

Research on the Organizational Forms and Development Status of Anhui's Agricultural Industrialization Management

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Abstract: Agricultural industrialization is an important measure to promote the modernization of agriculture and promote the effective supply of agricultural products in the society, revealing the relationship between agricultural industrialization and the relationship between agriculture and related industries. Based on the statistical data of agricultural industrialization in the 16 prefecture-level cities in Anhui Province, this article analyzes and evaluates the development of agricultural industrialization based on the form of agricultural industrialization management organization, and puts forward corresponding suggestions for the existing development pain points, with the intention to provide policy enlightenment for the sustainable development of agricultural industrialization in Anhui Province.

Keywords: Agricultural industrialization, Organizational business form, Cooperative, Agricultural industry chain

1. Introduction

Agricultural industrialization is essentially the implementation of technological changes to traditional agriculture, through the advancement of agricultural science and technology to promote the progress of agriculture and its related industries, and the self-development of agriculture in modern business methods and industrial organization forms. In the early 1990s, the business model of agricultural industrialization emerged in China, and now it has basically realized the form of intensive production.

Domestic scholars' research on agricultural industrialization is mostly based on the consideration of theories and systems, and the reference of foreign research results, combined with current political methods to conduct more in-depth research on theoretical issues. Gang Wang (2009) established a more comprehensive evaluation system by applying principal component analysis, grey evaluation, artificial neural network and other methods to construct a method set;^[1] Hogeland (2015), through the relationship between agricultural industrialization and industrialization, considered that agriculture's resistance to industrialization has led to excessive commitment to open markets;^[2] Mingxian Li (2019) took the primary, secondary and tertiary industry integration interest linkage led by farmers' professional cooperatives as the research object, clarifying the main tasks of the interest linkage mechanism to complete farmers' income increase.^[3] The current research on the forms of agricultural industrialization management organization mainly focuses on the comparison of different forms, and agricultural industrialization is essentially an institutional innovation of the production model of agricultural organizations. This article aims to summarize the main organizational management forms of agricultural industrialization in Anhui Province and point out its development pain points, in order to provide a theoretical basis for its form and system innovation, by combining the latest policies.

2. Agricultural Industrialization Organization Management Form of Anhui Province

2.1 Leading enterprise-led type—"Enterprise (+ Base) + Farmer" model

Contract agriculture is a new type of agricultural production and management model that emerged in recent years. Farmers sign orders and organize production of agricultural products based on themselves or their rural organizations and purchasers of agricultural products. One party signing the contract is the enterprise, and the other party is the farmer or farmer group representative.

According to statistics from the Department of Agriculture and Rural Affairs of Anhui Province, the number of provincial key leading enterprises in agricultural industrialization in Anhui Province totalled

999 in 2020, of which 301 were newly identified this time. Among the 16 cities in Anhui Province, Anqing accounted for 104, which occupied the largest proportion; cities such as Tongling, Chizhou accounted for the smallest amount.

Leading enterprises can take the lead in introducing advanced production factors, and transfer agricultural production from material factor inputs to intensive production of capital and technology. Leading enterprises are the bridge connecting small-scale farmers and large markets. With contract agriculture, farmers possess the right to operate, but the right to use lies with the enterprise. Some enterprises provide specialized agricultural production bases and production technical guidance. This not only avoids the imbalance of market supply and demand caused by farmers' blind planting, but also promotes the process of production standardization. Contract farming is generally regarded as an effective way to promote agricultural industrialization and increase farmers' income.

2.2 Social Organization Linkage—"Enterprise + Social Organization + Farmer" model

The linkage of social organization is to establish a connection between enterprises and farmers through social organization as a bridge, and is a further development and evolution of the division of social specialization. The contract between the enterprise and the farmer is market-oriented and risky. The contract is signed before the farmer actually plants. There is a long period of production during the execution of the order. The integrity of the contract often determines whether the contract can be fully fulfilled, but cannot be enforced with rigid standards.

The emergence of social organizations brings together a large scale of small-scale farmers and guides them to develop specialized production to meet the needs of the enterprise's products. It is the contact and supervision of both farmers and enterprises. The emergence of social organizations as the role of "intermediary" has avoided more direct contact between enterprises and farmers, thereby alleviating the positive conflicts of interest between enterprises and farmers.

2.3 Cooperative integration type—"Cooperative + Cooperative" model

Cooperatives are a self-sustaining organization that voluntarily joins in cooperative production and operation. Cooperatives can be divided into production cooperatives, circulation cooperatives, credit cooperatives and service cooperatives, according to the production links. A single cooperative can only be responsible for a certain part of the production and supply chain links, but cannot take care of all links. The "Cooperative + Cooperative" model unites cooperatives, develops cooperative associations, and forms an integrated operation. In addition, farmers can participate in cooperatives, return profits and share dividends according to the transaction volume,^[4,5] realize the value-added of agricultural products and protect the income level of farmers.

The integration of multiple business organization forms such as "Enterprise (+ Base) + Farmers", "Enterprise + Social Organizations + Farmers", "Cooperatives + Cooperatives", etc. forms a modern agricultural industry consortium.^[6] In Yongqiao District, Suzhou, Anhui Province, the Huihe Grain Industry Consortium is led by Huaihe Seed Industry Co., Ltd., with Huaihe Seed Industry Co., Ltd. as the leader, with 13 professional farmer cooperatives such as Huaihe Agricultural Machinery, Huaihe Plant Protection, and Runhe Water Conservancy as the link, and 27 family farms such as Zhou Maofeng and Zhu Chao as the foundation; which forms a new type of integrated agricultural business organization alliance with clear division of labor and close linkage of interests among various business entities.

3. Pain Points of Anhui's Agricultural Industrialization Organization Management and Development

3.1 The relatively weak chain development structure

From an external point of view, China is currently facing an increase in comprehensive production and operating costs, and a gradual weakening of its comparative advantages. It is facing the dual superimposing effects of industrial transfer and passive production capacity migration. From an internal point of view, Chinese industrial foundation is relatively poor, and the core technology of specialized production is constrained by others; it lacks control and influence over key resources, market advantages, and industrial chains.

3.2 Difficulty in financing

Financing difficulties have always been one of the tough obstacles to the development and growth of cooperatives. Large-scale cooperatives can raise funds by attracting external financial support and bank loans, while small-scale ones have difficulty in raising funds, lack of collateral and investment attraction, which limit the expansion of its production scale.

3.3 More significant two-level differentiation

Although the cooperative is an organization form of voluntary association, the polarization phenomenon is more serious in the actual operation process. Cooperatives with closer cooperation can cooperate closely throughout the entire production, supply and marketing process, but there are still many cooperatives that only participate in individual links. The cooperation is less subjective and the efficiency of information circulation is relatively low.

4. Suggestions for the development of agricultural industrialization

4.1 Improving the basic capabilities of the industry and enhancing the resilience of the industrial chain

On the whole, Chinese industrial chain is complete, and the upstream and downstream industries have strong supporting capabilities; but the industrial infrastructure is weak, and the resilience of the industrial chain needs to be enhanced. The enhancement of the resilience of the agricultural industry chain needs to achieve: the core production technology in the production and cultivation stages of the key links of the industry chain can be independently controllable, in terms of industrial technology; the support and integration of technology, capital, resources, and talents, in terms of element support; strong integration capabilities and timely resource allocation and information docking possessed by leading enterprises or cooperative economic organizations, in the supply system.

4.2 Innovate financing channels and new professional farmers cultivation

In response to financing difficulties, the provincial government can sort out the loan needs of rural households, agricultural machinery-related enterprises and other entities in each city's agricultural and rural departments. In particular, it should drive the demand for liquidity of farmers. Through batches, the list of agricultural business entities that need key support should be determined, and policies such as preferential re-lending policies and deferred debt and interest payments should be implemented to promote the precise and rapid investment of funds.

Cultivating new types of professional farmers is actually solving the problem of "who will farm the land". Different from traditional farmers, new professional farmers receive a certain level of education, they have professional agronomy or agricultural technology, and can be quickly used in actual agricultural production activities. New types of professional farmers can open up new channels, use online new retail platforms, live broadcast and other modes to carry out online sales, and actively explore new channels. In addition, new professional farmers must not only possess certain personal capabilities, but also help traditional farmers understand new policies, master new technologies, establish new ideas, and form substantive assistance in the form of "pairs".

4.3 Enlarging the scale of farmer households' operation and giving play to the advantages of economies of scale

Increasing returns on scale is the driving force for farmers to expand the scale of production and operation, and giving full play to the advantages of scale is the main content of innovation in the form of business organization.^[7] The internal return to scale is to allow farmers to carry out mass production and to provide agricultural production efficiency; the external return to scale is due to the advantages of economies of scale obtained by the mass production of farmers, allowing them to increase their market share, which can be used in the entire market. There are more bargaining chips in the industry chain to share more economic benefits. However, in order to obtain the advantages of economies of scale, farmers need to obtain the most suitable scale of operation under the existing productivity and technical conditions, rather than ignoring objective conditions and continuing to expand the scale.

5. Conclusion

As the development of agricultural industrialization in Anhui Province has entered a new stage, the organizational form of agricultural industrialization management focuses more on the integration of elements between and within each business entity. Compared with the fragmentation and blindness of traditional agriculture, the modern agricultural industrial complex currently explored and established is a further manifestation of specialized division of labor. As a whole, it emphasizes more on the connection and resilience of the industrial chain; partially, it stresses the cultivation of new professional farmers and the expansion of financing channels, and takes advantage of economical scale to promote the development of modern agricultural industrialization.

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