## The Research on the Development Mechanism of Agricultural Products Industry from the Perspective of Supply Chain Finance

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Abstract: At the 19th CPC National Congress, our country put forward the strategy of rural revitalization and made clear the determination to promote the supply-side structural reform of agriculture and speed up the construction of agricultural brand. Based on this background, the purpose of this paper is to improve the market competitiveness of agricultural products, promote the development of rural economy, promote farmers' employment and collection, and speed up the process of urbanization. The research of this paper conceives a new development mechanism of agricultural products industry: introducing advanced production technology, professional talents and brand marketing means on the basis of traditional agriculture, and strengthening the deep processing of agricultural products at the same time to increase the added value of agricultural products. In view of the fact that these measures are inseparable from financial support, this paper introduces the supply chain financial model from a new perspective, and designs the development mechanism of agricultural products from the perspective of theory and practice. The research results of this paper show that promoting the development of agriculture and agricultural products from the perspective of supply chain finance is a feasible way for the sustainable development of agricultural products.

## 1. Introduction.

The emergence of supply chain finance has reversed the financing situation of the supply chain 1.0 era dominated by Chinese financial institutions, and gradually changed into the 2.0 era promoted by the leading banks of the core enterprises of the industry [1]. In view of the difficulty and high cost of financing in China's agricultural production and operation, with the help of the opportunity of industrial chain integration in the process of agricultural industrialization to realize the innovation of agricultural financial model, agricultural supply chain finance is an effective way to solve this problem [2].

As early as 2005, foreign scholars in related fields introduced supply chain finance into agriculture and proposed that financial institutions should not only have a deeper understanding of the main body of agricultural management, but also pay attention to the financial scheme of more personalized services[3]. In reference [4], based on the perspective of developing countries, the author points out that agricultural supply chain can not only increase farmers' income, enhance the competitiveness of rural economy, but also alleviate the financing difficulties of agricultural products industry to a certain extent. In reference [5], the author establishes a long-term trade cooperation relationship with farmers to gain insight into their business and credit conditions as well as bank lending information, so as to control the cost of information search. In the reference [6], the author makes a lot of exposition on the financial risk control of agricultural products, and thinks that establishing a risk management system and controlling price fluctuations can effectively avoid the financial risks of agricultural products industry. The domestic research in the past two years is mostly based on the strategic background of rural revitalization, and the purpose of the research is to promote the development of rural economy and drive farmers to increase their income and become rich [7]. In reference [8], the author analyzes from the perspective of technical resources

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and urban purchasing power, and points out that the development of brand agriculture can absorb rural surplus labor and bring considerable agricultural benefits. In reference [9], from the empirical analysis of index quantification, the author establishes a model to describe and analyze the score of brand agriculture, which more directly reflects the close relationship between agricultural product industry and rural economy.

The previous research literature is mostly focused on agricultural financing model and risk control, and the selection of survey objects often take the whole country as the survey object, rarely specific to a county unit for discussion <sup>[10]</sup>. In order to make up for the shortcomings of the existing research, this study designed the financial products of the agricultural supply chain according to local conditions, selected a very representative case of a county, and carried out the corresponding risk control, in order to promote the development of agricultural products agriculture.

## 2. A Brief Introduction to the Related Theories of Agricultural Products Industry Operation

## 2.1 Modern Agricultural Theory

Modern agriculture is a socialized agriculture with extensive application of modern science and technology, means of production provided by modern industry and scientific management methods. Agricultural production has a strong natural attribute, and modern agriculture is no exception. Regionality is one of its most representative characteristics. The regional characteristics of different countries are different, and there are great differences in the conditions of agricultural production in different regions of the same country and in different regions of the same region. Different agricultural production conditions not only determine the cost of agricultural production and the quality of products, but also determine the comprehensive competitiveness of the agricultural products in the market. Therefore, regionalization, specialization, socialization and brand production are the inevitable choice for the further development of modern agriculture. Agricultural branding is an important symbol and the first starting point for the realization of agricultural modernization, and the regionalization, specialization and socialization of agricultural production are the important theoretical basis for supporting the formation and development of regional brands of agricultural products.

## 2.2 Regional Brand Theory of Agricultural Products.

## (1) Regional Brand Characteristics of Agricultural Products.

First is publicity. Regional brand is a kind of public goods in a specific region, which is non-exclusive and non-competitive. The regional brand can be used by many economic entities in the region at the same time, and no user can prevent others from using the brand.

The second is externality. Externality refers to the effect of the behavior of one economic subject on another. This impact can be external benefits or external costs. When some economic entities act to improve the regional brand image, all economic entities operating the same product in the region can benefit.

## (2) Relationship with a Single Brand

First of all, the regional brand of agricultural products is different from the brand subject of a single brand. A single brand is a kind of brand form created by a single subject, which has exclusive rights, while a regional brand is a regional collective subject, and its interest subject is extensive. Secondly, the brand effect of regional brand and single brand of agricultural products is different. A single brand only indicates the level of product quality it represents, and its reflection power only benefits the main body of the brand and its products; regional brands have more image, more direct, more extensive influence.

Finally, a single brand is the foundation and pillar of a regional brand. In turn, the role of a regional brand makes a beneficial contribution to the growth of a single brand.

## 3. Case Investigation.

## 3.1 Purpose of Investigation.

This paper selects a county and township in Fujian Province, a strong agricultural province, to conduct an on-the-spot investigation. The direct purpose of the investigation is to obtain intuitive and reliable first-hand data to understand the agricultural construction and financing of agricultural products in this case.

## 3.2 Survey Objects.

The survey can be divided into three categories: farmers, agricultural enterprises and financial institutions. Farmers as grass-roots builders of agricultural construction, the survey of farmers and family farms can understand the production and capital needs of grass-roots growers, and can obtain intuitive data to increase the accuracy of their analysis. Agricultural enterprises are not only the registrants of brand trademarks, but also have relatively abundant funds, which play an important role in promoting the construction of brand agriculture; financial institutions are one of the main suppliers of funds for the construction of brand agriculture, which directly affects the construction process of brand agriculture.

## 3.3 Investigation Process.

In this survey, in addition to the author himself, I also asked for help from relatives and classmates. From June 2019 to October 2019, the author conducted an on-the-spot investigation on 120 farmers, 20 agricultural enterprises and 10 bank outlets by means of questionnaires and visits.

## 4. Survey results and analysis

#### 4.1 Research Results

At present, the case investigation site already has the basis of brand agriculture. By the end of 2019, there are 85 registered trademarks of agricultural products, but the popularity is not strong in the country, and the development of its brand agriculture is still in its infancy. According to the investigation, there are the following problems in the construction mechanism of agricultural products in the current case site:

## (1) Lack of Brand Awareness among Agricultural Producers

From the survey of 120 peasant household farms, the majority of family farmers are 40-50 years old, followed by 30-40 years old. There are differences in the understanding of brand agriculture among farmers of different ages (see figure 1). As can be seen from figure 1, there are more farmers who do not know and know a little about brand agriculture, and fewer farmers who know a lot about brand agriculture. This reflects that the awareness of family farmers to create a brand is very weak, a serious lack of brand-building awareness.

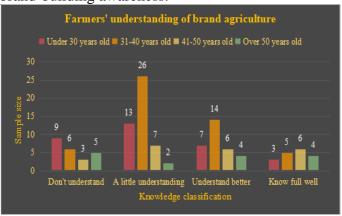


Figure 1. Farmers' understanding of brand agriculture

## (2) Difficulties in Financing for Agricultural Producers

Through the questionnaire survey of 20 agricultural enterprises, it is found that the preferred financing channel of 20 enterprises is private lending, followed by loans from banks, and some enterprises choose Internet financial platform financing. Thirdly, although some companies have listed in the relevant management departments, there is no stock market financing. Finally, some enterprises choose supply chain financing, establish a one-stop supply chain of production, supply and marketing, and use order financing to increase the income of local farmers. As can be seen from figure 2, in addition to private lending, 6 out of the 20 enterprises choose credit cooperatives for bank loans, accounting for 30.005%, 5 for state-owned banks accounting for 20.00%, and 1 for Internet financial platform, accounting for 5.00%.

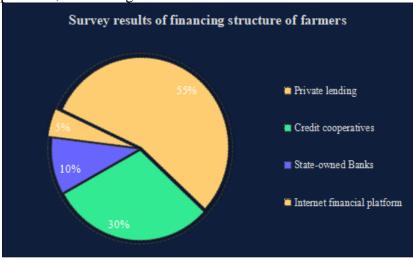


Figure 2. Survey results of Farmers' financing structure

## (3) The Financing Cost Is High

According to the sub-volume analysis of the survey, there are 8 agricultural leading enterprises with an annual interest rate of more than 10%, accounting for 40.00% of the total research enterprises, according to the sum of the loan costs of agricultural leading enterprises and private borrowing costs (see Table 1). This shows that the financing costs of leading enterprises are very high, and the financing costs of enterprises are very heavy. The reason is that the current case site agricultural leading enterprises are generally small in scale, lack of modern enterprise management, and financial information is not open and transparent, so that banks will increase the cost of information search and post-loan supervision and management for their loans. The corresponding loan cost has increased.

**Table 1.** Comprehensive cost annual interest rate of financing for agricultural leading enterprises

Comprehensive cost at an annual rate	5%-10%	10%-15%	15%-20%	>20%	Other	Total
Number of enterprises (unit)	7	5	5	2	1	20
Specific gravity (%)	35	25	25	10	5	100

# (4) Lack of Financial Support for Brand Agriculture and Inadequate Implementation of Policies

The results of the investigation on Financial Funds Supporting Agriculture in 2017-2019 case sites are shown in Table 2, which shows that less than 10% of the financial funds supporting agriculture in the case sites have been devoted to brand agriculture construction for three consecutive years, which is far from the actual fund demand for brand agriculture construction. At the same time, the support given in brand protection, quality certification, base construction, market development and other aspects is also small.

**Table 2.** Financial Funds Supporting Agriculture in case locations in 2017-2019

Project and Year	2017	2018	2019	
Total financial fund for agriculture (ten	17882.5	21563	23159	
thousand yuan)	17002.3	21303		
Used for brand agricultural	1152	1633	1853	
construction(ten thousand yuan)	1132	1033	1633	
Proportion of brand agricultural	6.44%	7.57%	8.00%	
construction fund (%)	0.44%	7.37%		

## 4.2 Discussion on the Development Mechanism of Agricultural Products Industry.

A good agricultural industry development mechanism plays a role, which can only be achieved by the joint participation and maintenance of various forces. At the same time, it also needs perfect laws and regulations and supporting measures as well as professional management personnel. This paper mainly analyzes the development mechanism of agricultural products industry from the perspective of supply chain finance from the three aspects of government, financial institutions and agricultural enterprises.

## (1) The Government Should Strengthen Its Support To Agricultural Supply Chain Finance.

The government must give appropriate policy support and subsidies to agricultural practitioners in order to arouse their enthusiasm. The following measures can be taken: small financial institutions such as rural credit cooperatives and rural banks that mainly serve agriculture should reduce the deposit reserve ratio and increase their credit funds to better serve brand agriculture; the ceiling of lending rates for large commercial banks should be appropriately relaxed. First, develop and strengthen leading enterprises, actively strive for superior funds, and then integrate the funds together to set up a brand agricultural development fund to increase the reward and support for agricultural products brands; second, funds can be raised to develop leading enterprises by attracting investment, farmers' shareholding, merger and reorganization, etc. Third, the government encourages enterprises to become bigger and stronger, give flexible subsidies as well as interest rate and tax concessions to the extent permitted by national policies, and ensure that subsidies are paid in a timely manner.

## (2) Financial Institutions Actively Carry Out Supply Chain Finance Business.

As the suppliers of funds and financial services in the supply chain, financial institutions play a vital role in the supply chain finance. Banks must strengthen the reform, implement the professional management of supply chain finance, and innovate the design of products suitable for all aspects of the supply chain, so as to ensure the stable operation of supply chain finance and provide sustainable financial support for brand agriculture. First of all, it is necessary to review the scale, operation, financial status and credit situation of the core enterprises, so as to understand their qualifications. Secondly, it is also necessary to examine whether the degree of adhesion between the core enterprises and upstream and downstream enterprises is high, and whether a long-term and stable trade cooperation relationship has been established. In addition, commercial banks should establish a centralized operation platform, which can not only improve the specialization of business operations, but also achieve the intensification of operations, so as to achieve the effect of economies of scale.

#### (3) Agricultural Products Enterprises Should Strengthen Their Own Construction.

Agricultural enterprises are not only the main body of agricultural development, but also the core of the supply chain. Therefore, in the process of supply chain financial operation, it should first make clear its own construction objectives and value orientation, and then according to its own needs, select the corresponding partners, and grant credit to them to strengthen the credit evaluation and management of the upstream and downstream participants in the supply chain. Secondly, supply chain performance evaluation is one of the important contents of supply chain management.

Agricultural enterprises should evaluate the operation performance of agricultural supply chain in time, constantly improve the supply chain and better serve the construction of modern agriculture. Finally, agricultural enterprises also need to establish a modern enterprise management system, improve the corporate governance structure, improve their own credit level, and create a good reputation in the industry.

#### **Conclusion**

The proposal of the strategy of rural revitalization has made it clear that our country is determined to promote the structural reform of agricultural supply side and speed up the construction of agricultural brand. Improving the market competitiveness of agricultural products, promoting the great development of rural economy, promoting farmers' employment and collection, and speeding up the process of urbanization are major development strategic issues facing our country at present. From a new perspective, this paper introduces the supply chain finance model, and designs the development mechanism of agricultural products from the perspective of theory and practice. The study of this paper finds that there are some problems in the construction mechanism of agricultural products in China, such as lack of brand awareness of agricultural producers, financing difficulties of agricultural producers, high financing cost, lack of agricultural funds and so on. This study puts forward that the government should strengthen the support of agricultural supply chain finance, financial institutions should actively carry out supply chain financial business and agricultural enterprises should strengthen their own construction to effectively solve the above problems.

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