Risk Control of Fresh E-commerce Cold Chain Logistics

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Abstract: Affected by the epidemic situation, in response to the call for home isolation, people’s online consumption level has improved, and more and more consumers choose to buy fruits and vegetables, dairy products, chilled meat and other fresh food in e-commerce platforms. Then the chain logistics is a very important link. The easy deterioration of fresh food determines the high requirements of the current cold chain logistics for temperature, time and quality. This paper analyzes the reasons for the risks of fresh e-commerce from the problems of high cost, low equipment ownership, small application range of technology and backward management faced by cold chain logistics in China, and puts forward several risk control countermeasures.

Keywords: Fresh e-commerce; Cold chain logistics; Risk control

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1. Introduction

At present, China’s fresh e-commerce is in a period of rapid development, and cold chain logistics has also ushered in a critical period of development. Cold chain fresh food logistics is a very special industry, which combines production and processing as well as transportation and storage. By omitting the steps, the transportation time of food materials is omitted, but the risks existing in cold chain fresh food logistics are also increased.

The scale of online shopping users in China is gradually increasing, but due to the shrinking profitability of high cost and high loss fresh e-commerce, and the management model of effective cost control has not yet taken shape, and the lack of overall planning and integration, the cold chain fresh food in China has a long way to go compared with western countries.

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According to the current market situation of fresh e-commerce, this paper deduces that the current cold chain logistics is bound to usher in a period of rapid rise, and then points out the risks existing in the industry risk management of cold chain logistics with fresh e-commerce as the main service object in China, and puts forward effective management measures.

2. Risk Analysis of Fresh E-commerce Cold Chain Logistics

The survey shows that the current risks of cold chain logistics are mainly insufficient supply of commodities, precarious supply chain and even occasional breakage. There is also whether the quality of the goods meets the expectations of consumers. These two risk reasons have also become the main problems to be solved in the development of cold chain fresh e-commerce.

(1) Internal Risks in the Cold Chain

The internal risks of the cold chain mainly come from: procurement and supply, technology and even human resources.

1) Risks in Procurement and Supply

The initial goal of the establishment of the cold chain system is to deliver the agreed quantity of high-quality fresh products to consumers within the appropriate time. The risks that may occur in the process of procurement and supply are mainly the risks that may exist in the quality and quantity of fresh agricultural products supplied.

2) Technical Risk

It refers to the storage of fresh products, the management of preservation and the practical aspects of information technology, which may lead to technical impropriety or improper operation. These will also reduce consumer satisfaction and bring certain risks to the whole cold chain logistics.

3) Organizational Risk

Organizational risk refers to the risk brought to the cold chain system by the level of human resources, risk awareness and timeliness of emergency plans.

(2) Cold Chain External Risk

The external risks of the cold chain are mainly divided into: market demand risks, environmental risks, economic and political risks.

1) Market Demand Risk

The survival of any enterprise needs to depend on the market. Fresh e-commerce is a new trading mode that develops rapidly during the epidemic. The fluctuation of the market is also stronger than that of the traditional market, so it will face strong-
er market demand risks.

2) Environmental Risk
Environmental risks mainly refer to uncontrollable factors outside the logistics system such as urban traffic jams and even natural disasters that may occur due to environmental reasons. These factors may increase the time of the logistics system and also cause some quality losses, thus bringing more associated losses.

3) Economic and Political Risks
National economic and political adjustment will also lead to changes in the supply chain investment, to a certain extent, it will increase the difficulty of financing, and even the operation may have a very big impact, these risks may bring unnecessary losses to the fresh cold chain.

3. Risk Control Strategy of Cold Chain Logistics for Fresh E-commerce

(1) National Level Control Strategy
The main reason is that the state needs to provide policies and the construction of service platforms, and at the same time strengthen the training of cold chain logistics professionals.

1) Preferential National Policies
The country needs to strengthen the construction of the cold chain fresh food logistics foundation, and needs to provide corresponding policy support in terms of equipment financing and capital chain, so as to strengthen the development of cold chain fresh food. At the same time, the problems existing in the equipment of fresh food enterprises at this stage, such as the low retention rate, cannot be separated from the government’s policy inclination.

2) Construction of National Support Service Platform
The state should strengthen the construction of cold chain fresh public service platform, so that the cold chain fresh members of the technology and information exchange, so that the cold chain fresh can be easier to do a good job in the connection of information, and can let the cold chain logistics enterprises can be more harmonious and convenient and timely and even accurate to do a good job in the relevant information, can be more timely management measures.

3) Training of Cold Chain Logistics Professionals
The state should strongly support the development of e-commerce, and also strengthen the construction and reform of cold chain fresh food related technical specialties. First of all, the country needs to increase investment in relevant courses in colleges and universities. It needs to combine practice, abandon pure theory and
cultivate students’ practical ability.

(2) **Control Strategies at Industry Level**

The whole industry should do a good job in the construction of major businesses. It should not only save funds, but also avoid risks. It should also strengthen the cooperation mode of enterprises, do a good job in the exchange of technologies and reduce technical risks.

1) Concentrate on the Main Business

In the whole fresh transportation process, the third-party logistics can be used, that is, the cold chain fresh logistics business is outsourced to the logistics-focused enterprises, which can also save funds while avoiding risks and better concentrate on the main business.

2) Cooperation between enterprises should be strengthened.

Only by interconnecting fresh food enterprises and strengthening the sharing of logistics information can we better build an information system and carry out information sharing and feedback at any time, thus reducing risks in logistics. At the same time, for the application of cold chain logistics technology, the alliance can better reduce technical risks.

(3) **Control Strategies at Enterprise Level**

Enterprises also need to strengthen the construction of macro infrastructure, improve professional facilities, and strengthen the application of cold chain technology. Secondly, different fresh products should be treated differently, and emergency logistics plan should be made in case of emergency. At the same time, the maintenance of equipment needs to be strengthened, and the technical training of employees cannot be left behind.

1) Control Strategies at Macro Level of Enterprises

Enterprises should increase investment in infrastructure equipment. Refrigerated trucks, refrigerated rooms, refrigerated aircraft and refrigerated truck containers need to be introduced, and the cold chain logistics technology also needs to be strengthened.

2) The Control Strategy of Enterprises at Micro Level

For different levels and different types of fresh products, we need to do a good job in the control of different raw materials, for fruits and vegetables, as well as meat products and other types of fresh products types and maturity needs to be identified. In the process of cold storage, we should strengthen the comprehensive quality of the management staff of the cold storage, and regularly do a good job in the audit work of the internal refrigeration Department. For the possible problems,
we need to make regular inspection records to facilitate the troubleshooting. Secondly, we need to do a good job in the maintenance work on a regular basis, so as to better reduce the possibility of a good failure.

In the process of transportation, in the face of possible logistics problems, the temperature detection device should be well implemented, and the data implementation should be fed back to the operators and monitoring personnel. The effective emergency response to the possible problems should be done at the first time, and regular records should be made for the maintenance and cleaning and disinfection of the equipment.

For the staff, strengthen the technical training of employees, and the requirements for management personnel need to be improved, which requires managers to have basic cold chain related professional knowledge, and have a certain degree of high-intensity safety risk awareness.

3. Conclusion

Fresh e-commerce is still in the development stage for the present, but it is an emerging industry with a bright future. The cold chain fresh food industry will be able to develop rapidly in the next few years. However, there are still some problems in the cold chain fresh logistics industry in China, which inevitably leads to the risk of cold chain fresh food is greater than that of other traditional industries. This paper analyzes the current problems of fresh food in China, analyzes the problems from internal and external factors, and then puts forward the risk control strategies from the three levels of the state, enterprises and industry. This article cannot generalize in the analysis of the causes of risks. China’s fresh e-commerce industry is still developing continuously, and there are still many problems that have not yet been exposed. Therefore, the countermeasures in this article are only for reference. It is expected that China’s cold chain fresh food enterprises can promote the solution of logistics problems, so as to reduce the cost of cold chain logistics and improve the efficiency of cold chain logistics. In the future, China’s cold chain fresh food products will definitely attract more customers.
Works Cited

