

The Development Path of Green Logistics in China from the Perspective of High-Quality Development

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Abstract: With the continuous deepening of China's reform and opening up, it has brought new opportunities for the development of China's logistics industry, while also exposing some problems, and the concept of the green logistics system has emerged. The so-called green logistics system is derived based on the concept of green development. Starting from the development of the logistics industry, the operation of enterprises, energy conservation, resource conservation, pollution reduction and sustainable development involved in the logistics activities, the green logistics system is integrated throughout the entire operation process of logistics enterprises to achieve the sustainable development of logistics enterprises. To meet the requirements of the concept of sustainable development, the green logistics system is a new direction for the development of China's logistics industry and an inevitable requirement for the implementation of the new development concept. However, with the rapid development of the economy and society, higher requirements have been put forward for the development of the logistics industry. Relevant departments should adjust the current development concept based on the actual development situation, incorporate the green logistics system, promote the transformation of China's logistics industry, and provide a useful reference for promoting the sustained and healthy development of China's green logistics.

1. Brief Description of Green Logistics

1.1 The Concept of Green Logistics

Green logistics refers to the process of planning, controlling, managing and implementing the logistics system through advanced logistics technology and the concept of environmental-oriented management with the goal of reducing pollutant emissions and resource consumption. The concept of green logistics emerged in the mid-1990s. Just like other green movements, the term "green" here is a specific figurative term. Green cannot be regarded as a synonym for plants or agricultural products, nor can it be understood as purely natural or returning to nature. There is currently no unified definition of green logistics. It refers to an environmentally responsible logistics system, including the greening of the forward logistics process from the acquisition of raw materials,

product production, packaging, transportation, warehousing to the delivery to the end user, as well as the reverse logistics of waste recycling and processing. All means, methods and processes aimed at reducing the impact of the logistics process on the ecological environment belong to the category of green logistics.

1.2 The Characteristics of Green Logistics

In the current social context, due to global climate change and increasingly tight resources, the advantages of green logistics such as environmental protection, resource conservation, low energy consumption, (see Table 1), the value of this new logistics model has been affirmed. By introducing advanced logistics technology and equipment, energy consumption and emissions in the logistics process are reduced, thereby reducing the adverse impact on the environment. In specific practices, green logistics emphasizes the use of green and environmentally friendly materials and methods in all links such as transportation, warehousing and packaging to minimize environmental pollution. In addition, green logistics attaches great importance to the reuse of resources^[1-3]. By optimizing the logistics process and applying modern technology, energy consumption in the logistics process is reduced, the utilization efficiency of resources is improved, and unnecessary waste is reduced. This green and environmentally friendly feature is in line with the needs of modern economic development.

Table 1: Characteristics of Green Logistics

Characteristics	Description
Environmental protection	Green logistics emphasizes the use of green materials and methods in all aspects of logistics activities, from transportation, warehousing to packaging, so as to minimize environmental pollution and reduce adverse effects on the environment.
Resource saving	Green logistics pays attention to the reuse of resources. By optimizing the logistics process, modern technology is applied to improve the utilization efficiency of resources, reduce unnecessary waste, and realize the maximum utilization of resources
Low energy consumption	By introducing advanced logistics technology and equipment, green logistics reduces energy consumption in the logistics process, reduces the environmental burden caused by energy consumption, and promotes the green development of the logistics industry

2. The Importance of Implementing Green Logistics

2.1 Breaking through Green Trade Barriers

At present, the enhancement of environmental protection awareness worldwide has promoted green logistics to become a common trend in developed countries, and their products and services are increasingly transforming towards "greening", which meets consumers' demands for environmental protection and brings strong competitive advantages to enterprises in these countries. Developed countries adopt higher environmental quality standards than developing countries to avoid market competition, that is, to use higher environmental quality standards to restrict imports, which makes China encounter more difficulties in international trade. Due to the existence of the "green barrier", situations such as rejection, claim and termination of China's export commodities

occur from time to time, bringing huge economic losses to Chinese enterprises^[4-5]. In order to gain a foothold in the international market, Chinese enterprises must deeply understand the essence of the "green barrier" and actively respond. Therefore, Chinese enterprises should accelerate the green transformation and incorporate green logistics into the development strategy to win the recognition and respect of the international market with high-quality green products and services.

2.2 Meeting the Sustainable Development of Enterprises

Small and medium-sized enterprises, as active subjects of the market economy, have played an important role in stimulating private investment, alleviating employment pressure, enhancing market competitiveness and ensuring the stable development of the national economy. However, in the initial stage of development, in order to obtain more benefits, small and medium-sized enterprises lack long-term development vision and even do not hesitate to destroy local resources and ecological environment at the expense of causing environmental pollution and deterioration. In the current social context, the concept of sustainable development is increasingly deeply rooted in people's hearts, and the traditional competitiveness of small and medium-sized enterprises has undergone obvious changes. Therefore, in the market strategy of small and medium-sized enterprises, while focusing on maximizing economic benefits, the importance of environmental protection work should also be emphasized. As an important link connecting production and consumption, the importance of green logistics is increasingly prominent. Enterprises should optimize the logistics process, adopt low-carbon and environmentally friendly transportation methods, reduce energy consumption and emissions, and reduce the impact on the environment, thereby promoting green transformation and achieving sustainable development.

2.3 Conforming to the Green Consumption of the Market

Since the 1990s, driven by the concept of sustainable development, the trend of "green consumption" has gradually emerged and popularized worldwide. "Green consumption", as a new type of consumption, protects the earth and people's living environment, which is the main value of this consumption method. The concept of green consumption has created a green market. If enterprises want to meet green demands, they must produce green products, and environmentally friendly products are an important guarantee for enterprises to compete in the consumer market. In specific practices, actively committed to improving the environment, increasing research and development of green products, and actively guiding and creating green consumption, especially the implementation of green logistics, are all green marketing strategies with great development prospects for enterprises^[6-7]. Affected by market pressure and macro-environmental factors, enterprises need to integrate environmental protection strategies when carrying out production and operation, thereby improving their market competitiveness and meeting the needs of sustainable development of enterprises.

2.4 Enhancing the Competitive Advantage of Enterprises

The core of green logistics lies in coordinating the logistics activities of enterprises with social and ecological interests, and promoting enterprises to achieve sustainable economic, social and environmental development. Due to the increasingly severe environmental problems and increasingly strict environmental protection regulations, if enterprises want to achieve sustainable development, they need to actively respond to environmental problems in economic activities, abandon production methods that may threaten the survival and development of enterprises, and establish a green logistics system to obtain a relative competitive advantage over competitors. In

order to develop stably in the fierce industry competition, enterprises should respond to the call of the country, pay attention to green and sustainable development, and no longer completely continue the traditional mode of operation. For modern enterprises, undertaking environmental protection responsibilities will not bring economic losses, but can meet and exceed the requirements of the government and environmental protection groups for the industry. By reducing material costs and operating expenses, enhance their own competitiveness. Good environmental protection behavior is not an obstacle to development, but a powerful driving force for enterprises.

3. Problems in the Development of Green Logistics in China

3.1 Lack of Complete Infrastructure

At present, most logistics enterprises in China still follow the traditional logistics operation mode, which significantly hinders the vigorous development of the "green logistics" industry and limits its promotion and progress. Affected by objective factors, the degree of logistics informatization in some areas is slightly lagging behind. Although China has established a logistics information platform in recent years, the information it provides often cannot well meet the needs of consumers and conflicts with the concept of "green logistics". In addition, the current level of logistics technology in China needs to be improved^[8-9]. For example, for the packaging materials of logistics goods, according to relevant principles, the packaging materials of logistics goods must be degradable and reusable, but the current logistics packaging materials cannot achieve this. Traditional logistics operation methods, lagging informatization and insufficient technical level jointly hinder the rapid development and wide application of the "green logistics" industry in China.

3.2 Relatively Outdated Ideology

In China, the importance of traditional logistics to the economy has been widely recognized by the society, including the government, enterprises and consumers. However, the emerging concept of green logistics has not yet been well known and accepted by most people, and its popularity needs to be improved. The reasons for the related phenomena are very diverse. (see Figure 1), as follows. First, the state's guidance on "green logistics" is insufficient. Although "green logistics" is regarded as a new industry by many local governments, they do not attach great importance to it, and most of them only give a brief introduction. Without the strong support of the government and without formulating corresponding development strategies, it is difficult to achieve the development of green logistics in the short term. Second, in the course of development, most enterprises still prioritize maximizing economic benefits, while regarding green logistics as a way that may increase the operating costs of enterprises, and even believe that environmental protection has nothing to do with them and belongs to the state and the government. Third, consumers mainly focus on the "green" issue of products, but pay less attention to the environmental protection performance of products in the transportation link. Although the importance of traditional logistics in China's economy has been widely recognized, the popularization of green logistics still faces multiple challenges.

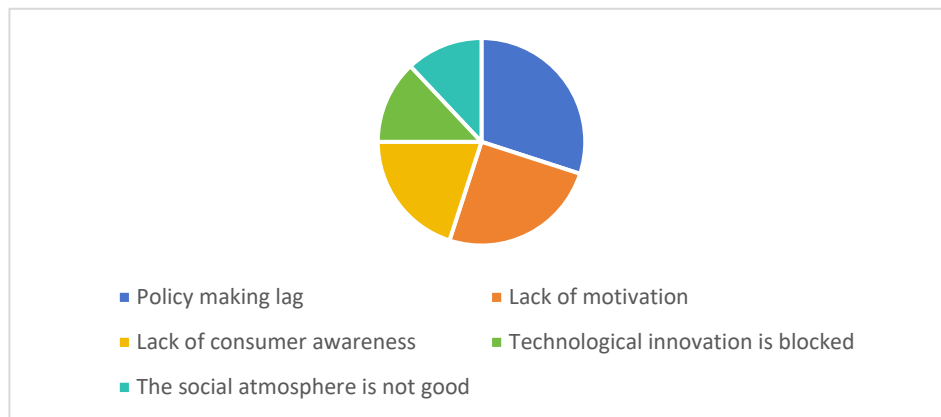


Figure 1: Proportions of Various Negative Impacts

4. The Development Path of Green Logistics in China from the Perspective of High-Quality Development

4.1 Correct Positioning of Green Logistics

To promote the application of green logistics in China's logistics industry, the primary task is to enhance the industry's awareness of green logistics. Especially in the current context where logistics enterprises generally attach insufficient importance to green logistics in China, strengthening publicity and education can promote the orderly advancement of various tasks. Managers and leaders of logistics enterprises should be aware that in the implementation process of the national sustainable development strategy, green logistics is a new type of logistics development method, which is of great help to logistics enterprises in reducing development costs, improving distribution efficiency and long-term stable development of enterprises. If logistics enterprises want to meet the needs of green and sustainable development, leaders should view problems from a development perspective and formulate strategic enterprise development plans, which is also an effective way to improve the competitiveness of modern logistics enterprises. At present, due to the increasing number of logistics enterprises and the deteriorating environment, from a macroeconomic perspective, the development of green logistics is highly consistent with the national economic sustainable development strategy.

4.2 Formulating Incentive Policies

In the context of global climate change and increasingly tight resources, green logistics has become an important link in promoting sustainable development. In order to optimize the energy consumption structure in the logistics field, increase the proportion of clean energy, and promote the wide application of green logistics technology, the government should formulate targeted green incentive policies to stimulate the internal motivation of logistics enterprises to use clean energy. In the initial stage of the development of green logistics, the government can provide incentive policies such as land rent reduction and tax preference to reduce the operating pressure of logistics enterprises and promote enterprises to actively engage in the development of green logistics^[10]. For enterprises that actively practice the concept of green environmental protection, the government should also give more lenient tax policy support, and give price subsidies and enterprise loss subsidies for their adoption of green logistics technology, clean energy and environmental protection materials to reduce the operating pressure of enterprises. In order to enhance the investment intensity in fixed assets in the logistics industry, the government can set up special funds

to support logistics enterprises in purchasing key equipment such as new energy transportation vehicles and warehousing equipment, and accelerate the green transformation and upgrading of the logistics industry.

4.3 Doing a Good Job in Talent Cultivation

With the increasing popularity of environmental protection concepts, the development of green logistics can promote high-quality economic growth and achieve a win-win situation of environmental protection. The development of green logistics is inseparable from the support of high-quality compound talents. The government should encourage colleges and universities to offer related courses such as low-carbon logistics, green logistics and supply chain management, improve the teaching staff of logistics education, and strengthen the introduction and employment guarantee of high-quality and compound professors and management talents. Enterprises should adhere to the training concept of testing theoretical knowledge through practice and combining theory with practice, jointly establish strategic alliances with colleges and universities and other stakeholders, build a production-university-research cooperation platform, learn from each other and jointly develop advanced technologies. In addition, enterprises should also strengthen regular training of technical talents, improve the professional quality and R&D capabilities of talents, optimize salary treatment, build an efficient and professional technical team, and attract more high-quality green logistics talents to join, providing a solid talent guarantee for the development of green logistics.

4.4 Improving the Green Transportation System

Due to global climate change and resource constraints, the issues of energy consumption and carbon dioxide emissions in the logistics industry have become increasingly prominent. The transportation link, as the key link with the largest energy consumption and the most carbon dioxide emissions in logistics activities, has prominent problems of unreasonable carbon intensity and energy structure. At present, the transportation tools used by logistics enterprises still mainly rely on various non-clean energy trucks such as gasoline and diesel, which directly increase environmental pollution and restrict the development of green logistics. Therefore, enterprises should timely change the logistics transportation mode in combination with the needs of social development, actively promote the wide application of new energy and clean energy, develop green transportation and intelligent transportation, optimize the management of the combination of different transportation modes, reduce the unreasonable arrangement of passenger and freight transportation volume, build and improve the green transportation system, implement the concept of green and low carbon, and promote the sustainable development of the logistics industry.

5. Conclusion

Green logistics is a whole-process job that requires the participation of all personnel. From the perspective of high-quality development, green logistics is an important development direction of the logistics industry in the future and an effective path to achieve the concept of sustainable development. In China, the development of green logistics has a long way to go. From the initial commodity suppliers to the final consumers, a green logistics system should be constructed in every link to truly improve the operational efficiency of logistics enterprises. Enterprises can coexist and develop with the ecological environment and truly realize the greening of logistics.

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