DEVELOPMENT OF THE MARKETING SYSTEM IN AGRICULTURAL ECONOMICS AND INTEGRATION OF TRADE SERVICES

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Annotatsiya: *Ushbu maqolada qishloq xo‘jaligi iqtisodiyotida marketing tizimini rivojlantirish va savdo xizmatlarini integratsiyalashning nazariy hamda amaliy jihatlari tahlil qilinadi. Agrar sektorda mahsulotlarni sotish samaradorligini oshirish, bozor infratuzilmasini modernizatsiya qilish va raqamli texnologiyalarni joriy etish orqali marketing tizimini takomillashtirish yo‘llari ko‘rib chiqiladi. Shuningdek, qishloq xo‘jaligi ishlab chiqaruvchilari va savdo tashkilotlari o‘rtasidagi iqtisodiy aloqalarni mustahkamlash, qiymat zanjirini optimallashtirish va eksport salohiyatini oshirish masalalari yoritiladi. Tadqiqot natijalari agrar sektorni rivojlantirishda marketing va savdo xizmatlarining integratsiyasi muhim omil ekanligini ko‘rsatadi.*

Kalit so‘zlar: *Qishloq xo‘jaligi, marketing tizimi, savdo xizmatlari, integratsiya, agrar iqtisodiyot, bozor infratuzilmasi, raqamli iqtisodiyot, eksport, qiymat zanjiri.*

Резюме: *В данной статье анализируются теоретические и практические аспекты развития маркетинговой системы в сельском хозяйстве и интеграции торговых услуг. Рассматриваются пути повышения эффективности реализации сельскохозяйственной продукции, модернизации рыночной инфраструктуры и внедрения цифровых технологий в маркетинговые процессы. Особое внимание уделяется укреплению экономических связей между производителями и торговыми организациями, оптимизации цепочек создания стоимости и увеличению экспортного потенциала. Результаты исследования показывают, что интеграция маркетинга и торговых услуг является важным фактором развития аграрного сектора.*

Ключевые слова: *Сельское хозяйство, маркетинговая система, торговые услуги, интеграция, аграрная экономика, рыночная инфраструктура, цифровая экономика, экспорт, цепочка создания стоимости.*

Summary: *This article analyzes the theoretical and practical aspects of developing the marketing system in agricultural economics and integrating trade services. It examines ways to improve the efficiency of agricultural product sales, modernize market infrastructure, and implement digital technologies in marketing processes. Special attention is given to strengthening economic relations between producers and trade organizations, optimizing value chains, and increasing export potential. The study results show that the integration of marketing and trade services is a key factor in the development of the agricultural sector.*

Key words: *Agriculture, marketing system, trade services, integration, agrarian economy, market infrastructure, digital economy, export, value chain.*

Introduction. Agriculture plays a key role in ensuring food security and economic development. In recent years, changes in global markets and technology have increased the importance of effective marketing systems in agricultural economics. A well-developed marketing system helps farmers sell their products more efficiently, reduce losses, and increase income.

The integration of trade services, such as transportation, storage, and distribution, is essential for improving the agricultural value chain. These services connect producers with consumers and help reduce costs while improving product availability and quality.

In addition, digital technologies and modern trade platforms are transforming agricultural marketing by improving access to market information and expanding trading opportunities. Therefore, the development of marketing systems and integration of trade services is crucial for increasing the efficiency and competitiveness of the agricultural sector.

Main part. The development of the marketing system in agricultural economics is one of the most important factors influencing the efficiency and competitiveness of the agricultural sector. In modern economic conditions, agriculture is not limited to production processes only; it is closely integrated with marketing, logistics, processing, and trade services. This integration ensures the smooth movement of agricultural products from producers to final consumers.

From an economic perspective, the efficiency of the agricultural marketing system can be evaluated through the relationship between revenue and total costs. The general indicator of marketing efficiency is expressed as:

$$E_m = \frac{TR - TC}{TC} \quad (1)$$

where:

E_m — marketing efficiency,

TR — total revenue,

TC — total production and marketing costs.

This formula shows that reducing marketing costs and increasing revenue directly improves system efficiency. In agricultural practice, high transaction costs often reduce farmers' income and weaken market competitiveness.

Profitability in agricultural marketing can be defined as:

$$\Pi = P \cdot Q - (C_p + C_m) \quad (2)$$

where:

Π — profit,

P — price per unit of product,

Q — quantity sold,

C_p — production costs,

C_m — marketing and distribution costs.

This model indicates that not only production efficiency but also marketing system performance plays a key role in determining farm profitability.

Role of Trade Services in Agricultural Development

Trade services such as transportation, storage, wholesale, retail, and logistics are essential components of the agricultural value chain. These services reduce physical and economic distance between producers and consumers. Total transaction costs can be represented as:

$$TC = C_t + C_s + C_l + C_d \quad (3)$$

where:

C_t — transportation costs,

C_s — storage costs,

C_l — logistics costs,

C_d — distribution and market access costs.

Reduction of these costs leads to increased value added in agriculture:

$$VA = TR - IC \quad (4)$$

where:

VA— value added,

IC — intermediate consumption.

Efficient trade services improve product availability, reduce post-harvest losses, and stabilize market supply.

Market Mechanism and Price Formation

Agricultural markets operate under supply and demand mechanisms, which can be described as:

$$Q_d = a - bP \quad (5)$$

$$Q_s = c + dP \quad (6)$$

At equilibrium:

$$Q_d = Q_s \quad (7)$$

The equilibrium price is:

$$P^* = \frac{a-c}{b+d} \quad (8)$$

However, due to seasonality and perishable nature of agricultural goods, market prices are often unstable. Integration of trade services helps to reduce price fluctuations by improving storage, transportation, and information systems.

Integration of Marketing and Trade Services

The efficiency of the agricultural marketing system depends on the level of integration between production, marketing, and trade services. This relationship can be expressed as:

$$M = f(P, L, I, T) \quad (9)$$

where:

M — marketing system efficiency,

P — production efficiency,

L — logistics system,

I — information system,

T — trade services.

Improvement in each component increases overall system performance. In particular, digitalization plays a significant role in strengthening integration. Electronic trading platforms and real-time price information systems reduce information asymmetry:

$$E_i = \frac{I_a}{I_t} \quad (10)$$

where:

E_i — information efficiency,

I_a — available accurate information,

I_t — total market information.

Higher information efficiency leads to better decision-making and improved market coordination.

Economic Outcomes of Integration. The integration of marketing systems and trade services produces a wide range of important positive economic effects that significantly improve the overall performance of the agricultural sector. First of all, it leads to a **reduction of transaction costs**, since better coordination between producers, logistics providers, and market operators minimizes unnecessary expenses related to transportation, storage, and distribution. As a result, agricultural goods reach consumers more efficiently and at lower costs.

Secondly, this integration contributes to an **increase in producer profitability**. When farmers have better access to organized markets and reliable trade services, they

are able to sell their products at more stable and often higher prices. This directly improves their income levels and strengthens their financial stability.

Another important outcome is the **improvement of supply chain efficiency**. Integrated systems ensure smoother coordination between all stages of the agricultural value chain, from production to final consumption. This reduces delays, decreases post-harvest losses, and ensures that products maintain better quality throughout the distribution process.

In addition, the integration helps in the **stabilization of agricultural prices**. Through better market information systems, improved storage facilities, and efficient distribution networks, seasonal price fluctuations are reduced. This creates a more predictable and balanced market environment for both producers and consumers.

Finally, integration supports the **expansion of domestic and international market access**. Farmers and agribusinesses gain opportunities to reach wider markets through improved logistics, trade networks, and digital platforms. This increases competitiveness and allows agricultural products to enter global markets more easily.

Overall, the development of marketing systems and the integration of trade services play a crucial role in enhancing the sustainability, efficiency, and competitiveness of the agricultural economy.

Conclusion. The development of the marketing system in agricultural economics and the integration of trade services are essential for improving the efficiency and competitiveness of the agricultural sector. Effective integration reduces transaction costs, increases producer income, and enhances supply chain performance. It also helps stabilize market prices and expands access to both domestic and international markets. Overall, strengthening marketing systems and trade services contributes to sustainable agricultural development and improved economic outcomes.

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