

Major Aspects Of Market Segmentation In The Development Of The Nut Market

Karimova Aziza Sayibnazarovna

National Research University "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers", Uzbekistan

Received: 10 September 2025; **Accepted:** 02 October 2025; **Published:** 05 November 2025

Abstract: This article provides information about theoretical and practical dimensions of developing the nut market within the context of Uzbekistan's agrarian economic transformation. It explores the structural and institutional factors influencing market segmentation, demand and supply dynamics, and competitiveness under the evolving framework of agricultural reforms and globalization. By identifying the production, marketing, specialization, and regulatory determinants shaping the nut industry, the research formulates a conceptual framework for sustainable market growth and efficiency. Special emphasis is placed on the integration of state policy instruments credit, taxation, insurance, and infrastructure development into the system of economic incentives fostering market stability. The study also evaluates the role of innovation, digitalization, and export diversification in enhancing the competitiveness of country's nut sector in domestic and international markets. The findings contribute to the advancement of agricultural marketing theory and provide actionable policy recommendations for achieving resilient and high-value agribusiness development.

Keywords: Nut market, market segmentation, competitiveness, demand, supply, export diversification, state regulation, sustainable agribusiness.

Introduction: In the Republic of Uzbekistan, agrarian economic reforms implemented to establish a market-oriented economy based on the principles of free enterprise were primarily directed toward the improvement of land tenure and property relations. The gradual abolition of the state procurement system for agricultural products enabled agricultural production to function in accordance with the market's laws of supply and demand.

The autonomy granted to producers in acquiring and efficiently utilizing production resources has been closely associated with the growing emphasis on the development of private ownership-based farms and household enterprises. This transformation reflects a broader strategic priority aimed at strengthening the institutional foundations of market-oriented agriculture.

Furthermore, to create favorable conditions for the development of the agricultural products market, a comprehensive set of measures has been undertaken under various legislative and regulatory frameworks. These include the establishment of wholesale

agricultural markets and the introduction of state-supported incentives in taxation, insurance, finance, and credit systems, designed to promote efficiency and competitiveness within the sector.

METHODS

Research findings reveal a number of theoretical and practically significant regularities observed in the development of agricultural product markets in the Republic of Uzbekistan. These include the following [7, 8]:

- In exporting countries, the advancement of trade infrastructure, along with the growing culture of international trade and commerce, has resulted in agricultural markets for seasonal products becoming less dependent on the traditional patterns of seasonality.
- In Uzbekistan's domestic market, the methods used to present imported goods to consumers - such as modern packaging formats, sorting and grading of fruits, and improving the visual appeal of products - have contributed to a notable rise in trade culture and consumer expectations.

- The agricultural product market is increasingly developing under the influence of scientific and technological progress and the widespread integration of marketing systems into production and distribution processes.
- In the domestic market, consumer demand for imported agricultural goods is shaped less by the product's taste or flavor, and more by its external appearance, as visually appealing fruits are perceived as enhancing the aesthetic value of the dining table.
- The shortage of modern storage facilities and service centers, combined with the convenience, product variety, and long-established habits associated with traditional *dehqon* (farmers') markets, continues to slow down the development and diffusion of modern product distribution systems.

It is well known that agricultural product markets are highly sensitive to natural factors, and, as commonly expressed, "the coming of the year" can drastically alter market conditions. In turn, such fluctuations often have short-term or seasonal effects, which are among the distinctive characteristics of this sector.

In other words, developing production or marketing plans solely based on the current market prices of a particular product lacks long-term economic validity, as the following season may bring entirely different circumstances - such as excessively high or low prices, market oversaturation, or quality deterioration. These sharp fluctuations illustrate the inherent instability of agricultural markets.

Therefore, when developing strategies for the sustainable growth of agricultural product markets, it is essential to account for this high degree of sensitivity to natural and seasonal variations. Such consideration enables the formulation of more resilient and adaptive

mechanisms for market regulation, production planning, and price stabilization. Another distinctive feature of the agricultural product market lies in the fact that demand for such goods remains relatively constant and is not sharply segmented. In simpler terms, even consumers belonging to higher income groups often show a strong preference for purchasing products that are unprocessed, unpackaged, and retain their natural appearance and taste such as those sold directly at the edge of the field [1, 8].

This behavioral pattern indicates that consumer demand in agricultural markets is influenced not only by income level but also by perceptions of authenticity, freshness, and natural quality. Consequently, this feature necessitates the adoption of differentiated and carefully tailored approaches in the development and regulation of agricultural product markets. In turn, the development of the agricultural products market manifests itself differently depending on the conditions of storage, transportation, packaging, and consumption. Particularly noteworthy is the nut, which stands out among other nut varieties because its kernel matures within the shell without separation. This biological characteristic not only enhances its durability during storage and transport but also grants it a certain comparative advantage in the development of the nut market.

At the current stage of agrarian reforms, a series of regulatory documents have been adopted, and scientific research is being conducted to promote and improve the development of agricultural product markets, particularly the walnut market, along with efforts to enhance its technical and technological base. The necessity of these activities arises under the influence of several key factors (Figure 1). In our view, the most significant among them are as follows:

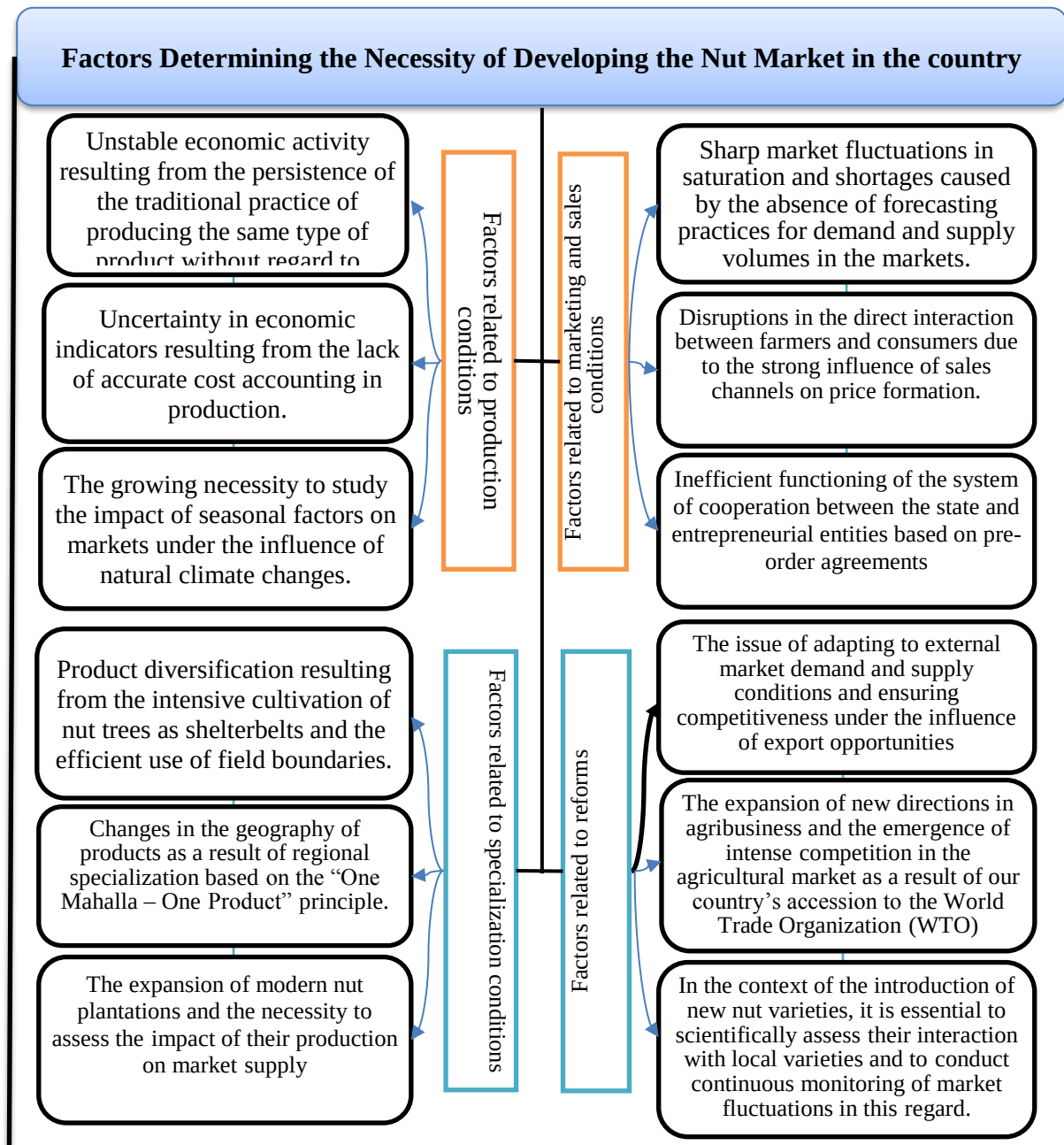


Figure 1. Factors Determining the Necessity for the Development of the Nut Market in Our Country [8]

- firstly, due to the incomplete formation of market demand and supply forecasting practices, sharp fluctuations occur in the background of uncertainties regarding market saturation and scarcity;
- secondly, methodological instability persists in determining the exact volume of demand and supply in the market;
- thirdly, in the process of utilizing privileges and opportunities granted for product export, the issue of adapting to changes in demand and supply in external markets and maintaining competitiveness remains

inadequately resolved;

- fourthly, despite the achievements of modern science, problems persist in expanding research directions aimed at forming and developing the agricultural marketing system, as well as in the effective implementation of obtained research results into practice;
- fifthly, in the process of joining the World Trade Organization and aligning national regulatory frameworks accordingly, it is crucial to identify and effectively utilize our competitive advantages in the nut

market to compete successfully with neighboring republics where this sector is relatively more developed.

However, analytical findings indicate that at present, nut producers in our republic face several challenges. Firstly, they lack comprehensive information regarding the specific market segments relevant to their products. Secondly, the absence of mechanisms to accurately determine production volume and objectives in advance creates difficulties in assessing both the number and the capacity of competitors (see Figure 2).

DISCUSSION AND RESULTS

Another distinctive feature of the agricultural products

market is that the ripening and harvesting of certain types of produce coincide with specific seasons. Consequently, when the market experiences a surge in supply for a given product during its peak season, there exists an opportunity to achieve higher profits by efficiently utilizing the relevant market segment. For products that can be processed, stored, and transported, it is essential to implement measures to supply them to both domestic and foreign markets in other seasons, taking into account consumer demand and price fluctuations. Therefore, in order to ensure the effective segmentation and seasonal utilization of the walnut and walnut products market, it is advisable to consider the aforementioned and other distinctive factors influencing its dynamics.

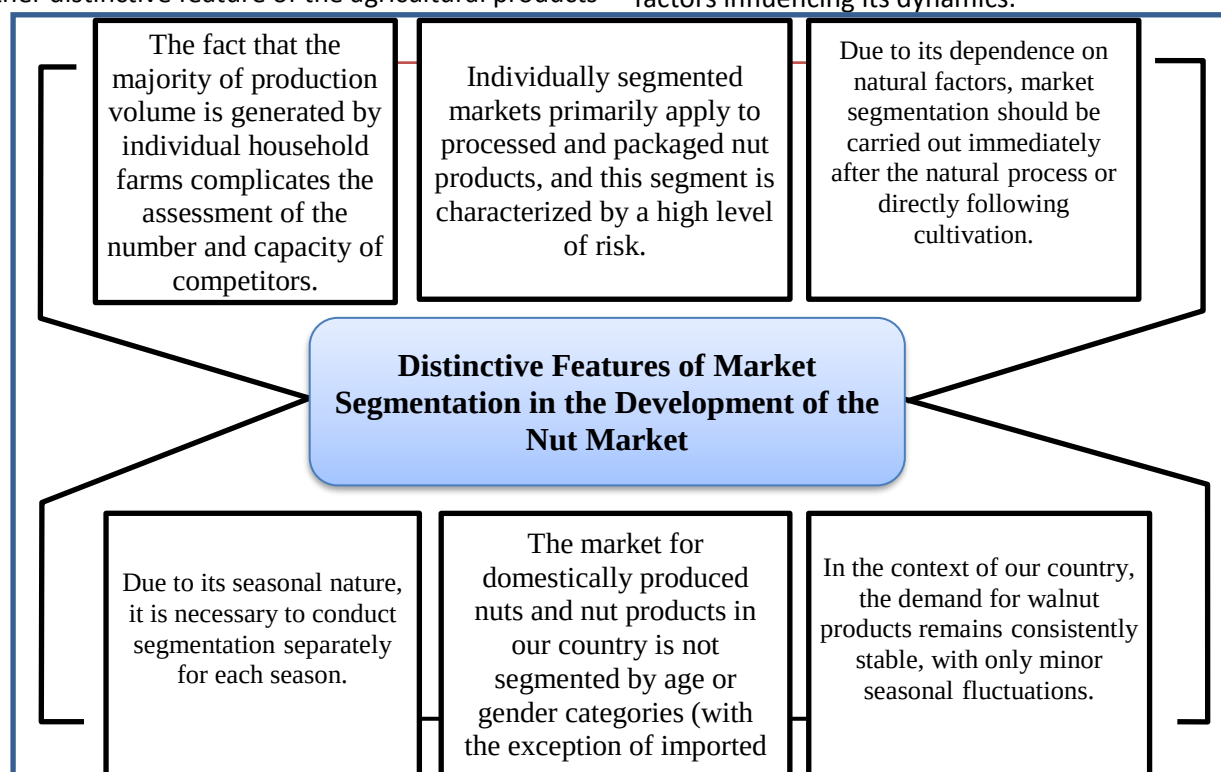


Figure 2. Specific Features of Market Segmentation in the Development of the Nut Market [8].

It should be emphasized that in today's consumer market, where consumer preferences and demands are continuously increasing and evolving, the cultivation and marketing of nuts require not only quantitative and price-based considerations but, more importantly, an innovative approach focused on quality improvement [2, 6].

The nut market differs from other sectors not only in terms of its product marketing system but also in the process of harvesting and delivering the products. In most cases, walnuts are collected directly by the local population, while in some instances, they are sold while still on the trees. In such cases, wholesale buyers

determine prices based on the area of the plantation (per hectare) and organize the harvesting themselves. This characteristic represents a distinctive feature of the nut market in our country, which must be taken into account when developing trade strategies.

From a theoretical perspective, the market possesses a highly complex structure in which all components are interrelated and develop in mutual interaction. The diversity of goods that constitute the market's object and the physical and legal entities that act as its subjects differing in forms of ownership and methods of economic management allow markets to be classified into various types according to these and other distinguishing features.

In particular, the agrarian market represents a complex structure consisting mainly of agricultural products, agro-resource, and agro-service markets. In the course of the ongoing reforms in the country's agrarian sector, it is crucial to recognize that these markets are closely interrelated and operate within a web of complex relationships. Therefore, when implementing measures aimed at their development, it is essential to ensure strict adherence to the fundamental laws of the market economy, as this serves as a key condition for achieving sustainable growth and efficiency in the agricultural sector [6, 8].

Research indicates that one of the key challenges in developing the nut market lies in the insufficient consideration of the aforementioned interrelated factors. A one-sided approach to addressing these issues often results in multiple problems. In particular, due to the existence of various unresolved issues in the sale of products at farmers' markets, a significant portion of the harvested yield fails to reach consumers and is wasted. Moreover, the relatively low competitiveness of the produced goods negatively affects the financial condition of producers. This situation, in turn, stems from the inadequate development of agro-resource markets. Especially in mountainous and foothill regions, there is an absence of an effective system for providing services to nut plantations and ensuring a steady supply of essential inputs such as pesticides and chemical agents.

It should be emphasized that the mere existence of market demand for cultivated nuts does not guarantee that producers can sell their products at high prices or secure substantial profits. To achieve this, several critical conditions must be met: the availability of well-equipped storage facilities that preserve the quality and composition of nuts, an efficient transportation network, competitive trading intermediaries and procurement enterprises, as well as the development of agricultural processing sectors equipped with modern technologies.

In particular, the lack of a competitive environment within procurement and processing enterprises adversely affects the economic situation of farms and household producers. Consequently, these factors collectively play a decisive role in shaping and determining the overall efficiency and sustainability of the nut market.

World experience demonstrates that even in countries where market relations are well-developed and free economic interactions are effectively established, certain objective problems persist in achieving proportional intersectoral exchange within the agricultural sector. These issues cannot be completely

resolved solely through the mechanisms of a free market.

To address such economic challenges, active state intervention primarily through economic instruments, and to a lesser extent administrative measures plays a crucial role in regulating and supporting market development. In this context, the foremost priority is to ensure comprehensive support for agriculture.

The necessity of state involvement and regulation in the development of agricultural markets can be justified by several critical factors [1, 8]:

- the strong influence of natural and economic conditions on the stability of agricultural markets, particularly affecting demand and supply dynamics, as well as average price levels;
- the absence of monopolistic structures among farmers and household producers, unlike in many other sectors of the economy, which makes them more vulnerable to price fluctuations and market volatility;
- the high capital intensity of agricultural production combined with relatively low profitability rates, which limits producers' capacity for self-financing and reinvestment;
- the significant imbalance in price growth rates between interrelated sectors within the agricultural economy, especially in the exchange of goods and resources between agriculture and related industries.

CONCLUSION AND RECOMMENDATIONS

Taking the above considerations into account, it is appropriate that the system of economic instruments for promoting the development of the nut market should primarily be aimed at addressing the following key socio-economic objectives:

- ensuring stable domestic supply - to provide the population with sufficient quantities of high-quality nuts and nut-based products at relatively affordable prices by promoting agricultural product markets through organizational, economic, legal, and financial incentives;
- supporting producers - to strengthen the activities of nut-growing entities by supplying them with essential material and technical resources and implementing measures for financial support, including concessional lending and subsidy mechanisms;
- encouraging export diversification - to promote the economic support of nut exports by diversifying agricultural production and crop structure, expanding the cultivation of export-oriented walnut varieties, and facilitating access to foreign markets;
- developing market infrastructure - to stimulate the establishment and modernization of infrastructure

facilities necessary for the effective functioning of the nut market, particularly, storage, transportation, and processing systems with special emphasis on the mountain and foothill regions, where logistical conditions are relatively unfavorable.

In essence, these measures serve as strategic instruments through which the state can ensure not only the efficient functioning and competitiveness of the nut market but also contribute to the sustainable growth of the agricultural sector and the overall improvement of societal welfare.

The financial condition of enterprises that provide material-technical resources and services to intensive nut orchards, as well as their capacity in terms of skilled personnel, and the level of responsibility in fulfilling contractual obligations, often fail to meet required standards thereby reducing the overall efficiency of market performance. In this regard, the following priorities deserve special attention [8]:

- aligning the credit system with the needs of service enterprises in order to ensure balanced and sustainable development of the nut market;
- expanding preferential financial mechanisms by introducing short-term state-supported loans for nursery development and long-term concessional credits aimed at strengthening the material and technical base of intensive walnut farms. Although the activity of leasing companies is gradually improving, it is essential to broaden farmers' access to the leasing market and diversify the range of agricultural machinery available for lease;
- enhancing fiscal incentives for enterprises engaged in nut production by making broader use of the stimulative function of taxation, including the differentiation of land and water taxes according to regional characteristics and production conditions;
- developing an effective risk insurance system in nut production that operates in accordance with the actual needs and financial capabilities of farms;
- improving the legal and customs framework governing the export of nut products produced in intensive orchards, with a focus on simplifying export procedures and enhancing transparency.

Overall, addressing these issues is crucial for strengthening the institutional and financial foundations of the nut market, enhancing its competitiveness in domestic and foreign trade, and ensuring the long-term sustainability of intensive nut cultivation in the country.

Considering the dynamics of nut market development and the current state of trade and commercial networks in our country, it is advisable to identify

priority directions and favorable measures for the prospective advancement of the nut market as follows:

- establishing designated trading areas for nut products in local farmers' markets by allocating special pavilions and stalls, and supporting the organization of nut fairs to promote direct trade between producers and consumers;
- developing mobile logistical corridors (portable trading routes) to facilitate efficient transportation and distribution of nut products, as well as supporting the creation of mobile retail outlets in local communities and strengthening their material and technical capacity;
- launching online trading platforms on the official websites of nut producers' and exporters' associations, enabling transparent and competitive virtual trade opportunities;
- creating mobile applications designed to promote nut sales and public awareness of nut-based products through accessible and interactive digital tools;
- given that over 50 percent of global trade has shifted to social media platforms, establishing specialized digital spaces dedicated to monitoring, analyzing, and disseminating real-time information about the nut market and its dynamics;
- to enhance export opportunities, developing a marketing information system that continuously updates global nut market trends, including supply and demand conditions and daily price fluctuations.

Overall, the current distribution and marketing system for domestically produced nuts remains underdeveloped and fails to meet consumer and producer expectations, resulting in economic inefficiencies for both parties. Addressing these challenges requires the comprehensive development of agricultural markets, improvement of direct economic linkages between farmers, markets, retail outlets, and supermarkets, and the integration of modern digital technologies to enhance efficiency, transparency, and market accessibility.

REFERENCES

1. Umurzakov U.P., Yunusov I.O., Sangirova U.R., Sadullaev U.Kh., Ahrorov F.B. (2023) Scientific and Theoretical Foundations for the Development of the Walnut Cultivation and Marketing System in the Foothill Regions. Tashkent: Printing House of "TIAME" National Research University, Monograph, 132 p. (Uzbek version).
2. Yunusov, I., Sangirova, U., Sadullaev, U., Akhrorov, F., & Yakhyayev, M. (2024). Directions for Increasing Household Incomes through Improving the Walnut Sales System and Changing Production Volumes:

Scientific and Methodological Manual. Tashkent: Printing House of "TIAME" National Research University, 233 p. (Uzbek version).

3. Yunusov, I.O., & Sangirova, U.R. (2023). The Socio-Economic Significance of Walnut Cultivation and Increasing Its Production Volume. In Proceedings of the XXII Traditional Scientific-Practical Conference "Modern Problems of Agriculture and Water Management" of Young Scientists, Master's Students, and Talented Students. Tashkent: TIAME National Research University. pp. 431–435.
4. Artykbaev, A.Z., & Sangirova, U.R. (2024). The Role of Digital Technologies in the Development of Agriculture. Bulletin of the Agrarian Science of Uzbekistan, No. 1/2 (13), pp. 181–183. (Russian version).
5. Rakhmanova, B. (2023). Evaluating the Economic Efficiency of Walnut Production. In Proceedings of the International Scientific and Technical Conference "Scientific and Practical Foundations for the Effective Use of Resource-Saving Innovative Technologies in Agriculture" (Part II, pp. 280–284). Andijan. (Uzbek version).
6. Yunusov, I.O., & Sadullaev, U.N. (2023). Analysis of Scientific Approaches to the Economic Efficiency of Growing Nuts. Journal of Sustainable Agriculture, 1(17), 80–83.
7. Yunusov, I., & Inobatov, A. (2023). The Importance of Resource Efficiency in Assessing the Possibilities of Increasing Walnut Production Using Innovative Technologies. Journal of Sustainable Agriculture, 4(20), 32–35.
8. Yunusov, I.O. et al (2024). Final Report of the Fundamental Grant "Development of Scientific Foundations for Increasing Incomes of the Population by Creating an Effective System for Growing and Selling Nuts in the Foothill Region". Tashkent: 2023–2024, 96 pp.