Analysis of Agricultural Products Logistics Mode in China in the E-commerce Environment

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Abstract. The development of agricultural products of e-commerce in China is slow, the sales mode is single, and the logistics is in poor circulation. It had an impact on the development of agricultural products of e-commerce development. In the e-commerce environment, how to make the agricultural products logistics mode better service for farmer is this paper study. This paper analyzes the existing problems of the current logistics mode of the agricultural products in the e-commerce environment. Through the investigation of some farmers and consumers, a model of the operation mode of the agricultural products in the e-commerce environment is put forward, which mainly solves the circulation way of the agricultural products and information. Then it puts forward several modes of agricultural product logistics in the e-commerce environment.

Introduction

Recently years, e-commerce had a considerable development in China. Every industry is benefited with the development of e-commerce. But the development of agricultural product is still slowly because of its special circulation condition. However, with the application of the e-commerce in agricultural, the development potential is expanding constantly. At present, one of the main problems encountered the development of Agriculture products industry is that the logistics of agricultural product is still in poor circulation.

Analysis of Present Logistics Mode of Agricultural Products

As the country has pay more and more attention on the market of agricultural products, for the special preservation of agricultural products. Many new logistics methods appeared. But because of the special national conditions of our country, such as the origin of agricultural product is more decentralized, area agricultural product distribution system has not been formed and other reasons, which led that in China the fresh agricultural products cannot be better supplied to the supermarkets. As well the problems of cold chain logistics of agricultural products have not been resolved well. The specific performance is that agricultural products loss close to 20% in the transportation, then on the transit of the product enter the retailer (supermarket) sales in the process of loss is about 10%, huge transport consumption, leading to market prices of agricultural products is high. To the healthy development of the market of agricultural products, it caused obstacles. The circulation channel of agricultural products is single, which cannot meet the huge demand of current agricultural products; and the logistics technology is backward, the unique demand for agricultural products is difficult to satisfy in present logistics environment.

At result, the agricultural products logistics had three main characteristics of: logistics of the agricultural products is in large quantities, varieties and the circulation process is complex, the logistics environment requirements are high.

North China's agricultural products logistics in the e-commerce environment is still developing, but the development is still slow. Mainly have the following questions:
The Circulation of Agricultural Products is too Long
In the process of agricultural trade, in addition to producers and consumers, there is the agricultural products market, transaction market, and there are various kinds of intermediaries, resulting in excessive circulation of agricultural products. In the prices of agricultural products, the production cost is very low. Even for very small proportion. But every trade links to the circulation of agricultural products increased costs, the primary producers will eventually get very low profit, at the same time, consumers are also required with a higher price to buy agricultural products.

The Agricultural Products Logistics and Distribution System is not Perfect
Compared with foreign advanced logistics operation, the condition of our country is lack of logistics supply chain management. Agricultural production unit is small, varieties and have a large quantity. There is no strict requirement in the preservation and transportation, so that greatly increased the difficulty of agricultural products logistics. An agricultural product, especially fresh agricultural products have not a uniform standard issued within the industry.

E-commerce Infrastructure in Rural Area is Weak
Although rural network hardware equipment is complete, rural areas of Internet users continued to grow in size, but because of our country urbanization speed is high changes a course accelerate, rural population transfer to the city, the rural netizen growth was not obvious. From the network application, commerce and communication of network application, Internet users use rate is higher than the rural towns; rural Internet commerce application is far behind the town. There are obvious differences in the use of internet between urban and rural areas. Rural area networks lack basic knowledge on the Internet, cognitive biases; related to rural infrastructure, different public have different access of Internet; the relative scarcity of resources that rural Internet costs compared to the level of income of the farmers is relatively high.

The Transactions are Lower Quality
Transaction subject culture quality and understanding to e-commerce affect the development of e-commerce of agricultural products. The farmer, the farmer cooperative organization, rural brokers, operators of agricultural products and agricultural enterprises are the main body of agricultural products market. At present our country agricultural producers are mostly individual farmers, farmers are important to participants in the market of agricultural products. Lower cultural quality of farmer, which led to know little about Internet technology and e-commerce related knowledge; this has become a major obstacle to the popularization and development of e-commerce.

The Demand of Agricultural Product Producer and Consumer
The development of agricultural product market in the e-commerce environment still need to a slow process. Through a random online survey shows that the 76% of agricultural producers hope to have direct conversation with customers, to understand the needs of the market. At the same time, more than 60% of the agricultural producers want to a professional fresh product storage and transportation services, to ensure that their agricultural products transport to the next stage of the supply chain, the product can keep fresh as long as possible, and reduce the loss generated in this process. At present, the agricultural product producers are hoping to reduce the intermediate links, and cut the loss on the transport, reduce the cost, to obtain greater benefits.

Consumers want that they can have more choices of agricultural products. The consumer is very hesitant for the opaque of agricultural product circulation process and the provided products’ information; consumers cannot take the initiative to query the origin of a product, fruit and vegetable products picking date, transport process. If there is a fresh product logistics and storage of professional services, through the GPS and radiofrequency technology, the products from producers can receive the tracking information, which are of great help for consumers and producers to ease of purchase or sales.
Agricultural Products Logistics Mode of in the E-commerce Environment in the Developed Countries

The developed countries in the field of agricultural products sales and logistics, started early than our country, so there are a lot of experience is worth learning, of which, more representative is U.S. and Japan. U.S. agricultural production and trade is a world leader. U.S. has a large, smooth, complex, efficient logistics system of agricultural products. U.S. fruit logistics is more typical, the products after harvest have been in low-temperature environment: the precooling - cold storage - refrigerated truck - cold storage in wholesale station -supermarket refrigerator - consumer refrigerator, which make the loss rate of fruits and vegetables in the physical distribution is only 1% -2%. In Japan, agriculture logistics management system has been formed. This management system not only eliminates the drawbacks of overlapping management from different departments, in line with a unified operating principle of agricultural production and circulation under the conditions of the market economy, but also meets the law of the agricultural product commercial production and operation, in line with the common interests of producers and consumers, reduce administrative costs and improve administrative efficiency. The two countries can be said to be the world leader in e-commerce of agricultural products. In developed countries, agricultural product transportation and storage loss is less than 3%; it can greatly reduce the storage cost. It is very helpful for the agricultural products market development in the e-commerce environment.

Analysis of Agricultural Products Logistics in the E-commerce Environment

In the e-commerce environment, agricultural products can adopt different logistics modes according to the nature and requirements of agricultural products. As shown in Figure 1, the circulation mode of agricultural products can be implemented from the following points.

![Figure 1. Agricultural product logistics mode in the e-commerce environment.](image)
Information Channels and the Mode of Logistics Adopted

There are four kinds of channels for agricultural products to sell: one is large quantities of products that need to be processed, directly selling through supply platforms, which should transport through regional logistics, which is mainly by road transportation. The second is the surplus products after the purchase of the factory, which can be sold through the e-commerce platform and through platform logistics transport them. The third is fresh agricultural products which are urban needs. Through the needs of nearby cities, mainly sell products through fresh agricultural products platform and enter the city, transported by fresh cold chain logistics, preferably by fixed logistics direct daily plucking and transportation. The fourth one is some local specialties and scarce products. Besides the other three ways, it can also be purchased through the way of sharing like "WeChat business", and through proper express transportation.

Because of the vast territory of China, the logistics of agricultural products must be carried out regionalized. The logistics model is closely related to the nature of the product.

The Role of Information Platform

Information platform is mainly for information interaction, and of course it can be bought and sold. WeChat's circle of friends can be built into a virtuous circle for less and special agricultural products, publicizing and selling season's agricultural products, and through sharing to obtain users. E-commerce platform is mainly the B2C platform to the sale of agricultural products, in addition to the ordinary purchase method can buy and sell in a predetermined manner. Agricultural products are scheduled on the platform. When the agricultural products are ripe, they can be quantitative purchased, can even direct be local packaged and sent by post. Thus it can reduce the loss of goods and inventory. Producers and consumers can reach trades in the trading platform. For a large number of agricultural products that can be processed, this can be directly purchased by factories. Through the information platform, the factory can obtain demand information and predicted the market demand, and also can control the purchase volume.

Quality Supervision and Government Support

In the whole operation process, the quality of the agricultural products should be guaranteed, so the quality supervision of the intermediate links is very important. For some standardized requirements, the state should designate policies and standards to promote the development of e-commerce for agricultural products.

Summary

Chinese e-commerce industry is booming. The agricultural product industry in the e-commerce environment, started relatively late, so it is important to learn from other countries, these countries have successful experience. But also does not mean to completely accept, Different countries have different ways to solve question, it should be in accordance with the national conditions. The development of agricultural products logistics center, through the establishment of regional agricultural products logistics center will help agricultural products develop in the e-commerce environment, which is very good for the current market of agricultural products. The state should carry out some supervision and co-ordination to ensure the smooth circulation of agricultural products.

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