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REVIEW ARTICLE

RESEARCH ON STRATEGIC MODE AND DEVELOPMENT OF REVERSE LOGISTICS IN RETAIL INDUSTRY

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ABSTRACT

With the development of modern science and technology and the integration of global economy, the competitive advantage of retail enterprises depends more and more on the speed, cost, service and efficiency provided by modern logistics. Therefore, retailers must have an efficient reverse logistics system in order to maintain a stable customer base and lower operating costs and maintain the competitive edge of the market. Based on the analysis of the development dilemma of reverse logistics in retail industry, this paper probes into the existing strategic models and puts forward effective management strategies, in order to provide relevant enterprises with reference advice and suggestions to achieve the goal of sustainable development.

KEYWORDS

retail industry, reverse logistics, strategic model, development strategy.

1. BACKGROUND AND SIGNIFICANCE

In recent years, the return of the goods and waste recycling as the main part of reverse logistics began to be practical and theoretical circles attention, and control and management methods and significance of the study of return logistics return logistics of modern retail enterprises. However, there are still many problems in the management and control of returned goods in retail enterprises, and there are still some misunderstandings about the return logistics [1]. Research shows that the value of the return contained in the return accounts for 30% of annual consumer returns, but such a large share is often given the lowest operating priority by retail enterprises. Nearly 40% of China's retail enterprises return goods for more than two weeks.

Today, the electronic commerce network marketing enterprises to occupy a space for one person in the fierce market competition, improve customer satisfaction, maintain and improve customer loyalty for the enterprise products, began to take a more liberal return policy, led to a substantial increase in return, and with them even if the high return rate. This has exacerbated the existing network sales of non-retail enterprises reverse logistics implementation pressure. How to construct an effective return logistics system is becoming a new competitive field for retailers to improve their efficiency.

As an important component of reverse logistics system, the design of return logistics system has become the focus of research in the industry and academia. Therefore, how to use modern information network technology and modern retail enterprises, the mathematical programming model, reduce the return logistics system uncertainty and risk, establish the logistics system for the return characteristics, are of great significance to the sustainable development of retail enterprises and the state environmental protection policy response.

2. TYPES OF REVERSE LOGISTICS IN RETAIL INDUSTRY

In retail industry, reverse logistics is characterized by the flow of selling goods from consumer to retail store to vendor. How to realize reverse logistics efficiently and quickly is an important problem for retail enterprises to solve.

2.1 Retail industry, the main source of reverse logistics

The main sources of reverse logistics in retail industry are as follows:

①Customer returns. Common causes for return include shortage of transportation, product parts, internal components missing, product damaged within or in transit, input error of product defects, product quality, product warranty expires and repeat transportation etc.

②Supplier's product recall behavior. Mainly refers to the manufacturer because of goods expired, unsalable or defective products, and actively remove the products from retail shelves shelves, and returned to the factory for reprocessing.

③The recall behavior of waste products stipulated by law. According to the provisions of the state law, not discarded after scrapping, must be recovered by dealers or manufacturers to recover a class of products processed [2].

2.2 The specific form of retail reverse logistics

The specific form of retail reverse logistics can be divided into the following situations:

①Goods returned from retail stores but sold two times to the distribution center are delivered by the distribution center for two times according to the needs of different retail stores.

②The return of non-marketable goods from retail stores determines whether the goods can be returned or not, whether or not to be delivered to the supplier or destroyed in place at the distribution center.

③Retail goods directly to suppliers, such as fresh vegetables, porcelain and so on.

④The act of transferring goods between retail stores, because some stores are in short supply to transfer goods from other retail stores.

⑤Retail stores accept customers return of waste electronic products, retail stores determine whether the product meets the recycling

requirements, the decision is returned to the supplier or directly to the manufacturers, such as refrigerators, color TV, mobile phones, etc.

⑥Retail outlets are packaged by retail stores to determine whether they will use in retail stores,or return to the distribution center, or return to the supplier for repairing and using.

2.3 The retail reverse logistics problems

For most of the retail enterprise, the customer-oriented market competition, only in product quality and price competition in the logistics system in logistics is very huge challenge, when faced with the reverse logistics process is more difficult to deal with. Most retailers have to face the problem that there is no income but only the cost. At present, the following problems exist in the reverse logistics management of retail industry in our country:

(1) The quantity of return goods is large, the frequency is high, and the goods cannot be well controlled [3].

Due to the lack of more suitable for the enterprise's technical and management measures, the enterprise is facing its technical ability is not supported and frequent rise of order return, the goods invalid delivery rate rise.

(2) The difficulty of returning the goods to the supplier leads to tight storage of the normal goods.

As a result of various reasons, retailers and suppliers in the processing of return goods difficult to achieve good docking, resulting in its own distribution centers or warehouses are often recycled goods occupied. Especially in the summer, damaged expired goods emit a large number of peculiar smell, affecting the storage of normal commodities.

(3) There is a lack of reasonable standards for handling goods in the warehouse, and the inventory and classification of goods in the retail shops are heavy.

In the goods returned to the warehouse, both can be sold two times, but also cannot sell, need to return to the supplier. Commodities for merchants (as well as discarded goods and goods donated to charity for free). Some poor management of retail shops and even different categories of goods mixed together, which brings great burden to the sorting and distribution center. Some of the goods because of the back-sorting time is too long and lead to goods expired, cannot be sold, and bring huge economic losses to enterprises.

3. RETAIL REVERSE LOGISTICS STRATEGIC MODE

To achieve more results in the retail reverse logistics of our country at this stage, we must first understand the "leading" of reverse logistics industry --- the United states. The United States is a scientific and systematic country for the management of reverse logistics. Before 1990s, the retail industry in the United States usually adopted a more primitive return process, which was returned to the manufacturer by the manufacturer itself. This method is not only inefficient, wasteful, but the cost of return processing is also quite high. But in recent years, the management of reverse logistics has developed rapidly in our country and has reached the level of professional management. It has provided an example for other countries' retail reverse logistics management.

The development of reverse logistics management in American retail industry is mainly from intensive processing. The establishment of reverse logistics return goods center to solve the United States manufacturers return goods processing part of the production was in trouble, they prefer to purchase and sale of goods in the contract agreed in advance to return a certain proportion of net goods, no longer accept the returns. This is also known as day after "zero return goods" purchase and sale mode. From the beginning of 1990, some large chain retailers in the United States in order to improve the processing efficiency of return goods, in accordance with the principles of specialization and intensification, modeled on the deployment of goods center forward logistics management in the form of the reverse thinking, set up regional "return goods center" to return goods business focus.

This became the beginning of reverse logistics management. The main function of the return product center is to receive all the returned products from the retail stores in the system. Screening of returned goods. They are divided according to the actual situation of return goods can be refurbished to the sales price can be wholesale sales, can be returned to the manufacturer, for charitable donations (in the United States for charitable donations tax deductible), can be used for waste utilization and no use value, and the correlation processing. The return products processing center has a large scale of regenerated factories, refitting the resale goods after refurbishment, packaging and reintegrating into the forward logistics scales. Unified settlement of the funds involved in the returned goods. Make a comprehensive statistical analysis of the returned goods, the causes and the trend of the return of all kinds of manufacturers, stores and commodities, and submit relevant reports to the headquarters in time.

The two main contributions of the product center to American retailers are: first, improving the circulation efficiency of returned goods, reducing the cost of reverse logistics, and speeding up the recycling of returned goods. According to the analysis, due to the centralized distribution of return goods, the unified handling of return goods bills and the salvage value of discarded goods, etc. Reverse logistics management a year for businesses to reduce the total cost of sales of the 0.1%-0.3%, the Wal-Mart Store Inc as an example, through the reverse logistics management of annual average can save money more than $7.3; Two is focusing on return products can greatly reduce the workload of retail stores and manufacturers, make full use of space of retail stores, and also facilitate the collection of business trends related to the return products [4].

Due to China's specific national conditions are different, so in return from the United States warehouse inventory management should be fully integrated with the domestic enterprises in the industry operating status in the enterprise, investment, production, management and customer service should be fully taken into account, so that local conditions.

3.1 Sorting management

3.1.1 Sorting work

When the distribution center faces the goods returning from many stores, there is always a heavy commodity sorting work. In these returned goods, there are goods that can be sold for two times, and also goods that cannot be sold back to the supplier. Some stores even chaotic management of different categories of goods will be mixed in one package, a huge burden for sorting and distribution center staff. At the same time, some goods lead to expired goods cannot be sold because of returning to warehouse sorting time is too long and bring great losses to the enterprise. For the management of returned commodities, the corresponding rules should be set up:

①Minimum return amount and quantity limit

For some goods with small quantity or small amount, if the shipment is carried out again for two times, the cost is higher than that of the warehouse.

②Goods returned to warehouse can be stored separately according to the distribution

For some large-scale retail enterprises, variety of goods, delivery of goods will again return to factory and damaged goods packaging respectively, can greatly improve the processing efficiency of the warehouse goods return, ensure a portion of the goods can quickly transfer within the period of validity [5].

③Strengthen store standardization and return warehouse management

Most of the distribution center staff, a distribution center staff often need to face dozens or even hundreds of stores back to warehouse goods, if the warehouse management return each store can be standardized, will greatly improve the efficiency of distribution center operations.

3.1.2 Information communication

The process of information communication, the commodity distribution rise is often because of invalid, retail commodity distribution business is based on the unified management arrangements, rather than by the store to produce goods orders, so they have a commodity distribution and stores

that have different views, such as the irrational distribution of goods. In order to solve the above problems, the one hand to improve the commodity procurement analysis ability, strengthen information exchange headquarters and stores, the headquarters can have more understanding about the store needs, reduce the gap between the procurement of goods and stores demand; another is from the retail enterprise internal management structure [6].

Establishing and managing reverse logistics system is an arduous task. Although we can apply complex forecasting technology to management and analysis in the forward logistics management, it is difficult to carry out the management of the returned goods. It is precisely because retailers or vendors do not know how much they will recycle, nor do they know what the status of the product is when they are recycled. Therefore, the establishment of a fast, efficient and low-cost reverse logistics system is imperative, and professional reverse logistics management will be the future direction of development.

3.2 The driving factors of reverse logistics in retail industry

Carrying out reverse logistics service in retail enterprises will produce "multi win" effect. Reverse logistics is the key power of the retail industry --- the important opportunity of transportation development and the core growth point. On the contrary, transportation enterprises are also important driving forces for the development of retail reverse logistics. At the same time, transport enterprises engaged in reverse logistics services, to promote recycling of resources, reduce resource consumption, reduce environmental pollution, and promote the development of circular economy has an important role [7].

Transportation enterprises engaged in reverse logistics services huge business opportunities. Reverse logistics has become a very important part of the supply chain, whose activity accounts for about 4% of the total logistics cost of the enterprise, and it can reduce the cost by outsourcing reverse logistics by 10%. For example, American companies spend more than $35 billion a year on transportation, transportation, and recycling. This does not include management fees and regeneration costs for these processes.

Transportation enterprises generally have network advantages. Including a large number of stations (stations, fields), warehouses and other equipment, facilities and circuit conditions. Accession to the WTO provides international synchronization opportunities for transport enterprises to carry out retail reverse logistics services. At present, China has almost completely opened the transportation enterprises, warehousing services and freight forwarding industry.

This has created favorable conditions for China's transport enterprises to learn from and learn from the international experience of reverse logistics [8]. Influence factors of reverse logistics service mode to carry out transportation enterprises according to production and bear the extended responsibility of enterprises or government and forward logistics, reverse logistics market has in the function and types of products involved are divided into principal, one-way, two-way self - single function -- function, single type of product -- multi type products four kinds of combination, each portfolio includes two levels before and after.

Reverse logistics complex process. Many enterprises cannot effectively deal with the reverse logistics process, and therefore bear the production enterprises, the import enterprises extended producer responsibility or accountability of renewable resources administration will all or part of its outsourcing to the third party reverse logistics provider, usually produce a delegate is due to sustainable development drive. On the contrary, the independent reverse logistics service, which is based on self-support, is driven by economic interests. As a result, the risk of proprietary trading is greater than that of commission.

One way only relates to reverse logistics, and the other is the integration of reverse logistics and forward logistics, including two kinds of integration and new integration based on forward logistics. The single function only includes reverse logistics, collection, transportation, storage and simple inspection, sorting and cleaning operations in the circulation field. Multi functions include both the function in the circulation field, and the regeneration processing activities, such as cycle regeneration, disassembly, assembly, remanufacturing, renovation and repair. Single product and multi type product are based on product clustering and market segmentation, which refers to the types of products involved in reverse logistics enterprises. These factors are different, the difficulty between the levels and the requirements of the transport enterprise are different.

Based on the combination of these four kinds of influencing factors, the transportation enterprises can choose 16 modes when they enter the reverse logistics market. Among them, the simplest mode is "entrust - one-way - single type products - single function" combination. That is to provide a one-way, single function reverse logistics service in the face of single type products. The combination of low starting point and low risk is the first choice for most transportation enterprises to carry out reverse logistics service for the first time. Correspondingly, the other extreme development model is "self - Dual - Multi - Product - multi function" combination. When the enterprise wants to develop from the simplest model to the most complex model, it needs to be implemented step by step, otherwise, any attempt at one step must bear the greatest risk.

In view of the urgency of the retailing reverse logistics at present, many enterprises will face the decision problem of reverse logistics operation mode, in consideration of environmental regulations and government regulation, the value of reverse logistics, reverse logistics outsourcing feasibility, industry competition situation and the strength of the enterprises under the condition of several factors, the existing mode of operation of enterprises can choose to establish the reverse logistics system are the following [9].

3.2.1 Public welfare society is responsible for the reverse logistics model

In the process of production and circulation and consumption from low value scrap, such as garbage and industrial, construction waste, the high cost of recycling or recycling, and the production enterprises are usually smaller, not engaged in the operation of reverse logistics strength, even in the case of government regulation, is still possible to implement reverse logistics. In this case, the government needs to entrust social welfare institutions (mainly utilities) or strong state-owned enterprises to undertake, taking into account the public nature of the industry, the government will give appropriate preferential policies.

3.2.2 Reverse logistics system established by manufacturing enterprises

For manufacturers, there are still great opportunities in metal appliances, plastic products and rubber products, such as scrap household appliances, electronic products, furniture and production process. Need a lot of investment in these waste materials recycling processing, in this case, a number of enterprises in the same industry, through joint ventures, for the establishment of the cooperation of enterprises and even the whole industry specializing in reverse logistics enterprises. In the government regulation under the conditions of establishment of reverse logistics system combined with the single enterprise can not only reduce the financial pressure, more professional advantage, but also can ensure the sources of raw materials in the business operation process, to achieve the scale of operation.

3.2.3 Reverse logistics system of independent production of manufacturing enterprises

The model of self-built reverse logistics is suitable for a wide range of returned goods, including product returns, maintenance and recall, recycling of waste materials, recycling of packaging materials, etc.. The implementation of reverse logistics is not only a strategy for enterprises to cope with environmental regulation, but also more strategic.

3.2.4 Outsourcing model of reverse logistics in manufacturing enterprises

There are some far sighted manufacturers in the society who have come to realize the great business opportunities in the recycling of waste goods. They have begun to enter the industry actively, providing reverse logistics services for the production enterprises. Although in the industry requires high initial investment, high environmental requirements, the initial rate of return is not high or even temporary loss, but it is necessary for the development of social public welfare industry, the government will give policy support, and with the increase of number of product categories, more and more strict environmental regulation of government in this industry, the prospects will be very broad.

3.2.5 Reverse logistics strategy based on product life cycle

The environmental behavior of modern enterprises has increasingly become the focus of attention of the community, QCTS enterprise competition mode is the traditional four five competition mode QCTSE replaced, to ensure that the enterprise logistics is environmentally friendly with good performance.

3.3 Management solutions based on existing models

From the above 5 types of existing retail reverse logistics strategy model, we can develop a transport station can be gradually transformed into recycling centers. The important function of reverse logistics service is to collect waste products and classify, clean, clean and ship them properly [10]. The carrier of these functions is the recycling center. Therefore, all kinds of transportation stations and warehouses can be properly transformed so as to meet the needs of the recycling of waste products and become the basis of carrying out reverse logistics services for transport enterprises. Recycling of waste products generally need to be re processed. Obviously, the majority of transportation enterprises is not suitable for recycling and processing business, so it can be through the area of business cooperation in the establishment of reverse logistics alliance, a specific form of regeneration of the selection of specific types of products, provide the basis for the regeneration process [11].

The so-called "product oriented reverse logistics services", is to have similar needs of customer service aggregation, forming scale management. Basic services are provided, such as recycling, transportation, warehousing and so on. Obviously, the product oriented reverse logistics service has a low starting point, and it is also the advantage of transportation enterprises. Therefore, it is relatively easy for most transportation enterprises. The reverse logistics service oriented by customers is a special needs for a single customer to provide comprehensive tailored service, including basic services and value-added service, not only undertakes the recycling, transportation and warehousing services, but also provides a series of additional value-added services, such as the classification of waste products, cleaning, cleaning, packaging, inventory management, order management, even including reverse logistics system design and so on, to meet the unique needs of specific customers. Of course, for general transport enterprises, began to provide customer orientation based reverse logistics service is difficult, but to provide product orientation based transportation company, after a certain period of development and accumulation will gradually shift to provide customer orientation based transportation company, after a certain period development and accumulation can be gradually to provide reverse logistics services based on customers.

4. CONCLUSION

To sum up, reverse logistics is included in the strategic planning of the retail enterprise development, making it a new starting point for reducing costs and increasing profits,in this way, the company's operating costs can be reduced and its market share can be increased. Retail enterprises should grasp the strategic role of reverse logistics in the clean channel, legitimate disposal problems, recapture value and recovery of assets, for the long-term interests of enterprise strategic target, its contribution is multidimensional.

China's retail enterprises in the reverse logistics sales network to set up a system of their own, can be taken to establish management information network, at the beginning of the product design will be the effect of the reverse logistics into multidimensional network production, sales, sales channels, strengthen the application of modern information technology will reduce operating costs and the implementation of sustainable development on consumers in the brain, the new operation mode of enterprises resonate. And use the data model to plan the framework of reverse logistics system, therefore, the reverse logistics of retail trade in China can be well operated.

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