international trade. The expansion of state subsidies, loans, and insurance mechanisms to stimulate exports will support the entry of small and medium-sized exporters into international markets. The introduction of innovative agro-technologies, the increase in the number of environmentally friendly products, and the promotion of local brands in international markets will ensure the sustainability of the country's food exports.

If the strategies developed based on the current state of Uzbekistan's food exports, analysis and recommendations are implemented, the country will have a more stable position in the international market. The results of the study are of great importance for the scientific community, agricultural exporters, entrepreneurs and politicians. The implementation of the strategic measures developed to develop exports and increase competitiveness will serve to increase the volume and quality of food exports.

References:

1. Balassa, B. (1989). Comparative Advantage and Trade Policy. World Bank Publications.
2. Porter, M. E. (1990). The Competitive Advantage of Nations. Free Press.
3. Dunning, J. H. (1981). Strategic Export Models for Developing Countries. Oxford Economic Papers, 33(2), 456–478.
4. Erokhin, V. (2022). Food Security and Agricultural Trade in Central Asia. Sustainability, 14(3), 2109. https://doi.org/10.3390/su14032109
5. Pirmatov, S., Bekchanov, M., & Yusupov, F. (2023). Economic and Trade Aspects of Sustainable Agriculture in Uzbekistan. Journal of Central Asian Studies, 19(1), 67–82. https://doi.org/10.1016/j.jcas.2023.08.003
6. WTO. (2023). World Trade Report 2023. Geneva: World Trade Organization.
7. World Bank. (2023). Logistics Performance Index 2023 Report. Retrieved from https://lpi.worldbank.org
8. FAO. (2023). World Agricultural Trade and Food Security: Annual Report 2023. Retrieved from https://www.fao.org/publications/annual-report-2023
9. UNCTAD. (2023). Trade and Development Report 2023. Geneva: United Nations Conference on Trade and Development.

10. OECD. (2023). Uzbekistan Agricultural Sector Review. Paris: Organisation for Economic Co-operation and Development.
11. IFPRI. (2023). Food Export Barriers in Central Asia. International Food Policy Research Institute.
12. FAO Agris. (2023). Food Export Trends and Infrastructure Development in Uzbekistan.
13. ITC Trade Map. (2023). Uzbekistan Export and Import Statistics. Retrieved from https://www.trademap.org
14. Istudor, N., Constantin, M., Ignat, R., Chiripuci, B.-C., & Petrescu, I.-E. (2022). The Complexity of Agricultural Competitiveness: Going Beyond the Balassa Index. Journal of Competitiveness, 14(4), 61–77. https://doi.org/10.7441/joc.2022.04.04
15. Peyrouse, S. (2023). Agricultural Productivity and Trade Competitiveness in Central Asia. Economic Policy Review, 25(1), 92–110.
16. Kurmanalieva, E., & Parpiev, Z. (2023). Assessing the Future of Agricultural Trade in Uzbekistan. Journal of Agricultural Economics, 78(4), 450–469. https://doi.org/10.1016/j.jae.2023.04.012
17. Bitabarova, A. (2023). The Role of Financial Support in Agricultural Export Competitiveness. Finance & Development, 60(3), 89–104.
18. Vakulchuk, R., & Overland, I. (2023). The Impact of Climate Adaptation Strategies on Agricultural Competitiveness. Environmental Policy and Governance, 34(2), 132–148. https://doi.org/10.1002/eet.1938
19. Rakhimov, U. (2023). Sustainability Challenges in Central Asian Agri-Food Trade. Agricultural Sustainability Journal, 27(1), 72–89.
20. Carter, R. (2023). Enhancing Food Safety Standards to Boost Agricultural Exports. Journal of Food Quality Assurance, 56(2), 189–204.
21. Erokhin, V., Hanf, J. H., & Gadalyuk, T. (2023). Export Diversification Strategies for Uzbekistan's Agricultural Sector. Food Policy, 102, 104-118. https://doi.org/10.1016/j.foodpol.2023.101015
22. Euroasian Economic Union (EAEU). (2023). Trade Relations between Uzbekistan and the Eurasian Economic Union. Retrieved from https://www.eaeunion.org
23. Uzbekistan State Statistics Committee. (2023). Annual Agricultural Trade Report 2023. Retrieved from https://www.stat.uz
24. Mogilevskii, R., & Akramov, K. (2014). Trade in Agricultural and Food Products in Central Asia. International Food Policy Research Institute (IFPRI).

25. Pomfret, R. (2020). Agricultural Export Strategies in Transition Economies. Journal of Economic Perspectives, 34(2), 67–84. https://doi.org/10.1257/jep.34.2.67
26. Sharafeyeva, A. (2020). Kazakhstan's Agricultural Export Strategies. University of Adelaide, Working Paper.
27. Aydin, M., & Tetik, M. (2021). Turkey's Agricultural Trade Policies and Export Competitiveness. Agricultural Policy Review, 29(3), 56–72.
28. Saidov, U., & Rakhimova, T. (2022). The Role of Logistics in Agricultural Export Growth in Uzbekistan. Logistics & Supply Chain Management Journal, 18(2), 92–107.
29. Babu, S., & Reidhead, W. (2023). Investment in Agro-Industrial Complex and Export Growth in Central Asia. Investment and Development Journal, 46(1), 123–138.
30. Pomfret, R. (2023). The Effect of Tariff and Non-Tariff Barriers on Agri-Food Trade in Central Asia. World Trade Review, 21(4), 231–248.
31. Hanf, J. H., & Gadalyuk, T. (2023). Regional Trade Agreements and Their Impact on Uzbekistan's Agricultural Exports. Economic Transition Journal, 38(1), 89–104.
32. Spot.uz. (2024). O'zbekistonning eksport natijalari 2023 yilda qanday bo'ldi? Retrieved from https://www.spot.uz/oz/2024/01/22/foreign-trade-2023/
33. WorldTopExports. (2023). World's Top Food Exports Special Data Report. Retrieved from https://www.worldstopexports.com/worlds-top-food-exports-special-data-report/
34. FAO. (2023). Global Food Trade Report 2023.
35. Uzbekistan Ministry of Agriculture. (2023). Annual Report on Agriculture Development.
36. ITC. (2023). Market Analysis of Uzbekistan's Agri-Food Exports.
37. EAEU Trade Report. (2023). Uzbekistan's Trade Position in EAEU.
38. UNDP. (2023). Sustainable Agricultural Development in Central Asia.
39. Jahon Banki. (2023). O'zbekiston Logistika Samaradorligi Reytingi.
40. UNCTAD. (2023). O'zbekistonning Xalqaro Savdodagi Holati.
41. Kholmuminov, S., Tursunov, B., Saidova, M., Abduhalilova, L., & Sadriddinova, N. (2021, December). Improving the analysis of business processes in digital era. In Proceedings of the 5th International Conference on Future Networks and Distributed Systems (pp. 775-789).
42. Tursunov, B. O. (2020). Mechanism for determining optimal management of use of production capacity at the textile enterprises. Vlakna a Textil, 27(1), 99-106.

43. Maksudunov, A., & Avci, M. (2020). The color of the future in marketing is green. Contemporary issues in strategic marketing, 225-254.
44. Gül, H., Maksüdünov, A., Yamaltdinova, A., & Abdildaev, M. (2019). Öğrencilerin demografik özelliklerinin kariyer uyumluluğu ve iyimserliği ile ilişkisi: Kırgızistan örneği. Karamanoğlu Mehmetbey Üniversitesi Sosyal Ve Ekonomik Araştırmalar Dergisi, 21(36), 34-46.