Study on Development Capability of Small Farmer Cooperative Organization in Rural Revitalization

Guosheng MA\textsuperscript{a}, Juan CHEN\textsuperscript{b}

\textsuperscript{a} Technology and Industry Office, Suzhou Polytechnic Institute of Agriculture, Suzhou, Jiangsu, 201008, P.R.China, goshinema@163.com

\textsuperscript{b} School of Landscape Architecture, Suzhou Polytechnic Institute of Agriculture, Suzhou, Jiangsu, 201008, P.R.China, 39340830@qq.com

Abstract. As one of the most common small-scale farmer cooperative organization, farmers' professional cooperatives play an important role in rural revitalization. On the basis of field investigation, this paper objectively analyzes the development status of farmers' professional cooperatives in Taicang City, especially focusing on the organizational form and structural characteristics of farmers' professional cooperatives. Taking Taicang Fengyuan Farm as an example, this paper expounds the development ability of farmers' professional cooperatives to rural revitalization from three aspects: strong agriculture, beautiful rural and farmers' wealth. The rationalization proposals for serving rural revitalization strategy by farmers' professional cooperatives are put forward. It is proposed that farmers' professional cooperatives can realize the organic connection between small-scale farmers and modern agricultural development.

Key words: Small farmer cooperative organization; Rural revitalization; Development ability; Small-scale farmers.

1 Introduction

The state proposes to implement the rural revitalization strategy, and by 2050, it will fully realize the goals of strong agriculture, beautiful rural areas and wealthy farmers\textsuperscript{[1-2]}. However, the reality is that China's agriculture will remain dominated by small-scale farmers for a long time to come\textsuperscript{[3-4]}. It is difficult for small-scale farmers who are not organized to connect with the development of modern agriculture and cannot promote the implementation of the rural revitalization strategy. Therefore, in order to fully realize rural revitalization, it is necessary to solve the problem of the organization of small-scale farmers.

Farmers' professional cooperatives, as a form of cooperative organization for small-scale farmers, are farmers’ mutual economic organizations encouraged by the state\textsuperscript{[3]}. The Taicang City Farmers Professional Cooperative, which is developed in the production practice, not only improves the organization of small-scale farmers, but also effectively promotes the rural revitalization and development of Taicang.

2 Development status of farmers' professional cooperatives in Taicang

2.1 Organizational form

The establishment of the organization is based on the pursuit of common interests, and the same is true for farmers’ professional cooperatives\textsuperscript{[5]} Taicang Farmers' Professional Cooperative is an economic cooperative organization based on rural household contract management, whose members are the main service objects, providing services such as purchasing of agricultural means of production, selling, processing, transportation, storage of agricultural products, and related technology and information of agricultural production and operation. Different from the traditional rural economic organizations, it is mainly composed of farmers who have the right to contractual management of rural land. After the farmers join the cooperatives, the nature of the land contracted by households will remain unchanged, and the status of independent production and management of land will remain unchanged.

Corresponding author: CHEN Juan.
2.2 Structural characteristics

2.2.1 The number is numerous with complete variety
In recent years, farmers' professional cooperatives in Taicang have sprung up like mushrooms. According to the data of the industrial and commercial departments, there were 502 farmers' professional cooperatives in the city in 2014, including 13 cooperatives. The business scope included poultry, fruits, vegetables, aquatic products and other industries and varieties. The number of farmers was 82,171. After several years of standardized development, cooperatives have been changing to standardization and branding. By 2017, there were 168 normative farmers' professional cooperatives in the city, including 4 cooperatives and 56,086 farmers.

2.2.2 The subjects are diverse with full coverage
Divided from the subject, the establishment of Farmers' Professional Cooperatives in Taicang mainly includes village collectives, large households, enterprises, capable people and social organizations. The services range from the initial provision of capital, labor, technology and information services to the current provision of pre-production production, mid-production technology, post-production sales services, covering production, processing, sales and other fields. From the perspective of production links, it covers pre-production, mid-production, post-production and other aspects. From the perspective of industry types, there are production, processing, sales, and service types, with full coverage of primary, secondary, and tertiary products.

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| Table 1 Types and Distribution of Farmers' Professional Cooperatives in Taicang |
|-----------------------------|-----------------|----------|
|                             | Small class     | Quantity | proportion |
| Cropping                    | Cooperative farm| 86       | 51.2%      |
|                            | Vegetable and fruit planting| 20 | 11.9% |
|                            | Grain planting  | 3        | 1.8%       |
|                            | Herbal medicine planting | 3 | 1.8% |
| Aquaculture                 | Aquaculture     | 6        | 3.6%       |
| Combination of planting and breeding | Comprehensive cultivation and breeding | 7 | 4.2% |
| Integrated service         | Agricultural machinery service | 31 | 18.5% |
|                            | Greening Service | 10 | 6.0% |
|                            | Soil and Fertilizer Service | 1 | 0.6% |
|                            | Labor service   | 1        | 0.6%       |

3 The ability of farmers' professional cooperatives to achieve strong agriculture

3.1 Promoting the scale development of agriculture
Taicang City has dense rivers and large populations. The secondary and tertiary industries are developing rapidly, land resources are scarce, and farmland distribution is scattered. Farmers' Professional Cooperatives can not only realize the sharing of land resources, but also realize the sharing of agricultural facilities and equipment and reduce the production costs of small-scale farmers. Through the provision of unified services by cooperatives, small-scale farmers can better improve agricultural labor productivity, land output rate and comprehensive agricultural benefits. At the same time, under the unified service, small-scale farmers can make more accurate production arrangements based on market information, control product quality, and form scale agricultural production.

3.2 Promoting diversified development of agriculture
In addition to the basic production and sales functions, Taicang Farmers' Professional Cooperatives can also develop ecological agriculture, sightseeing agriculture, tourism and leisure agriculture and other diversified agriculture. In recent years, the development of agricultural products processing and rural tourism has become an important trend in the development of agricultural professional cooperatives in Taicang, extending...
the agricultural industry chain, and promoting the integration of agricultural primary, secondary and tertiary industries.

Taicang Fengyuan Farm Professional Cooperative takes rice, wheat and other crops as the leading industries in accordance with the advantages of location and natural resources and the development concept of "ecology, production and life". At the same time, the cooperative develops high-efficiency recirculating aquaculture, Metasequoia + February eco-tourism forest and aquatic flower sightseeing park, and develops rural tourism and leisure tourism services such as leisure fishing, farming experience, and rural tourism, and promotes the diversified development of local agriculture.

3.3 Promoting the development of agricultural standardization

In order to improve service quality and efficiency, Farmers' Professional Cooperatives have unified production management system and promoted the development of agricultural standardization. Taicang Fengyuan Farms’ Professional Cooperative carries out "six unifications" for farmers who have joined it: unified seedling supply, unified operating procedures, unified agricultural supplies, unified technical service guidance, unified trademarks, and unified sales.

The cooperative provides high-quality grain seedlings to the members of the cooperative, provides the unified technical guidance to the farmers who join the cooperative, formulates a series of operation rules of planting technology according to local conditions, establishes an integrated agricultural chain supermarket, and implements the unified distribution of agricultural materials.

The farmer entering the cooperative shall hand over the agricultural products according to the entrustment contract, and the cooperative shall uniformly sell the products. The production management system of the "six unifications" effectively promotes the development of agricultural standardization, reduces production and transaction costs, and increases the output per unit area.

3.4 Promoting the development of agricultural branding

Brand development is the basic requirement of modern agricultural development, which is conducive to the formation of agricultural industrialization, the transformation of agricultural development mode and the promotion of market competitiveness, and speeds up the realization of agricultural efficiency and farmers’ income. The Farmers' Professional Cooperatives in Taicang generally adopt the model of one village with one brand, enhance the brand status and economic benefits of cooperatives in the market competition, and promote the development of agricultural branding.

For example, Taicang Fengyuan Farmer’s Professional Cooperative on the production of high-quality rice, special taro, fresh vegetables and fruits and other agricultural by-products in the sale of a unified use of the "Dulou Brand" trademark has become an important means to promote the transformation of traditional agriculture to modern agriculture.

4 The ability of farmers' professional cooperatives to achieve beautiful rural

4.1 Promoting rural environmental governance and eco-livable rural construction

Good ecological environment is the greatest advantage and precious wealth of rural areas. On the one hand, in the comprehensive improvement of rural environment, Farmers' Professional Cooperatives can undertake the government's implementation of the project, for members of cooperatives and other peasant households to clear rural garbage, as well as overall planning of landscape, forests, fields, lakes and grasses system management, carry out harmless sanitary toilet renovation, rural sewage treatment, village appearance beautification and other related construction and maintenance work. On the other hand, Farmers' Professional Cooperatives unify the market-oriented and diversified ecological compensation mechanism, increase the supply of agricultural ecological products and services, and promote the healthy development of ecology and economy.

The Farmers' Professional Cooperatives in Taicang City have undertaken the construction and implementation of some ecological protection projects such as land greening, straw resource utilization, livestock manure management and fertilizer production, green prevention and control of pests and diseases, soil pollution control and restoration, and ecological recycling agriculture. Almost all village cooperatives have carried out rural ecotourism services more or less.
4.2 Becoming a bridge between the government and farmers

Farmer’s Professional Cooperatives have the function of the bridge linking up and down. On the one hand, in view of the problems in the process of farming and breeding and the difficulties in various aspects of economic life, Farmers' Professional Cooperatives can be timely, efficient and rational transmission to the relevant departments, so that the government can more directly understand the wishes of farmers, have a higher status in talking with the government, and can better achieve their wishes. On the other hand, through professional cooperatives, the government can better understand the needs of farmers. In the countryside, there are many veteran farmers with deep qualifications and rich experience. They try to give feedback to the government through cooperatives, which can help the government to make decisions. Third, the government’s policies have been implemented through Farmers’ Professional Cooperatives. For example, government subsidies are applied for the purchase of agricultural machinery and equipment and the transfer of land to the cooperative; agricultural products produced by the cooperative are free of value-added tax; power consumption of grain drying equipment is carried out from low price according to the agricultural production power; and bonus subsidies are given to the demonstration cooperatives.

4.3 Promoting democratic management and improving the political system in rural areas

Farmers’ Professional Cooperatives are economic cooperation organizations voluntarily joined by small-scale farmers. The development of Farmers’ Professional Cooperatives is conducive to the construction of the system of rural political development and the establishment and improvement of a democratic management system in which villagers' meetings are the main form. Under the supervision of relevant departments, Farmers' Professional Cooperatives ensure the legality of villagers' regulations and contracts, and ensure the openness, fairness and just of the procedure formulation and practical operation. From the perspective of the development of Taicang Farmers' Professional Cooperatives, the management of cooperatives is based on the democratic management principle of "voluntary entry and free withdrawal". It can help farmers form the habit of democratic management, increase villagers' awareness of democratic management, improve villagers' democratic decision-making ability, and improve the basic rural management system.

5 The ability of farmers' professional cooperatives to achieve farmers' wealth

5.1 Protecting farmers' dominant position in market transactions

As an organization to participate in market transactions, Farmers' Professional Cooperatives can effectively protect the interests of farmers and improve the status of farmers in market transactions. Taicang Fengyuan Farms Professional Cooperative is a village-level farmers' professional cooperative established by 1046 members of Yongfeng Village. Through professional cooperative organizations, more than 1,000 scattered small-scale farmers can jointly find a marketing market, avoiding the shortcomings of a single farmer with small scale and few resources. At the same time, through the joint purchase of production materials, the purchase price is reduced, the production cost is saved, and the resource sharing is realized.

5.2 Raising farmers' income and employment opportunities

Agricultural workers in Taicang are generally over 50 years old and have low education level. Through professional cooperatives, it is possible to carry out targeted training for small-scale farmers, promote villagers to change to new professional farmers, and solve the problem of reemployment of landless farmers. Taking the Professional Cooperative of Fengyuan Farm in Taicang City as an example, more than 1,000 farmers in the village volunteer to join it and obey the cooperative management system of the farm. Through land circulation, professional cooperatives have implemented the collective management mode of "large contracting, small contracting" and formulated a set of "sub-director" entrusted management mechanism. In strict accordance with the regulations, the cooperative employs land-losing farmers and conducts year-end dividends according to the farm's current year's operation, which not only solves the employment problems of farmers, but also brings economic benefits to farmers.
6 Conclusion

The Farmers' Professional Cooperatives are specialized, market-oriented and socialized organizations that connect small-scale farmers, and have an important role in promoting the comprehensive realization of strong agriculture, beautiful rural areas and wealthy farmers. Farmers' Professional Cooperatives have the characteristics of stages. Further practice and exploration are needed to make their development more in line with the actual needs of rural revitalization.[5] The first is to do a good job in publicity and service, making farmers understand the nature, function and operation mode of professional cooperatives, and carry out regular training. The second is to improve the operating mechanism of cooperatives. Government departments should guide the development of cooperatives, establish and improve internal management systems, and study and solve problems that arise during the development process. The third is to increase policy support. While implementing the existing preferential policies of the country, the Farmers' Professional Cooperatives will be given certain assessment awards.

The two important attributes of farmers' professional cooperatives are mutual assistance and economy. [5] As a key rural city, the development of farmers' professional cooperatives in Taicang City has achieved good results. However, under the premise of household contract operation, land is difficult to concentrate, labor force is in short supply, farmers are older, professional quality are lower, and information transmission is slow. Production and marketing are difficult to combine and cooperatives are also dominated by village collectives, agricultural enterprises and elite figures. The cooperatives dominated by the rural elites form a kind of exclusion to small-scale farmers, which makes it difficult for small-scale farmers to truly share the operating results of the cooperatives [5]. Therefore, it is important to focus on the integration of small-scale farmers through Farmers' Professional Cooperatives and to solve the restrictive problems of the organic connection between small-scale farmers and modern agricultural development.

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