



IMPROVEMENT OF ECONOMIC RELATIONS BETWEEN ECONOMIC ENTITIES IN THE CHAIN OF ONION CULTIVATION

Sadikova Shohida

Gulistan State University

doctoral student

<https://doi.org/10.5281/zenodo.17863149>

ARTICLE INFO

Received: 07th December 2025

Accepted: 08th December 2025

Online: 09th December 2025

KEYWORDS

Trade networks, farmers and peasant farms, onion cultivation, efficiency, agro-industry, infrastructure, contractual relations, logistics

ABSTRACT

This article studies the issues of improving economic relations between economic entities involved in the onion production chain - farms, cooperatives, processing enterprises, logistics operators and trade networks. The resource allocation, cooperation mechanisms, contractual relations, value added chain and value distribution along the supply chain are analyzed. During the study, existing problems are identified - post-harvest losses, market price volatility, limited marketing channels, and insufficient logistics and storage infrastructure. Practical proposals are developed to improve economic integration in the chain through farmer cooperation, agrologistics system, cluster-based management model, contractual relations, and state support mechanisms. The results of the study will serve to increase the profitability of onion production, coordinate the interests of economic entities, ensure competitiveness and food security.

In the process of onion production, contracts concluded between farmers, peasants and homestead farms and their customers can be assessed as a special institutional form of the production system. Such a form of relationship, first of all, allows organizing the production process in more precise and stable conditions than market mechanisms. Through contractual relationships, rights and obligations are determined between the participating entities, which strengthens mutual trust, increases the ability to plan the production of products, the volume and quality of production.

Theoretically, such a management mechanism is called "transaction costs" in the theory of institutional economics.¹ explained by the concept of. That is, through the contract concluded between the farmer and the customer, a certain atmosphere of trust is created, which leads to a decrease in the costs associated with the implementation of agreements (for example, control, warranty, litigation costs, etc.). Also, "contractual relations play an important role in partially eliminating instability, price volatility and sales problems in the product market. Such mechanisms are important in coordinating economic relations between entities, ensuring unity of interests and forming long-term cooperation."

¹ Williamson, Oliver E. "Transaction cost economics." Handbook of industrial organization 1 (1989): 135-182.

Effective implementation of contractual relations not only reduces costs, but also allows for rational use of resources, planning of the production process and stabilization of product quality. In particular, resources (seeds, fuel, fertilizers, credit and other material and technical support) are allocated in advance based on the contract between the farmer and the customer, which significantly reduces uncertainties in the production process.

The farmer who signs the contract receives a guarantee for the sale of the product, which reduces his production risks and increases investment incentives. Also, the customer (processing enterprise, exporter, trading organization) receives a pre-guaranteed volume of products from the farmer, ensuring uninterrupted operations for its processing or export. This, in turn, partially neutralizes economic risks arising from price fluctuations in the market and the imbalance between supply and demand.

At the same time, contractual cooperation:

- improvement of production technologies;
- product quality control;
- introduction of best practices in the agro-industry chain;
- has a positive effect on situations such as the fair distribution of benefits between entities along the value chain.

As a result, the process of growing, processing and delivering agricultural products to the market becomes integrated. This is an important factor in increasing the competitiveness of farms, forming long-term cooperation between agribusiness participants, and ensuring product export and national food security.

Contract farming plays an important role in improving relations between entities participating in the onion production chain - farms, processing enterprises, agrologistics organizations, trade networks and exporters. Through the concluded contract between the farmer and the customer, a certain atmosphere of trust is created, which leads to a decrease in the costs associated with the implementation of agreements (for example, control, warranty, litigation costs, etc.).

Contractual relations also play an important role in partially eliminating instability, price volatility, and sales problems in the product market. This mechanism serves to coordinate economic relations between entities, ensure unity of interests, and form long-term cooperation.

The advantages of contractual cooperation are manifested in the following:

1.Risk reduction.

Through the contract, the farmer will have a guarantee on the sale of the product. This encourages him to increase production, invest and pursue technological upgrades.

2.Wise use of resources.

Under the contract, fertilizers, fuel, seeds, irrigation equipment, and other agricultural resources are provided in advance. This significantly reduces uncertainties in the cultivation process.

3.Product quality improvement.

The customer company determines the quality requirements according to the established standards. It directs the farmer to use high-tech solutions and stabilizes the quality.

4.Integration in the added value chain.

The agreement between the entities ensures the fair distribution of resources and income in the agribusiness chain. Based on the agreement, product processing, packaging, and logistics services are coordinated.

5.Long-term cooperation and stability in the market.

Contractual relationships form a strategic partnership between entities, partially reducing the risks arising from the imbalance of supply and demand in the market.

It is important to increase efficiency in onion cultivation by strengthening cooperation and cluster systems. Establishing production cooperation between farms will allow for joint use of resources and optimization of costs. Also, by establishing an association of onion growers, it will be possible to protect their interests, exchange experiences, and effectively use state support programs.

Through the agrocluster system, it is possible to jointly purchase the necessary equipment and material resources, conduct a unified marketing policy for the sale of products, and form competitive prices in domestic and foreign markets. This will not only reduce production costs, but also achieve high yields and increase export potential. As a result, there will be increased coordination among farmers, rational use of resources, stabilization of the product supply process, and an increase in income.

In order to ensure competitive pricing, the use of electronic trading systems, in particular platforms such as Agro Market and E-Agriculture Exchange, is of great importance. These systems allow for direct trading with buyers without intermediaries, thereby selling products at higher prices, ensuring transparency of trading processes, and reducing time and transportation costs.

It is also possible to protect crops from risks such as natural disasters, diseases, or water shortages by introducing insurance and risk management systems. The use of financial hedging instruments against price fluctuations ensures stability in production and reduces investment risks.

Digitalization and the use of agrotechnology in onion cultivation significantly increase efficiency. IoT sensors allow for water-efficient irrigation, forecasting yields and creating sales plans, and real-time monitoring of market price dynamics through systems such as Agro Monitoring.

By developing a value chain model, economic benefits can be fairly distributed among farmers, processors, logistics, exporters, and retailers. Accurate calculation of value added at each stage ensures equality and benefit in economic relations.

Innovative financing systems, in particular Forward Contract Financing, preferential loans provided through Agrobank and Xalq Bank, and raising capital through microinvestors and agrofunds, make it easier for small businesses to access funds.

In addition, high profits can be achieved by diversifying resources. The use of drip and sprinkler irrigation technologies saves water resources, while organic onion cultivation allows you to enter high-priced premium market segments. By directing the product for export with the help of obtaining an ecological certificate, competitiveness in foreign markets increases. As a result, profits increase and access to international markets expands.

Improving economic relations in the onion production chain can be achieved through several systematic approaches. The development of cooperation and cluster systems among farmers allows for rational use of resources, reduction of production costs and increase of export potential. Trading directly with buyers without intermediaries through electronic trading platforms serves to increase price, transparency and reduce transportation costs. Insurance and risk management systems reduce risks from natural disasters and market fluctuations, ensuring investment stability.

Digitalization and the introduction of agro-technologies will help in forecasting yields, efficient use of water and other resources, optimal harvesting and marketing of products. Benefit sharing and innovative financing systems based on the value chain will fairly distribute benefits among entities and facilitate access to finance for small farms. At the same time, diversification of resources and the production of ecologically certified organic products will lead to higher incomes and increased access to foreign markets.

As a result, these approaches ensure economic stability in the onion production chain, strengthen effective cooperation between entities, optimize production and sales processes, and increase the competitiveness of the agricultural sector.

List of used literature:

1. Williamson, Oliver E. "Transaction cost economics." Handbook of industrial organization 1 (1989): 135-182.
2. Abebe, GK, Bijman, J., Kemp, R., Omta, O., & Tsegaye, A. (2013). Contract farming configuration: Smallholders' preferences for contract design attributes. Food Policy, 40, 14-24.
3. Silfia S., Nicolas AR, Fitri ER, Yulita R., Chania L. "Sustainable Competitiveness of Red Onion through Collective Action of Farmers in West Sumatra." Journal of Applied Agricultural Science and Technology, 2025, 9(3): 332–345.
4. Yeshiwas Y., Alemayehu M., Adgo E. "Strategic mapping of onion supply chains: a comprehensive analysis of production and post-harvest processes in Northwest Ethiopia." Frontiers in Sustainability, 2024, Volume 5.
5. Yeshiwas Y., Alemayehu M., Adgo E. "The rise and fall of onion production; its multiple constraints on pre-harvest and post-harvest management issues along the supply chain in northwest Ethiopia." Heliyon, 2023, Volume 9, Issue 5, e15905.
6. Addisu H., Zemedu L., Getnet K. "Value chain analysis of onion: the case of Ejere district, West Shoa zone, Oromia, Ethiopia." International Scholars Journals