Research on Cross-Border Logistics Supply Chain Management Mode of Fresh Food Products under the Background of "the Belt and Road"

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Abstract: in Recent Years, China's Agricultural Products Trade Along "the Belt and Road" Countries Have Been Frequent, and the Development of Cross-Border e-Commerce for Fresh Food Products Has Been Faster. However, At Present, the Cross-Border Logistics Supply Chain Management Model of Chinese Fresh Food Agricultural Products Still Has Problems Such as Unclear Development Mode, Difficulty in Unifying the Quality Standards of Fresh Food Products, and Imperfect Cross-Border Logistics Supply Chain System. These Problems Restrict the Development of Cross-Border Trade in Agricultural Products. Based on This, This Paper Constructs an Innovative Model of Cross-Border Logistics Supply Chain Management of Fresh Food Products under the Background of "the Belt and Road".

1. Introduction

1.1 Literature Review

He Weizhong analyzed the status quo of agricultural product quality and safety, and further explored the problems in quality and safety supervision in the supply chain model. Finally, based on the perspective of supply chain management, a countermeasure strategy for agricultural product supply chain management innovation is proposed (He, 2015). Yuan Bin took the status quo of cross-border e-commerce in China as an entry point and deeply analyzed the construction of the international logistics supply chain management model. The study proposes that under the cross-border e-commerce perspective, the key to building an international logistics supply chain is the cooperation and win-win of the core supply chain enterprises and the maximization of rights (Yuan, 2016). Guo Li is based on the information network platform and has conducted in-depth discussions on the agricultural product supply chain logistics management model. The research proposes that the constraints and advancement of the information network platform can fully explain the agricultural product supply chain logistics management, and the information network platform has a very broad application prospect (Guo, 2016). Lun Zhaoliang and Guo Qiufang conducted in-depth research on the development of China's agricultural products. They believe that the development of third-party logistics of agricultural products e-commerce should be promoted from three aspects. These three include strengthening the construction of agricultural products e-commerce logistics infrastructure, actively supporting agricultural e-commerce enterprises, and improving the level of e-commerce informationization of agricultural products (Lun and Guo, 2017).

1.2 Research Purposes

With the gradual advancement of the "the belt and road" strategy, China's economic and trade exchanges with countries along the line have become increasingly frequent. Many countries along the line and China are both agricultural powers. The "One Belt, One Road" strategy has brought about a great development opportunity for bilateral agricultural trade. In this context, China's fresh food cross-border logistics also ushered in new opportunities. However, at present, there are still many problems in the cross-border logistics supply chain management model of agricultural products, which greatly restricts the development of cross-border trade of fresh produce in China. Based on this, this paper analyzes the problems of cross-border logistics supply chain characteristics

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and supply chain management mode of fresh food agricultural products, and proposes a new management model, in order to provide a useful reference for the development of cross-border logistics supply chain of fresh produce in China.

2. Characteristics of Cross-Border Logistics Supply Chain of Fresh Food Products

Under the background of economic globalization, cross-border e-commerce has developed rapidly. International trade has become more frequent and has gradually become the new normal of economic development. Cross-border e-commerce companies can gain more share in the international market competition by continuously optimizing the logistics supply chain management model. In the development of cross-border e-commerce of agricultural products, its supply chain management mainly presents the following characteristics.

First, the cross-border logistics supply chain environment is complex. At present, although the development of cross-border e-commerce for fresh food products is relatively rapid, it is still in the initial stage of development. At the same time, in the process of transportation of international trade products, there is a certain time difference, and the transportation environment is also complicated, which leads to delay in the updating of logistics information of fresh food products. In international trade, countries have the above problems. The logistics management systems of different countries have great differences. Coupled with the influence of natural environment, economic development and politics, the development of cross-border logistics of Chinese fresh food products has a great impact.

Second, there are differences in the degree of informatization of logistics supply chains in various countries, and logistics technology is characterized by imbalance. Under the background of “One Belt, One Road”, cross-border logistics of fresh food products in China involves more countries. There is a big difference in the political system between countries, and the level of science and technology and economic development are not synchronized. Therefore, it will have an impact on the information development of cross-border logistics of fresh food products. These effects are to further increase the cost of cross-border logistics. At present, the development speed of cross-border e-commerce is relatively fast, which has led to the continuous development of the logistics industry (Li et al, 2016). And electronic information technology is the basis for the development of the logistics industry. Therefore, countries should further strengthen the development of information technology.

Third, the logistics distribution method is subject to greater constraints. Although the development of agricultural products e-commerce is rapid, the corresponding logistics supply chain has not met the requirements of simultaneous development, and is still subject to many factors. Among these constraints, the most important one is geographical restrictions. In the process of cross-border circulation of fresh food products, due to different regions, distribution and distribution channels are also subject to many restrictions. At the same time, the marketing model of the foreign logistics industry and the international competition environment will have a greater impact on the circulation of agricultural products (Zhao, 2016). Therefore, for the cross-border logistics supply chain of fresh food products, it is necessary to continuously optimize supply chain management in order to achieve further development.

3. Problems in Cross-Border Logistics Supply Chain Management of Fresh Food Products

3.1 The Development Model of Cross-Border e-Commerce is Not Clear

For the time being, the development models of cross-border e-commerce for fresh food products mainly include C2C, B2C, and B2B. These models have their own characteristics, but they also have their own advantages and disadvantages. With the continuous popularization of rural information technology, many agricultural producers began to sell their agricultural products on third-party e-commerce platforms, or began to establish their own websites for sales. In these ways, not only can agricultural products be sold directly to foreign companies, but also agricultural

products can be directly sold to consumers through the Internet. However, at present, under the B2B trading model, fresh food producers have less knowledge of foreign agricultural market demand, resulting in fewer transactions and frequent transactions. This will increase the cost of cross-border trade in agricultural products and create greater trading risks. Similarly, in the C2C and B2C modes, there is also a problem of excessive cross-border transaction costs. In addition, some fresh food products are of low value and heavy weight, and the cost of a single transportation is relatively high. As a result, the existing cross-border e-commerce model is not fully applicable to cross-border transactions in fresh produce.

3.2 The Quality Standards of Fresh Food Products Are Difficult to Unify

In the cross-border trading of agricultural products, the testing standards for product quality have always been difficult to unify, which has greatly restricted the development of agricultural products. As far as the current situation is concerned, the trading volume of the national agricultural product e-commerce platform is far from expected, and overall it is not very successful. Despite the high transaction costs of agricultural products and complicated procedures, the development of agricultural products e-commerce has brought a big opportunity. However, the production of agricultural products is still in an extensive operating mode, and the standardization of many technical standards needs to be improved. In the process of agricultural product circulation, there are more circulation entities and more links, and there are big differences in logistics standards. There are many agricultural products that need to undergo multiple transportation turns in circulation. The emergence of these problems has made it difficult to unify the quality standards of fresh produce. In addition, there is a big gap between China and international agricultural product quality standards, and it is difficult to unify in the circulation process. In particular, many agricultural products in China are difficult to meet international quality standards, resulting in a relatively cold national market for fresh produce in China.

3.3 Fresh Food Agricultural Products Cross-Border Logistics Supply Chain System is Not Perfect

At present, many rural areas in China still have constraints such as imperfect export logistics facilities, limited market areas, and low cultural quality of farmers, which leads to problems in the construction of fresh food agricultural product logistics supply chain system. Specifically, the level of informationization of agricultural products logistics is low overall, and the communication between farmers and consumers at both ends of the supply chain is not smooth, and the information on buying and selling goods is asymmetrical. The existence of these problems has made it difficult to effectively convey the commodity information of fresh food products in the supply chain. Moreover, fresh food products have certain timeliness, while logistics distribution efficiency is relatively low, and transportation methods are relatively simple. In addition, the long distance of distribution leads to excessive loss of agricultural products during transportation and increases the cost of agricultural products.

4. Construction of an innovative model for cross-border logistics supply chain management of fresh food products under the background of “the belt and road”

4.1 Construction of F2b e-Commerce Model for Fresh Food Products

From the perspective of the existing e-commerce model, the transaction cost of agricultural products is generally high, which has weakened the competitiveness of Chinese fresh food products in the international market to some extent. In order to reduce the risk of fresh food products in the transaction process, it is necessary to innovate the agricultural product e-commerce model. The F2B model (see Figure 1) can make up for the shortcomings of the above three e-commerce models and reduce the risk of agricultural products trading. Among them, F refers to producers of fresh food products, and B refers to sellers of fresh food products. In order to achieve the docking between farmers and sellers, it is necessary to construct an intermediate link C. C refers to the fresh food

agricultural e-commerce cooperative. In this model, cooperatives play multiple roles as an intermediate link. In the production stage of fresh food production, cooperatives can carry out effective production and marketing information docking, and provide e-commerce training, technical guidance and financial support for farmers. In the sales stage of fresh food products, cooperatives, as intermediaries, can sell agricultural products in the market. At this stage, cooperatives play a role in balancing market supply and demand and reducing costs, and can further enhance the benefits of fresh food products. In the circulation process, cooperatives can pass on third-party logistics to deliver agricultural products to consumers, and at the same time, package and distribute agricultural products, further reducing the loss of agricultural products in the process of circulation.

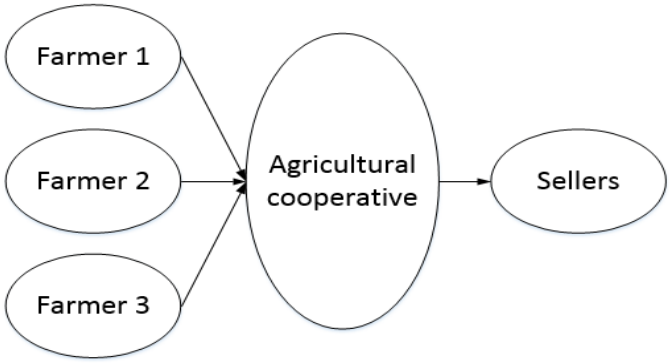

Fig.1 Construction of F2b e-Commerce Model for Fresh Food Products

4.2 Creating a Cross-Border e-Commerce Logistics Supply Chain Model for Mobile Agricultural Products

In order to make the sales of agricultural products e-commerce more in line with the consumption patterns and consumption habits of mobile phone users, efforts should be made to build e-commerce information. Specifically, relevant enterprises can carry out terminal application development of cross-border e-commerce APP for agricultural products, thereby realizing the mobile Internetization of cross-border agricultural product logistics supply chain. With the application and popularization of Internet technology, more and more consumers are shopping through the Internet mobile terminal. In developed countries such as Japan and the United States, more than 30% of Internet users are able to do so through mobile terminals. At the same time, in developing countries such as India and China, the proportion of consumers who purchase online through mobile terminals has exceeded 15%. Therefore, China's agricultural products e-commerce companies should also develop mobile e-commerce platform application software to better meet the needs of consumers. For example, the Wish merchant platform is a C2C mobile e-commerce platform that achieves accurate marketing through intelligent push technology, which greatly improves product sales efficiency and customer shopping satisfaction. This case shows that private customization will become the mainstream way of future consumption. Based on this, cross-border e-commerce of agricultural products should also innovate its logistics supply chain management model to further improve the operational efficiency of the logistics supply chain.

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