

Research on the market potential and marketing strategy of green supply chain and reverse logistics tracking system

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Abstract. China's manufacturing industry is developing rapidly and the categories are perfect. The national requirements for green logistics are increasing year by year, and there is an urgent need for green supply chain upgrade and reverse logistics tracking system to achieve green transformation. This paper analyzes the market potential of green supply chain and reverse logistics Geng total system. The study shows that China's reverse logistics research started late, the related system is still not perfect, and small and medium-sized enterprises do not have the ability to implement the tracking and effective recycling of reverse logistics. The overall market potential is huge and the development prospect is broad. At the end, the marketing strategy of reverse logistics tracking system is elaborated.

Keywords: Reverse Logistics, Green Supply Chain, Market Potential, Marketing Strategy

1. Introduction

Green supply chain and reverse logistics system provide corresponding production management methods for enterprises to implement the concept of environmental protection in the process of production and operation, and bring certain benefits to enterprises[1]. At present, there are certain research results of green supply chain and reverse logistics system at home and abroad, but the research and practice of green supply chain and reverse logistics system in foreign countries started earlier and developed more maturely, while the country is in the initial stage, but the development potential is huge.

With the deepening of China's sustainable development practice, China's green supply chain and reverse logistics system-related market has great potential and broad prospects, and many industries are seeking green supply chain and reverse logistics system-related products, which provides valuable opportunities for the development of green supply chain and reverse logistics system.

Thanks to the strengthening of China's environmental protection requirements in recent years and the improvement of related infrastructure construction[2-4], China's green supply chain construction has made certain achievements. In terms of laws and regulations, China has built a relatively complete environmental protection system and has relatively specific requirements for environmental protection in various industries. With the successive introduction of a series of policies such as "Industrial Green Development Plan (2016-2020)", "Green Procurement Guide for Enterprises (for trial implementation)"[5], "Guidance on Actively Promoting Supply Chain Innovation and Application" and "Guidance of the State Council on Accelerating the Establishment of a Sound Green Low-Carbon Circular Development Economic System", the management requirements for green supply chain are gradually clarified, creating This has created favorable conditions for green supply

chain[6-8]. At the same time, with the technological development of big data on the Internet in China, it is more convenient for enterprises to track their products and raw materials, which provides technical support for the construction of green supply chain in China. However, the implementation of green supply chain system requires a certain amount of human and financial investment, and has high requirements for enterprise management, which has created certain problems for the construction of green supply chain of some small and medium-sized enterprises in China[9-10]. At the same time, the effective implementation of green supply chain requires the cooperation of many parties to complete, which creates the demand for building a green supply chain system with low cost and strong application[11-12].

2. Market Analysis

2.1. China Market Status

The main recycling objects in China's reverse logistics market are relatively high-value end-of-life cars, industrial machinery and equipment, computers, etc., and relatively low-value scrap iron and steel, waste paper, waste plastics, etc. At present, China's scrap iron and steel, waste non-ferrous metals, waste plastics, waste tires, waste paper, waste electrical and electronic products and other eight categories of major renewable resources recovery volume of about 160 million tons, down 0.2% year-on-year. Among all categories, the number of waste textiles and waste home appliances is small, accounting for 0.27% and 0.05% of the total amount of all waste products, respectively. In addition, the recycling rate of China's waste lead-acid batteries is also very low, less than 10%. Therefore, the progress of reverse logistics in China is slow, and the market share can be developed is relatively large, but it is still being explored due to the imperfection of reverse logistics technology.

2.2. China Market Advantage

The green supply chain and reverse logistics system in the e-commerce environment is developing comprehensively. For enterprises that choose to outsource reverse logistics to third-party reverse logistics, the third-party reverse logistics provider has good infrastructure conditions that will enhance the waste value recovery rate and reduce the cost of reverse logistics. With the gradual maturity of the logistics market, third-party reverse logistics providers can provide specialized teams, advanced technology, and perfect facilities and equipment. In order to compete for market share and occupy a place in the market, it is especially crucial for enterprises to develop their own unique core competitiveness. In order to develop their core business, most enterprises usually divest their reverse logistics business from the enterprise and outsource it to more professional third-party reverse logistics suppliers. Enterprises will have more time and money to invest in the development of the core business, which is conducive to the improvement of core competitiveness. Customer satisfaction is an important element for enterprises to ensure customer flow, and professional third-party reverse logistics providers can use professional technology and equipment to achieve high quality services.

For self-operated logistics but the lack of a perfect information system, the reverse logistics is not well understood by large e-commerce manufacturers, distributors, although you can do self-operated logistics, but for the reverse logistics is not enough to understand, there is no way to statistical collection of reverse logistics data, then you can only outsource the demand for information statistics to third-party logistics companies, the same can also improve the enterprise's reverse logistics management.

Therefore, for major enterprises, professional third-party reverse logistics enterprises are urgently needed to help the development of reverse logistics management, so as to reduce enterprise costs and increase profits.

2.3. Future trends in the market

In the industry, with the evolution of resource and environmental perspectives and economic management, some well-known companies have noticed the business opportunities of reverse

logistics and believe that it can strengthen the competitive advantage, increase customer value and improve the overall performance of the supply chain. Effective reverse logistics systems and processes can increase profits and improve customer service while saving costs. According to a study conducted by U.S. reverse logistics experts, all logistics costs account for 10.7% of the total U.S. economy, and reverse logistics costs account for about 4% of total logistics costs; more than 1/3 of U.S. companies are concerned about the final disposal of their products, especially in industries such as auto parts manufacturing, electronics manufacturing, publishing and catalog sales. At present, many internationally renowned IT companies have taken reverse logistics strategy as the main means to strengthen their competitive advantage.

At present, the value of recycled resources that can be recycled and not recycled in China is estimated to be as high as more than 30 billion yuan. Every year, there are about 5 million tons of scrap iron and steel, more than 200,000 tons of scrap non-ferrous metals, 14 million tons of waste paper and a large number of waste plastics, waste glass, old batteries, etc. that are not recycled. Reverse logistics industry in China has a considerable scale of development, and along with the establishment of a recycling-oriented society, the demand for reverse logistics services will greatly increase, reverse logistics industry will have more room for development.

2.4. Market target customers

Reverse logistics can be generated at any node in the supply chain, for manufacturers and distributors, they have a large number of products, reverse logistics logistics technology, recycling technology, information technology and other requirements are higher. The system's main target customers are concentrated in two types of customers, represented by commodity sales companies as well as governments and other non-profit companies.

2.5. Foreign reverse logistics reference analysis

Before the 1990s, the U.S. retail industry adopted the primitive way of returning products to manufacturers by merchants themselves, which is not only inefficient and wasteful, but also the cost of returning products is relatively high. According to statistics, the U.S. retail industry's original annual return processing costs account for about 4% of the cost of sales.

As some U.S. manufacturers do not want to bear the high cost of return processing, etc., rather in the commodity purchase and sale contract agreed in advance to deduct a certain percentage of return, and no longer accept the return of products. This is also known as the "zero return" purchase and sale method. Procter & Gamble, the world's leading manufacturer of household products, is an active advocate of the "zero return" method of purchase and sale.

Since 1990, some large chain retailers in the United States, in order to improve the efficiency of return processing, according to the principle of specialization and intensification, following the form of commodity distribution center in forward logistics management, using reverse logistics thinking, set up "return centers" in the region to centralize the return business. This became the beginning of reverse logistics management.

After that, some large retail companies entrusted third-party logistics companies to undertake reverse logistics management for the sake of economic efficiency. These companies have gradually developed into specialized companies focusing on reverse logistics management. Companies specializing in reverse logistics management in the United States arose in the mid-1990s. For example, Genco is a reverse logistics specialized company that has gradually developed.

The development of domestic reverse logistics in the early stage can learn from the U.S. "return center" model, sub-city sub-region to establish a suitable return center, for example, in residential buildings, supermarkets, shopping malls and other nearby set up a return center, concentrating a large number of return processing, in factories, manufacturing plants and other nearby set up a return center, raw materials and other concentrated return processing The most suitable rework centers in China are

At present, China's most suitable method of developing reverse logistics is still with the help of third-party logistics enterprises, rework centers in the implementation of the scattered and complex,

and may also increase the cost of certain. The rapid development of electronic commerce in China can effectively promote the development of third-party logistics enterprises, which have more professional logistics management system and more efficient reverse logistics methods, so China can further develop third-party logistics enterprises, so as to fully carry out the use of reverse logistics.

2.6. Market Volume Estimation

In the market capacity estimation of the system, it is firstly clarified that the target customers mainly include third-party reverse logistics enterprises oriented to e-commerce enterprises and large e-commerce manufacturers and distributors who have mature self-operated logistics but lack a perfect reverse logistics information system, i.e. the market composed of enterprises with outsourcing mode and self-operated mode reverse logistics management is estimated in terms of capacity.

At present, there are 14,861 surviving enterprises in China's logistics industry, accounting for 59.39% of the total number of enterprises; the number of enterprises in operation reaches 3,867, accounting for 15.46%; the number of cancelled enterprises accounts for 13.07% of the total number of enterprises, and the number of revoked enterprises accounts for 12.01% of the total number of enterprises. According to the research forecast of professional institutions, the capacity of China's logistics market is about 5 trillion, the penetration rate of reverse logistics management in the logistics industry is about 20%, and the average annual expenditure of each enterprise is about 200 million yuan, accounting for 20% of the total operating cost.

In summary, according to the formula: the target market capacity = outsourcing and self-management mode reverse logistics management penetration rate * logistics industry surviving and operating enterprises * the average value of annual expenditure = market capacity: $20\% * (14861 + 3867) * 200 \text{ million yuan} \approx 1.37 \text{ trillion yuan}$.

3. Marketing strategy

3.1. Traditional Marketing

3.1.1 Direct Marketing

Traditional marketing is a type of marketing that emphasizes providing as many products and services as possible to as many customers as possible. After a long period of development, it has formed a relatively solid theoretical and practical basis, and consumers have become accustomed to this fixed model. Traditional marketing as the vast majority of enterprises choose the marketing model, but also the most common a marketing model. As the current development of domestic reverse logistics system is in its infancy, and there are few competitors, in order to prevent the leakage of core technology, so in order to save costs and improve confidentiality, the direct marketing approach is adopted.

Due to the choice of direct marketing, a large number of manpower and material resources to find agents and distributors are eliminated. Among the many promotion methods, the following more efficient promotion methods are chosen.

3.1.2 Experiential Marketing

Carpet promotion to offline logistics companies offline office locations, take the initiative to give their software system experience, expand the number of users at the same time let experience users feel the convenience of this system, while according to the experience version of the use of the process of the problems identified by users to modify. The advantage of this initiative is that it directly connects with the target group, perhaps forming a certain degree of service integration, while also conducting data collection and software operation testing.

3.1.3 Platform internal marketing

Hold events and implement membership system in festivals to improve user retention. The reverse logistics tracking system, as the place where users most often come into contact with the product,

needs eye-catching pop-ups or notifications within the app to inform users of some activities relative to it. Also pushing is not only inside the app, but also for users who subscribe to official accounts such as public numbers will also receive activity reminders. On anniversaries or relevant meaningful holidays, we develop corresponding discount strategies to increase user stickiness and improve product life.

For users who join the membership, a portion of the points will be fed back after using the products. The points will be used as a currency circulating within the platform and can be exchanged for specified goods in the points mall or for a certain amount of reverse logistics tracking system services. Additional points will be given on holidays or specific membership days to promote users' consumption.

3.1.4 Offline Event Marketing

Participate in trade show activities offline to increase the visibility of this system among commodity selling companies and government and non-profit companies and expand the audience. Communicate with commodity sales companies and government and non-profit companies to understand the needs and answer questions about how to use this system according to the needs. Also communicate with competitors to understand the shortcomings of this system and learn from the strengths of others, while preparing for the introduction of more features in this system.

3.2. New Media Operations Sales

New media operation means using various new media platforms such as Weibo, Zhihu and WeChat for product promotion and product marketing operation. By planning high-quality, highly communicative content and online activities related to products, we can widely and precisely push messages to customers to increase participation and visibility, thus making full use of fan economy and achieving corresponding marketing purposes.

The team will gradually build a vertical and horizontal matrix of synergistic new media matrix and covering new media matrix. Through the same new media platform, the matrix is formed in the way of multiple accounts for different purposes, serving a certain subject at the same time, in order to adapt to the multiple ways of using the new media characteristics of this subject.

At the same time, through many new media platforms with different user groups, the same or different contents are released for the needs of users with different attributes to increase user coverage area and screen target users to maximize benefits.

The marketing process can be roughly divided into three steps: pulling new, retention, and promoting live.

"Pull new" that is, through market insight and user research, low-cost access to users. Promote through new media platforms such as B station, Zhihu, WeChat, etc. to enhance awareness and establish brand effect.

"Retention" aims to keep users on the account or platform through valuable content or activities.

"Promotion" means to use some creative activities and other forms to flexibly match the collection and tracking, market development, container transportation and storage services that our company can provide, and to launch cooperation projects with the combination of reverse logistics tracking system.

3.2.1 Microblog

The main purpose is drainage and neovascularization. By creating a "microblog real-time number" to conduct drainage, and by using keywords to promote videos to increase exposure; Understand the platform's push algorithm mechanism, create your own topics and microblog groups to achieve batch drainage, accumulate a certain number of fans to form Matthew effect, take the initiative to contact influential microblog accounts, and flexibly master the forms of cooperation and incentive to achieve win-win; At the same time, we will create microblogging activities in the form of free gifts to encourage mutual forwarding and provide extension and incentives; In addition, new trigger points

are introduced through related topics to drive the user's own interpersonal circle to increase the product's exposure and promote the subsequent multiple communications for drainage.

3.2.2 Knowing

Attracting users with knowledge-based marketing is the main purpose. Knowledge-based marketing is the process and various marketing behaviors of transferring the knowledge that enterprises have that is valuable to users to potential users through effective knowledge dissemination methods and channels, and gradually forming awareness of the enterprise's brand and products, in order to convert potential users into users eventually. Knowledge marketing as a relatively new marketing approach has been proven to be an effective marketing approach. While conducting knowledge popularization, it enables users to implicitly understand the cultural connotation of products and resonate with values. The team will focus on readers, based on the readership, open rate, originality, message, reading completion rate, retweet rate, collection rate, and fan growth across the platform, and guide readers to follow the public number at the end of the article.

3.2.3 WeChat

The main purpose is to retain and promote live. Nowadays, WeChat is extremely widely used and the rise of major public numbers, which is an important channel to understand information. Therefore, the team will layout subscription numbers, service numbers, communities, personal numbers and small programs on the WeChat platform. With the help of the public number, we will publish tweets about reverse logistics business, introduce the service content and promote the service platform of reverse logistics tracking system. The public number of reverse logistics tracking system not only serves as a propaganda tool to popularize reverse logistics and other related knowledge, but also provides a portable window for reverse logistics tracking service. Users can understand the service content of reverse logistics following through the public number, and also can download the software through the relevant links and select the corresponding service in the software. The team will be user-centered and grounded for the product can focus on new registered users, retention rate and paid conversion, etc.

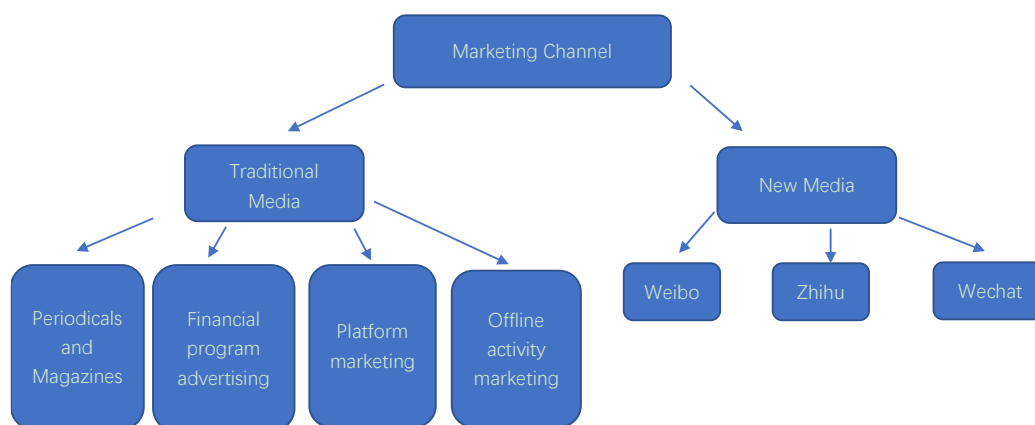


Figure 1. Marketing channels

4. Conclusions

In recent years thanks to the rapid development of the manufacturing industry, the demand for reverse logistics system is large, and China began to build a reverse logistics system suitable for China. However, China's reverse logistics research started late and the related system is still not perfect, while the reverse logistics system has certain requirements for the enterprises themselves, which leads to some small and medium-sized enterprises not being able to implement the tracking and effective recovery of reverse logistics. With the transformation of China's economy to green, the

industrial structure has been adjusted and upgraded, which has put forward new requirements for the management mode of enterprises, and with China's increasing investment in environmental protection, the green development of enterprises has gradually become the mainstream of various industries. In general, at present, the demand for green supply chain and reverse logistics tracking system in China is mostly for small and medium-sized enterprises, with great market potential and broad development prospects.

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