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Research on Contractual Model Selection of Farmers' Cooperatives——A Case Study of Production and Marketing Cooperative of Sweet Pomegranate in Mengzi, Yunnan

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Abstract In the perspective of new institutional economics, we regard farmers' cooperatives as a "contractual set" integrating a series of long-term contractual relations, and transform the selection problem of organization forms into selection problem of contractual model within organization. By the theoretical framework of Transaction Cost Economics, we analyze the formation mechanism and determinant factors of contractual model of different farmers' cooperatives and conduct case study on Production and Marketing Cooperative of Sweet Pomegranate in Mengzi, Yunnan. The results show that selecting contractual forms of cooperatives is the result of weighing many factors; new organization model or contractual arrangement is complementary to the former system arrangement; the selection of cooperatives model is an important factor impacting cooperation efficiency and stability of organization. One organization model with efficiency not only hinges on the transaction characteristic of organization, but also considers the compatibility with exterior transaction environment. In the process of selecting contractual model, we should conform to objective evolving law, but not be in thrall to a certain given form.

Key words Farmers' cooperatives, Organization model, Contractual selection, Transaction cost, China

Farmers' cooperative, on one hand, refers to a certain contractual form of farmers' mutual economic relations, or the system arrangement of farmers' production, distribution, exchange, and consumption; on the other hand, refers to the action group organized in order to consolidate farmers' benefit^[1]. The collective actions are adopted for consolidating farmers' benefit, such as the basic model of cooperative including cooperatives, agricultural associations, "company + farmers" and so on. In the process of innovation and reform of cooperatives, the main body of all interests in the organization always conducts differentiated behavior selection on system model of organization in order to make it become the operating state suitable to organization objective, according to the practical state and system structure at different historical stages. If we regard a cooperative as "contractual set" integrating a series of loose or tight contractual relations, then the selection of organization form, in fact, is the selection of contractual model within organization. The selection of cooperatives will be an important factor impacting cooperative efficiency and cooperative stability. Based on this viewpoint, the research uses the theoretical method of transaction cost economics to analyze the forming mechanism of contractual model of farmers' cooperatives, and conduct case study on Production and Marketing Cooperative of Sweet Pomegranate in Mengzi, Yunnan, which aims to further unravel the internal evolving law of development of farmers' cooperatives and future developmental tendency.

1 The selection of contractual model of farmers' cooperatives

The transaction cost economics holds that in the process

of the mutual matching of transaction characteristics and transaction organizations, how to choose the most efficient transaction organization, hinges on the full consideration of multiplex combination exclusiveness, uncertainty, and transaction frequency of capital. In the process of this full consideration, the exclusiveness of capital has the biggest impact. In terms of the logical perspective of economic organization, when the degree of exclusiveness of capital is promoted increasingly, it needs to guarantee contract, resulting in many different contractual structures. In terms of farmers' economic unification, we should not only consider decreasing the cost of establishing organization, but also pay attention to keeping the long-term cooperative relations. If we regard the first problem as the problem of transaction cost, and the second problem exclusiveness of capital, after giving full consideration to the two factors, the farmers' unification mainly includes "company + farmer", professional association, cooperatives and integrated enterprises (Fig. 1)^[2].

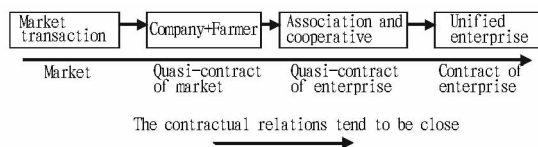


Fig. 1 Contractual model of farmers' economic unification

In the light of transaction cost and exclusiveness of capital, the quasi-market contract of "company + farmer" is an easy model we are familiar with. But being that in this model, the company is faced by scattered farmers. The two parties of transaction have not so close a relationship, and the performance of the contract is based on moral constraint, lacking the mechanism of restriction. So, the risk of transaction cost and

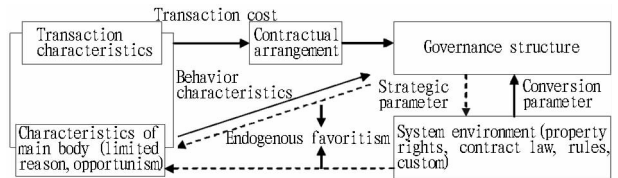
exclusiveness of capital is high and the investing incentive mechanism is not well developed. On the contrary, the unified enterprises, as the "organization form of final means"^[3], try to make scattered farmers become employees of company, in order to establish a kind of management model of enterprise. In comparison with the model of "company + farmer", although it saves the coordination cost of two parties of transaction, and avoids insufficient incentive of special investments in relations of incomplete contract, this model has high requirements on system environment, and too much cost of supervision and management is needed within organization, so compared with the model of association or cooperative, the operation cost of unified enterprise is still high.

The association and cooperative are the quasi-enterprise contract between the two. Because the two models use the consanguineous and geographic relations of the unification of villages, so members don't need to conduct the role transformation in unified enterprises, and have stronger affection for organization, which reduces the coordination cost among members. As for the association, although the coordination cost is low, due to the relatively loose internal relations, it cannot avoid the risk brought by special assets, so the incentive cost is high and the contractual relations are not stable. The system design of cooperatives can better solve this problem. By means of buying a share and returning profit, the cooperatives establish the close relationship among members, and close relationship between members and organizations, so as to unite interests, reduce the risk of special assets and promote the internal cohesion of organizations.

2 The determinant factors of contractual model selection of farmers' cooperatives

In the perspective of contract, at the initial stage of cooperatives, the review and choosing of main body of many interests on organization forms, in nature, are the review and choosing on the contractual types within organization. Consequently, the problem we should further consider is that in the process of transaction, what factors determine the formation of contractual model of cooperatives. New institutional economics holds that in the process of transaction, all dimensions which form transaction characteristics will match with transaction organizations mutually under different conditions. The combination of practical transaction dimensions is random and complex, which will take on various kinds of distribution states. How to choose the most efficient transaction organization with the lowest total transaction cost hinges on the all-around weighing of all factors^[4]. So, in terms of one economic organization, the organization model which can carry out adjustment of adaptability and make continuous decision is bound to be the model which is most conducive to exchange^[5]. According to Williamson's analysis (2001) of matching problems concerning transaction characteristics and contractual choosing, this research establishes one multi-layered theoretical analytical framework (Fig. 2); meanwhile, this research applies such theoretical framework to the research of contractual choosing of farmers' cooperatives,

and tries to review the formation of organization model in terms of transaction characteristics, the characteristics of main body, system environment and so on.



Note: Solid arrows represent three main effects; dotted arrows represent secondary effects.

Fig. 2 The theoretical framework of organization governance structure formation

From Fig. 2, we know that the transaction environment and organization characteristics (including characteristics of transaction main body and characteristics of transaction object) determine the choice set of organization form, namely choosing contractual model of organization. The relevant factors regarding organization characteristics will directly impact organization' choosing of contractual arrangement in the process of transaction. Meanwhile, the contractual arrangement of organization must be compatible with transaction environment, or else it will make certain organization form take its toll of operation. Furthermore, choosing contractual form of organization will impact input behaviors of labor and other production factors, which determines the performance of economic organization^[6]. Hence, we cannot simplistically judge which kind of structure and contractual model are more efficient. The organization environment, developmental stage of organization, internal characteristics and other factors will directly impact the cooperative model of organization. As for the model choosing within farmers' cooperatives, we should consider the following influencing factors.

2.1 Transaction environment The external transaction environment impacting contractual choosing of farmers' cooperatives includes system environment and non-system environment. The system environment not only includes formal politics, economic rules and a kind of hierarchical structure which consists of a series of rules, but also includes value, faith, consciousness, custom, habit and other restricted forms. The system environment determines game rules. If the variation of property right, contractual law, criterion and custom causes the variation of comparative cost of organization governance, then it often means restructuring of economic organizations. Meanwhile, the system environment will inhibit the behavior of opportunism, reduce uncertainty and complexity of transaction, pare down the implementation cost of contractual arrangement, and promote operation performance of organization by restricting members' behavior of organization.

2.2 Characteristics of organization and transaction

2.2.1 The scale of organization and stage of development. Scale is an important index reflecting strength of cooperatives. The expansion of organization scale can strengthen the its negotiation ability with the organizations upstream and downstream in the same industrial chains, including the upstream production enterprises of agricultural means of production and

downstream processing enterprises or delivering enterprises of agricultural products. When the scale-growth of cooperative cannot meet organization members' further need, it needs to be replaced by vertical integrated organizations, which will save production cost and transaction cost. But it is not absolute, and the organization should consider the management risk due to increase of special assets input in the process of integration, and the increased organization cost after implementing integrated operation of organization.

The form of cooperatives is not uniform, and its growth stage is the process of internal system function from immaturity to maturity, which can be divided into 3 stages: preliminary stage, scale-growth stage and longitudinal growth stage^[7]. At preliminary stage, the basic formation of internal operation mechanism plays a prominent role in connecting farmers and market; at scale-growth stage, by increasing quantity of organization, it forms scale economy, obtains large market share and promotes the negotiation status in market; when the strength of organization is further promoted, it will expand along the direction of pre-production or post-production, namely longitudinal growth. The result of longitudinal growth is the internalization of external market and saving of transaction cost. Although not all cooperatives are finally evolved into integrated enterprises or joint-stock cooperatives, but some cooperatives can adopt some loose forms, such as association at preliminary developmental stage of organization, and then gradually develop.

2.2.2 Characteristics of products. In the transaction of products with special quality, the buyers will not seek other resources and not resell the purchased products at preferential price or for other purpose, because the setting cost of other resources is very high, and the function of products with special quality and customers are not exchangeable. In the same way, the sellers will deliver the goods when disregarding better opportunity of sales, because other assets also have the special characteristics. Consequently, in the transaction of products with special quality, the contract of enterprise or quasi-contract of enterprise can not only sustain stability but save transaction cost within organization.

2.2.3 Characteristics of main body. If the investment decision-making of organization has no elasticity and farmers' investment decision-making has elasticity, it will indicate that the decision-making organization on incentive is not sensitive but farmers' decision-making on incentive is sensitive^[8], then it does not make sense to transfer control privilege to organization. Using the quasi-contract of enterprise, namely "company + farmer" to realize the connection of cooperatives and farmers is the best choice; vice versa, we should transfer all the control privileges to organization and choose contract of enterprise.

From the above analysis, we can find that choosing contractual model of cooperatives is not only impacted by economic factors and driven by efficiency principle, but impacted by political environment, cultural concept and other uncertainties. So choosing organization model is not a rational choosing process but a repetitive choosing state. As the conditions of production technology and social economic status change, the characteris-

tics of each factor within organization also change and the transaction cost and organization cost of former organization model will change correspondingly, which will make the cooperatives in a state of trade-off formerly conduct system innovation and develop steadily more compatible with external system environment or transaction environment.

3 Case study of contractual model selection of cooperatives

Production and Marketing Cooperative of Sweet Pomegranate in Mengzi is located in Xin'ansuo Town, Mengzi County, Yunnan, one of the main production areas of pomegranate in China. Under the guidance of agricultural department of Mengzi County, it is professional farmers' cooperative dependent on the standard of ecological research association of agriculture in Xin'ansuo.

Since the reform and opening up, the farmers have had great desire for wealth by technology and had strong desire for scientific development of industry of planting and breeding. Under such circumstance, the ecological research association of agriculture in Xin'ansuo was established in 1988 after applying registration of juristic person of social group in Bureau of Civil Affairs of Mengzi County. Ecological agricultural technology service limited company subordinate to the association also applied registration in Administration for Industry and Commerce of Mengzi County and got business license of legal body of enterprise. The company has 4 matching consultation service departments of industry of planting and breeding, 1 consultation service station of methane and 5 methane construction teams. It has established a marketing team of agricultural products consisting of 10 people, and formed the unified service system of "company + farmer + base" integrating production, supply and sales. In June, 2006, approved by agricultural bureau of Mengzi County, on the basis of the former ecological research association of agriculture in Xin'ansuo, Production and Marketing Cooperative of Sweet Pomegranate in Mengzi was established and most of the members were the professional big household of growing and selling pomegranate in the region.

In the process of increasing agricultural efficiency of Mengzi County and increasing farmers' income, the ecological research association of agriculture in Xin'ansuo plays a positive and irreplaceable role. The establishment of Production and Marketing Cooperative of Sweet Pomegranate in Mengzi symbolizes the higher-level development of farmers' professional cooperation. This cooperative with strong affection for hometown, affinity with farmers and advantage of profuse practical experience, is devoted to experiment, demonstration, training, and popularization of cultivation scientist technology of pomegranate, and strictly implements non-pollution production standard of agricultural products. Over two decades, this farmers' professional cooperative played an irreplaceable role in promoting development of local characteristic industry and increasing farmers' income.

From the evolving process and development of cooperative, the initial ecological research association of agriculture in

Xin'ansuo is a relatively loose rural technological cooperative. Later, the initial ecological research association of agriculture in Xin'ansuo established "ecological agricultural technology service limited company", with strong characteristic of economic cooperation. That is to say, the ecological research association of agriculture in Xin'ansuo now, in fact, is a farmers' professional association owning core enterprise. Production and Marketing Cooperative of Sweet Pomegranate in Mengzi is more like a company with the outstanding joint venture characteristic. Among many forms of farmers' professional cooperatives, farmers' professional association may be the most instable transitional organization form. Due to the attribute of multi-form of organization, plenty of professional associations, under guidance of marketization process and relevant system of cooperative development, are bound to change in various forms. Some are transformed into professional cooperatives or trading association or joint-stock enterprise or private-owned enterprise^[9]. However, as far as we are concerned, no matter how professional associations change, in the process from formerly loose unification to close cooperation, we must conform to the objective law of organization development; only by the objective conditions, such as organization environment, industrial characteristic, members' favoritism and so on, to scientifically and rationally choose the contractual model can we guarantee the operation efficiency of organization and balanced development.

4 Conclusion and enlightenment

4.1 Conclusion On the basis of the perspective of contractual choosing, we use transaction cost theory to review and analyze the problem of contractual choosing within organization, and review the determinant factors of organization model in terms of transaction characteristics, characteristics of main body and system environment. By analysis, we get the following conclusions.

4.1.1 Selecting contractual forms of cooperatives is the result of weighing various factors. Under different conditions, the relative advantage of market and enterprise contract is different. In addition, the contractual choosing of organization is not only determined by self characteristics of organization, but also impacted by external system environment, such as uncertainty of political environment, cultural concept and so on. This process is in a state of repetitive definition.

4.1.2 There is complementary relationship between the new organization model or contractual arrangement and former system arrangement. The appearance of a new organization model or contractual arrangement is not the total negation of former contractual arrangement, but the development and supplement of former system arrangement. As being impacted by external transaction environment and technological transaction structure, many contractual forms with different transaction levels and layers are intertwined, which form the multiplex contractual arrangement and system structure of China 'existing farmers' cooperatives.

4.1.3 The selection of cooperatives model is an important factor impacting cooperation efficiency and stability of organiza-

tion. Choosing rational contract and types of cooperative must be based on the characteristics of different products and the objective situation at different developmental stages. It should conduct comprehensive and deep analysis on comparative advantage of various types of contractual models. We should not pursue the close and complex organization form simplistically and pursue the high-degree unified production and distribution blindly.

4.2 Enlightenment In terms of form choosing of farmers' cooperatives, the key is that the organization can promote farmers' income-increase and protect members' benefit. We should promote the competitiveness and holistic quality of cooperatives according to this purpose and encourage them to develop healthily irrespective of the form or path. Meanwhile, based on the status quo of characteristics of stage, difference and long time concerning China's agricultural organization process, we should take actions that suit local circumstances timely in order to encourage the development of many forms of farmers' cooperatives.

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