

Agricultural Communication

The Logistic Function of Cooperation in the Agro-Food Supply with Digitalization in the Russian Federation

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ABSTRACT

Currently, digital solutions are increasingly penetrating consumer cooperation. The need for the use of innovative technologies is increasing to improve the efficiency of logistics of consumer societies of the Centrosoyuz of Russia. Consumer societies have a solid opportunity to combine their economic activities into a single system based on a digital platform and become the undisputed leader in the segment of national food security. Operational processes are developing and improving in the digital economy simultaneously with the development of scientific and technological progress, the introduction of innovations, and the modernization of production. Cooperative formations participate in replenishing the resources of agricultural products to ensure the food security of the country. Consumer societies of the Centrosoyuz of Russia play a significant role in providing a guaranteed channel for the sale of agricultural products and raw materials for small agricultural businesses. Various approaches to the participation of consumer cooperation in food security are revealed in the conditions of the digital economy with the industrialization of production. Therewith, the relevance of consumer cooperation in replenishing food supplies is increasing. Its role in the development of small agricultural business in rural areas is revealed, the need for more complete use of the resources available in consumer cooperation in the organization of procurement activities in the field of procurement of agricultural products and raw materials in the households of the population, individual entrepreneurs and peasant farms is argued. The use of the achievements of the digital economy in the system of consumer cooperation is considered as one of its practical applications in modern conditions to increase competitiveness in the domestic and international food market, improving the quality of life of the working population of rural areas.

KEY WORDS: AGRICULTURAL PRODUCTS, CONSUMER COOPERATION, DIGITAL ECONOMY, LOGISTICS, PROCUREMENT.

INTRODUCTION

The concept of the digital economy originated in the 90s of the 20th centuries, and it developed in Russia mainly through the interaction of large IT organizations in the field of cooperation based on cooperative and integration ties, including the creation of projects to train new competencies for working in the digital economy. More and more attention has been paid in recent years to the new economy in the agro-food sector (Nabieva and Tkach 2019). Decree of the President of the Russian Federation No. 204 "On National goals and strategic objectives of the development of the Russian Federation for the period up to 2024" was issued on May 7, 2018, in the interests of fulfilling the tasks of organizing the active development of digital technologies in the economy and social sphere in Russia. The Russian

Government adopted the federal program "Digital Economy of the Russian Federation" for the real implementation of the provisions formulated in the decree. The program includes the main directions of the digital development of the economy, the use of information technologies in social and economic activities, allowing to increase the efficiency of the organization of entrepreneurial activity in production and the quality of life, including using the advantages of cooperation and integration (Suglovov and Tkach 2020).

The National Program on the Digital Economy was approved and accepted for execution on June 4, 2019, by the decision of the Presidium of the Council under the President of the Russian Federation (Protocol No. 7). The program includes federal projects: on the legal regulation of the digital environment, on training personnel to work in the digital economy, on the creation and development of information infrastructure, the elaboration of methods and means of information security, the development of digital technologies, the definition, and consolidation of

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digital public administration mechanisms (Karmanov et al. 2021).

The program formulates the main goals, sets tasks, develops directions, and determines the timing of state support measures to provide the required conditions for the progressive dynamic development of the digital economy in the country. The management of the program is entrusted to departments and management structures of federal authorities by Decree of the Government of the Russian Federation No. 234 of March 2, 2019 (Karmanov et al. 2021). The purpose of the work is to characterize the logistics of purchasing activities of the consumer cooperation of the Centrosoyuz of Russia in the field of food security in the digital economy. To reveal the potential and role of small agricultural businesses as a resource base for the work of procurement offices and consumer cooperation points. To determine the main directions of procurement logistics and types of agricultural products produced in small forms of management.

MATERIAL AND METHODS

The research methodology was based on scientific methods for organizing the work of consumer cooperation in the creation of food resources for the food security of the state in the digital economy.

RESULTS AND DISCUSSION

The role and place of purchasing and marketing activities of consumer societies in the creation of agro-food resources for the food security of the state in the digital economy have been revealed. Reserves have been assessed and proposals have been developed to modernize the procurement system to improve the economic situation of small agricultural businesses, households, and farmers. Proposals have been developed for the rational use of agricultural products and raw materials in rural areas with the specialization of production. The organizational and legal forms of farming in rural areas have been characterized and proposals have been formulated to improve the efficiency of small agricultural businesses using the advantages of consumer cooperation. The ways of improving logistics to ensure a guaranteed sales channel for agricultural products produced in small forms of management, their processing, and sale have been proposed (Dudin et al. 2020).

The digital economy is considered as the economic activity of economic entities based on digital technologies and interacting with e-commerce in the development and sale of digital goods or services. Data is provided in digital form and is the main factor of production in all areas of socio-economic activity (Ragulina et al. 2018; Dudin et al. 2020). The digital economy is divided into online business and the digital activities of enterprises. It affects the functioning sectors of the production, economic and social activities of the infrastructure of the national economy, including the organizational structure of enterprises and associations based on cooperation and integration, the logistics of wholesale and retail trade in agri-food products.

Competition between manufacturers and suppliers of goods increases when using the advantages of the digital economy in market conditions. With the deepening of the social division of labor, specialization of production, expansion of cooperation, and integration, the digital economy blurs the lines of the territories of individual regions, districts, territories, republics, and states, lowers and levels the national characteristics of countries. The development and improvement of logistics in the transportation system break down all kinds of barriers in the promotion of goods from the manufacturer to the consumer (Zavyalova et al. 2020; Krivova et al. 2021; Vasyukov et al. 2021).

The digital economy contributes to improving the efficiency of partners in various fields of activity, changes the point of view on the feasibility of real movement of goods in space, determines a decrease in a load of vehicles, shopping and distribution centers, a reduction in the flow of consumers to retail outlets and the burden on the transformation of territories and rural settlements. With the socio-economic development of society and the expanded mobilization of natural and economic resource potential, the digital economy expands its activities and increases its importance, affecting various spheres, both production and the life of the population, including education, healthcare, etc. The national program "Digital Economy of the Russian Federation" provides for accelerated development of digital technologies in practice, both in the economy and the social sphere, providing conditions for high-tech business, increasing the country's competitiveness in the global market, strengthening Russia's food security and improving the comfort of people's lives, including in rural areas (Krivova et al. 2021).

The program provides for the creation of a regulatory system in each field of activity in the country based on a flexible approach, the removal of barriers to the development of modern technologies and business related to the use of innovations, as well as the creation and implementation of electronic document management in many areas of socio-economic activity. The program outlined the main areas accumulating legal regulation of production and economic activities, staffing and education, the development of research competencies and certain groundwork in various fields, publicists' infrastructure, and national information security of the state. The Program provided for the accelerated development of large value chains, where large operations were integrated based on cooperation. The organization of timely purchases, prevention of spoilage and loss of products, and their delivery for processing to storage facilities with the subsequent sale to the consumer was given a significant place in the system of promoting food products from producer to consumer (Krivova et al. 2021).

A responsible role was assigned to the procurement, processing, and sale of products, the work of procurement offices, and consumer cooperation points. Thus, in (2019), the producers of consumer societies of the Centrosoyuz of the Russian Federation purchased from representatives of small agricultural businesses over 55.0 thousand tons of meat, 218.2 thousand tons of raw milk and dairy products, 37.2 thousand tons of potato, 45.7 thousand tons of vegetable

products, 25.9 thousand tons of fruit and berry products. The analysis of the purchasing activity of consumer societies of the Centrosoyuz of Russia testifies to the successful work of cooperators in this field in several regions of Russia. For example, consumer societies of the Volga Federal District in 2019 purchased agricultural products and raw materials from agricultural producers for 12,668 million rubles, that was, 56.2% of the all-Russian volume of purchases by consumer societies of the Centrosoyuz of Russia (Vasyukov et al. 2021).

This work was carried out in large volumes in the consumer cooperation of the Republic of Tatarstan, where agricultural products worth 8,158 million rubles were purchased in (2019), which is 64.4% in the Volga Federal District. In

terms of its activities in this area, the Union of consumer societies of the Republic of Tatarstan compares favorably with the unions of consumer societies of other subjects of the Russian Federation (Table 1).

Practice showed that as the number of animals increases, as a rule, production increased in parallel. This pattern was also observed in small agricultural businesses in the Republic of Tatarstan, where the number of almost all types of livestock and poultry increased every year during the period under review (2015-2019). In parallel, the volumes of milk production, production of cattle and pigs' meat, poultry and sheep meat, rabbit meat, and honey in farms of small agricultural business of farmers and households of the population, among individual entrepreneurs grew (Vasyukov et al. 2021).

Table 1. Purchases of agricultural products and raw materials by consumer societies of the Volga Federal District of the Russian Federation, 2019

Consumer unions of the subjects of the Russian Federation	All agricultural products, rubles. million	Agricultural products by type, tons				
		Meat	Milk	Potato	Vegetables	Fruits
Centrosoyuz of the Russian Federation	22,559	52,493	218,907	33,486	40,758	24,489
Volga Federal District	12,668	24,850	197,743	11,920	14,020	8,639
Share in Russia, %	56.2	47.3	90.3	35.6	34.4	35.3
Tatar	8,158	16,078	161,666	5,996	3,311	1,469
The share of RT in the Russian Federation, %	36.2	30.6	73.9	17.9	8.1	6.0
The share of RT in the FD, %	64.4	64.7	81.8	50.3	23.6	17.0

Source: Centrosoyuz (2020)

Table 2. Trend of livestock production by farms of the population of the Republic of Tatarstan

Indicators	Years					2019 in % by 2015
	2015	2016	2017	2018	2019	
Livestock and poultry for slaughter, in live weight, thousand tons	130.0	128.6	127.5	126.9	126.2	97.1
Milk, thousand tons	581.5	569.3	554.0	552.5	546.0	93.9
Eggs, million pieces	305.2	304.5	305.4	307.7	307.4	100.7
Honey, t	9,863	8,997	7,728	7,780	7,342	74.4

Source: Statistical collection (2020)

In terms of the volume of agricultural products produced, agricultural organizations were followed by households of the population, which included personal subsidiary plots in rural areas, households of citizens in rural settlements, horticultural and market-gardening non-profit associations, as well as individual entrepreneurs. These representatives of small agricultural businesses, which were one of the forms of management, carry out the production and

processing of agricultural products by the personal labor of family members to meet personal needs. Representatives of small agricultural forms include horticultural and market-gardening non-profit associations of citizens acting voluntarily. In the Republic of Tatarstan, farms of the population in 2019 raised 126.2 thousand tons of livestock and poultry for slaughter, 546.0 thousand tons of raw milk and 307.4 million eggs were produced, 7,342

tons of honey were obtained (Table 2). The production of livestock products in the Republic of Tatarstan was carried out at the highest rates in peasant farms from (2015 to 2019), where the actors are united by kinship or have material and technical means in common ownership. Farmers, together with their participation, carry out production activities, provide processing, transportation, storage, and marketing of agri-food products.

A separate place in agri-food activity was occupied by individual entrepreneurs for the production of agricultural products. As a rule, such economic entities include individuals engaged in entrepreneurial activity without forming a legal entity from the moment of its state registration following the Civil Code of the Russian Federation and who have

declared the types of activities classified to agriculture in the Certificate of State Registration according to the OKVED, Russian Classification of Economic Activities. In the Republic of Tatarstan, peasant farms, including individual entrepreneurs, increased the production of agricultural products from (2015 to 2019). In this category of farms, the cultivation of livestock and poultry meat increased from 15.9 to 23.2 thousand tons, that was, by 45.9% during the specified period. Raw milk yields increased from 140.2 to 174.7 thousand tons, that was, by 24.6%. Particularly high indicators were achieved in the production of eggs – from 9.8 to 29.7 million pieces, or more than 3 times. Beekeeping has become widespread in small agricultural businesses. Tatarstan farmers received 285 tons of honey in 2019 (Table 3).

Indicators	Years					2019 in % by 2015
	2015	2016	2017	2018	2019	
Livestock and poultry for slaughter, in live weight, thousand tons	15.9	17.8	19.0	20.9	23.2	145.9
Milk, thousand tons	140.2	139.1	157.9	155.1	174.7	124.6
Eggs, million pieces	9.8	11.4	17.4	24.6	29.7	303.1
Honey, t	484	507	428	380	285	58.9

Source: Statistical collection (2020) *including individual entrepreneurs

Agri-food products produced by agricultural producers of small agricultural businesses were purchased by procurement enterprises of the Centrosoyuz of Russia and supplied for processing. At the industrial enterprises of the consumer societies of the Centrosoyuz of Russia, various types of food products were usage and confectionery products, canned meat, vegetable and fruit, various kinds of beverages and other food products. In 2019, 252 thousand tons of bread and bakery products were produced at the enterprises and workshops of the Centrosoyuz of the Russian Federation, 3.3 thousand tons of sausage and sausage products, 21.3 thousand tons of confectionery, 25.3 msc of canned food, 3.5 million dl of soft drinks.

A significant part of the purchased agri-food products by organizations and enterprises of consumer cooperation was spent and sold through the logistics system in the field of public catering. Various dishes and semi-finished products are prepared from harvested agricultural raw materials in a wide range. In 2019, food products worth 13.0 billion rubles were sold through the public catering system of the consumer cooperative of the Centrosoyuz of the Russian Federation. The catering system produced food products worth 11.2 billion rubles, that is 86.2%. Through its activities in the procurement system, consumer cooperation participates in the formation of the country's food resources, ensuring food security, which is the primary task of the leaders of any state (Dudin et al. 2020).

In the digital economy, the issue of ensuring food security is the focus of attention of the federal authorities of the country and the subjects of the Russian Federation. A positive role in the conditions of the digital economy is played by cooperation in the agro-food complex to ensure sustainable food supply of the population with food products in the necessary assortment according to medical nutrition standards. The Government of the Russian Federation was instructed to develop a set of measures to implement the provisions of the food security doctrine by Presidential Decree No. 20 of January 21, 2020. In this regard, at the federal and regional levels, an assessment is being carried out and measures are planned to improve the food supply of residents of Russia, regulatory legal acts related to food security issues are being developed, practical activities in the regions of Russia, including by organizations of consumer societies of the Centrosoyuz of the Russian Federation, are being noted (Dudin et al. 2020).

It is important to ensure the effective development of agricultural production in the conditions of the digital economy, including the functioning of the individual sector in rural areas, to form and maintain the state of the material base of agriculture at the proper scientific and technical level, including crop and livestock industries that supply food resources to provide the population with food products. Therewith, it is necessary to ensure the development of both the entire agriculture and all its categories in the right

proportions. The directions of agricultural production should ensure that the rational structure of the population's diet is filled with the main types of agri-food products, including considering the possibility of exporting and importing products. Special attention should be paid to ensuring the effective functioning of all types of small forms of agricultural producers (Dudin et al. 2020).

Consumer societies and unions are a ready-made organizational and economic form and a reliable partner in the system of formation of food resources in the digital economy. Procurement enterprises and points of consumer societies perform the necessary logistical function in the system of saturation of the food market with domestic food products. Consumer cooperation will perform the functions of servicing producers of agricultural products, supplying the rural population with various types of food and industrial goods in a market economy (Vasyukov et al. 2021).

CONCLUSION

The findings of the present study suggests that the procurement enterprises and purchasing points in the system of formation of food resources act as the leading edge of consumer societies of the Centrosoyuz of Russia in ensuring the national food security of the country. Procurement offices and consumer cooperation points, enterprises, and public catering points of consumer societies of the Republic of Tatarstan act as a reliable channel for the sale of products by representatives of small agricultural businesses. Consumer cooperation of Tatarstan, as well as Russia as a whole, using the existing production and intellectual potential, plays a significant positive role in the formation of food resources, strengthening food independence and security of the state.

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