

# Research on the Organizational Model of the Whole Agricultural Industry Chain under the Background of Rural Revitalization

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**Abstract:** Industrial prosperity is an important foundation for rural revitalization. In recent years, the entire agricultural industry chain has become an important part of my country's modern agriculture. This paper selects pilot areas of the entire agricultural industry chain with different organizational models as the research objects, and conducts in-depth interviews and questionnaire surveys with relevant government departments, enterprises and farmers in various regions. Summarizing the existing problems of the current agricultural industry chain organization model, and discovering five innovative organization models in the existing industry chain. Based on this, this article puts forward countermeasures and suggestions for extending the agricultural industry chain, such as increasing policy support, regularly training farmers, and strengthening the integration of industrial chain resources.

## 1 INTRODUCTION

Agricultural development is an important pillar of rural revitalization, and the entire agricultural industry chain is the trend of future agricultural development. Therefore, this article aims to explore the financial linkage issues in the entire agricultural industry chain, such as government financing support, financing needs of enterprises and farmers, and existing financing and lending methods, and summarize the current typical models of financial linkages in the entire agricultural industry chain and their shortcomings. Relying on this optimization of financial allocation as the goal, relevant policy recommendations are put forward based on the characteristics of the financial linkage of the entire agricultural industry chain in my country at this stage.

## 2 RISE BACKGROUND AND DEVELOPMENT STATUS

### 2.1 The Background of the Rise of the Entire Agricultural Industry Chain

At present, the No. 1 document issued by the central government in 2021 clearly states the entire

agricultural industry chain, which proposed now is a further innovation in agricultural development and a new agricultural model proposed in the context of upgrading the agricultural industrial structure and improving the quality and quantity of agricultural products in my country. It conforms to the development of the social agricultural economy, meets the needs of upgrading the consumption structure, and at the same time plays an important role in exploring the value of multiple functions of agriculture. Increasing the integration strength of the industrial chain and adding value to agricultural products can effectively promote agricultural efficiency and farmers' income, and can effectively make up for the shortcomings of China's traditional agricultural development methods. This is an inevitable choice for contemporary Chinese agricultural development. Based on national conditions, give play to the value of all aspects of agriculture, improve the level of agriculture, and build a new pattern for the development of the entire agricultural industry chain. These are also strong supports for revitalizing the modernization of rural industries.

Han Xiyan et al. (Han, Gao, Liu, 2019) used economic models to analyze the mechanism of the agricultural industry chain model to promote the circulation of agricultural products from a theoretical level. They found that the profit under the circulation

model of the whole industry chain is higher than the profit under the traditional circulation model. The agricultural product circulation model of the whole industry chain can not only improve the efficiency of agricultural product circulation, but also improve the interests of the participants in the agricultural product circulation and the welfare of consumers. With the popularization of modern technology, the "Internet +" model of the entire agricultural industry chain has attracted attention. Guofa (The State Council, 2019) No. 12 proposed to accelerate the construction of the entire industry chain and the entire value chain. Subsequently, the "Digital Agriculture and Rural Development Plan (Ministry of Agriculture and Rural Affairs 2019-2025)" proposed to accelerate the construction of big data in the entire agricultural industry chain. Since then, various departments have actively responded to the "Guiding Opinions of the Ministry of Agriculture and Rural Affairs on Accelerating the Cultivation and Development of the Whole Agricultural Industry Chain" (Ministry of Agriculture and Rural Affairs 2019-2025), clarifying the concept of the entire agricultural industry chain. So far, the entire agricultural industry chain not only has many advantages in theory, but also has the inevitability of development in policy.

## 2.2 Classification of the Organization Model of the Entire Agricultural Industry Chain and the Development of Each Type

### 2.2.1 Classification of Existing Organizational Models

Based on Wu Fengchao's Research on the Whole Industrial Chain Strategy of Chinese Agricultural Enterprises (Wu 2014), the classification of industrial chain organizations is divided according to different industrial chain promoters (core enterprises). Mainly divided into four types.

1. Leading enterprise-driven. Its promoters are "leading enterprises" whose main industries are agricultural product processing, logistics, and commerce. Its basic structure is "company + farmer" and "company + base + farmer".

2. Intermediary organization. Its promoters are cooperative economic organizations. Agricultural cooperative economic organizations (also known as agricultural cooperatives) are an organization model in which farmers voluntarily join and engage in agricultural economic activities through joint operations through the principles of mutual assistance and democratic management.

3. Professional market-driven. Its promoters are various regional agricultural product markets engaged in the distribution of agricultural products, especially professional wholesale markets. Its basic structure is "professional market + base + farmers". Farmers can directly face the market for production, which is conducive to driving the development of the local regional agricultural economy in the direction of scale and specialization.

4. Other types. Other types of industrial chain organizations mainly cover the agricultural industrial chain organization model that is formed by agricultural comprehensive enterprises, agricultural services at all levels, scientific research and education and other institutions as the core to provide farmers with socialized services.

### 2.2.2 Various Types of Problems

This study selects the first three types of enterprises in the entire industry chain with the largest market share to conduct research on financing mechanisms through on-site investigations, online and offline interviews, and questionnaires. Several problems were also found in the interviews with the first three types of enterprises in the entire industry chain that accounted for the largest proportion.

① There is a shortage of labor, and the surplus labor has a low level of education. At the same time as cities are developing rapidly, many young and middle-aged people in rural areas generally enter cities to work. The loss of rural labor force leaves the labor force with weak learning ability and cannot meet the required standards for production.

② The land utilization rate is low, and the demand for professional households is vacant. Due to the shortage of young labor, land management rights cannot be effectively used. At the same time, the needs of large professional households to expand the planting area and professionally grow agricultural products cannot be met. In response to this problem, such as Guangxing Town, lease land management rights to major professional households, rural surplus labor is hired, and the needs of professional households are also met, in order to achieve the best of both worlds, but there are few good results.

③ Lack of risk prevention awareness and ability of major professional households, and lack of insurance models such as compensation for agricultural losses caused by natural risks in the local area. Agricultural production is very threatened by natural disasters and the losses are heavy.

④ The land use is not scaled up, and it is still a small-scale peasant economy, which seriously hinders China's agricultural modernization.

⑤ Agricultural enterprises have a single source of funds, making financing difficult and not stable.

⑥ The level of agricultural machinery is low, and labor costs are high. Agricultural mechanization is low, requires a lot of labor, financing is not easy, and funds are limited, and it is difficult to support expensive labor costs.

### **2.3 Overview of the Innovative Organization Model**

According to the actual research situation, we have discovered five new organizational models.

1. Rent farmer's land for base planting. Uniformly rent farmer's fields to realize large-scale planting in the base, and hire farmers as planters to pay fixed wages.

2. Cooperate with farmers according to the production schedule. The company formulates a production schedule every year, negotiates with the local cooperative about the amount of supply it can provide, and then signs a purchase and sale contract with the cooperative.

3. Sale of goods on mortgage. The farmers mortgage the goods to the enterprise, and the enterprise gives a certain purchase price and guide price to drive sales. At the same time, the enterprise mainly inspects the output of farmers, comprehensively considering their basic qualities and cultural literacy. Invite a small number of large agricultural households to invest in shares with a small amount of capital to ensure smooth and accurate information between farmers and enterprises. In this way, it is convenient to comprehensively consider the situation and interests of farmers to determine the purchase price.

4. Regular acquisitions at low prices. The farmers mortgage the goods to the enterprise, and the enterprise gives a certain purchase price and guide price to drive sales. At the same time, the enterprise mainly inspects the output of farmers, comprehensively considering their basic qualities and cultural literacy. Invite a small number of large agricultural households to invest in shares with a small amount of capital to ensure smooth and accurate information between farmers and enterprises. In this way, it is convenient to comprehensively consider the situation and interests of farmers to determine the purchase price.

5. "Company + Farmers" Substitute Raising. The company signs the "Entrusted Breeding Contract"

with the surrogate households. According to the contract, the company is responsible for providing inputs such as swine seedlings, feed, vaccines, and medicines to the surrogate farmers. In accordance with the contract, the pigs will be recycled. At the same time, the company will pay the maintenance fees to the surrogate households in accordance with the contract.

## **2.4 Other Circumstances**

### **2.4.1 Leading Enterprises and Agricultural Cooperatives are the Main Ways for Agricultural Entities to Join the Entire Industrial Chain**

The survey found that nearly half of agricultural entities participate in the entire industry chain by directly signing contracts with leading enterprises. 21.13% joined agricultural cooperatives, 14.08% signed contracts with professional wholesale markets or purchasers, and 16.9% joined the entire industry chain through self-operated companies. For most agricultural business entities, leading enterprises and local cooperatives still have a higher reputation. It can be seen that in the future, to further promote the entire agricultural industry chain, we can start with leading enterprises and local cooperatives.

### **2.4.2 Financing Advantages of Enterprises Across the Industry Chain**

Qualified leading enterprises can enjoy government discount loans for agricultural industrialization operations. According to the principle of territoriality, the project shall be declared to the county-level branch of the local Agricultural Development Bank and the county (city) agricultural development agency. The interest subsidy adopts "one-time approval and annual interest discount". Determine the loan period and discount period according to the project construction period and the company's ability to repay.

### **2.4.3 Government Support for Enterprises Across the Industry Chain**

Apply for government agricultural support funds, and submit materials such as budgets for infrastructure (roads, field operations, water pipes, soil improvement, etc.) that need subsidies. After the evaluation and inspection, the successful audit can get a 1:1 funding subsidy. Companies need to spend the same amount of money for other improvements;

Apply to the government for material subsidies, and the government will distribute them according to the results of the examination and approval after unified purchase; Apply to the government for organic fertilizer subsidies and submit a budget list. After the experts approve, the government will subsidize them later; Operators of agricultural industrialization can enjoy the government discount loan policy; The government set up a platform to encourage enterprises and universities to establish production-education-research bases; The government selects, breeds and provides seedlings for the planting base.

### 3 CONCLUSIONS AND RECOMMENDATIONS

This paper conducts in-depth interviews and questionnaire surveys with relevant government departments, enterprises and farmers in pilot areas of the entire agricultural industry chain with different organizational models. Discovered five innovative organizational models in the existing industrial chain, ways for farmers to join the entire industrial chain, and policy preferences for enterprises throughout the industrial chain. Based on this, this article puts forward countermeasures and suggestions for extending the agricultural industry chain, such as increasing policy support, regularly training farmers, and strengthening the integration of industrial chain resources.

#### 3.1 Increase Policy Support

Government investment can not only bring capital to a region, but also technology, products, markets, and management methods. At the same time, industrial chain investment is easy to form industrial chain clusters, optimize configuration, reduce operating costs, and improve efficiency. Local governments sign investment cooperation contracts with external companies, and they should actively assist companies in applying for projects to relevant higher-level departments and strive for special funding support. Assist in handling project-related administrative permits, simplify procedures, and implement preferential subsidies for all links of the industrial chain. At the same time, the government can coordinate with relevant financial institutions to help promote poverty alleviation industry financial products, and escort the financing of all participants in the entire industry chain.

#### 3.2 Strengthen Communication and Regularly Train Farmers

The government can regularly go to the grassroots level to understand the needs and problems of farmers, and guide farmers to the entire agricultural industry chain. Starting with leading enterprises and local cooperatives, we will further promote the entire agricultural industry chain, and help farmers understand the relative advantages of the industry chain system and the necessary conditions to take advantage of this advantage.

#### 3.3 Strengthen the Integration of Industrial Chain Resources

The scale effect of agricultural production has not been brought into play, the major agricultural households are not professional enough, the level of mechanization is low, and the risk awareness is weak, which led that China's agriculture is at the initial stage of the development of the industry chain. Under this circumstance, leading agricultural enterprises with a certain degree of operational strength are conducive to leading the integration of the agricultural industry chain, and at the same time conducive to the larger and stronger agricultural enterprises themselves.

At the same time, different industrial chains should be suitable for different organizational models in different situations. According to local characteristics, actual conditions, and the characteristics of their own products, they should decide what organizational model to achieve the integration of the entire industrial chain.

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### REFERENCES

- Han Xiyan, Gao Zhifeng, Liu Wei. The mechanism of the whole industry chain model in promoting the circulation of agricultural products: theoretical models and case studies[J]. *Agricultural Technology and Economy*, 2019(04): 55-70.
- Ministry of Agriculture and Rural Affairs. Guiding opinions of the Ministry of Agriculture and Rural Affairs on accelerating the cultivation and development of the entire agricultural industry chain [Z]. 2021-05-26.

Ministry of Agriculture and Rural Affairs. The Office of the Central Cyber Security and Informatization Commission's Notice on Printing and Distributing the "Digital Agriculture and Rural Development Plan (2019-2025)". 2020.

The State Council. Guiding Opinions of the State Council on Promoting the Revitalization of Rural Industries [Z]. 2019-06-28.

Wu Fengchao. Research on the Whole Industry Chain Strategy of Chinese Agricultural Enterprises [D]. Shanghai Academy of Social Sciences, 2014

