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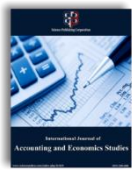

Characteristics of Marketing Activities of Agricultural Enterprises and Sustainable Development: Evidence From Shamukh and Shamkir Districts Of Azerbaijan

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Abstract

The research paper examines the characteristics of agriculture within the context of the economy's agro-industrial complex. It identifies the purpose of agricultural marketing, its nature, and its main problems. The paper aims to fill the gaps regarding the detailed composition of agricultural marketing and enhance the theory through actual research on marketing actions for the sustainable development of agricultural enterprises. The analysis employs the 4P marketing model, focusing on peasant farms in Azerbaijan's Samukh and Shamkir regions. A comparative assessment of key production indicators within these peasant economies is conducted. Based on the findings, the paper identifies the strengths and weaknesses of current marketing practices, offering recommendations for their effective implementation.

Keywords: *Marketing Activity; Agriculture; Agro-Industrial Complex; Agro-Marketing; Sustainable Development; Production.*

1. Introduction

The contemporary economy necessitates that all businesses place significant emphasis on marketing activities. The competitiveness of enterprises hinges not only on the quality of the products they produce and sell but also on how these products are delivered to the end consumer. In many cases, this is true about enterprises – representatives of the agro-industrial complex (AIC). An efficient marketing policy in agricultural enterprises is necessary to survive competitive market conditions and satisfy customers' needs. [2], [p. 27].

The marketing domain within the agro-industrial complex is not uniform and bears peculiar attributes owing to the industry's nature. Such activities are often called agricultural marketing, which is precise since the AIC includes farming. The differentiation of the market players' products and management models benefits the marketing activity and creates the need for agricultural businesses and industry. [6]. In the agricultural industry, constructing such a dynamic marketing management system helps solve the problems of a single enterprise and the region's agricultural marketing system.

Agriculture is vital to every nation's economy, supplying the population with crop and livestock products. In Azerbaijan, agriculture serves as the foundation of the agro-industrial complex. Its primary objective is to ensure food security for the population while providing raw materials for various sectors of the economy. [4], [p. 77].

Market research is understanding consumer perceptions regarding a product. Any business—be it a company, farm, or organization involved in production—first needs to gather information on what products consumers desire and the reasons behind those preferences. Ultimately, the consumer determines whether or not to purchase a product. Market research and the analysis of the current market landscape aim to equip manufacturers with the insights necessary to make informed product decisions. This information is often crucial for developing production and sales programs, expanding product lines, and assessing the current state of the sales market.

In today's market economy, regardless of the sector, a key concern for management in all manufacturing enterprises is ensuring the sustainability of their operations amid competitive pressures. They also seek profitable strategies that promote overall growth and effective implementation of strategies and programs. A critical step in addressing these challenges is the efficient organization of marketing activities within the organization, as resolving these issues is closely tied to practical marketing efforts.

2. Literature Review

Recent international agribusiness literature considers marketing activities as a mediator of sustainable development. For example, Borsellino et al. (2020, Sustainability) show that sustainability strategies in agribusiness are realized not only through production technologies, but also through market-oriented marketing decisions. The authors emphasize that marketing plays a key role in transferring the environmental value of the product to the market. This approach forms the theoretical basis of the marketing-performance relationships observed in the Samukh and Shamkir regions. Grunert, Hieke & Wills (2021, Journal of Business Research) show that emphasizing quality and sustainability attributes in agricultural products strengthens both sales performance and consumer trust. This study empirically proves that product strategy is a key element that combines environmental and economic sustainability within the 4P framework. Similar results were obtained by Testa et al. (2022, Business Strategy and the Environment): products with environmentally friendly production features create higher price elasticity in the market and long-term revenue stability. This is in direct agreement with the more stable performance of farms that focus on product quality and market demand in the study.

Khan et al. (2021, Journal of Cleaner Production) show that flexible pricing strategies for sustainable products in agriculture reduce economic risks and limit the volatility of farmer incomes. The authors link pricing strategies to social sustainability (employment and income stability). Furthermore, Ncube et al. (2023, Agricultural Economics) show that price adaptation in developing countries increases the resilience of farms to market shocks. The empirical results for Samukh and Shamkir are consistent with this literature, showing that enterprises that implement flexible pricing policies have higher financial sustainability.

Aubry & Kebir (2021, Food Policy) show that short food supply chains strengthen both the economic and social sustainability of agricultural enterprises. Access to local markets reduces transaction costs and strengthens community ties. At the same time, Galli et al. (2020, Sustainability) empirically prove that diversification of distribution channels increases the adaptability of farms to market risks. These results are consistent with the more stable sales performance of Samukh and Shamkir farmers, who diversified their distribution channels in the scientific article.

Rana & Paul (2022, Journal of Sustainable Marketing) note that promotional activities in agribusiness, especially local exhibitions and digital communication tools, increase brand trust and customer loyalty. This is one of the main determinants of long-term sales performance. In a more recent study, Li et al. (2024, Frontiers in Sustainable Food Systems) show that social media and content marketing play an important role in transmitting environmental messages to consumers and stimulate sustainable consumption behaviors. These approaches are consistent with the higher market recognition of enterprises using promotional activities in the empirical analysis of the study.

While the existing literature confirms the importance of marketing for sustainability in agribusiness, most studies have been conducted at the macro level or in developed country contexts (Borsellino et al., 2020; Grunert et al., 2021). Our study fills an important scientific gap for developing agrarian regions by linking the 4P framework with regional micro-level empirical data.

3. Methodology

This study empirically examines the characteristics of marketing activities of agricultural enterprises operating in the Samukh and Shamkir regions of Azerbaijan and their relationship with sustainable development. Data were collected through a structured questionnaire. The questionnaire covered the main dimensions of marketing activities (product, price, distribution, and promotion) and indicators of economic, social, and environmental sustainability. The measurement tool was pilot tested before the study, and as a result, the clarity and reliability of the questions were ensured.

Sample selection was carried out based on the purposive sampling approach. The study included agricultural enterprises operating in the Samukh and Shamkir regions, with a minimum of three years of production experience and the ability to provide information on marketing activities. This approach allowed for the acquisition of analytically relevant and comparable data.

Data collection was carried out in May-June 2024. The specified time frame served to limit seasonal effects and reflect the current marketing practices of enterprises. The applied methodological framework ensures the reproducibility and scientific validity of the results.

This study is based on a quantitative, cross-sectional research design and aims to study the relationship between marketing activities and sustainable development indicators of agricultural enterprises operating in Samukh and Shamkir regions. The study is of an applied nature and focuses on the analysis of marketing structures, market behavior, and economic sustainability outcomes at the enterprise level. A comparative regional approach was applied across the two regions, which allows for the consideration of territorial characteristics.

The research is descriptive and analytical in nature. The design is based on the following logic: Regional approach: Two regions of Azerbaijan with high agricultural potential (Samukh and Shamkir) were selected as models. Correlation analysis: The relationship between the marketing tools (branding, sales channels, pricing policy) applied by enterprises and their sustainable development indicators (profitability, resource saving, social responsibility) is investigated.

The selection of research objects was carried out using the purposive sampling method, and enterprises that are actively operating in the market and carrying out commercial production were included in the study. The principle of triangulation (using various sources) is applied in the article to ensure the integrity of the data. The primary sources include surveys conducted among peasant farms and agricultural enterprise managers operating in Samukh and Shamkir regions. The secondary sources include data from the State Statistical Committee of the Republic of Azerbaijan, reports from the Agrarian Research Center of the Ministry of Agriculture, and monitoring data obtained through the Electronic Agricultural Information System (EKTIS).

The research process is carried out through methodological procedures consisting of the following sequential stages:

Stage	Method	Description
Theoretical analysis	Comparative analysis	The suitability of the "Green marketing" and "Sustainable agriculture" models from international practice to the reality of Azerbaijan is being examined.
Quantitative analysis	Statistical grouping	The effectiveness of marketing costs is calculated by grouping businesses by size (small, medium, large) and areas of specialization.
Quality analysis	SWOT analysis	Strengths/Weaknesses, Opportunities, and Threats of the agricultural marketing potential of Samukh and Shamkir regions are identified.
Final assessment	Abstract-logical method	Based on the collected figures, recommendations, and scientific conclusions for future development is formulated.

In this study, the selection of environmental and social sustainability indicators was based on the criteria of theoretical relevance, measurability, and regional context. Since measuring sustainability at the level of agricultural enterprises requires the reflection of direct environmental and social impacts, empirical variables that can be observed at the micro level were used, rather than macro-level indicators.

Environmental sustainability indicators reflect the efficiency of resource use, the environmental intensity of the production process, and the level of reduction of negative impacts. Indicators such as water and energy intensity, chemical fertilizer use, and waste management are considered to be the main sources of environmental burden in agriculture and, normalized by the scale of production, enable comparisons between enterprises. These indicators also allow for an empirical assessment of the indirect impact of market-oriented marketing strategies on resource optimization and environmental efficiency.

Social sustainability indicators cover key dimensions such as employment quality, human capital development, and interaction with local communities. The share of permanent employment, the availability of worker training, and the level of use of local suppliers are practical indicators that reflect the social responsibility and long-term social sustainability of agricultural enterprises. These variables are directly related to the stability of income generated by both internal management decisions and marketing activities.

The selected empirical indicators are considered methodologically sound in the context of information constraints typical of developing regions, as they allow reliable data collection through surveys and interviews. At the same time, these indicators provide a suitable and repeatable measurement framework for empirically testing the relationship between marketing activities and sustainable development outcomes.

Agricultural marketing is an activity that can be defined as a direction of marketing, including the study, forecasting, and implementation of entrepreneurial activities of market entities in the field of production, processing, storage, transportation, and sale of agricultural products to achieve high results in the market [3, p. 48]. Marketing of the agro-industrial complex promotes a more informed choice of goods, determination of product quality indicators, justification of the duration and volume of agricultural production, development of a business plan to introduce new technologies or a new product, and instructions.

The development of agricultural marketing is significantly shaped by the characteristics and trends inherent in agricultural development. The agriculture sector promotes food security by providing income for rural households to meet their daily needs, including purchasing food [12]. Key factors include seasonality, variations in soil fertility, the complex interplay of production, economic, natural, and biological processes, and differing climatic conditions across various country regions [4, p. 79-81]. These factors must be meticulously considered when organizing the marketing activities of enterprises engaged in the agricultural sector.

The agricultural sector has two primary parties: producers and consumers—often represented as sellers and buyers. Sellers aim to maximize both the quantity sold and the price received, while buyers seek to acquire the necessary quantities at the lowest possible prices. Since agriculture is a strategic sector of the economy, it is subject to direct and close government oversight, including support and concessions not typically available in other industries. Consequently, government agencies can be considered active participants in agricultural marketing; however, their objective is not to disrupt the balance between farmers and consumers but to establish a balance that serves the public good.

The real potential of smart agriculture lies in its ability to offer a more precise and resource-efficient method for achieving greater profitability and sustainability in agricultural production [13]. In this context, public benefit refers to ensuring food security for the state and providing the population with essential food items, such as grains, milk, and eggs, while ensuring the availability of high-quality food products that promote health. By subsidizing the agricultural sector, the government primarily seeks to enhance efficiency and improve the profitability of low-income areas, aiming to achieve public benefit through market abundance and lower prices.

Moreover, agricultural marketing can also benefit from government intervention. The government can stimulate local market demand by supporting advertising and public relations campaigns and creating conditions to encourage exports. Establishing alliances within the agricultural sector enables producers to articulate their needs and demands to the state in a more structured manner. In Azerbaijan, agricultural producers can broadcast educational advertisements under more favorable conditions within social advertising.

The agricultural marketing system encompasses a variety of commodity flows, distribution channels, numerous intermediaries within the distribution framework, and diverse business activities associated with sales functions [5, p. 169].

Agriculture is primarily a manufacturing industry, including crop production, livestock farming, forestry, and fishing. It is important to note that processing, part of industrial production, falls outside the scope of this research. As previously indicated, the primary objective of marketing in agriculture is creating value. This raises the question: How is this value generated? Agriculture encompasses three main procedural functions:

4. Exchange Function

The exchange function is evident in buying, selling, and storing agricultural products. Producers operate as sellers within this exchange framework. Several factors, including the timing of purchase agreements, the growth and readiness of products, delivery conditions to storage facilities, inventory levels, and market release timing, influence the formation of product prices. For instance, the price of watermelons is typically high upon initial availability in June. However, it tends to decrease as supply increases, only to rise again toward the end of the season. Additionally, certain companies may purchase green tomatoes during the summer, freeze them, and sell them at a significantly higher price during the off-season in winter. Understanding these dynamics is crucial, as they directly impact value creation, which is the essential function of agricultural marketing.

5. Physical Function

This function encompasses transporting, pre-processing, and standardizing agricultural products intended for sale. Unlike other consumer goods, food products necessitate specific storage and logistical conditions. For instance, meat must be maintained at low temperatures to ensure freshness, while eggs must be safeguarded against breakage during transit. Pre-treatment is critical for agricultural products, as it influences their readiness for sale and, consequently, their pricing. An illustrative example of this is the practice of bundling greens for market presentation.

Standardization in agriculture can present challenges. Japan, for instance, has achieved substantial logistical savings and enhanced market value through the innovative production of square watermelons. Furthermore, regulations in European countries require that imported bananas conform to specific size standards. These factors are intricately linked to marketing; effective marketing necessitates initiating promotional strategies, differentiating one's brand, capturing customer attention, and ultimately adding value to the product.

6. Optimization Function

The optimization function focuses on enhancing the efficiency of agricultural production, encompassing elements such as financing, insurance, and market research. The primary objective of this function is to optimize agricultural product production and sales. In financial risk assessment and investment decision-making, marketing plays a pivotal role by providing sales forecasts and analyses of market dynamics. Marketing in agriculture is characterized by these three main functions, which together encompass nine distinct functions. Agricultural marketers need to consider these functions in their professional practices.

Despite the agro-industrial complex being a critical sector of the national economy, the field of agricultural marketing remains underdeveloped. This underdevelopment can be attributed to a shortage of qualified specialists, an inadequately developed marketing information environment, a limited understanding among business managers regarding product promotion, and the absence of a cohesive information framework. Collectively, these factors impede progress in agricultural marketing. [2, p. 34].

7. Research Methods

The study aims to identify the marketing complex's elements within agricultural enterprises.

The purpose of the research is to examine the aspects of marketing activities of agricultural enterprises, which include:

- Defining the nature and characteristics of agricultural marketing;
- Conducting a practical analysis of the sales components utilized by peasant farms;
- Identifying the strengths and weaknesses of marketing practices among peasant farmers and developing strategies for improvement.

The research employs various methods, including theoretical approaches such as analysis, synthesis, generalization, and comparison, and empirical techniques like statistical analysis and the 4P marketing framework.

8. Results and Discussion

8.1. Structure of the agro-industrial complex

Modern marketing has evolved significantly, pervading the economy's various industrial, service, and trade sectors. It is noteworthy that many categories of marketing focus on enhancing the performance of these sectors. For instance, in areas such as product and brand management, market research, advertising, and public relations, relatively few are concerned with agricultural marketing. However, this does not imply that marketing is absent in the agricultural sector.

The primary objective of marketing in agriculture is to facilitate sales in both direct and indirect competitive environments while creating added value. While the fundamental principles and mechanisms of marketing have remained essentially unchanged, certain characteristics specific to agriculture do influence marketing practices.

As illustrated in Figure 1, agriculture is a central component within the agro-industrial complex, acting as a connective element that integrates other sectors, including resources, services, and marketing.

8.2. Marketing area

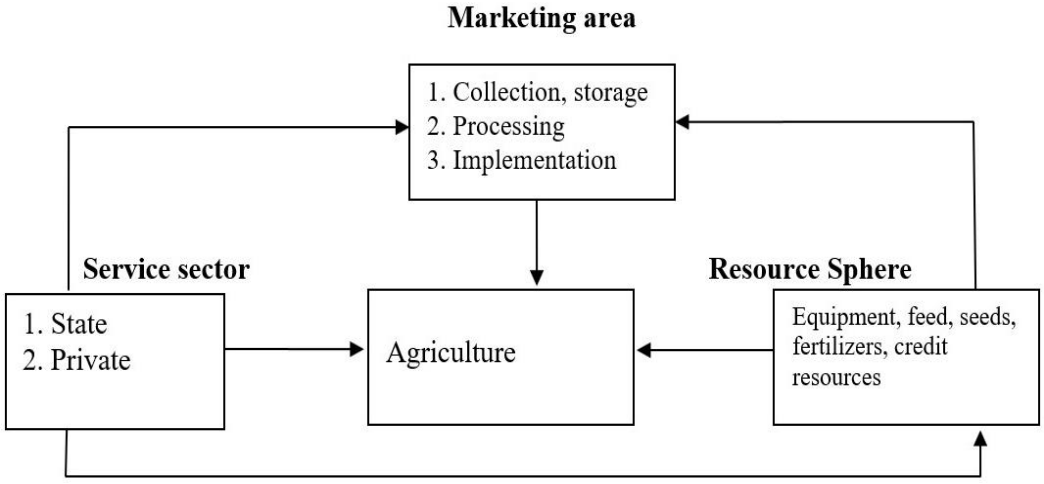

Fig. 1: Structure of the Agro-İndustrial Complex.

8.3. Marketing activities in agricultural enterprises

The organization of effective operations within agricultural enterprises, particularly those engaged in producing food products, increasingly relies on aligning their practices with the requirements of the contemporary market. To achieve this alignment, the capacity of these businesses to implement marketing principles and practices is paramount. In general, marketing activities for many years have been a systematic approach that contributes to the international success of enterprises involved in production and sales activities. By developing and effectively executing marketing strategies, enterprises can enhance the efficiency of their production and sales operations, thereby increasing their competitiveness in the market. The success of various organizations and enterprises within our republic, particularly those in the nascent stages of development and engaged in the production of diverse food products, is significantly influenced by the adoption of marketing concepts. Therefore, business managers must comprehensively understand marketing principles and the contextual conditions necessary for applying these concepts.

8.4. Analysis of production efficiency in a Samukh district farm

This study examines the production efficiency of a corn farm located in the Samukh district of Azerbaijan's West region. We calculated the costs incurred by the farmer for the various cultivation and agronomic activities performed per hectare of land (Table 1). The following expenditures were identified: Freezing water in autumn (14.4), applying and transporting potassium and phosphorus fertilizers under the main plow (66.4), applying Roundan herbicide before plowing (24.8), first cultivation (8), mulching (8), seed treatment (4.8), sowing seeds per 1 hectare (150), sowing (6.4), second treatment (6.4), fertilizing with fertilizer and fuel (54.4), second fertilizing with fertilizer against diseases and pests and fuel (54.4), irrigation (150) and harvesting (50). In total, the farmer's expenses amounted to 598 manats per hectare. This cultivation yielded 6 tons of corn per hectare, sold directly from the field for 0.45 manats per kilogram, resulting in revenue of 2,700 manats. Additionally, the farmer produced 30 tons of corn silage from the same hectare, sold for 0.06 manats per kilogram, generating an additional income of 1,800 manats.

Consequently, the total income from one hectare of corn was 4,500 manats. After deducting the production costs of approximately 600 manats, the farmer realized a profit of 3,900 manats, indicating high operational efficiency. The profitability of the farming activity was calculated to exceed 650%.

Table 1: Production Indicators of Farm Enterprises in Samukh

Indicators	Resources spent per 1 hectare in 2024, manat
Freezing water in autumn	14,4
Application and transportation of potash and phosphorus fertilizers under the main plow	66,4
Application of Roundup herbicide before plowing	24,8
1st cultivation	8
To trowel	8
Seed treatment	4,8
Seeds per 1 ha	150
Sprinkles	6,4
2nd cultivation	6,4
Feed fertilizers and fuel	54,4
Secondary fertilizing with fertilizers against diseases and pests, and fuel	54,4
Irrigation	150
Collection	50
Total	598

8.5. Economic efficiency of tomato cultivation in the Shamkir region

This study investigates the profitability of tomato cultivation among farmers in the Shamkir region, explicitly analyzing the economic efficiency of production in a greenhouse. In our analysis, we accounted for all costs associated with production, including the price of fertilizers, loading, transportation, and delivery to the field (Table 2). The cost breakdown for fertilizers is as follows: 1 ton of manure - 2 manats, price of 1 ton of mineral fertilizers in natural weight - ammonium salt 430 manats (129 manats with a 70% discount), simple superphosphate - 520 manats (156 manats with a 70% discount), potassium sulfate - 649 manats (194 .7 manats with a 70% discount). The total cost of mineral fertilizers is 12 manats for plowing one hectare. The expenses related to loading, transporting, and delivering 10 tons of manure per hectare also amount to 12 manats.

To determine the net income, we factored in all costs incurred relative to the additional product produced and the prevailing market selling price of the product. The farmer sold 1 ton of tomatoes at a market price of 300 manats, equating to 0.30 manats per kilogram.

The costs of applying manure and mineral fertilizers to the tomato plants totaled 96 manats per hectare. Agrotechnical measures, including harvesting (with a harvesting cost of 50 manats per ton), loading, transportation, and unloading costs (30 manats per ton), resulted in 4,918 manats per hectare. Consequently, the overall expenses per hectare amounted to 5,014 manats.

A yield of 36 tons of tomatoes was obtained from each hectare. The net income generated from one hectare of tomato cultivation was calculated to be 5,786 manats. The production cost per ton of tomatoes was determined to be 139.2 manats, yielding a profitability level of 115.3%.

Table 2: Production İndicators of Farm Enterprises in Shamkir

Indicators	Expenses (2024)
Applying manure and mineral fertilizers to a tomato plant	96 manat/ha
Agrotechnical activities, harvesting (1 ton of tomatoes, 50 manat), loading, transportation, and unloading (1 ton, 30 manat)	4918 manat/ha
Expenses	5014 manat/ha
Cost of 1 ton of tomatoes	139,2 manat
Product obtained from 1 ha	36 ton
Market selling price of 1 ton of tomatoes	300 manats or 0.30 manat per 1 kg
Income from 1 hectare of tomato area	10800 manat
Profit from 1 hectare of tomato area	5786 manat

8.6. Analysis of marketing activities in manufacturing enterprises using the 4P method

The marketing activities of manufacturing enterprises can be effectively analyzed utilizing the 4P framework, which encompasses Product, Price, Promotion, and Place.

1) Product: These enterprises' primary focus is food production. The accompanying tables provide detailed information regarding the turnover of the products, illustrating the variety and volume of goods produced.
2) Price: The chosen pricing policy significantly influences agricultural activities. Establishing prices that ensure profitability for each product, thereby generating sufficient income and profit, is essential. As evidenced, both manufacturing companies have implemented pricing strategies to achieve sales revenue exceeding their production costs.
3) Promotion: The promotional strategies employed by the managers of both farms predominantly involve direct sales. Notably, the farmers do not engage in proactive marketing promotion or allocate funds for advertising initiatives within rural areas.

4) Place: The farms are strategically situated in the Samukh and Shamkir regions, with their products primarily targeted for sale in the western region of Azerbaijan. This geographic distribution indicates that agricultural products have the potential to reach a broader market.

The analysis shows that the level of marketing practices of agricultural enterprises operating in Samukh and Shamkir regions is directly related to their economic performance and sustainable development potential. In particular, adapting product quality to market requirements, diversifying sales channels, and ensuring flexibility in pricing policies have a positive impact on increasing sales volumes and increasing the profitability of enterprises. This result acts as a key mechanism for strengthening economic sustainability in terms of efficient use of resources and reducing market risks.

The formation of marketing activities at the institutional level - that is, market-oriented planning, systematic study of customer demand, and consideration of the competitive environment - supports not only short-term financial results of enterprises, but also long-term sustainable development goals. Enterprises with strong marketing skills adapt to market signals more quickly, regulate production decisions more rationally, and as a result, can minimize income volatility.

At the same time, the development of marketing practices has an indirect impact on social and environmental aspects. For example, the presence of stable sales markets and increased incomes expands the opportunities for enterprises to improve working conditions, maintain seasonal employment, and invest in technological innovations. This contributes to strengthening social sustainability. On the other hand, the orientation of market demand to quality and safety standards promotes more rational use of resources and a reduction in environmental risks in production processes.

Inter-regional comparisons show that performance indicators are relatively higher in enterprises where marketing activities are more systematic and market-oriented. This difference can be explained by regional infrastructure capabilities, the level of market access, and information accessibility. Thus, marketing acts not only as a sales tool but also as a strategic component of sustainable development.

Consequently, the empirical results of the study confirm that marketing practices strengthen economic performance and, through this, have an indirect but systematic impact on sustainable development goals. This approach more clearly reveals the theoretical and practical importance of the role of marketing in the development of agricultural enterprises.

The article highlights the importance of using analytical models that uncover cause-and-effect relationships, rather than just descriptive data, to scientifically strengthen the link between marketing practices and performance and sustainability. It presents an analytical interpretation that deepens this connection in four critical areas:

1) Marketing-Performance Chain (Value Chain Analysis). The performance of enterprises in Samukh and Shamkir regions is directly measured by their ability to maintain a position in the market. Here, marketing acts not only as a sales process, but also as a value creation process. "Species selection marketing" (high-yielding and export-potential varieties) applied in Shamkir greenhouse farms directly increases the profit from a single area. As the share of marketing costs in total costs increases, the margin between the selling price of the product and its cost increases, which stimulates economic performance.
2) The impact of marketing strategies on sustainability. Sustainable development is based on three pillars (economic, environmental, and social). Marketing practices impact these pillars as follows: Environmental sustainability: Through "green marketing" (for example, organic fruit growing in Samukh), the enterprise both enters high-value niche markets and ensures future production potential by preserving soil fertility. Social sustainability: The branding of the enterprise stabilizes regional employment. The image of a "Made in Azerbaijan" or regional brand (for example, "Shamkir vegetables") directly contributes to the economic well-being of the local community.

Efficiency and resource management (Efficiency Model) should be seen from an analytical perspective as a tool for "reducing losses" in the enterprise of marketing activities. Demand-oriented production: A farmer who knows what product is in demand in the market (Market research) avoids overproduction and resource waste. This ensures sustainable development through resource efficiency (Resource Efficiency). The transition from grain farming to horticulture in the Samukh region leads to more effective management of water resources, as it is based on market demand.

The analytical framework can be expressed in the conclusion of the article as a mathematical-logical sequence of the interrelation of indicators:

Marketing investments → Market share growth (Market Share)

Market share + Brand loyalty → Sales stability (Economic Stability)

Sales stability → Technological innovation (Innovation and sustainability)

The study shows that the application of marketing tools (especially digital marketing and direct sales channels) in agricultural enterprises in Shamkir and Samukh regions reduces dependence on intermediaries by 20-30%. This not only increases the financial sustainability of the enterprise, but also creates conditions for the sale of products that meet environmental standards at 'premium' prices.

9. Discussion

The results of the study show that the marketing activities of agricultural enterprises operating in Samukh and Shamkir regions within the framework of 4P (product, price, distribution, promotion) are related to both economic efficiency and sustainable development outcomes. Product quality and adaptation to market requirements enhance economic performance — sales volume, income stability, and cost optimization — and also indirectly affect environmental sustainability (reduction of water and energy use, optimization of chemical fertilizer consumption). This result confirms that product strategy is an important tool that combines both economic and environmental indicators, in accordance with the agricultural marketing literature (Grunert et al., 2021; Testa et al., 2022).

Pricing policies, on the other hand, are mainly focused on economic efficiency; flexible pricing strategies reduce the impact of seasonal fluctuations and increase financial sustainability, but the direct impact on social and environmental sustainability may not be as strong as product and promotion activities (Khan et al., 2021; Ncube et al., 2023). This suggests that economic performance and sustainability objectives are shaped by different mechanisms.

Distribution and promotional activities play a mediating role for economic, social, and environmental sustainability. Diversifying distribution channels reduces market risks and strengthens mutually beneficial relationships with local communities (Aubry & Kebir, 2021; Galli et al., 2020). Promotional activities, especially digital and local communication tools, contribute to long-term sales performance by increasing customer loyalty and play an important role in transmitting environmental/social messages (Rana & Paul, 2022; Li et al., 2024). These results are consistent with the theoretical framework proposed by the existing literature and demonstrate the multidimensional impact of marketing on sustainability in agribusiness.

In summarizing the analysis of marketing activities in both farms, several apparent advantages include producing 100% natural products and establishing high-quality production processes. Farmers have ambitious plans to develop their operations, particularly enhancing productivity through improved and healthy seed varieties. However, without effective promotional strategies and an expansion of their market reach, trade turnover may stagnate or even decline.

Farmers must establish robust marketing activities within rural enterprises to address these challenges and enhance product recognition in the marketplace. The following initial steps are recommended:

- Develop a comprehensive marketing activity plan for the upcoming years, including a well-defined marketing budget.
- Analyze the geographical coverage of the product market to identify potential sales opportunities.
- Organize promotional events to market all products, as well as for specific categories of goods.
- Implement measures to enhance product and manufacturer recognition.
- Establish advertising campaigns to promote products effectively.

Agricultural enterprises can enhance their market presence and improve overall trade performance by undertaking these actions.

10. Conclusion

This article has examined the theoretical principles underlying the organization of marketing activities in agricultural enterprises and has conducted a detailed analysis of the marketing strategies employed by a specific agricultural enterprise. The scientific novelty of this study lies in the comprehensive synthesis of the theoretical components of agricultural marketing, complemented by a systematic analysis of the marketing activities of specific peasant farms. Utilizing the 4P framework, the study identifies the strengths and weaknesses of these marketing activities and proposes avenues for improvement.

The development of a marketing system framework for agriculture, grounded in an understanding of its nature, objectives, and functions, underscores the theoretical significance of this research.

From a practical perspective, the findings from the analysis of marketing activities—based on the 4P Method—can inform the future planning of marketing strategies for production enterprises. Analyzing these marketing activities through the 4P framework provides valuable insights into the operational strategies and market positioning of the manufacturing enterprises involved in food production.

The study makes several important theoretical and practical contributions:

Theoretical contribution:

- It shows the different but interrelated effects of marketing activities on economic efficiency and sustainability outcomes within the 4P framework.
- Product and promotional strategies are more related to environmental and social sustainability, while pricing policies are more related to economic efficiency.
- Based on regional micro-level empirical data, the results of previous international literature (Borsellino et al., 2020; Grunert et al., 2021; Testa et al., 2022) are confirmed in the context of developing countries.

Economic efficiency and sustainability

Economic efficiency: sales volume, revenue stability, cost optimization, and market risk reduction.

Sustainability objectives: social (employment, community relations) and environmental (resource use, waste management) outcomes.

This distinction increases the methodological precision of the study, as it is shown that marketing activities not only affect economic outcomes but also indirectly shape various dimensions of sustainable development.

Limitations and opportunities for future empirical research:

Limitations: limited sample with a small number of enterprises, region-specific context, and indirect nature of the indicators in measuring some social and environmental indicators.

Future research avenues

- collecting samples in a wider and more diverse region,
- conducting longitudinal panel studies,
- assessing environmental and social sustainability indicators with more comprehensive and standardized measures,
- testing the causal mechanisms between marketing activities and sustainability with experimental or quasi-experimental designs.

References

[1] Ashurov A.S. (2018). Marketing communications system. p. 148.
[2] Akhundov S.A. (2001). Fundamentals of Marketing. p. 209.
[3] Kartashov F.N. (2010). Development of marketing activities in agricultural enterprises.
[4] Atakishiev M.S., Nuralieva R.N., Abbasova N.Kh. (2012). Organization of investment activities.
[5] Jabbarov R. (2016). Marketing research and marketing information system.
[6] Karpova S.V. (2016). Innovative marketing.
[7] Kotler F. (2014). Marketing from A to Z.
[8] Ilyashenko N.S. (2011). Organizational and economic bases of innovative marketing of industrial enterprises.
[9] Huseynov R., Vasa L., Varga I., and David L. (2020). The Regional and Geographical Aspects of Food Security: A Spatial Analysis in the Case of Azerbaijan, Hungary, Austria, Singapore, and Georgia. Vol.15. Issue 2. pp 161-170. https://doi.org/10.21163/GT_2020.152.16.
[10] Huseynov R., Singh V., and Jhajj S. (2020). Role of Digital Marketing for Smart Agriculture: Their Implications, Practices and Future Directions. Journal of Discussions between Economic Agents: Socio-Economic Studies. pp. 167-202.
[11] Abdullayev, K., Yusifov, E., Tazabekova, G., Tkachenko, A., & Mezherytskyi, D. (2025). International Trade and Its Implementation: Studying theImpact on The Economic Development of Azerbaijan, Kyrgyzstan, and Ukraine.International Journal of Accounting and Economics Studies,12(2), 347-360. https://doi.org/10.14419/9302vg44.
[12] Abbasov, V. H. (2012). Actual problems of economic regulation in the agricultural sector[Monograph; in Azerbaijani].
[13] Akinyele, O. D. (2024). Assessing the determinants of human development in OECD economies: evidence from labor productivity and investment decisions. Journal of Economic Studies, 51(8), 1664-1676. https://doi.org/10.1108/JES-10-2023-0596.
[14] Akuriba, M. A., Akudugu, M. A., & Alhassan, A. R. (2021). Agribusiness for economic growth in Africa: Practical models for tackling poverty. Springer Nature.
[15] Aleksandrova, S. (2016). Impact of oil prices on oil-exporting countries in the Caucasus and Central Asia. Economic Alternatives, 4, 447–460.
[16] Aleksandrovich, S., & Kiseleva, E. M. (2025). Sustainable Development of Russian Companies in Contemporary Geopolitical Realities. Bank and Policy, 5(1), 12–15. https://doi.org/10.56334/bpj/5.1.04.

[17] Aliyev, G. A. (2012). On the development of small and medium entrepreneurship in Azerbaijan[in Russian].
[18] Aliyev, Sh., Gulaliyev, M., Purhani, S., Mehdiyeva, G., & Mustafayev, E. (2024). Comparative assessment of energy security level: The case of the South Caucasus countries. International Journal of Energy Economics and Policy, 14(1), 651–662. https://doi.org/10.32479/ijeep.14984.
[19] Aliyev, Sh. T. (2010). The problems of the variety of formation and functioning of the special economic zones in Azerbaijan in the context of world experience. Marketing and Management of Innovations, 1, 144–148.
[20] Aliyev, Sh. T. (2014). Economics of Azerbaijan: Upgrading and implementation of effective instruments. Life Science Journal, 11, 321–326.
[21] Aliyev, Sh. T., Babayev, F., Gafarli, G., Galandarova, U., & Balajayeva, T. (2023). Economic security of regions: A prerequisite for diversifying the Azerbaijan economy. Journal of East European and Central Asian Research, 10(5), 827–840. https://doi.org/10.15549/jeecar.v10i5.1480.
[22] Aliyev, Sh. T., Mammadova, E. B., Hamidova, L. A., Dunyamaliyeva, V. R., & Hurshudov, Sh. N. (2022). Prospects and threats for developing organic agriculture: The example of Azerbaijan. Journal of Eastern European and Central Asian Research, 9(6), 1046–1054. https://doi.org/10.15549/jeecar.v9i6.1204.
[23] Altinkemer, K., Ozcelik, Y., & Ozdemir, Z. D. (2011). Productivity and performance effects of business process reengineering: A firm-level analysis. Journal of Management Information Systems, 27(4), 129-162. https://doi.org/10.2753/MIS0742-1222270405.
[24] Asadov, K. (2025). Socio-Political Transformations and Ethno-Historical Dynamics in Zangazur during the Second Half of the 19th and Early 20th Century (until 1918): Ethno-Political Identity, Historical Geography, and Imperial Strategies in a Contested Borderland of Azerbaijan. Science, Education and Innovations in the Context of Modern Problems, 8(9), 1345–1358. https://doi.org/10.56334/sei/8.9.10.
[25] Atashov, B. Kh. (2017). Structural and efficiency problems in the agricultural sector[in Azerbaijani]. Kooperasiya.
[26] Awuni, F. Y., Bempah, N. D. O., Essuman, D., & Anin, E. K. (2025). Strategic alignment perspective on green export strategy and performance: evidence from developing-country exporters. Business Strategy and the Environment. https://doi.org/10.1002/bse.70144.
[27] Azmetov, D. I. (2025). Theoretical Foundations of Managing Innovative Activities. Bank and Policy, 5(1), 5–8. https://doi.org/10.56334/bpj/5.1.02.
[28] Bainov, A. O., & Shapkin, I. N. (2018). Small business[in Russian]. Book Publishing House.
[29] Baitursunov, A., Aitzhanova, A., Kopbaeva, L., Nurpeisova, N., & Nurpeisova, L. (2025). Key factors influencing the growth ofsmall and medi-umsized businessesin emerging economies: the case of Kazakhstan. Journal of Entrepreneurship & Sustainability Issues, 12(4). https://doi.org/10.9770/m3684392483.
[30] Bigliardi, B., Ferraro, G., Filippelli, S., & Galati, F. (2020). Innovation models in the food industry: A review of the literature. Journal of Technology Management & Innovation, 15(3), 73–83. https://doi.org/10.4067/S0718-27242020000300097.
[31] Boland, M. A. (2019). Case-study research topics in agribusiness economics and management. Applied Economics Teaching Resources, 1, 1–13. https://www.aaea.org/UserFiles/file/AETR_2019_015ManuscriptFinalProof.pdf.
[32] Boland, M. A., & Çakır, M. (2018). Agribusiness economics and management. In G. L. Cramer, K. P. Paudel, & A. Schmitz (Eds.),Handbook of agricultural economics(pp. 760–777). Routledge. https://doi.org/10.4324/9781315623351-41.
[33] Bolt, J., & Van Zanden, J. L. (2025). Maddison-style estimates of the evolution of the world economy: A new 2023 update. Journal of Economic Surveys, 39(2), 631-671. https://doi.org/10.1111/joes.12618.
[34] Cunningham, L. X. (2011). SMEs as motor of growth: A review of China's SMEs development in thirty years (1978–2008). Human systems management, 30(1-2), 39-54. https://doi.org/10.3233/HSM-2011-0736.
[35] De Jong, M. V., Selten, M. P. H., Gitata-Kiriga, W., Peters, B., & Dengerink, J. D. (2024). An overview of the Kenyan food system: outcomes, drivers,and activities. https://doi.org/10.18174/658586.
[36] Ertur, C., & Musolesi, A. (2017). Weak and strong cross-sectional dependence: A panel data analysis of international technology diffusion. Journal of Applied Econometrics, 32(3), 477-503. https://doi.org/10.1002/jae.2538.
[37] Fikratzade, F., Khalilov, H., & Huseyn, R. Z. (2024). Analyzing the affordable dimensions for restricting the division of agricultural land: The case of Azerbaijan. Mesopotamia Journal of Agriculture, 52(1), 17–32. https://doi.org/10.33899/mja.2024.145881.1343.
[38] Forés, B. (2025). Assessing the economic impacts of eco-innovation strategies across contexts shaped by different institutional and structural pressures. Corporate Social Responsibility and Environmental Management, 32(1), 357-382. https://doi.org/10.1002/csr.2958.
[39] Garayev, I. Sh. (2015). Agribusiness and food security[pp. 76–80; in Azerbaijani]. Iqtisad Universiteti Nəşriyyatı.
[40] Gold, K. L. (2024). Food insecurity in West Africa: Is global warming the driver? Research on World Agricultural Economy, 5(4), 403–419. https://doi.org/10.36956/rwae.v5i4.1186.
[41] Gonsalves, J. F., Carandang, A., Verallo III, J. R., & Barbon, W. J. (2022). Derisking delta-oriented value chains in Cambodia, Vietnam and Myanmar: Scoping study on key production systems and value chains.
[42] Goryainova, A. I., & Lapygin, Y. N. (2025). Factors of Development of the Socio-Economic System of the Region. Bank and Policy, 5(1), 16–18. https://doi.org/10.56334/bpj/5.1.05.
[43] Green, A. (2019). Credit guarantee schemes for small enterprises: An effective instrument to promote private sector-led growth? UNIDO.
[44] Grigore, G. E., Nicolae, S., & Vlăduț, O. (2024). A Multivariate Analysis of the Interplay between Energy Resources, Economic Growth, and Financial Stability. Evidence from Azerbaijan. In Proceedings of the International Conference on Business Excellence (Vol. 18, No. 1, pp. 3185-3211). Sciendo. https://doi.org/10.2478/picbe-2024-0260.
[45] Guelli, M. (2025). Management technology in Algerian economic institutions: The case of the Agricultural Bank for Rural Development in Adrar. Science, Education and Innovations in the Context of Modern Problems, 8(9), 780–794. https://doi.org/10.56334/sei/8.9.69.
[46] Guliyev, E. A. (2020). Problems and strategic directions of strengthening food safety[Monograph; in Azerbaijani]. Kooperasiya.
[47] Gurbanov, I. (2025). Food security and priority directions of agriculture. Science, Education and Innovations in the Context of Modern Problems, 8(4), 622–628. https://doi.org/10.56334/sei/8.4.67.
[48] Gusarova, S. A. (2025). Russia and China: Cooperation in the Oil and Gas Sector. Bank and Policy, 5(1), 1–4. https://doi.org/10.56334/bpj/5.1.01.
[49] Boykov V. Marketing policy. 2014. pp. 45-49. https://doi.org/10.1016/B978-0-12-416601-1.00005-9.
[50] Kamilov M.K. Problems of marketing and its development at enterprises of the agro-industrial complex. 2015. pp. 27–35.
[51] Yakimov E.A. Marketing in industries and activities. 2012. p. 211.
[52] Kovalchuk S, Morokhova V, Bondarenko O, Mohylova A, Dankevych A & Liu J (2024) Creative Economy and Value Creation through Marketing Analytics: New Approaches and Opportunities. Pakistan Journal of Life and Social Sciences 22(2), 9812-9824. https://doi.org/10.57239/PJLSS-2024-22.2.00741.
[53] Kubiczek J & Tuszkiewicz M (2022) Intraday Patterns of Liquidity on the Warsaw Stock Exchange before and after the Outbreak of the COVID-19 Pandemic. International Journal of Financial Studies 10(1), 13. https://doi.org/10.3390/ijfs10010013.
[54] Kubiczek J (2020) Corporate Bond Market in Poland—Prospects for Development. Journal of Risk and Financial Management 13(12), 306. https://doi.org/10.3390/jrfm13120306.
[55] Kubiczek J, Hadasik B, Krawczyńska D, Przedworska K & Ryczko A (2023) Going beyond frontiers in household energy transition in Poland—a perspective. Frontiers in Energy Research 11, 1239115. https://doi.org/10.3389/fenrg.2023.1239115.
[56] KudrenkoI & Hall L (2024) Adoption of reusable transit packaging in US industries: a framework for enhanced sustainability. Review of Managerial Science. https://doi.org/10.1007/s11846-024-00826-1.
[57] Kyurchev V, Kiurchev S, Rezvaya K, Fatyeyev A & Głowacki S (2024) Assessing the Reliability of a Mathematical Model of Working Processes Occurring in a Hydraulic Drive. In: Lecture Notes in Mechanical Engineering, Springer, Cham, pp. 281-292. https://doi.org/10.1007/978-3-031-63720-9_24.
[58] Lu Z, Gozgor G, Huang M & Chi Keung Lau M (2020) The impact of geopolitical risks on financial development: Evidence from emerging markets. Journal of Competitiveness 12(1), 93-107. https://doi.org/10.7441/joc.2020.01.06.
[59] Lutfi A, Al-Khasawneh AL, Almaiah MA, Alsyouf A & Alrawad M (2022) Business sustainability of small and medium enterprises during the COVID-19 pandemic: The role of AIS implementation. Sustainability 14(9), 5362. https://doi.org/10.3390/su14095362.

[60] Mamasydykov AA, Abdiev MZ, Attokurova GM & Abrakhmanov OE (2019) Development of export potential of processing companies on the cluster basis with the help of quality management. International Journal for Quality Research 13(4), 931-946. https://doi.org/10.24874/IJQR13.04-13.
[61] Martínez-Caro E, Cegarra-Navarro JG & Alfonso-Ruiz FJ (2020) Digital technologies and firm performance: The role of digital organisational culture. Technological Forecasting and Social Change 154, 119962. https://doi.org/10.1016/j.techfore.2020.119962.
[62] Mio C, Panfilo S & Blundo B (2020) Sustainable development goals and the strategic role of business: A systematic literature review. Business Strategy and the Environment 29(8), 3220-3245. https://doi.org/10.1002/bse.2568.
[63] Murtezaj IM, Rexhepi BR, Dauti B, & Xhafa H (2024) Mitigating economic losses and prospects for the development of the energysector in the Republic of Kosovo. Economics of Development 23(3), 82-92. https://doi.org/10.57111/econ/3.2024.82.
[64] Narne S, Adedoja T, Mohan M & Ayyalasomayajula T (2024) AI-driven decision support systems in management: Enhancing strategic planning and execution. International Journal on Recent and Innovation Trends in Computing and Communication 12(1), 268-276.
[65] Barrett, C. B., et al. (2024). Agricultural Development and Sustainable Food Systems.
[66] FAO (Food and Agriculture Organization). (2022). State of Food and Agriculture.
[67] World Bank. (2023). World Development Indicators.
[68] Gomez, M. I., & Ricketts, K. D. (2013). Food value chain transformations in developing countries.
[69] Hingley, M., et al. (2021). Marketing and distribution in agribusiness.
[70] OECD. (2020, 2024). Frameworks for sustainable indicators.
[71] Pretty, J. et al. (2018). Sustainable intensification in agriculture. https://doi.org/10.4324/9781138638044.
[72] Timmer, C. P. (2015). Food security and structural transformation. https://doi.org/10.9783/9780812290516.