

The Application and Development of Supply Chain Logistics in the Food Industry

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Abstract : With the continuous improvement of the level of social and economic development, people's demand for food has obviously changed from satisfying food and clothing. Fresh, healthy, high-quality, and pollution-free requirements have become new standards for people to choose food. At the same time, the development of the logistics industry has broken the traditional way of food supply, and time and space are no longer the limit for people to taste food. As far as the current application of supply chain logistics in my country's food industry is concerned, analyze and solve some of the objective problems that exist, and give full play to the role of supply chain logistics as an intermediary bridge in the food industry. Sustainable development is of great significance.

Keywords : Supply Chain Logistics; Food Industry; Problem; Application Strategy

Supply chain logistics is widely used in the food industry. Whether it is the timely delivery of food ingredients or the transportation of processed finished products, supply chain logistics is a key factor affecting the smooth development of food production. In the current operation of supply chain logistics, it is mainly through strengthening the reasonable allocation of various logistics resources to achieve the improvement of supply chain logistics delivery efficiency, and at the same time using modern science and technology to preserve the freshness of food in transportation. Although my country's current food industry supply chain logistics has shown a relatively mature appearance, in actual operation there have been problems such as untimely logistics information interaction, unbalanced development of cold chain technology, and lack of logistics and transportation standards applicable to the food industry. Therefore, it is necessary to carry out an effective analysis of the various problems reflected in the application of current supply chain logistics in the food industry and propose corresponding application strategies to promote the sustainable and healthy development of my country's food industry.

1. The current problems of supply chain logistics in the food industry

1.1 Decentralized information control system

The information control system mainly affects the real-time control of the supply chain logistics, especially in the cold chain transportation, the inadequate real-time monitoring will have a great adverse effect on the quality of the food in transportation. Restricted by financial or technical issues, only some large enterprises in my country currently use integrated temperature control systems in supply chain logistics. They can effectively monitor the conditions of cold chain transportation in real time, including temperature and humidity. Adjust the external environment to achieve the best preservation of food. In addition, in many cases, in the process of food transportation, departments and enterprises did not maintain close and timely information communication, resulting in enterprises unable to control the actual situation of supply chain logistics. If there are problems in the food transportation process. It can't solve the hidden food safety hazards in a timely manner and reduce the possible economic losses. This situation occurs most frequently in large-scale food transportation, and its consequences are the most serious, which greatly

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affects the sound development of my country's food industry.

1.2 Lack of logistics standardization in the food supply chain

Chinese food supply chain logistics standards and specifications have not yet been unified as a whole. Different companies have different requirements for related requirements. The lack of unified standards has greatly increased the management of supply chain logistics in the food industry. Because different companies have different standards, even if the same food is transported, as long as the transportation process is not undertaken by a single company, then when the food is transferred to the supply chain logistics transportation, there will be differences in control standards. Strictly speaking, this difference does not conform to the concept of food quality control. To ensure that the food in the supply chain logistics transportation process maintains a good flow of information, it is necessary to unify the supply chain logistics standards, and use an integrated information system to provide real-time feedback on inventory and transportation issues. However, this is the current food in my country. What is missing in industry supply chain logistics. The development of the enterprise itself, especially the development difference in technology, is an important influencing factor for the lack of standardization. Many small and medium-sized supply chains have imperfect technologies. When they participate in the overall logistics and transportation process, there will be obvious technical faults. For example, the effect of refrigeration equipment is not ideal and cannot meet the requirements of food preservation, which leads to food quality problems. However, the root cause is not that these small and medium-sized enterprises do not want to, but that they cannot achieve uniform standards with large enterprises. It is not easy for chain logistics to be standardized in the food industry.

1.3 Unbalanced cold chain circulation coverage

The use of cold chain transportation is the first choice to keep food fresh and ensure quality during transportation. The advantages of cold chain transportation are undoubted, but its cost is also quite high, and there are certain requirements for technology. Affected by this reason, the current cold chain circulation coverage in the logistics and transportation of the food industry in our country is not comprehensive and unbalanced, which directly leads to a higher loss of food in the transportation process. The situation of not using cold chain transportation often occurs in small and medium-sized food companies and retail businesses. Actual data shows that the proportion of cold chain transportation is far less than that of ordinary transportation, and the increase in food loss during transportation will directly lead to the final selling price of food is relatively high. The advantages of cold chain transportation technology in food transportation are very obvious, especially in reducing food loss, but this also means that more funds need to be invested in supply chain logistics. How to balance quality and cost is a major issue that the food industry needs to consider.

2. Analysis of the application strategy of supply chain logistics in the food industry

2.1 Strengthen the application of IoT technology in food industry supply chain logistics

The development momentum of my country's IoT technology is quite good. Strengthening its application in the food industry supply chain logistics can reflect actual effects in improving food transportation efficiency and saving purchase and transportation costs. Readers such as electronic tag related technologies can be used in supply chain logistics. The combination of electronic tags and food cold chain transportation can give full play to the optimizing role of IoT technology in the overall supply chain logistics, enabling precise procurement achieve. The use of electronic tags can make the control of the food source more accurate, and at the same time can greatly reduce the labor cost of food purchases, improve efficiency, retain food source information, and facilitate the solution of problems. From the buyer's point of view, before they provide food purchase orders, they can use electronic tags to understand the basic information of the food, including information such as quality and source. At the same time, they can also analyze the food according to the real-time logistics and transportation conditions provided by the electronic tags. The supply chain logistics and transportation process are tracked. The application of the IoT technology can effectively realize the information connection between buyers and sellers, and both parties can more accurately grasp the transit information of food in the transportation process. Accurate data support is more convincing than turbulent language. This is more scientific The food procurement method efficiently saves the consumption of transaction resources and waste of procurement costs. In daily production management, the use of IoT technology can effectively control the staged information and related conditions of production, and can supervise the quality of food while supervising the production process.

2.2 Strengthen control over food storage and transportation

Food storage is a key issue in the process of food transportation. The storage environment will affect the quality and quality of food. The operation time of the storage business will affect the efficiency of food transportation. Therefore, it is very necessary to

further improve the precise control of storage information. Effective use of scientific and technological means to support the supply chain logistics to realize the intelligent management of food delivery and storage can effectively save the time of storage operations. At the same time, real-time monitoring of the storage environment can adjust the temperature and humidity of the food storage in time. So that food can be stored in a suitable environment. The same is true for food transportation. Whether it is warehousing or transportation, the efficiency of the entire food industry supply chain logistics is particularly significant. Information technology can provide great help in food storage. It can also achieve the purpose of improving efficiency and quality assurance in food transportation.

2.3 Gradually improve the management system of food supply chain logistics

Based on the characteristics of the food industry itself, there are higher requirements for supply chain logistics. At this stage, my country's supply chain logistics has been constantly moving towards standardization and systematization. However, there are still certain unsuitable problems in the food supply chain. Including the inconsistent standardization mentioned in the previous article, it is also caused by the incomplete management system. Therefore, the improvement of related management systems in the food transportation of supply chain logistics can fundamentally carry out effective supervision of the overall links of transportation. At the same time, for small and medium-sized enterprises with relatively backward technological development, certain institutional support can be given to promote the update of their food transportation and logistics technology, so that the logistics level of the food supply chain can be improved as a whole.

3. Conclusion

The extensive use of supply chain logistics in the food industry is an inevitable trend of current social development. It is undeniable that it provides great convenience for the further development of the food industry itself, but some problems in practice cannot be ignored because of this. More precise control of the supply chain logistics process, reasonable application of information technology in the food transportation process, and improvement of the food supply chain logistics control system can enable the supply chain logistics to be better used and developed in the food industry. While ensuring the quality of food transportation, it improves transportation efficiency and saves transportation costs, effectively ensuring food safety.

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