

<https://doi.org/10.7250/scee.2022.012>

## **ORGANIZATION AND IMPLEMENTATION OF AGRICULTURAL PRODUCTS LOGISTICS AND GOVERNMENT POLICIES IN CHINA**

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**Abstract.** The direction of the research is focused on the study of the international experience of organizational and economic support of the logistics of agricultural products and the tools of its state policy. Research methods include the following: problem-oriented method; the method of scientific abstraction, the system method. The results of the study include: the innovative component of the agro-industrial complex enterprises was taken into account, the logistics alliance of agricultural products was developed and institutional mechanisms were formed to save transaction costs, specific measures to strengthen the level of state macro-control of the logistics of agricultural products were considered. A great role is attributed to the organizational support of the logistics of agrarian companies and its state policy. There is a need to form an effective mechanism of state support for the logistics of agricultural producers, taking into account the influence of the market on the logistics of agricultural companies.

**Keywords:** *agricultural product, logistics, enterprises, management, policies.*

**JEL Classification:** F23, L86, M15

### **INTRODUCTION**

To realize the modernization of China's agricultural products logistics, there must be strong, advanced organizational security and strong government support. Developing and expanding our agricultural products logistics organization is an important means to improve the international competitiveness of agricultural products in our country. In addition, according to international experience, the government plays a very important role in logistics development. The government must also develop corresponding logistics policies to promote the development of agricultural commodities in China.

Under the planned economy system, state-owned grain purchasing and marketing enterprises have played an important role in guaranteeing national grain security. At the same time, as the carrier of national macro-control in the state of emergency, the implementation of national policy must be the first goal. Grain management is small, only to carry out large-scale, intensive management, to enhance market competitiveness, and then to improve control.

The main goal of the article is to research the organizational mechanisms of state support for the logistical activities of agricultural producers.

The main tasks of the research should include:

- research on organizational support for innovations in the work of agrarian companies;
- development of agricultural production in the context of formation of logistics alliances;
- consideration of methodological aspects of state regulation of the logistics of agricultural production at the macro level.

## 1. LITERATURE REVIEW

Among the main aspects of scientific research in the field of the organization of logistics of agricultural production and the formation of China's state policy in this field, many scientific schools were engaged. Determining the risks that may arise during the logistics work of agricultural companies is quite important when building an effective strategic planning of the logistics of agricultural production. The scientist was engaged in the study of threats to the development of the logistics of agricultural production in China by Huibin Dai (Huibin, 2011). In the conditions of market relations and autocratic management in China, effective mechanisms of state support for logistics activities of the agrarian sector of the economy may come first. The scientist was engaged in the consideration of measures of state support for the logistics of agricultural companies in the conditions of industrial transformations Pengfei Yue and Jing Li (Pengfei, 2010; Jing, 2016). It is also important to study the issue of marketing the promotion of agricultural products to sales markets, this issue was studied by economists Yifan Fu and Huina Zhang (Yifan & Huina, 2018).

The process of personnel training plays an important role in the efficiency of the work of the personnel of agrarian companies, this issue was studied in the work of scientists Xiaofeng Liu (Xiaofeng, 2015).

The informatization of business processes and the implementation of an electronic logistics platform of agricultural production reflects the direction of the transition to Industry 4.0 in China, these issues were studied by scientists Yufang, M., Wentao, D., Yucheng, Zh., Qiang, M. (Yufang et al., 2013).

Informatization and state regulation of the logistics sphere is related to the elements of sustainable development in the era of post-industrial development of productive forces, this issue was investigated by a scientist Yu Zhue (Yu, 2013).

The Internet of Things is a necessary element of electronic trade of agricultural products and affects the improvement of the efficiency of the logistics work of agricultural companies, these elements were highlighted in the scientific work of scientists Peng Chao (Peng, 2012) and Yao Su (Yao et al., 2012).

The scientist studied the issue of strategic transformations in the work of agrarian markets Guangning Yan (Guangning, 2009). From the researched scientific works, problematic aspects have been identified, which consist in the insignificant scientific justification of organizational aspects and state support for the logistics of agricultural

production in China and the formation of an effective government policy to support the activities of this sector of the economy, which is the basis for conducting this study.

## **2. ORGANIZATIONAL INNOVATION OF GRAIN ENTERPRISES**

The reform of state-owned grain purchasing and marketing enterprises is to push forward the strategic reorganization of state-owned grain enterprises in an all-round way according to the requirements of the modern enterprise system. With leading enterprises as the core, vigorously adjust and optimize the layout and structure of grain enterprises, completely change the pattern of «small but complete» and «small but scattered». It promotes limited resources to gather backbone advantageous enterprises, improve the concentration degree and overall efficiency of the industry, strengthen and cultivate a batch of leading grain enterprises (Yuwei, 2011).

Main problems existing in China's grain enterprises: overall strength is not strong; the technological innovation capacity is not strong, and the value-added chain of grain processing is short; the degree of industrial organization is low, and the industrial chain is not closely connected; the product grade is not high, and the market development ability is not strong. Products reflect the image of the company (Xuegang, 2012).

An enterprise wants to win in market competition, must have certain scale, grain enterprise also is such. Relevant experts point out that the competition between enterprises is ultimately manifested as cost competition. The significance of scale economy lies in reducing costs and improving labor productivity through scale production. We will develop a new model of collectivized operations. Collectivize management is to change the enterprise small and scattered, the state of their own (Yuanhong, 2013).

According to the theory of transaction cost, the transaction cost of individual peasant household must be very high in market transaction. Firstly, as the main body of the transaction, farmers' knowledge level is low, market information is blocked, and the possibility of blind transaction is the greatest. Second, peasant households are weak and scattered, without the strength to compete with their rivals, and their interests are vulnerable to infringement. At the same time, as «economic men», farmers' behaviour is also driven by interests. Thirdly, farmers' transactions are very random, and it is impossible for small-scale agricultural products to have long-term partners. Fourthly, farmers' market transaction frequency is high. The number of agricultural products produced by farmers is small and there are many kinds of agricultural products, and some agricultural products are not mature at the same time.

At present, the organizational form of «company + peasant household» is widely used in China. Theoretically speaking, if there is no credit failure and contract gives full play to its binding role, «company + peasant household» is an ideal model. Because, the company as an independent legal entity of the leading enterprises with financing, asset integration, market operation and other modern enterprise management capabilities, in the development of the market, the establishment of a famous brand has advantages. But in real life, interest is higher than credit, and the behavior of breaking contracts is very common, which makes it difficult to achieve a win-win outcome of the «company + farmer» model.

Domestic and international practice has proved that it is difficult to realize the connection between the scattered farmers and the large market and circulation at home and abroad, and the reasonable interests of farmers are difficult to be guaranteed. For example, the export price of China's products with cost advantages, such as garlic and fruit juice, is less than 1/10 of the international market, and the reasonable profits of farmers are transferred to foreign importers or wholesalers.

The following measures can be taken to improve the degree of organization of peasant households:

1. Vigorously developing farmers' cooperative transportation and marketing organizations. We should vigorously develop farmers' cooperative transportation and marketing organizations (Single, 2012).
2. Cultivate and develop agricultural products logistics intermediary organizations that represent farmers' interests (Jinye, 2006).

Adam Smith said in *The Wealth of Nations*, «The greatest increase in the productivity of labor is the result of the division of labor». He believed that division of labor and specialization were the cause of wealth growth, and the advantage of division of labor was to obtain division of economy and specialization economy, so as to improve production efficiency. The theory of division of labor and specialization in emerging classical economics holds that division of labor and specialization can accelerate the accumulation of knowledge and bring increasing returns. However, coordinating the division of labor also needs cost. The deepening of the division of labor leads to the increase of transaction costs, which depend on the efficiency of the transaction mechanism. The dilemma conflict between the benefits of division of labor and the increase of transaction costs is basically the end of the evolution of division of labor. In this dilemma, the deepening of division of labor depends on the relative comparison of transaction costs and benefits of division of labor, showing a spontaneous evolution process. Practice has proved that the use of third-party logistics services can bring the following benefits for enterprises: reduce logistics costs; expand the business capacity of enterprises; concentrate and strengthen your main business; shorten shipment to delivery time; increasing vehicle efficiency and reducing fuel consumption costs; thorough implementation of quality management (Shengchun, 2013).

### **3. DEVELOPING AGRICULTURAL PRODUCTS LOGISTICS ALLIANCE AND POLICIES: INSTITUTIONAL ARRANGEMENT TO SAVE TRANSACTION COSTS**

Logistics alliance is to achieve better results than logistics activities alone, logistics enterprises and logistics services between the formation of mutual trust, risk sharing, profit sharing logistics partnership. The uncertainty of the transaction and the variability of the market are closely related to the limited rationality and opportunistic behaviour of the transaction subject. It is impossible for both sides of the transaction to have a full insight into the future and deal with the changes that will happen in advance by setting clauses in the contract. If the information of both sides of the transaction is not symmetrical, it is difficult to avoid the opportunistic behaviour of one side. However, the alliance organization can obviously reduce the occurrence of such situations instead of market transactions. The higher the transaction frequency, the higher the transaction

cost, the higher the transaction frequency, the higher the transaction cost (Yufang et al., 2013).

The role of government in logistics development. For the development of logistics industry, governments are involved, the difference lies in the degree of involvement is different. Taking a look at the actions of various governments, the government mainly adopts policy measures to guide and promote the development of domestic logistics and strengthen the macro-guidance and regulation of logistics development. The government's role in logistics development mainly includes the following aspects:

- to be included in the overall strategic objectives of economic development, or to formulate logistics planning, or formulate industrial policies for logistics development;
- the government supports the development of logistics industry and related enterprises;
- coordinate the standardization construction of logistics system;
- the government provides various services for the development of logistics;
- strengthen the management of logistics (Yu, 2013).

Policies on the development of agricultural products logistics in China. In 2013, with the consent of The State Council and jointly issued by the State Planning Commission, the State Economic and Trade Commission, the Ministry of Agriculture made a comprehensive deployment for the construction of circulation facilities for agricultural products in China in the future. The Opinions put forward that the goal of China's agricultural product circulation facilities construction is to improve the functions of wholesale markets. We will actively develop new circulation organizations such as chain supermarkets and direct distribution, and establish a multi-level, multi-format and multi-mode agricultural product market system. Accelerate the construction of logistics facilities such as storage, processing and transportation of agricultural products, and establish a modern agricultural products logistics service system. Gradually form the backbone wholesale markets of the country as the core, supplemented by chain supermarkets and other circulation methods. Stable, orderly, large-scale agricultural product dealers as the main body of the modern agricultural product market circulation system. In the same year, the Ministry of Commerce promulgated the «Opinions on Further Doing a Good Job in the Circulation of Rural Commodities», taking the development of agricultural products logistics as the focus of the current circulation of rural commodities. In February 2014, the First document of the CPC Central Committee, Opinions of the CPC Central Committee and The State Council on Policies to Increase Farmers' Income, once again made it clear that: we will speed up the development of chain, supermarket and distribution operations for agricultural products. Encourage places where conditions permit to turn urban farmers' markets into supermarkets, support leading agricultural enterprises in opening supermarkets for agricultural products in cities, and gradually extend their networks to urban communities. We will further strengthen the construction of wholesale markets in producing and selling areas, and create conditions for the development of modern logistics. It can be seen that the CPC Central Committee and The State Council attach great importance to the logistics industry and the urgency of accelerating the development of China's logistics industry. In 2014 to further promote the development of China's modern logistics industry, as soon as possible formation change its flow. Fast on time, reasonable economy, user satisfaction of socialization, specialization of

modern logistics service system, China introduced a further eight measures to promote the development of modern logistics, the eight measures including:

- standardize enterprise registration Qian Zhi Xing approval;
- adjusting some administrative matters;
- improve the tax management of logistics enterprises;
- accelerate the introduction of competition mechanism, establish a unified open, fair competition, standardized and orderly modern logistics market system;
- strengthening charge management;
- actively promote the opening of logistics market;
- improve customs clearance environment;
- optimize traffic management of urban distribution vehicles;
- to solve the problems existing in the actual operation of logistics enterprises (Peng, 2012).

#### **4. METHODOLOGICAL ASPECTS AND SPECIFIC MEASURES TO STRENGTHEN THE GOVERNMENT'S MACRO-CONTROL OF AGRICULTURAL PRODUCTS LOGISTICS**

First, do a good job in the unified planning of agricultural circulation facilities to prevent repeated construction. Without planning, the development of the market will form vicious competition. It should encourage competition within the market and not develop competition between markets. Some markets spend tens of millions of yuan a year in competition. How much will stall operators pay you if they run a business here for a year? How much will they pay you if they sell a cart of vegetables here?

Second, we will encourage multi-channel nongovernmental funds to invest in the development of a circulation system for agricultural products. We should give priority to planning and land acquisition. It gives preferential treatment to some taxes and fees, and take various forms to encourage government. Collective and individual funds to invest in the construction of agricultural products circulation system. Encourage cross-regional development of logistics distribution and chain operation. We should reform the current management system of wholesale markets, establish an operation mechanism in which those who invest benefit.

Third, it will continue to implement the policy of bank loans and fiscal interest discount. This policy was introduced in the ninth five-year Plan and should be continued in the future. It is relatively easy for banks to make loans with discount interest.

Fourth, increase direct government input and support. The state allocates a certain amount of budgetary funds every year to subsidize the construction of agricultural product market information systems and local governments must give a certain amount of supporting funds to projects supported by the State. According to this article, in 2013, the National Development and Reform Commission issued the «Notice on Printing and Distributing the Opinions on the Implementation of the Pilot Project of Agricultural

Wholesale Market in 2013». Each province will first apply for three projects, and the state will arrange 400 million Yuan of Treasury bonds to support them. The investment plan has been handed down. We will focus on 181 projects, most of which are markets and a small part are enterprises that store and keep fresh agricultural products. The amount of state aid should be as much as 15 million, or at least 3 million. Local governments should provide funds of a certain scale, and then give support from other policies to promote construction. Support activities like this should not be done with just one pilot program, but should be intensified (Yao et al., 2012).

Fifth, expand the opening of circulation facilities. We have already made commitments in the distribution and logistics industry under the WTO treaty, and this commitment can be implemented in advance in the circulation market of agricultural products. It can promote the improvement of our management level.

Sixth, rectify the wholesale market transport link charge. A prominent problem reflected in the development of wholesale markets is industrial and commercial charges. The competent government departments should rectify the charges in the wholesale market of agricultural products, reduce the excessively high charges and cancel all kinds of illegal charges. To merge charging items, solve the problem of multi - charge. In addition, from promoting the development of modern logistics industry to charge a series of links such as research. Including highway barrier-free toll, reduce the level of toll. At present, China's highway toll accounts for 30–40 % of the value of goods, compared with foreign freight is too high. Expressways were developed, but transportation costs were too high. This is unfavorable to cross-region flow, long-distance storage, cold storage and marketing, which should be solved in policy (Guangning, 2009).

Seventh, cultivate agricultural logistics talents. The lack of talents is the biggest restricting factor for the development of agricultural products logistics in China. The lack of logistics management and management talents is seriously restricting the scientific operation of agricultural products logistics. Modern logistics is accompanied by the development of information technology and the innovation of modern logistics technology, urgent need to adapt to the development of The Times, especially to adapt to the WTO requirements of agricultural products logistics management and management of specialized talents. In the United States, many famous colleges and universities set up logistics management major, and set up logistics courses for students majoring in business administration and related majors. All logistics practitioners must receive vocational education and pass the examination to obtain the above engineer qualification before they can engage in the relevant logistics work. To solve the shortage of logistics talents in China. Only the government's education system can solve the problem. In higher education, various majors related to logistics should be set up to implement the logistics professional qualification certification system. To ensure the delivery of qualified personnel for the enterprise (Zhihui, 2007).

## CONCLUSION

This paper analyzes the supporting factors of building an optimized agricultural products logistics system. It focuses on two major factors: one is organizational factor, the other is government policy. In terms of organizational elements, the development and expansion of grain logistics organizations should first deepen the reform of the former state-owned grain enterprises. Because the competition between enterprises is

ultimately manifested as cost competition. Without a certain scale, enterprises are difficult to withstand the impact of market wind and waves.

Secondly, through capital operation, adopt the mode of joint management, equity participation, holding and restructuring. Farmers are the main body of agricultural and sideline product logistics, and the reality proves that farmers' market transaction costs are high.

Domestic and international practice has proved that it is difficult to realize the connection between the scattered farmers and the large market and circulation at home and abroad. Therefore, it is necessary to set up peasant cooperative economic organizations on the basis of farmers' willingness, organize scattered and small-scale peasant households. To improve the exchange conditions of agricultural products, form agglomeration economy of scale and obtain economic benefits of scale.

At present, the organizational form of «company + peasant household» is widely used in China. Practice has also proved that in the case of opportunistic behavior on both sides, the «company + farmer» model is difficult to achieve a win-win outcome. To improve the level of farmers organization, this paper puts forward the following measures: to develop the farmer cooperative marketing organization, organize farmers to enter the market; to develop agricultural products logistics intermediary organizations representing farmers' interests: company + agricultural cooperative + peasant household model; «company + association + peasant household» organizational model.

The government plays a very important role in the development and expansion of the logistics industry. The main role of the government is to take policy measures to guide and promote the development of domestic logistics and strengthen the macro-guidance and regulation of logistics development. The government should strengthen the following functions in the development of agricultural products logistics industry: do a good job in the unified planning of agricultural products circulation facilities to prevent repeated construction; encourage multi-channel social funds to invest in the construction of the circulation system of agricultural products; continue to implement the policy of bank loans and fiscal interest discount; increase the government's direct investment and support; expand the opening of circulation facilities to the outside world; rectify the wholesale market transport link charges; cultivate agricultural logistics talents.

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