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Integration and Development of China's Characteristic Agricultural Industry against the Backdrop of Rural Revitalization Strategy

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Abstract At present, there are some problems in rural areas, such as the gradual decline of social trust, the dislocation of social norms and the disembedding of social network. As a result, the scale effect of characteristic agricultural industry is not obvious, the coordination of chain and network is low, and the willingness of farmers to participate is not strong. This article thinks that against the backdrop of the strategy of rural revitalization, we can explore the integration and development path of China's characteristic agricultural industry from three dimensions: social capital integration, chain-network synergy integration and brand value-driven integration. This paper analyzes how social capital is embedded in China's characteristic agricultural industry and form its own unique industrial brand, to give full play to the influence of brand value, and then drive the surrounding industries to form a highly integrated and symbiotic chain-network relationship, in order to improve the internal driving force of the characteristic agricultural industry.

Key words Rural revitalization strategy, Characteristic agriculture, Industrial integration

1 Introduction

The development of characteristic agricultural industry not only refers to the development of local characteristic agricultural industry, but also gives full play to the advantages of local characteristic agricultural industry and promotes the symbiotic development of other surrounding industries and the internal main bodies of the same industry, embarking on a road of industrial symbiotic development with local characteristics. With the continuous promotion of the demonstration construction of agricultural industry with national characteristics, the development of industrial integration has become a key to the modernization of agricultural industry with national characteristics. However, due to the small intensity of symbiosis and integration of characteristic agricultural industries at present, the effect of industrial scale is not obvious, and the coordination of chain and network is low. Farmers do not have a strong willingness to participate in the production activities of characteristic agricultural industries. There are many phenomena in rural areas, such as the gradual decline of social trust, the dislocation of social norms and the disembedding of social network. Rural social capital cannot be really embedded in the process of innovation driven by characteristic agricultural industry. Moreover, in the process of marketization, the market subjects do not make use of the unique location advantages and brand advantages of characteristic agriculture to create a path suitable for the development of characteristic agriculture, thus losing the brand value of characteristic agriculture. Therefore, how to give full play to the internal driving force of the integrated development of characteristic agricultural industry is a problem worthy of our consideration.

2 Essence of industrial integration and development

The industrial symbiosis and integration first began in Northern and Western Europe in the 1970s. Industrial symbiosis and integration not only refers to the symbiotic relationship formed between industrial sectors (industrial enterprises), but also includes all relevant industrial sectors that can establish industrial symbiotic relations and industrial symbiosis enables enterprises to gain competitive advantage through material exchange and cooperation^[2]. With the continuous improvement of productivity, the research on industrial symbiosis has been continuously enriched and developed. Sendra (2007) introduces the material flow analysis (MFA) method to identify the industrial symbiosis opportunities of enterprises. Karlsson *et al.* (2008) used mixed integer linear programming model to quantitatively evaluate the economic benefits of forestry industry symbiosis system. Wang Wenhai *et al.* found that the "symbiosis" mutual benefit model can make the production and exchange of material, information and energy in the industrial chain reach the highest efficiency^[3]. Through experiments on products in enterprises, Sun Bing found that there are different symbiosis modes among different products, which are mainly represented by competitive symbiosis, partial symbiosis and mutually beneficial symbiosis^[4]. Similarly, for the characteristic agricultural industry, in addition to the industrial symbiotic relationship between different enterprises, there will also be a symbiotic relationship between different characteristic agricultural products of the same enterprise. Liu Lijun *et al.* put forward three symbiotic models: agricultural "carbon" cycle, agricultural science and technology information cycle and agricultural capital cycle through the study of saline-alkali land in the Yellow River Delta^[5].

Therefore, taking the development of industrial integration as the starting point, this paper puts forward some models, such as social capital integration, chain-network synergy integration and brand value-driven integration, in order to analyze the logical path

of the integration and development of characteristic agricultural industry.

3 The basic path of the integrated development of characteristic agricultural industry under the strategy of rural revitalization

3.1 Social capital-driven integration Bourdieu first proposed that social capital is a collection of resources, which can be real or potentially waiting to be excavated, and their existence is inseparable from the promotion of social relation networks and these relationship networks may be related to some common understanding^[6]. Robert D. Putnam believes that social capital can improve the overall efficiency of society through mutual assistance and cooperation among individuals, which is mainly manifested in the unique social characteristics of social organizations such as social trust, social norms and social networks^[7]. To sum up, it is found that social capital is also a kind of intangible capital, which is different from the concepts of economic capital and human capital. It is a kind of productive capital embedded in the social structure in the form of social trust, social network and social norms.

First of all, China's rural areas are a typical "relational" society^[8]. Here, most of the residents live in villages, and the residents in the village or collective organizations will form an interrelated network^[9]. Cai Qihua and Zhu Yuchun believe that there is not only general trust but also special trust among farmers. Such trust has an important impact on farmers' willingness to participate and farmers can obtain the resources and interests needed for their own development through reasonable and effective use^[10]. Rural social capital is one of the important factors of production, and the main body of rural social capital is trust, standardization and network, which is of great significance to the construction of a new countryside^[11]. At the same time, it also plays a role in promoting the development of symbiosis-driven innovation in characteristic agricultural industries. Secondly, the formation of social network is inseparable from social interaction, and social interaction is the premise of the existence of all social relations, which in turn will promote the development of social network. For most areas, social capital exists in a state of social network relationship, the process of its formation, application and development depends on the interaction between peasant households. It needs the promotion of the social network formed among farmers to survive. Without the specific social network, social capital cannot exist. Wei Ying believes that social capital means that social organizations gain certain benefits through network relations or social relations, and the size of the network, the degree of trust among network members, and the common practices used by network members are all the contents of social capital^[12]. Rural social capital symbiosis-driven innovation is a complex process involving farmers' participation and social cooperation. Finally, in the traditional society, some authorities formulate social norms by requiring people to obey unconditionally. Although these norms will show a lot of inadaptability, they will also exist for a long time in a society with strict hier-

archical authority, therefore, social capital is also formed under such conditions. Zhu Qinghai and Lei Yun think that the level of social norms can promote farmers to choose behaviors that are conducive to the environment^[13]. Certain social norms and order can not only promote social development, but also be conducive to the formation of social capital. In many rural areas, due to the special topography and the "differential order pattern" based on traditional "consanguinity" and "geography", social relations have become extremely intimate. Therefore, the existence of some factors such as extremely abundant social capital has promoted the innovation and development driven by local characteristic agricultural industry integration.

3.2 Chain-network coordination to promote integration The concept of chain-network was only put forward in the late 1980s, and it has a wide range of applications in the chemical industry. The chain-network focuses on the value chain of the whole material "movement" process, including raw material suppliers, producers, distributors, transporters and customers, and products are the core of the supply chain^[14]. Against the backdrop of rural revitalization strategy, in the process of transformation from traditional agriculture to modern characteristic agriculture, the supply chain management level of agricultural products is also improving, and the traditional linearized "single chain" mode gradually develops to the non-linear "network chain" mode. The development of characteristic agricultural industry chain is not only affected by the government, market and other external factors, but also dependent on the highly coordinated development of its own internal chain network. The traditional agricultural development mostly exists in the "single chain" linearization model of enterprises + peasant households. Although it also promotes the development of characteristic agriculture, the enterprises themselves are profit-oriented, and in the pursuit of profit maximization, it is inevitable to ignore the self-interests of farmers, so that the respective interests of enterprises and farmers cannot be truly maximized, and there may even be the situation of "1 + 1 < 1". The innovation driven by the chain-network synergy of the characteristic agricultural industry is to realize the non-linear "network chain" cooperation mode of farmers' professional cooperatives + enterprises + farmers.

First of all, against the backdrop of rural revitalization strategy, the integration and development of characteristic agricultural industry is inseparable from farmers' professional cooperatives, which is a kind of service-oriented economic organization connecting enterprises and peasant households. It can voluntarily unite the producers and operators of the same kind of agricultural products or the providers and users of similar agricultural production and management services. Huang Zuhui *et al.* believe that innovation is an important part of development for some time to come^[15]. The collaboration-driven innovation of farmers' professional cooperatives is to make use of their own advantages, cooperate among the internal members of the cooperatives or with the external cooperatives, and connect the peripheral farmers and enterprises at the same time, to form three non-linear "network chain" models in-

side and outside, so as to make the farmers' professional cooperatives form a dual joint force and increase the added value of industrial symbiosis. Secondly, the core of the development of characteristic agricultural industry lies in farmers, so while improving the ability of driving innovation within farmers' professional cooperatives, we should pay attention to increasing farmers' participation and farmers' willingness to participate in cooperatives and promote the development of characteristic agricultural industries. Farmers' active participation in farmers' professional cooperatives is an important channel for farmers to overcome their low production capacity, poor circulation and market risks, and it is also the main content to realize the upgrading and development of characteristic agricultural industry. However, in the process of development, there are widespread problems of low willingness and low degree of participation of farmers^[16]. Therefore, as the core participation element of the industry chain network, farmers should improve their degree of participation. Finally, in the process of the circulation of the whole industrial chain, the leading enterprises, as the main driving force, can not only drive the efficient operation of farmers and production and planting bases in the upstream industries, but also promote the symbiotic development of downstream industries. At the same time, it can form a good development pattern with other surrounding industrial symbiotic entities and form a typical symbiotic model of industrial integration and development. In this way, under the whole process, we can gradually realize the symbiosis and horizontal product implementation of characteristic agricultural industry, vertical industrialization and comprehensive chain network, so as to promote the chain and network synergy driven-innovation for the integration and development of characteristic agricultural industry.

3.3 Brand value-driven integration An important way to promote the symbiotic development of characteristic agricultural industry is to improve brand value and promote brand value-driven innovation. Generally, brand is a kind of logo, and one product is distinguished from other products by this logo. This logo is a compound organization composed of a series of product functional interests, service commitments and the symbolic values of emotion. Keller KL *et al.* think that brand elements can strengthen the common understanding between brands and enhance brand feeling from the customer's point of view, which is mainly expressed in the form of pictures, texts and music^[17]. For some characteristic agricultural products, it is difficult to judge the differences between different kinds of agricultural products directly through the senses. At this time, the brands of characteristic agricultural products play a great role. Consumers can quickly find the agricultural products they want according to different brands, so that their consumption preferences can be satisfied to the maximum extent. At the same time, farmers, middlemen and enterprises can also improve the influence of characteristic agriculture in ethnic minority areas and expand their popularity through brand effect to highlight the "characteristics" of characteristic agriculture in this region so as to promote the development of innovation driven by industrial symbiosis

in the region, and promote the sustained economic growth of the region. The greatest value of agricultural brand is that it can bring added value, and these added values will eventually be transformed into real economic benefits, that is, profits. Therefore, the true connotation of agricultural brand value is the ability to help brand owners gain more profit and increase value.

4 Conclusions

With the continuous improvement of the level of science and technology, the way of scientific and technological innovation is constantly changing, from traditional one-way development to pluralistic cross-development, that is, there is complementary development among innovation nodes, innovation resources and innovation subjects in the process of scientific and technological innovation, and they work together to achieve scientific and technological innovation. Similarly, against the backdrop of rural revitalization strategy, the integration and innovation of characteristic agricultural industry is not limited to one-way development, but should be diversified integration, development and innovation. The innovation driven by the integration and development of characteristic agricultural industry is represented by the recombination of internal and external innovation resources oriented by market demand, thus achieving the effect of " $1 + 1 > 2$ ".

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services, and accelerate the establishment of a pragmatic and efficient food and drug supervision system, and make effort to stabilize the food and drug safety situation.

(v) Accelerating the development of cultural and physical education. Fumian District should accelerate the construction of functional housing such as classrooms in rural primary and secondary schools, improve the construction of living facilities such as student dormitories in primary and secondary schools, and gradually meet the people's needs for more equitable, higher-quality, and more diversified education, and accelerate the construction of village-level public service centers, further improve public cultural and sports infrastructure, and make effort to improve the cultural and living standards of the masses.

7 Expanding the space for regional cooperation and building an inclusive and open Fumian

7.1 Building a support point for ASEAN and Beibu Gulf channel Fumian District should accelerate the planning of the construction of the airport economic industrial park, vigorously develop the airport industry, accelerate the expansion of urban development capacity, improve the quality of urban development, and improve policy mechanisms such as industrial development, talent attraction, and social management. Also, it is recommended to accelerate the development of characteristic agriculture, modern logistics and other industries oriented to ASEAN cooperation, and build Fumian into an important gateway for Yulin City to open cooperation with Beibu Gulf and ASEAN.

7.2 Actively undertaking industrial transfer from Hong Kong, Macao, Taiwan (China) and the Pearl River Delta Fumian District should actively integrate into the opening-up development and construction of the Pearl River – Xijiang Economic Belt, deepen cooperation with Guangdong, Hong Kong, Macao, the Yangtze River Delta and other regions, and build a direct supply base of agricultural products for Hong Kong, Macao and Taiwan (China). Fumian District can take advantage of the strategic layout of the airport, give play to the linkage role of the airport area, actively undertake industrial transfer, and strengthen cooperation in advanced, sophisticated, high-end and other indus-

trial fields. In addition, Fumian District should promote the development of high-tech industries such as precision machinery, electronic information, and biomedicine that are highly related to the aviation industry, and promote the landing and docking of regional industries.

7.3 Accelerating project planning and construction, and comprehensively enhancing the driving force of economic development It is recommended to make full use of the industrial advantages and resource endowments of Fumian District, focus on key points, make up for shortcomings, gather clusters, strengthen weaknesses, study and cultivate industries. Besides, Fumian District should actively plan investment projects within the central budget, PPP projects, *etc.*, and continuously enrich the project reserve, and strengthen the construction of industrial projects at a higher level and a deeper level, accelerate the pace of innovation and opening up, so as to constantly improve the core competitiveness of the industry.

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