Research on Agricultural Products Circulation in Fengcheng City Based on E-commerce

Juan Xia*

School of Shanghai University, Shanghai, China

*Corresponding author e-mail: nxuxiajuan2015@163.com

Abstract. The circulation of agricultural products in rural areas of China is still at a low level, and it is difficult to cater to the needs of modern social and economic development and agricultural modernization. In the process of circulation of agricultural products, there are problems such as long circulation time, large loss, poor information flow, and poor circulation channels. This paper takes Frenching as the research object, combines the theory of e-commerce and agricultural product circulation, analyses the current situation of the circulation of agricultural products in Frenching City and the main problems. From the perspective of e-commerce of agricultural products, it integrates the existing domestic typical county development of agricultural products. The successful experience, combined with the objective conditions of Frenching, explored the issues related to the development of e-commerce in Frenching to promote the circulation of agricultural products, and tried to design a network suitable for the e-commerce circulation of agricultural products in Frenching. Finally, some targeted suggestions and countermeasures are given to promote the development of agricultural products e-commerce in Frenching.

1. Introduction

While the e-commerce market is gradually maturing, e-commerce of agricultural products has become a new trend in the development of e-commerce in recent years. In May 2015, the State Council issued the “Opinions of the State Council on Vigorously Developing E-Commerce to Accelerate the Cultivation of New Economic Power” and the Ministry of Commerce issued the “Internet + Circulation Action Plan”. The government and relevant departments are policy-oriented and have clarified the inevitable trend of developing e-commerce for agricultural products.

Earlier in foreign countries, e-commerce was applied to the circulation of agricultural products. Poole (2001) conducted a basic research on agricultural products e-commerce, and believed that the development of agricultural products e-commerce has the role of promoting information flow, industrial coordination, safeguarding the interests of agricultural producers and improving market transparency [1]. J Henderson (2011) pointed out that farmers have obstacles in understanding and applying e-commerce. Solving farmers' application of e-commerce is the primary issue to promote the development of e-commerce in agriculture [2]. M. VPosner (2007) found that participants in agricultural e-commerce transactions tend to be younger and more educated [3]. Banker (2007) and others in the context of agricultural products e-commerce, from the perspective of supply chain, in-depth study of Indian coffee online auctions, built an agricultural supply chain procurement model [4]. Hong Tao (2015) pointed out that agricultural products e-commerce it will be the fourth e-commerce hotspot after clothing, books and 3C products. It analyzes the development status, main mode and policy environment of agricultural products e-commerce, and looks forward to the development trend of county-level rural e-commerce.
Fan Wei (2014) proposed a combination of e-commerce platform to form a circulation model of agricultural products based on processing, sales, logistics, etc. [6]; Chen Yanyuan (2008) based on the transaction cost theory, combined with the characteristics of agricultural products and China's national conditions, proposed the electronic trading market model. The circulation of agricultural products can better cater to the economic development of agricultural products [7]; Sun Wei (2013) proposed to build an agricultural product circulation network under the e-commerce environment centered on supply and marketing cooperatives, build an agricultural product circulation information platform, and promote the transformation of agricultural product trading methods. To promote the circulation of agricultural products [8]; Zhang Weinian (2015) analyzed the role and adaptability of China's agricultural products e-commerce, and discussed the problems faced by China's agricultural products e-commerce development from the aspects of legal environment, information construction, logistics environment and human resources, and proposed corresponding strategies. [9]. Chen Bin (2015) analyzed the development status and countermeasures of China's agricultural products e-commerce, pointed out that the current development of agricultural products e-commerce faces weak knowledge of circulation entities and imperfect market environment construction, and relevant countermeasures to promote the healthy development of agricultural products e-commerce [10].

2. Typical county agricultural products e-commerce model

2.1. “Suichang Model” characterized by platform management
The success of Suichang County lies in the establishment of the E-Commerce Association and the Suichang Online Shop Association and the construction of “Metron” distribution.

The platform effectively integrates the various components of the agricultural product e-commerce circulation chain of farmers, individual network operators, supply and marketing cooperatives, logistics enterprises, agricultural enterprises, etc. into this unified platform, realizes unified operation and management, and forms an integrated service platform of e-commerce integration [11]. A county-level logistics operation center was established, which is responsible for the logistics distribution between the county and the rural areas, and the rural logistics service level has been greatly improved. At the same time, the Suichang Online Shop Association provided professional e-commerce training services for online merchants, and gradually realized a cluster-based development model in which Suichang County e-commerce coordinated and promoted each other.

2.2. “Chengxian Model” characterized by resource integration
Chengxian County is located in Longnan City, Gansu Province, and is a national poverty-stricken county. The Cheng County E-Commerce Association was established with the support of the government and relevant departments. The local specialty products such as walnut and earth honey are mainly promoted by the county party secretary. The third-party e-commerce platform Taobao is used as the sales platform, and the “one museum, two parks and one center” is built: Taobao features Minnan Pavilion and Longnan Electronics. Business Industry Incubation Park, Shuntong E-Commerce Logistics Park, Agricultural Products (Walnut) Trading Center [12]. At the same time, with the help of public social platforms such as Weibo and WeChat, we actively explored the “micro-marketing” model and realized the rapid development of online circulation of agricultural products in Cheng County.

2.3. “Overnight mode” characterized by brand management
The typical feature of the overnight model is brand management. With the direct supply of origin as the core, the standardization system of “unified quality, unified standard, unified brand and unified packaging” is implemented to guarantee the quality of high-quality products. Taking Tmall “Sanqianhe” flagship store as the core, it cooperated with Taobao, No. 1 shop and other e-commerce platforms to realize the online e-commerce circulation system of multi-channel circulation [13]. Through the endorsement of government credit and the direct supply of origin, Tongyu County has successfully
shaped the unique brand of Tongyu agricultural products, breaking the status quo of “unlicensed circulation” of agricultural products, and making Tongyu agricultural products flow to the whole country.

3. Frenching City Agricultural Products E-commerce Status

At present, the agricultural products of Frenching City are mainly led by the four traditional offline circulation modes of leading enterprises + bases + farmers, agricultural super-docking, self-production and sales of farmers' markets, wholesalers of farmers + self-employed merchants, and enterprises. By the end of 2015, the e-commerce transaction volume of Frenching City reached 4.5 billion yuan, a year-on-year increase of 180%, and e-commerce developed rapidly. In terms of policies, the Frenching government issued the “Temporary Measures for the Promotion of E-commerce Industry in Frenching City”, which drove the development boom of e-commerce. The e-commerce of agricultural products has also been continuously developed, forming a prototype platform for agricultural products e-commerce with the “Frenching Jinqiao Business Network” as the core platform for localized e-commerce transactions and the cooperation with third-party e-commerce such as Alibaba and Taobao. In addition, with the “Rural E-mail” project as an opportunity for development, through cooperation with Jiangxi Post Company, 24 rural e-post sites have been established in 2014 and 2015, covering 6 townships in the city (see as below Fig.1).

![Figure 1. Frenching City Online Agricultural Products Distribution Channel Network.](image)

4. Problems in e-commerce of agricultural products in Frenching City

The development of the e-commerce industry in Frenching is lagging behind. The application of e-commerce to the circulation of agricultural products is relatively late. In general, the following major problems exist.

4.1. Insufficient understanding of e-commerce

The economy of Frenching City is relatively underdeveloped. The proportion of migrant workers in rural areas is relatively high. The number of rural left-behind workers is relatively high. The overall cultural level is generally low. There are relatively few contacts in e-commerce and online payment, and there are certain difficulties in receiving them. There are major difficulties in the promotion and popularization of e-commerce.

4.2. The level of logistics services is low and the infrastructure construction is not perfect

First, the rural areas in Frenching have short transportation routes, few routes, some rural areas have not even been connected to highways, and the traffic is inconvenient. Second, there are fewer logistics service providers, and logistics distribution centers, storage facilities construction, and logistics network construction are not perfect. The Internet penetration rate is low, about 33.4% (calculated by the average of Jiangxi Province), which is not conducive to the rapid development of e-commerce.
4.3. *The development of the market organization system is lagging behind*

There are 310 agricultural professional cooperatives in Frenching, but the overall strength is not strong. The members of the cooperatives have low cultural level, lack of understanding of e-commerce, insufficient awareness of developing e-commerce, and low organizational structure for farmers. There are about 8,000 households. In addition, the lack of e-commerce organizations, such as government-led e-commerce associations, agricultural product distribution platforms and other similar functions of the organization has not matured, the only Frenching Jinqiao trade network is less active, related services are not, resources The degree of integration is not high.

4.4. *Other factors*

Such as the lack of relevant talents, the product quality assurance system is not perfect, the quality standards are not established, and the market supervision system is incomplete.

5. *Construction of agricultural product circulation network in Frenching City under e-commerce*

5.1. *Advantages of developing e-commerce of agricultural products in Frenching City*

Such as the lack of relevant talents, the product quality assurance system is not perfect, the quality standards are not established, and the market supervision system is incomplete.

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5.1.1. *The selenium-enriched agricultural products in Frenching City have the concept of selenium enrichment of ecology, organicity and longevity.* Under the social background of improving people's living standards and demanding higher food quality, Fengchengfu Selenium agricultural products have a good market position, develop online distribution channels, and can quickly open up the market, which in turn drives the online circulation of regional products.

5.1.2. *The policy can get strong support.* On the one hand, the central government has issued a number of policies to support the development of rural e-commerce. On the other hand, Frenching City issued the “Temporary Measures for the Promotion of E-commerce Industry in Frenching City”, and proposed the municipal government's annual budget allocation of 10 million yuan to support and guide the development of e-commerce and other supporting measures.

5.1.3. *The main transportation network is perfect and the location advantage is obvious.* The main traffic routes in Frenching include the Zhejiang-Jiangxi Railway, the Beijing-Kowloon Railway, the 105 National Highway, the Gangue Expressway and the Shanghai-Kunming Expressway, and the Lancang River Waterway crosses the territory. It is 60 kilometers away from Nanchang, the provincial capital, 30 kilometers away from Xiangtan Airport and 70 kilometers away from Changbei Airport. It enjoys convenient water, land and air transportation and is strategically located to support the development of foreign logistics and transportation activities.

5.1.4. *Agricultural professional cooperatives have developed rapidly.* By 2015, there were 310 agricultural professional cooperatives in Frenching, covering all towns and cities in the city. The agricultural cooperative system was initially formed. Although the overall strength is weak, with the maturity of the agricultural professional cooperative system, it can play a greater organizational role in the circulation of agricultural products.
5.1.5. E-commerce is developing rapidly. In 2014, the e-commerce transaction volume was 1.6 billion yuan. By 2015, the e-commerce transaction volume of Frenching City reached 4.5 billion yuan, a year-on-year increase of 180%. E-commerce plays an increasingly important role in the economic development of Frenching.

5.2. Construction of e-commerce agricultural product circulation network in Frenching City

With reference to the three modes of e-commerce agricultural products circulation, such as “Suichang Mode”, “Chengxian Model” and “Tongyu Mode”, combined with the current situation of agricultural products circulation in Frenching, the construction of the e-commerce agricultural products circulation of Frenching platformization and branding was constructed. Mode. With Frenching “Jinqiao Business Network” or another e-commerce website as an integrated e-commerce service platform for agricultural products, it can develop into a platform similar to “Sui Net” by attracting individual network operators, logistics enterprises, agricultural products enterprises and other related enterprises. Frenching special agricultural products with the concept of “eco, organic and longevity” are the brand breakthroughs, creating the brand of Frenching selenium-enriched agricultural products, which in turn drives the circulation of local agricultural products; and establishes cooperative relations with vertical self-operated agricultural products e-commerce. Direct sales mode of self-operated e-commerce + planting base; at the same time, using the third-party e-commerce platform such as “Rural E-mail” and Taobao.com to build a variety of online circulation channels for agricultural products e-commerce circulation system; The construction of logistics parks will attract logistics enterprises to settle in, vigorously develop 3PL logistics and 4PL logistics, improve the quality of logistics services, ensure efficient agricultural product logistics, and form an industrial chain cluster(Fig.2).

Figure 2. Frenching Agricultural Products E-commerce Distribution Network
6. Countermeasures and recommendations

6.1. Highlight the role of the government and encourage the development of agricultural products

The Frenching government should increase policy support to attract college students and rural young adults to become the pioneers of e-commerce development of agricultural products. The urban population of Frenching City is relatively large, and the outflow of young and middle-aged laborers in rural areas is serious. The rural population is aging, the overall cultural level is not high, and the traditional concept is profound and lacks internal vitality. The cultural level of college students and rural young and middle-aged people is relatively large. It is the main group of e-commerce. It is no stranger to the new thing of e-commerce and can promote the development of e-commerce of agricultural products. At the same time, the government has a strong driving role, and can draw on the government-led approach in the development of e-commerce for agricultural products in typical counties. In the early stage of development, with the endorsement of government credit endorsement, the rapid development of online circulation of agricultural products and the realization of agricultural products going online step.

6.2. Increase investment in infrastructure construction and improve relevant support service systems

At the same time, the first is to increase the construction of logistics infrastructure, especially the construction of logistics parks and the construction of township-level logistics outlets. Good logistics support is the basic guarantee for the rapid development of agricultural products e-commerce; second, increase the construction of highways and broadband networks in rural areas, and strive Realize the e-commerce development support system for villages and villages, and the Internet. The third is to speed up the construction of “rural e-mail” outlets. The development of rural e-commerce in Frenching is very backward. The “E-mail” project is the current development of rural e-commerce in Frenching. The main platform and driving force to develop “rural e-mail” will greatly promote the development of rural e-commerce.

6.3. Improve the construction of agricultural products e-commerce organization system

The county e-commerce association was established as the organizational structure and development platform for agricultural products e-commerce, and an e-commerce service platform similar to “Sui Net” was established. At the same time, it will attract logistics chain enterprises, financial enterprises, e-commerce, agricultural enterprises, industrial enterprises and other industrial chain-related enterprises to settle in, and realize one-stop comprehensive service of the platform. And e-commerce associations and other similar institutions provide specialized e-commerce training for farmers to improve their understanding of e-commerce. Develop agricultural professional cooperatives and improve the comprehensive strength of agricultural cooperatives. The agricultural professional cooperatives are located in rural areas and have a wide network of outlets, which has great potential for organizing and coordinating farmers. There are 310 agricultural professional cooperatives in Frenching, covering all towns and towns in the city, but the overall strength is still weak. The reform of agricultural professional cooperatives should be deepened, young talents and talents should be introduced, and the agricultural professional cooperative system should be improved to form institutionalized, information zed and integrated. The operating system to give full play to the organizational coordination role of farmers.

6.4. Establishing the marketing concept of agricultural products circulation and promoting brand management

With reference to the successful experience of county-level agricultural products e-commerce development model, such as Tongyu County, with the characteristics of selenium-enriched agricultural products as the core, develop the characteristic brand of selenium-enriched agricultural products, and create its own brand, with Frenching characteristic selenium-enriched agricultural products to drive the products of Frenching area products. Circulate. In addition, it cooperates with third-party e-commerce platforms such as Alibaba, Tmall, and Jingdong to expand online distribution channels. (5) Improve the
circulation standard system for agricultural products. Formulate the industrial agricultural product circulation standards of Frenching City, improve the standard system construction of agricultural products procurement, primary processing, packaging, storage and transportation, grading, quality inspection and other circulation links, realize the standardization of agricultural product circulation, strengthen the quality and safety inspection of agricultural products, and improve the quality traceability system of agricultural products. To ensure the quality of agricultural products.

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