

Economic Foundations of the Organization of a Marketing and Logistics System in the Activities of Farms and Households

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Abstract. One of the biggest problems in Uzbekistan's agriculture is to adjust production volumes to the needs of the consumer market and to improve the system of product sales at the lowest cost. Today, dehkan farms and farmers producing products for the free market are faced with varying degrees of uncertainty in determining the volume of production, as a result of which there is a sharp fluctuation of prices in consumer markets, as well as high seasonal fluctuations in prices for the same type of product. This leads to negative consequences for both producers and consumers. Considering that our republic is specialized in the agricultural sector, and a large part of the production and service sectors, as well as more than 20 percent of the annual gross domestic product, are accounted for by agriculture, the development of the economy largely depends on agriculture. The article emphasizes the possibility of achieving relatively high efficiency of households and farming farms by reducing production costs and reducing the costs of selling products by ensuring the coordination of resource supply and marketing research in agriculture. At the same time, the article provides scientific ideas on taking into account market conditions in the production of products, planning production based on internal and external requirements, through conducting marketing and logistics research for households and farmers producing agricultural products. It also analyzes scientific work on increasing the investment attractiveness of the sector, and researching consumer and resource markets.

Keywords: Reforms, intensifying, reducing resource, agricultural, marketing, logistic, industrial sectors, rural producers, providing, livestock farming, sharp fluctuation.

Introduction. The reforms carried out in the agricultural sector of our republic are aimed at producing more products by intensifying the sector and reducing resource consumption. For this reason, a number of resolutions and decrees of the President of the Republic of Uzbekistan on the development of the sector have been adopted, and production in the agricultural sector is reaching a new level. Given that agriculture is mainly the production of raw materials, efficiency can be achieved not only by reducing production costs, properly organizing the flow of agricultural products, storing harvested products, and developing post-harvest services. This requires conducting marketing and logistics research in agriculture and developing these services. It is advisable to pay attention to the following aspects when developing marketing and logistics systems in agriculture;

- Accurate calculation of production costs, due to the fact that most dehkan farms do not keep records of production costs, they do not know the level of profitability and their main profits. This not only makes it difficult to obtain accurate information on production volumes and properly organize the flow of goods, but also creates high costs for storing and selling products;
- There is a relatively low level of investment in agriculture compared to other sectors, and the agricultural sector lags significantly behind in innovative development. The long payback period

for projects in agriculture, the sector's lagging behind industrial sectors, and also limits the ability to implement innovation;

- Marketing and logistics of agricultural products are mainly limited to the transportation of products during the sales process and their release to consumer markets. However, research into consumer markets, proper management of the flow of goods, and reduction of sales costs are not sufficiently conducted.

Literature review. Ensuring continuous agricultural production is a pressing issue for all countries. This, on the one hand, aims to ensure food security, but on the other hand, it requires intensive use of production facilities in the context of climate change. This aims to improve green supply in economic processes and reduce negative environmental impacts. According to research, green supply chain was first studied in the United States, and the main goal of this research is to reduce the impact on the environment by organizing the production and sales processes of agricultural products at the lowest cost. In general, according to research, logistics can be divided into two parts: internal and external logistics. While internal logistics mainly includes processes such as transportation and storage of raw materials, as well as warehousing of finished products, external logistics includes packaging of products, release into sales channels, and reverse logistics processes¹. According to the research of M. H. Nagel and his team, the supply chain covers all stages of production, emphasizing that the supply system should include not short-term, but long-term strategies.² According to researcher Jörg Holling, when establishing a supply chain in agriculture, it is necessary to cover the processes of resource procurement, production, and post-consumption disposal³. We can say that ensuring the coordination of supply chain and marketing research in the organization of production processes is beneficial not only for manufacturers, but also for consumers, since the negative impact on the environment during the disposal of purchased products will be reduced. Also, considering that today in our republic 4.3 million hectares of arable land are cultivated, we can see how high the turnover rate in the industry is. In this process, it is advisable to conduct marketing and logistics research to determine the periodicity of production and consumption and, accordingly, to establish the supply of necessary resources⁴.

In our opinion, the quality level of fruits, vegetables and other types of agricultural products produced for the free market is gradually increasing, but the quality indicators of the products produced are significantly lower. When analyzing the sales channels of agricultural products, 27-30 percent of the total volume of products produced is of high quality and is sold at relatively high prices, 50-55 percent of products are sold at average market prices, and 23-20 percent of products are sold at low prices. This requires the division of consumer markets into segments and the implementation of product supply in this order. In fact, if we take into account that dehkan-farmer farms that produce products prefer to sell their products at full wholesale prices, we can understand the urgency of properly organizing the flow of goods and managing the sales system.

In fact, there are significant differences in the resource supply of agricultural and industrial enterprises. In the system of production and sale of agricultural products, the correct organization of the supply chain is understood as the interrelationship between the supply, storage, processing and trade systems. What these markets have in common is that they serve rural producers by providing them with the means of production and selling their products.

According to our research, the cost of transporting agricultural products in our republic accounts for more than 30-40 percent of the total cost. Also, for products that go directly (in whole) to consumer markets, this figure is more than 50-55 percent. However, in developed countries, this figure is much

¹ Sarkis, Joseph. (1998). Theory and Methodology: Evaluating Environmentally Conscious Business Practices. European Journal of Operational Research, 107, 159-174. [http://dx.doi.org/10.1016/S0377-2217\(97\)00160-4](http://dx.doi.org/10.1016/S0377-2217(97)00160-4)

² Nagel, M. H. (2000). Environmental Supply Chain Management versus Green Procurement in the Scope of a Business and Leadership Perspective. IEEE2000(2).

³ Jeremy, Hall. (2000). Environmental Supply Chain Dynamics. Journal of Cleaner Production, 8, 455–471. [http://dx.doi.org/10.1016/S0959-6526\(00\)00013-5](http://dx.doi.org/10.1016/S0959-6526(00)00013-5)

⁴ Sarkis, Joseph. (2003). A Strategic Decision Framework for Green Supply Chain Management. Journal of Cleaner Production, 11, 297-409. [http://dx.doi.org/10.1016/S0959-6526\(02\)00062-8](http://dx.doi.org/10.1016/S0959-6526(02)00062-8)

lower (10-20 percent), and the volume of natural product losses is 1-2 percent.⁵ In the traditional logistics of agricultural products in Uzbekistan, the interaction of farmers with agricultural producers and processors, as well as wholesalers and retailers, is unsatisfactory. They compete with each other, striving to maximize their income, but the reduction of their costs and the increase in profits are partly based on the detriment of others. Sometimes they cooperate with competitors, but the cooperation is short-lived..

Today, the provision of marketing and logistics services to agricultural producers, farmers, and agricultural enterprises can be divided into three main categories: Figure 1.

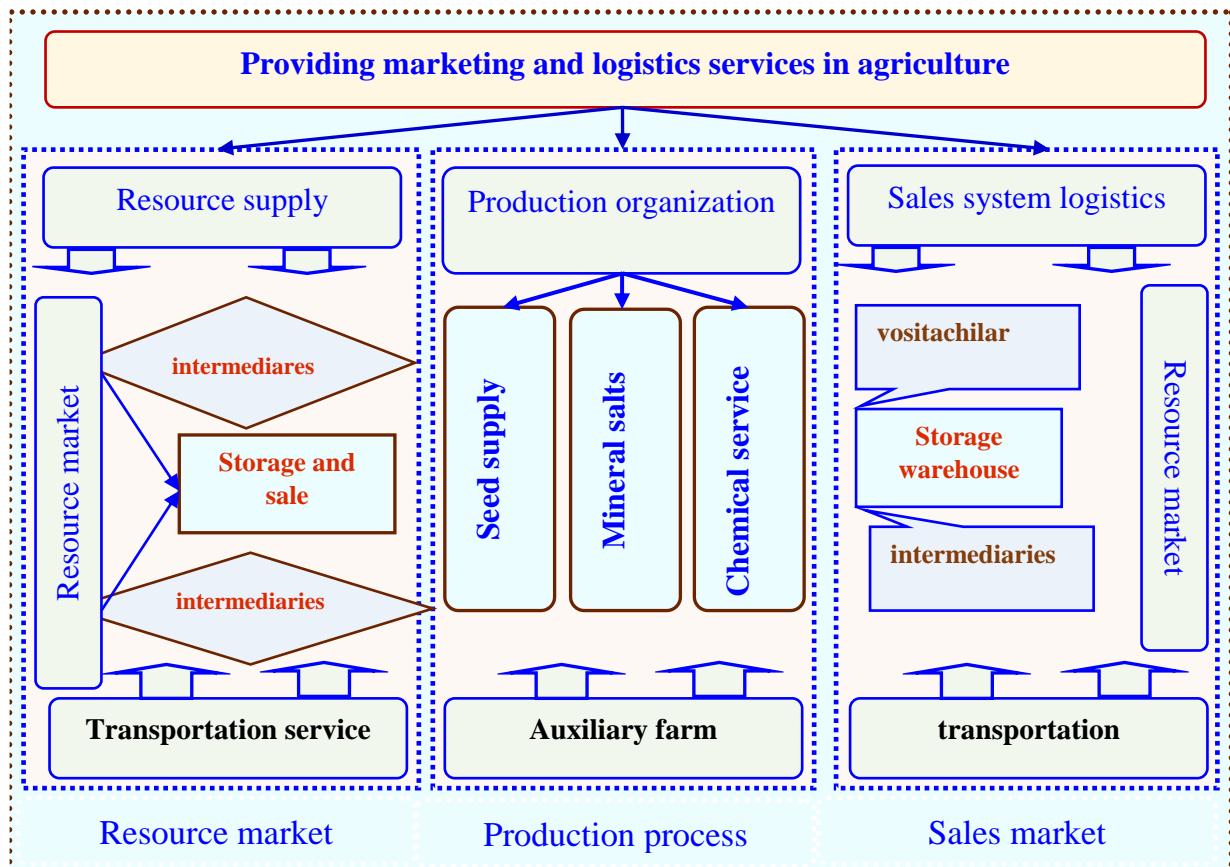


Figure 1. Directions of providing marketing and logistics services in agriculture.

In our opinion, the development of marketing and logistics services in agriculture involves the implementation of markets related to the organization of production in the resource market, as shown in Figure 1, in the production process, efficiency can be achieved by providing services during the vegetation period of agricultural crops, as well as by properly organizing the provision of agro-services in the production process; by providing services for storing, sorting, and transporting grown products, not only market capacity can be increased, but also sharp price fluctuations in consumer markets can be prevented. It should not be forgotten that the production of agricultural products is affected by factors such as the level of mechanization, chemical services, land reclamation systems, and changes in farming technologies. Therefore, given that a separate supply system is formed at each stage of the above factors, the importance of marketing and logistics services in the production and sales system of agricultural products is high.

In fact, agricultural production is mainly divided into two types: livestock farming and farming, but by studying supply markets and establishing logistics services in the organization of production, it is possible to achieve intensification of product production and reduction of the cost of goods. Therefore, by developing marketing and logistics services in the production of agricultural products,

⁵ Dan Tan. Developing Agricultural Products Logistics in China from the Perspective of Green Supply Chain. International Journal of Business and Management; Vol. 7, No. 21; 2012

it is ensured that the costs of storage, transportation and sale of products can be reduced by 20-25 percent.

According to our research, the failure to scientifically study the markets of agricultural products and the failure to fully create a supply chain in production not only reduces the volume of goods produced, but also directly affects consumer markets and creates the basis for a sharp fluctuation in market prices. At the same time, it should not be forgotten that the improper organization of logistics and marketing services in the sector also has a negative impact on the resource market, which in turn leads to a decrease in the efficiency of supporting economic entities.

In fact, the main goal of developing a marketing and logistics system in agriculture is to improve the processes of selling produced products, correctly assess the volume of production, and also to diversify the flow of resources. Therefore, it is appropriate to distinguish the role and specific aspects of each in the development of marketing and logistics services in the sector (Figure 2).

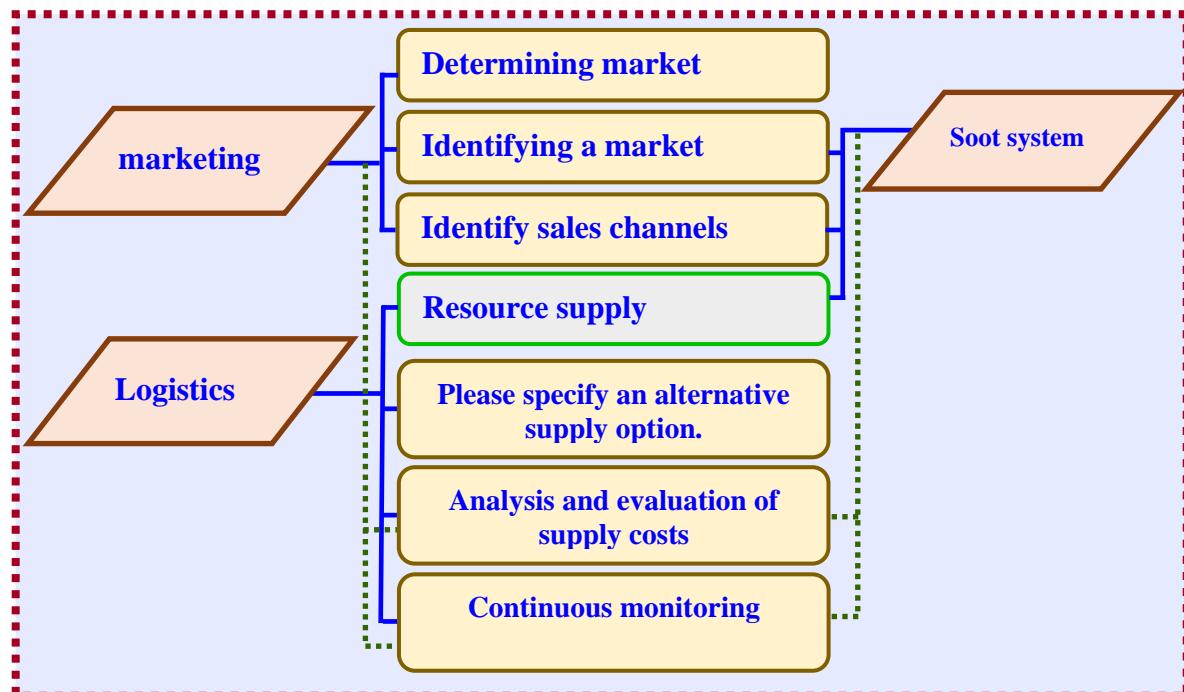


Figure 2. Main features of marketing and logistics services in agriculture.

From Figure 2, we can see that the main task of marketing in agriculture is to determine the volume of production by determining the market capacity, to conduct research on which market segments to sell the products produced. In this process, one type of product can be sold for several markets, that is, by packaging, sorting and sales channels. Also, by conducting an analysis of sales channels, it is possible to reduce sales costs by offering goods to consumers through the most optimal channels. Also, logistics and marketing services are equally important in resource supply. The main tasks of logistics services are to choose an alternative supply system, that is, to choose the most optimal options for transporting the necessary resources for agriculture and manufactured products, at the same time it is necessary to analyze supply costs and evaluate activities. At the same time, it is necessary to develop marketing and logistics services and constantly monitor their status in production.

In most studies⁶ while marketing and logistics services were studied separately, little attention was paid to the activities of resource producers and subsidiary farms in the provision of agriculture. However, the negative situation observed in production in a single rural area directly affects all sectors, both resource producers and food industry enterprises. Because, as a result of a sharp decrease in production volumes, when farmers and dehkan farms could not pay for resource suppliers, there was a shortage of raw materials for processing enterprises. In this case, firstly, it is necessary to determine the volume of production by correctly assessing the existing demand in

⁶B.Djurayev Organizational economic foundations of the development of marketing research in agriculture. Dissertation 2020.

consumer markets; secondly, it is advisable to conclude beneficial contracts with resource producers and organize supply for dehkans and farms.

According to our research, today most farmers and peasant farms use the services of intermediaries in the supply of resources. On the one hand, this creates convenience for producers, on the other hand, it does not guarantee the service provided in the supply of resources, and farmers and peasant farms do not have complete information on the quality of the resources supplied and the cost of services. Also, while most farmers use manufacturers in the field of agriculture, in the production of livestock products, farmers and peasant farms organize the supply chain themselves in the production process, but use suppliers for productive livestock and veterinary services. Therefore, we can divide the supply of agricultural and livestock products into resource markets for farmers and peasant farms, as well as supply chains in the production process and marketing and logistics services in the sales system.

In our opinion, it is advisable to use more economic mechanisms (tax system, insurance, financial instruments) in the process of state support for the organization of agricultural production. Because the direct participation of the state in the activities of the sector, along with its negative impact on market laws, has a direct impact on the supply and consumption processes, as well as on the activities of subsidiary farms. Therefore, it is appropriate to formulate the economic mechanism for the organization of marketing and logistics services in the production of agricultural products as follows:

In our opinion, the correct organization of the production processes of agricultural and livestock products is directly related to the supply and sales systems. Because, if the provision of resources to producers is the final stage of the initial stage of logistics, the organization of the release of products to consumer channels and their sale is the end of production and the main link of the marketing and logistics system. Also, in conducting marketing and logistics research in agriculture, separate research has been conducted mainly on the analysis of production processes and solving existing problems, but the development of optimal resource supply options, as well as the harmonization of the interests of buyers and producers in consumer markets as a holistic system, has not been sufficiently conducted.

According to the above considerations, the main factors of the external environment are:

- Given the constant demand for agriculturally grown food products, changes in consumer preferences, i.e. the expansion of the range of one type of product, as well as the growth of consumer incomes and the geographical location of sales markets;
- price changes in food products produced for the free market;
- the impact of the state on monetary policy and the impact of this process on the production of agricultural and livestock products. Today, the provision of subsidies allocated by the state plays an important role in the development of the agricultural and livestock sector, reducing the cost of production and plays an important role in the development of the sector;
- to assess the potential of manufacturers based on the criteria for assessing their potential (time of sale of their products, continuity of resource supply, proper organization of the flow of goods) and, accordingly, to determine their market potential. As is known, in today's economy, the production of a large number of products is not considered a factor indicating high profits or a strong position in the market. Because, with the intensification of the production process, high costs of sales and storage, as well as excessive costs in the supply of resources, also lead to an increase in the prices of consumer goods.

As is known, in agriculture, like in all sectors, production is constantly growing, and accordingly, the resource supply system must be improved, as well as modern technologies must be introduced into the supply system. It is important to ensure that product production changes not only in quantity but also in quality. Because today, in the system of production and sale of agricultural products, one of the most acceptable forms of reducing costs is to choose the optimal supply option and reduce sales costs.

Above, the specific aspects of external and internal environmental factors affecting the development of marketing and logistics services were classified, and the mutual coordination of resource and product flow management in the production processes of agricultural products was described. It should not be forgotten that the impact of factors, regardless of their magnitude, is of great importance in the sale of goods and their introduction to consumer markets. After all, it can be concluded that the produced products are profitable only when they reach the buyer. If we look at the production of mainly food products in agriculture, on the one hand, there is a certain level of constant consumption, but in order to enter foreign markets and produce import-substituting products, it is necessary to study the requirements of buyers and the market situation. In this process, first of all, it is especially important to provide production with resources and conduct marketing research correctly.

In our opinion, the supply of resources in the production of agricultural and livestock products is considered to be relatively close. Although in livestock farming, the strengthening of the feed base and the demand for resources in agriculture are quite close, the marketing and logistical approaches to the transportation of produced products differ from each other. Because there are sharp differences in the processes of storage, transportation and sale of both types of products. Accordingly, in organizing production in agriculture, improving the supply of resources and conducting marketing research, we can divide the study of the influence of factors into intensive, systematic and indirect effects on production.

In general, we can include marketing and logistics services among the factors that intensively affect production, since the optimal selection of resource supply, market capacity and consumer research significantly reduce the cost of producing, storing and selling products. Table 1.

Table 1. Classification of factors affecting agricultural production and their functions⁷

Factors	Classification criteria					
	Intensive		mechanism of action		Form of influence	
	Active	Passive	Systematic	Tactical	Indirectly	Directly
Micro-level influencing factors						
Logistics services	*		*			*
Marketing policy	*			*	*	
Sales policy		*	*		*	
Macro-level factors						
Consumer behavior	*			*	*	
Market regulation policy		*	*			*
Pricing policy in the market	*			*		*
Market infrastructure		*	*			*
State credit policy		*	*			*

From Table 1, we can see that logistics and marketing services are among the factors that influence at the micro level, and sales services are also among the factors that influence micro-level. If we analyze the impact of each factor, then logistics and marketing services, as well as changes in consumer behavior and pricing policy are in the active part of intensive factors. Because it is precisely these factors that are least likely to have a positive/negative impact on production. Market infrastructure, state credit policy have a passive impact on the level of intensity. Also, factors such as logistics services, consumer behavior, and pricing policy in the market have a systemic impact. That is, it is desirable to systematically organize the impact of these factors on production. Today, a completely different approach should be used in the integration of production and the classification of environmental factors. It should be noted that the active factors of the intensity of influence include consumer behavior and the price situation in the market, the remaining significant factors exert their influence in the long term and create a certain organizational and economic environment. the

⁷Developed by the author.

background against which the development of the production distribution system takes place. The remaining factors are passive in terms of the intensity of influence and systemic in terms of the second criterion. According to the third criterion, only consumer behavior is a subjective factor, while other factors are objective.

In conclusion, we can say that the allocation of resources and the determination of the volume of production in the correct organization of production are one of the criteria for determining efficiency. Therefore, the correct management of the flow of resources and the systematic organization of the distribution of manufactured products, on the one hand, reduce the costs of storing and transporting products, and on the other hand, provide maximum utilization of warehouses.

In our opinion, as a result of marketing and logistics research in agriculture, a reduction in total transportation costs by 4-5% will lead to significant resource savings and a reduction in the negative impact on the environment due to the high total production volume. In addition, the partial inclusion of transportation costs in total costs will also ensure a sharp decrease in the cost of products in consumer markets.

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