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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

DIRECTIONS FOR INCREASING THE COMPETITIVENESS OF FOOD PRODUCT PRODUCERS IN AZERBAIJAN

Speciality: 5304.01– Types of economic activities

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Applicant: **Ulvi Elchin Bilal**

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The work was performed at the Department of “Agricultural economy and tourism business” of Azerbaijan Cooperation University.

Scientific supervisor: Doctor of Economic Sciences, Professor
Nizami Jalal Gafarov

Official opponents: Doctor of Economic Sciences,
Associate Professor
Fikrat Vali Guliyev

Doctor of Philosophy in Economics
Matanat Samig Hasanova

Doctor of Philosophy in Economics
Saadat Intigam Hajiyeva

Dissertation council FD 2.46 of Supreme Attestation Commission under the President of the Republic of Azerbaijan operating at Azerbaijan Cooperation University.

Chairman of the
Dissertation Council



Full member of ANAS, Doctor of
Economic Sciences, Professor
Ziyad Aliabbas Samadzade

Scientific secretary of the
Dissertation Council

Doctor of Philosophy in
Economics, Associate Professor
Samira Yashar Mammadova

Chairman of the scientific
seminar:

A handwritten signature in blue ink, likely belonging to Mohubbat Musa Huseynov, is written over a horizontal line.

Doctor of Economic Sciences,
Professor
Mohubbat Musa Huseynov

GENERAL CHARACTERISTICS OF THE STUDY

Relevance and degree of development degree of the research.

Diversification of the Azerbaijani economy, ensuring food security and expanding export potential are considered one of the strategic tasks in the modern era. Increasing the competitiveness of food producers is of particular importance in terms of meeting consumer demands in the domestic market and maintaining stable positions in international markets.

The competitiveness of food producers plays an important role in the sustainable development of the economy. Modern economic theories (M. Porter, P. Krugman, P. Nijkamp, etc.) show that the formation of a competitive environment stimulates economic growth, increases production efficiency and strengthens export potential. Although the food production of Azerbaijan has a rich agrarian potential, its competitive advantages have not yet been fully realized, which is always necessary. Therefore, the topic is of high relevance from a scientific and theoretical point of view.

Although Azerbaijan's agricultural potential and favorable geographical location create significant advantages in the country's food production and export, deepening institutional reforms, improving quality standards, and applying innovative production technologies remain necessary to protect the sustainable positions of producers in foreign and domestic markets.

Against the backdrop of the formation of a global economic environment in conditions of deepening competition, it is of particular importance for food producers to operate in a manner that meets modern requirements. Food production is one of the priority sectors of the economy from both a social and strategic perspective, and its competitiveness is an important condition not only for economic success, but also for ensuring food security, healthy nutrition of the population, and regional development.

In modern times, the increase in demand for food products worldwide, the strengthening of challenges related to food security against the background of pandemics and geopolitical risks, have further highlighted the competitiveness of countries in food

production. In this direction, the issue of assessing and increasing competitiveness on a scientific basis has become a scientific research direction of strategic importance.

For developing countries like Azerbaijan, ensuring the competitiveness of food production plays an important role in the sustainable development of the non-oil industry economy and expanding its export potential. Therefore, identifying the factors determining competitiveness on a scientific basis, improving assessment methods, and developing optimal strategic approaches for producers are scientifically relevant.

The relevance of the topic is also explained by the fact that food production is an influential area in a competitive environment not only in terms of economic indicators, but also in terms of social welfare, employment, and environmental sustainability. In this regard, the current study aims to form new approaches based on international and local experience by examining the scientific foundations of ensuring the competitiveness of food producers.

When analyzing the development of the country's economy, we see that in our republic there is a need to investigate issues such as food production, retail trade, import and export of goods, and find ways to solve their problems. Thus, the effective application of the competitiveness of food producers, the structure, volume, balance of supply and demand, the protection of the rights of food producers and consumers in the consumer market, the formation and development of a competitive environment between the parties represent a complex system in which mutual relations between food production and trade, which are commodity producers, will be formed. Studying this process is necessary for every period and is of particular relevance.

In this regard, in order to achieve the effective development of increasing the competitiveness of food producers, it is necessary to study and solve the problem from a scientific perspective. The problem is also relevant because it is an integral part of the global problem of food security.

The "Strategic Roadmap for the National Economy of the Republic of Azerbaijan"¹, approved by the Decree of the President of the Republic of Azerbaijan Ilham Aliyev dated December 6, 2016, covers the short, medium and long-term periods, defines the main strategic goals and objectives in the mentioned directions, as well as mechanisms for evaluating and financing prospective measures.

The establishment of a strong, diversified, inclusive economy that ensures the improvement of the social well-being of the country's citizens and the achievement of a higher human development index is defined as the next target vision in the Strategic Roadmap. Raising the living standards of the country's population and developing human capital are reflected as the main components of long-term goals.

The issue of increasing the competitiveness of food producers in the Republic of Azerbaijan is of strategic importance in ensuring the country's food security. In this regard, the Decree of the President of the Republic of Azerbaijan dated July 19, 2022 "On a number of measures to increase the level of self-sufficiency in food wheat" has identified the expansion of competitive production in the agrarian and food sector as one of the priority directions of state policy. This decree was adopted in order to strengthen food security in the country, increase local production, introduce modern technologies and increase the competitiveness of food producers.

Regarding the degree of development of the topic, it should be noted that numerous studies have been conducted in the economic literature of the world and our country on increasing the competitiveness of industrial enterprises, including food producers, studying its scientific and theoretical foundations, developing a methodological framework, and analyzing international experience.

The scientific works of Azerbaijani scientists Z.A. Samadzade, E.A. Guliyev, B.Kh. Atashov, I.H. Ibrahimov, A.Sh. Shakaraliyev, A.F. Abbasov, R.Z. Huseyn, T.A. Guliyev, E.A. Hasanov, N.A. Aliyeva, H.S. Hasanov, G.S. Suleymanov, A.B. Abbasov and others

¹ "Strategic Roadmap for the National Economy Perspective of the Republic of Azerbaijan". // Approved by the Decree of the President of the Republic of Azerbaijan dated December 6, 2016. – Baku: 2016- <http://e-ganun.az/framework/34254>

have extensively studied the modernization of the national economy, strengthening its competitiveness in food production, increasing export potential, food security and mechanisms of state support for it.

The current development problems of Azerbaijani food production and ways to increase its competitiveness have been the subject of research by F.V. Guliyev, E.B. Mammadova, S.I. Valiyeva, E.A. Ibrahimov, N.J. Gafarov, M.M. Huseynov, K.A. Shahbazov, R.G. Talibov, N.D. Gurbanov and others.

These studies are reflected in the works of foreign economists M.E. Porter, J.E. Stiglitz, P. Krugman, R. Vernon, M. Casson, R. Kaplinsky, K. Pavitt, F. Kotler, J. Robinson and other authors. In these studies, special attention was paid to the formation of competitive advantages, export-oriented development, institutional flexibility, innovation and the role of state support, mainly in industrial and food production.

The works of these authors formed the theoretical basis of the research. At the same time, there is a need to study a number of theoretical-methodological and scientific-practical issues related to the formation of competitive production areas that meet the requirements of sustainable development of food producers in accordance with the level of today's requirements. The choice of the topic of the research work arose precisely from this necessity.

Object and subject of research. The object of the study is economic entities engaged in the production of food products in Azerbaijan, regardless of their form of ownership. The subject of the study is the factors, development trends and patterns, methods and means that shape the competitiveness of these producers.

Purpose and tasks of the study. The purpose of the study is to analyze the directions of increasing the competitiveness of Azerbaijani food producers and prepare scientifically substantiated proposals and recommendations for the future.

To achieve this goal, the following tasks have been set:

- to study the theoretical foundations of the competitive environment in food production;
- to analyze the current situation in food production;
- to assess the competitive indicators of the main food producers;

- to identify internal and external factors affecting competitiveness;
- to investigate the possibilities of applying innovations and technologies;
- to analyze the role of state support in increasing competitiveness;
- to assess the possibilities of regional cooperation and integration into international markets;
- to prepare scientifically substantiated recommendations for increasing the competitiveness of food producers.

Research methods. The research used comparative analysis, statistical and economic grouping, SWOT analysis, graphic representation, and expert evaluation methods.

The main provisions put forward for defense:

- A comprehensive approach to the factors that shape competitiveness in Azerbaijan's food products production is necessary;
- state support should be considered necessary in the formation of a competitive environment for food producers;
- special attention should be paid to innovation and digitization in ensuring sustainability in the production of food products;
- increasing the market share in regional cooperation is of particular importance in order to increase the competitiveness of food product producers of our country;
- it is important to expand the level of economic diversification in the development of enterprises producing competitive food products;
- institutional reforms carried out in the agrarian-industrial complex are among the most important directions that increase the efficiency of competitiveness among food producers;
- strategies based on the conducted SWOT analysis should be considered the most acceptable options for increasing competitiveness.

Scientific novelty of the research. The scientific innovations of the dissertation work include the following:

- A complex analytical approach combining key economic indicators was applied to assess the competitiveness of

Azerbaijan in the field of food production;

- Based on statistical data from recent years, the directions of activity of the main food producers were comparatively analyzed, and competitive advantages and limitations were identified.
- Institutional reform models were developed that increase the competitiveness of the country's food producers;
- The mechanism of influence of innovation and digitalization in food production was theoretically and practically substantiated;
- The directions of influence of regional cooperation on the competitiveness of large producers operating in food production were determined;
- Based on a new analytical assessment of large food producers based on SWOT and comparative analysis, priority directions were selected for each producer group to strengthen competitiveness;
- A phased action plan was developed to increase the competitiveness of food producers.

Theoretical and practical significance of the research. The theoretical significance of the research is that the theoretical and methodological provisions, proposals and recommendations obtained in the course of the research can allow for the development of theories of competitiveness in the republican economy, improving the sale of quality food products to the population in the food production market and increasing the efficiency of state policy aimed at raising the standard of living of the population.

The practical significance of the dissertation work is that when developing targeted economic programs for the development of food production, recommendations on increasing competitiveness can be used by republican and regional executive authorities to adjust management decisions, program measures and improve enterprise strategies.

Certain scientific results of the dissertation can be used by employees of research institutions, and at the same time can find their application in the process of teaching relevant subjects in economically oriented universities, in the preparation of highly qualified personnel, retraining and advanced training of specialists.

Approval and application. The main scientific-theoretical provisions, conclusions and proposals of the dissertation were reflected in 7 articles (2 of which were published abroad) and 6 theses (1 of which was published abroad) published in reputable journals and conference proceedings recommended by the Higher Attestation Commission under the President of the Republic of Azerbaijan.

Among the conference materials, the following theses can be cited: “Green economy model to increase the competitiveness of food producers” (Baku, 2024), “Promoting sustainable agriculture practices for global competitiveness and biosecurity” (Ganja, 2024), “Green strategies to increase the competitiveness of the food production industry” (Baku, 2024), “Increasing export potential and integration into internal markets as a direction for enhancing the competitiveness of food producers in Azerbaijan” (Lisbon, 2025), “Problems of innovative development in the food industry of Azerbaijan” (Baku, 2025), “Price factor in providing the population with food products” (Baku, 2025).

During the research, the author also published the following articles: “Innovative strategies for increasing the competitiveness of food producers in the global market (Baku, 2024), “Activities of food industry enterprises of Azerbaijan: realities and prospects” (Moscow, 2025), “Experiences of assessing the competitiveness of the world's food industry and opportunities for its application in Azerbaijan” (Baku, 2025), “Innovation factor in increasing the competitiveness of food producers of Azerbaijan” (Baku, 2025), “Food industry of Azerbaijan: current situation and competitive trends of the main producers” (Ganja, 2025), “Directions for increasing the competitiveness of the food industry of Azerbaijan” (Moscow, 2025), “Increasing the competitiveness of food producers: conditions and factors” (Baku, 2025).

Name of the organization where the dissertation work was carried out. Azerbaijan Cooperation University.

The total volume of the dissertation in characters, indicating the volume of the structural sections of the dissertation separately. The dissertation consists of an introduction, 3 chapters, a conclusion and a list of references. Total volume is 320806 characters, including:

introduction – 12421 characters, chapter I – 72648 characters, chapter II – 66812 characters, chapter III – 83651 characters, conclusions and suggestions – 7743 characters, list of used literature 25619 characters. The number of characters of the dissertation, excluding images, tables and graphs, is 243275.

MAIN CONTENT OF THE WORK

The **introductory** part of the dissertation work justifies the relevance of the topic, the degree of development, the object and subject, goals and objectives, research methods, the main provisions put forward for defense, the scientific novelty, theoretical and practical significance, approval and application, the name, structure and size of the organization where it is performed are presented.

Chapter I of the dissertation, entitled "**Theoretical and methodological aspects of increasing the competitiveness of food producers**", reviews and systematizes the scientific foundations of ensuring the competitiveness of food producers, reflects the conditions and factors of increasing their competitiveness, and reflects the experiences of international and local assessment of the competitiveness of food producers.

Ensuring the competitiveness of food producers is considered one of the main conditions for strategic development in modern economic theory and practice. M.E. Porter's "competitive advantage" model argues that a company can achieve competitive advantage by effectively organizing its activities along the value chain.²

Increasing competition in the global market, changing consumer demands and technological innovations necessitate the long-term sustainability of enterprises, strengthening their market positions and ensuring consumer satisfaction. Competitiveness means that a product or service is superior to competitors in terms of quality, price, innovation and added value and acts as one of the main indicators of economic development at both the micro and macro levels.

² Porter, M.E. Competitive Advantage: Creating and Sustaining Superior Performance. / M.E. Porter – Free Press, – 1985. – pp. 33-61

Azerbaijani economists have also made significant scientific contributions in this direction. A summary of various studies shows that product quality, pricing policy, innovation, state support and human capital are considered the main components of competitiveness.

In the scientific literature, the characteristics of competitiveness are explained by its multi-levelness, universality, relative and dynamic nature, and the characteristics of its formation in market conditions (Table 1).

Table 1.

Competitiveness approaches of Azerbaijani economists

Author	Approach	Main source
Ziyad Samadzade	Notes that the competitiveness of the national economy is related to the development of the non-oil sector, increasing export potential and economic diversification	Samadzade Z. A. Azerbaijan in the world economy. Baku: Elm, 2011[95]
Shahin Mustafayev	Indicates structural reforms, human capital development and innovation-oriented economic policy as the main conditions for competitiveness	Mustafayev Sh.A. Development directions of the competitive economy of Azerbaijan. Baku: Elm, 2013 [90]
Ali Alirzayev	Emphasizes that economic development depends on the institutional environment, state regulation and the expansion of entrepreneurial activity	Alirzayev A. G. Economics: thoughts, views. Baku: Baku University Publishing House, 2002[50]
Nizami Gafarov	An important internal driving force of the market economy is the approach based on demand and supply	Gafarov N. C. "Economic problems of the formation and development of the agricultural consumer market". Monograph. / Baku: Kooperasiya, – 2023. [74]
Vusal Alifov	The coordination of demand and supply in the market is carried out through the system of prices and competition.	Alifov V.Y. Improving the supply of the food market with local agricultural products in the Republic of Azerbaijan. Abstract of the dissertation submitted for the degree of Doctor of Philosophy. Ganja 2022 [49]

Source: Table compiled by the author.

Consequently, the conceptual foundations for increasing the competitiveness of food producers require the application of multidisciplinary approaches at both the theoretical and practical levels. These approaches are based on the complex implementation of elements such as optimal use of resources, innovation and adaptability, state support, development of market infrastructure and strengthening of human capital. Competitiveness is not only an economic indicator, but also a fundamental factor determining the sustainability of the national economy, export opportunities and social well-being.

Analyses show that the main factors affecting competitiveness are technological innovation, ensuring quality standards, logistics and supply chain efficiency, marketing and brand strategies, human resource development, state support mechanisms and export opportunities. In this context, technological development and quality standards are among the highest priorities.

Comparison of the approaches of scientists from different countries also leads to a single conclusion: the application of innovations and technologies, state support, clustering, market adaptation and competitive environment are the main pillars. Researcher Assoc. Prof. Dr. Ayşe Yıldız evaluates the innovative capabilities of food producers as a competitive advantage and emphasizes that increasing investments increases market share.³

While Azerbaijani scientists focus more on the quality-price ratio, the use of domestic resources, and increasing export opportunities, Turkish and Russian researchers emphasize the importance of clustering, R&D, and international quality standards (Table 2).

Analytical analysis shows that the main priorities for increasing competitiveness in food production are:

- innovation and technological modernization in production;
- state support policies and subsidies;
- increasing labor productivity and developing human capital;
- expanding access to export markets and implementing international quality standards.

³ Yıldız A.K. The Impact of Innovation on Agriculture and Food Sector Competition. Agriculture and Food Strategies, 2020. – p. 89.

Table 2.

The main factors hindering the development of food production

Key factors	Content of factors
Lack of technical equipment:	Technical reconstruction and reconstruction of processing enterprises that meet the requirements of the modern era are necessary. The current technical base cannot fully ensure the optimal use of agricultural raw materials and their storage. This negatively affects both the volume and quality of the product.
Limited raw material resources	Especially in the initial stages of the reforms, the volume of agricultural production has seriously decreased. This has resulted in underutilization of production capacities in sectors such as baking, fruit and vegetable, meat and dairy industries.
Low labor productivity	Labor productivity in local enterprises is two to three times lower than in similar enterprises in developed countries. This prevents increasing productivity and raising wages.
Negative impact of cheap labor	Low wage levels weaken the efficient use of labor and create a slowdown in the introduction of innovations.
Waste management	Reducing waste in food production and introducing low-waste technologies are one of the important steps to increase the competitiveness of enterprises. These technologies serve to form an efficient system from both an ecological and an economic point of view.

Source: Table was compiled by the author.

Thus, increasing the competitiveness of Azerbaijani food production should be consistent with both the main goals of national economic policy and the challenges of the international market. In this direction, the introduction of innovations, protection of environmental criteria, efficient use of resources and market diversification are formed as key strategic priorities. As a result, strengthening the competitive environment in food production not only strengthens the market positions of producers, but also becomes an important factor ensuring the country's food security, export potential and social well-being.

In international practice, competitiveness is assessed on the basis of multidimensional indices and methodologies. The World Economic

Forum's Global Competitiveness Index (GCI), the IMD's Competitiveness Index and the World Bank's reports are the most widely used tools in this field. These methodologies mainly focus on indicators such as infrastructure, macroeconomic stability, technological readiness, innovation potential, education and healthcare systems. In the US, Germany, Japan and the European Union, the competitiveness of food production is assessed with complex approaches based on innovation, export market share, technology and brand value.

The study shows that for a deep and systematic analysis of competitiveness in Azerbaijan, the integration of international practices such as benchmarking, digitalization, innovation indicators and export monitoring is necessary.

Comparative analysis proves that in developed countries, when measuring competitiveness, more value-added indicators, innovation opportunities, technological innovations and quality standards are taken into account. In countries such as Russia and China, state support, large production areas and strategic programs come to the fore. Turkey assesses competitiveness with both domestic market and export-oriented production criteria. In Azerbaijan and Georgia, the assessment is based more on the cost of the product, share in the domestic market and use of local resources.

Consequently, improving the methods of assessing competitiveness in food production is an important necessity for Azerbaijan. In this direction, studying international experience, applying digital technologies, promoting export-oriented production and strengthening quality systems should be considered priority areas.

In Chapter II of the dissertation, entitled **“Analysis of the Current State of Food Production in Azerbaijan and the Competitive Environment”**, the stages of development and economic and statistical indicators of food production in Azerbaijan were reviewed, a comparative analysis of the competitive indicators of the main food producers, as well as a SWOT analysis of Azerbaijani food production, models for optimizing the competitiveness of food producers were identified, and analyses of the competitiveness of the main food producers were performed.

Food production in Azerbaijan is one of the leading sectors of the national economy and plays an important role in terms of both food security and diversification of the non-oil sector.

The transformation of food production has been widely reflected in the research of local scientists and in the reports of international organizations - FAO, UNIDO, World Bank and WTO. These sources show that Azerbaijani food production is transitioning from an import-dependent model to an export-oriented and competitive production model.

It should also be noted that the report for 2015–2024 analyzed the dynamics of Azerbaijan's food production in terms of key indicators (production volume, exports, imports, financial revenues, and competitiveness index). As a result of the analysis, consistent development trends of the industry, strengthening exports, and increasing competitiveness were observed (Table 3).

Table 3.

Analysis of dynamics of key indicators in food production in Azerbaijan

Years	Total production volume (thousand tons)	Exports (\$ million)	Imports (\$ million)	Financial revenues (million manats)	Competitiveness index (0-100)
2015	950	220	300	480	55
2016	1020	240	320	510	57
2017	1100	260	330	540	59
2018	1185	280	340	580	61
2019	1250	310	360	620	63
2020	1320	340	370	670	66
2021	1410	370	380	710	70
2022	1500	400	390	760	73
2023	1600	430	400	820	76
2024	1700	460	410	880	80

Source: The table was compiled by the author based on statistical data. www.azstat.org and www.economy.gov.az

Despite the growth rate of imports, as a result of the dynamic growth of exports, the balance turned positive in 2023–2024. Financial

revenues increased from 480 million manat to 880 million manat, ensuring financial stability in the sector. The competitiveness index increased from 55 to 76, which indicates the strengthening of the positions of Azerbaijani food production in international markets.

The study conducted a comparative analysis of the competitive indicators of the main manufacturers operating in the production of Azerbaijani food products - “Azersun Holding”, “Milk-Pro” LLC, “Atena” LLC and “Agrovita” LLC. The selection of enterprises was related to their market share, product portfolio and characteristics of the production network, and corporate reports, official websites and industry research materials were used as sources of information.

Azersun Holding, as the largest food producer in the country, stands out with its wide product range, strong brand portfolio, vertical integration and export orientation. In 2023, it became the industry leader with a revenue of 1.81 billion AZN. Its advantage is related to the ability to take advantage of economies of scale and expand its distribution capacity. However, high sensitivity to raw material prices and regional trade risks is considered a weakness.

Milk-Pro LLC, as a well-known milk and juice producer in the local market, is distinguished by its diverse product range and quality control system. Its main strength is the stability of its positions in the national market. At the same time, limited transparency of financial indicators and limitations in scale are factors that weaken the competitive potential of the enterprise.

Atena LLC, as a company specializing in the collection and high-tech processing of milk, has a significant position in the market with a processing capacity of up to 250 tons per day. Strict quality control, laboratory capabilities and functional products (for example, lactose-free and protein-rich dairy products) support its differentiation strategy. However, the seasonal dependence of production and a limited regional network are considered weaknesses of the enterprise.

Agrovita LLC, on the other hand, is characterized by upstream activities – supply of seeds, fertilizers, phytosanitary products and a role in the agricultural chain, rather than food processing. The company acts more as a strategic partner and has a specific position in the market due to its export-oriented activities. However, its limited

level of recognition as a consumer brand and seasonal fluctuations affect its sustainability.

A comparative analysis shows that Azersun and Atena are leaders in both market share and revenue growth and profitability indicators. Their advantages are related to a wide range of product portfolios, high technological capabilities, quality control and innovation strategies. Milk-Pro is more focused on protecting its positions in the national market, while Agrovita has expanded its activities in export and upstream segments.

A SWOT analysis of Azerbaijani food production shows that, in addition to having a stable position in the domestic market, the sector also has significant potential in terms of access to international markets (table 4).

Table 4.

General SWOT analysis for food production

Category	Description
Strengths	Sustained domestic market demand, diverse product portfolio, production infrastructure across the country and export potential.
Weaknesses	Limited adoption of technologies, weak financial sustainability in some segments, differences in compliance with food standards.
Opportunities	Access to international markets, innovation and digitalization, government support and subsidies.
Threats	Risks of rising raw material prices, global market changes, increased competition and legislative risks.

Source: Table was compiled by the author.

However, the limited application of technologies, the weakness of financial sustainability in some segments, and the lack of full compliance with international quality standards are considered weaknesses.

Azerbaijani food production has the potential to both maintain a stable position in the domestic market and increase competitiveness by expanding export opportunities. Each major producer strengthens its position in the market with its individual strengths and opportunities, while weaknesses and potential threats should be taken

into account in strategic development plans.

As a result, optimization models based on SWOT analysis show that Azerbaijani food production has sufficient potential to both maintain a stable position in the domestic market and strengthen in the international market

The table below presents selected competitive indicators of the leading food manufacturing enterprises of Azerbaijan in 2023-2024 - production, turnover, profitability, export and innovation indicators. The available statistical data were calculated based on real indicators, and the missing parts were calculated based on an analytical model (table 5).

Table 5.

Selected competitiveness indicators for leading food manufacturing enterprises in Azerbaijan in 2023-2024

Enterprise	Production (thousand tons)	Turnover (mln AZN)	Net profit (mln AZN)	Exports (million US\$)	Innovative product share (%)	R&D expenses (mln AZN)
Azersun Holding	1015.0	1325.0	98.0	61.0	13.0	5.8
Gilan Food	710.0	960.0	68.0	49.0	10.7	4.9
Baku Canning Plant	49.5	87.2	6.1	15.1	8.2	0.7
Milk-Pro	185.0	265.0	21.4	12.3	9.5	1.6
Atena	220.0	318.0	26.8	18.7	11.2	2.4
AGRO- VITA	142.0	198.0	14.6	9.8	7.9	1.1

Source: The table was compiled by the author based on statistical data. www.azstat.org and www.economy.gov.az

The analysis shows that Azersun Holding is the leader in the sector. Dairy producers (Atena and Milk-Pro) demonstrate higher profitability. There is a positive correlation between R&D expenditures and the share of innovative products. Although export intensity is high in medium-sized enterprises, total volumes are limited.

A brief SWOT analysis of Azerbaijan Food Industry enterprises based on extended analytical reports for 2023-2024 showed that:

- Azersun Holding – Strengths: market leadership; Weaknesses: high capital intensity; Opportunity: export expansion; Threat: raw material price volatility.

- Gilan Food – Strengths: diversification; Weaknesses: medium innovation share; Opportunity: regional markets; Threat: competitive pressure.

- Dairy sector (Atena, Milk-Pro) – Strengths: high profitability; Weaknesses: import dependence; Opportunity: functional food market; Threat: cost increase.

The rating table in the 2023-2024 rating reports of Azerbaijani food industry enterprises was calculated based on the weighted normalization method (table 6).

Table 6.

Ranking table of leading enterprises in the Azerbaijani food industry in the 2023-2024 Rating reports

Rating	Enterprise	Integral Top
1	Azersun Holding	100.0
2	Gilan Food	77.19
3	Atena	41.04
4	Milk-Pro	32.15
5	AGRO-VITA	24.93
6	Baku Cannery	22.27

Source: The table was prepared by the author based on statistical data. www.azstat.org and www.economy.gov.az

The analysis shows that an innovation-oriented strategy can strengthen the position of dairy sector enterprises. Increasing R&D investments leads to long-term profit growth.

The main conclusion drawn from the analysis is that strengthening the competitiveness of Azerbaijani food production enterprises should be carried out in several directions.

Thus, the analysis covering the period 2015–2024 showed that the main determinants for the sustainable development of Azerbaijani food production enterprises and their consolidation in international markets are quality, export, innovation and digitalization.

Chapter III of the dissertation, entitled “**Main priorities for increasing the competitiveness of food producers in our country**”, considers the issues of innovation, digitalization and the application of quality standards, identifies increasing export potential and integration into international markets as directions for increasing competitiveness, and justifies the importance of state support for food producers, institutional reforms in the sector in question and opportunities for regional cooperation.

The results of the conducted scientific research show that in the modern era, innovation, digitalization and the application of international quality standards play a decisive role in the formation of competitive advantages in food production.

The following diagram shows the percentage impact of innovation factors on the overall level of competitiveness (diagram).

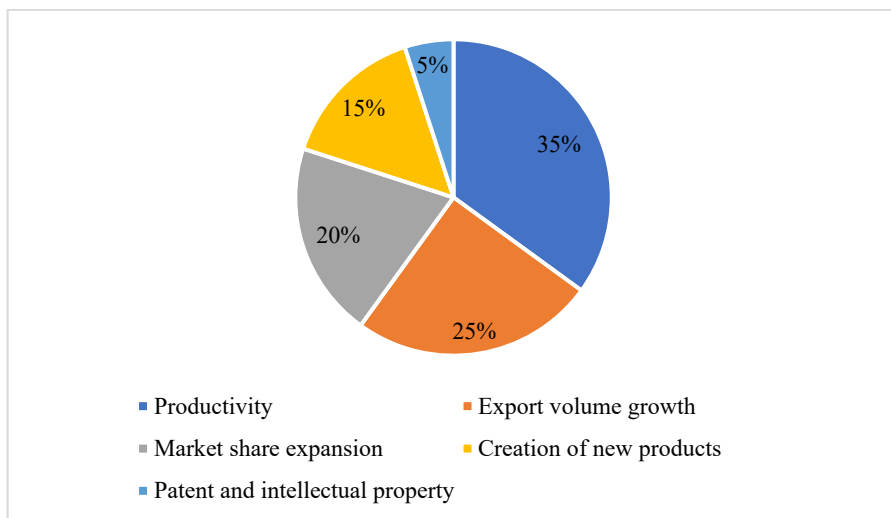


Diagram. Distribution of the impact of innovation factors on competitiveness (%).

Source: Diagram was compiled by the author.

As can be seen from the diagram, productivity growth (35%) and export volume growth (25%) are considered key factors in the

formation of competitive advantage. New product creation and market share expansion also play an important role.

Digital sales channels and e-commerce platforms allow manufacturers to reach a wider audience, analyze customer data and adapt sales strategies. Innovative monitoring and analytics systems play a strategic role in accelerating decision-making processes by ensuring quality control and evaluating production performance.⁴

According to the data of the State Statistics Committee, the level of technological innovation in food production has increased by approximately 28% in 2015-2024, which proves that the competitive potential of the sector has increased.

Table 7 presents the dynamics of innovation activity and competitiveness indicators for the production of food products in Azerbaijan during 2015-2024.

Table 7.

Innovation and competitiveness indicators in food production in Azerbaijan (2015–2024)

Years	Innovation investment (mln AZN)	Number of new products	Export growth (%)	Competitiveness Index (0–10)	Digitalization level (%)
2015	42	18	3.5	5.6	32
2016	48	22	4.0	5.8	35
2017	55	27	4.4	6.0	38
2018	63	31	5.0	6.3	42
2019	70	35	5.8	6.6	46
2020	74	38	4.9	6.5	49
2021	82	42	6.2	6.8	53
2022	91	47	6.8	7.0	58
2023	104	53	7.3	7.3	63
2024	115	58	7.9	7.6	68

Source: The table was compiled by the author based on statistical data. www.azstat.org and www.economy.gov.az

During 2015–2024, funds allocated to innovations in food production increased by 2.7 times. New product varieties and an

⁴ Nijkamp, P.H. Regional Development and Planning. / P.H. Nijkamp – Cheltenham: Edward Elgar, 2009. – pp. 110–125.

increase in the level of digitalization, export growth and a steady increase in the competitiveness index indicate that the positions of Azerbaijani food production in international markets are strengthened.

As a result, the conducted scientific-theoretical and practical analyses show that the main directions for increasing the competitiveness of Azerbaijani food production are the application of international quality standards, expansion of export potential, strengthening investments in innovation activity and digitalization, as well as an increase in production volumes in an integrated manner with these factors. These approaches, in addition to ensuring the sustainable development of food production, will make a significant contribution to the socio-economic development of the country.

In general, during 2015–2024, Azerbaijani food production achieved significant diversification in terms of structure, geography and quality, and gained a more stable position in international markets thanks to state support and the introduction of competitive production mechanisms.

As for the analytical explanation of the results, it should be noted that during the period 2015–2024, exports more than doubled, from \$420 million to \$880 million.

Although fruit and vegetable exports were the leader during this period, an increase was also observed in confectionery, dairy and canned goods, and the share of processed products in the export structure increased. This trend demonstrates the modernization of the food production value chain and the strengthening of its competitiveness.

Competitive advantages include a high share of environmentally friendly products, favorable climate, geographical proximity and low logistics costs, state support mechanisms (subsidies, export promotion, logistics centers).

The role of the state in increasing the competitiveness of food production in the Republic of Azerbaijan is of strategic importance. State support is mainly implemented through financial, infrastructure and institutional mechanisms. At the same time, export incentives, financing of participation in foreign exhibitions and brand promotion programs (“Made in Azerbaijan”) expand the access of Azerbaijani

products to international markets. Infrastructure support – the creation of logistics centers, cold storage facilities and industrial parks – optimizes producers' access to markets and improves product quality.

State support measures implemented over the past 10–15 years – subsidized loans, tax breaks, export promotion and food safety infrastructure – have had a significant impact on both the economic and social indicators of food production. These measures have enabled producers to produce internationally certified products, increase export volumes and create new jobs.

In the near term, support tools aimed at innovation and digitalization, a flexible institutional environment and deepened regional integration measures will further strengthen the international position of Azerbaijani food production and significantly increase its export potential.

CONCLUSION

Strengthening the competitiveness of Azerbaijan's food production and increasing its export potential requires a comprehensive scientific approach. In this context, the proposals and recommendations obtained as a result of the study can be summarized as follows:

1. Strengthening state support is important to stimulate the competitive environment in food production. This should be implemented through differential tax breaks, subsidies and export incentives, and increasing access to financial resources, especially for small and medium-sized producers. This approach both encourages investment flows and serves to form a fair competitive environment in the market, creating resources for producers for technological modernization and expanding product ranges.

2. The development of innovation and technological modernization programs is a priority. The introduction of new technologies in enterprises, the automation of production and the expansion of digitalization mechanisms significantly increase competitiveness. Public-private partnership projects play an important role in this process, since the introduction of innovative technologies requires the

provision of initial investments and the promotion of technology transfer.

3. It is necessary to expand the access of food producers to international markets. Export missions, participation in international exhibitions and strengthening of logistical support mechanisms, as well as simplification of international quality certification of products, increase the competitiveness of Azerbaijani food products. These measures also create conditions for improving the brand image, strengthening positions in foreign markets and increasing export volumes.

4. There is a need to develop human capital and strengthen personnel potential. It is important to train specialists with modern knowledge and skills in the fields of management, marketing, quality control and innovation in enterprises operating in the production of food products. For this, university-industry cooperation mechanisms should be established, permanent trainings, seminars and international certification programs should be implemented. This both accelerates the implementation of innovative ideas and allows for flexibility in making strategic decisions.

5. The institutional and legal framework should be improved. Antitrust mechanisms should be strengthened, consumer rights should be protected, and a regulatory and legal framework in accordance with international standards on environmental sustainability and food safety should be provided. This serves both to ensure fair competition in the domestic market and to increase the credibility of Azerbaijani products in international markets.

6. Diversification of product ranges and development of innovative products are important in food production. Products aimed at different segments provide manufacturers with access to new markets and create conditions for strengthening positions in regional and global markets.

7. Expansion of branding and marketing activities is of particular importance. Unified promotion of the “Made in Azerbaijan” brand and conducting advertising campaigns ensure international recognition of products and increase the competitive advantage of manufacturers.

8. Development of regional and international cooperation is

necessary. Cluster approach and cooperative mechanisms create synergy effects in production chains, provide opportunities for more efficient use of resources and create conditions for expanding market share.

9. Application of the principles of ecological and social responsibility is important for sustainable development in food production. Integration of green economy principles strengthens the position of manufacturers in the international competitive environment and also contributes to the socio-economic stability of the country.

10. It is recommended that the state increase export credits and investment incentives. These mechanisms, especially for export-oriented enterprises, provide them with a long-term competitive advantage by reducing their financial burden.

11. Special funds should be created for innovation and technology transfer. Through these funds, food production enterprises can implement technological modernization and innovative projects in line with international experience.

12. It is important to develop digital infrastructure. Digital customs, electronic document circulation and production tracking systems increase the speed and transparency of export operations, strengthen quality control of production processes and ensure reliability in international markets.

Thus, the integration of these strategic measures will ensure the sustainable development of the competitiveness of Azerbaijani food production, strengthen the position of producers both in the domestic market and internationally.

The main provisions of the dissertation, the results obtained and the proposals made are reflected in the following works published by the author without co-authorship:

1. Bilal U.E. Innovative strategies for increasing the competitiveness of food producers in the global market // – Baku: “Geostrategy” international socio-political, scientific-theoretical journal, – 2024. No. 2 (80). – pp. 119-123.

2. Bilal U.E. Green economy model to increase the competitiveness

of food producers // – Baku: Baku Business University. Materials of the International Scientific and Practical Conference on “Green Economy as a Model of Sustainable Development” dedicated to the 101st anniversary of the birth of National Leader Heydar Aliyev, – April 24, 2024. – pp. 409-412.

3. Bilal U.E. Promoting sustainable agriculture practices for global competitiveness and biosecurity // – Ganja: Azerbaijan State Agrarian University. Materials of the republican scientific-practical conference on the topic “World Plant Health Day: plant factor in sustainable agriculture” dedicated to the 101st anniversary of the birth of the National Leader Heydar Aliyev, – May 14, 2024. – pp. 475-479.

4. Bilal U.E. Green strategies to increase the competitiveness of the food production industry // – Baku: Trends of the modern era: “Green economy and sustainable development” I international conference of researchers in the field of economics and social sciences, – December 16-17, 2024. – pp. 339-347.

5. Bilal U.E. Increasing export potential and integration into internal markets as a direction for enhancing the competitiveness of food producers in Azerbaijan // – Lisbon: III International Scientific and Practical Conference “Exploring the unknown: science, imagination, discovery”, – 23-24 September 2025. – pp. 3-5.

6. Bilal U.E. Activities of food industry enterprises of Azerbaijan: realities and prospects // – Moscow: “Financial Economy” All-Russian scientific and analytical journal, – 2025. No. 8. – pp. 165-168.

7. Bilal U.E. Experiences of assessing the competitiveness of the world's food industry and opportunities for its application in Azerbaijan // – Baku: Scientific and practical journal “Construction Economics and Management”, – 2025. No. 3 (32). – pp. 472-482.

8. Bilal U.E. Innovation factor in increasing the competitiveness of food producers of Azerbaijan // – Baku: “Audit” scientific and practical journal, – 2025. No. 3 (49). – pp. 121-131.

9. Bilal U.E. Food industry of Azerbaijan: current situation and competitive trends of the main producers // – Ganja: Scientific works of ADAU, – 2025. No. 3. – pp. 96-108.

10. Bilal U.E. Directions for increasing the competitiveness of the food industry of Azerbaijan // - Moscow: “Financial Economy” All-

Russian scientific and analytical journal, - 2025. No. 11. - pp. 24-28.

11. Bilal U.E. Problems of innovative development in the food industry of Azerbaijan // – Baku: II International Conference of Researchers in Economics and Social Sciences on “Sustainable Development and Innovation Economy” (ICRESS-2025), – December 4-5, 2025.– pp. 746-751.

12. Bilal U.E. Price factor in providing the population with food products // – Baku: International scientific and practical conference on “Economic and social development of Azerbaijan in the conditions of new realities: problems, challenges, prospects”, December 6, 2025. – pp. 575-578.

13. Bilal U.E. Increasing the competitiveness of food producers: conditions and factors // – Baku: Scientific and practical journal “Cooperation” No. 4 (79)-2025. – pp. 106-113.



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