Research on the Development Path of Green Logistics Under E-commerce Environment

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Abstract. With the acceleration of the global economic integration process and the rapid development of information technology, the logistics industry is emerging worldwide. Logistics represents the degree of economic development and development of a country. However, China's logistics costs account for a large proportion of GDP, the management methods of enterprise logistics are backward, the proportion of transportation and storage costs is high, efficiency is low, and pollution is heavy. Facing the opportunities and challenges of the logistics industry opening up to foreign investment, how can China's logistics industry enhance its international competitiveness while reducing environmental pollution? This paper analyzes the development path of China's green logistics industry and finds some related countermeasures and suggestions to reduce logistics costs and promote the development of modern logistics and low-carbon logistics.

Introduction

The formation of the logistics concept has gone through a long process. Since the United States first proposed the concept of logistics in the early 20th century, the understanding of logistics activities and logistics management has gone through a century. The main sign of China's modern logistics entering the development period is the construction of large-scale and universal modern logistics, which is rapidly spreading throughout the country. In recent years, logistics has clearly become one of the "hot spots" of China's national economy. The logistics industry, which was not known a few years ago, has become a hot industry, and the logistics industry has become a hot spot in the media. We can see the obvious tilt of resources to the hot spot of logistics. Billions, billions or even hundreds of billions of capital have flooded into the logistics sector, and many well-known logistics companies in developed countries have landed in China. At the same time, the research on logistics has also penetrated from the circulation field to the production field. The development of network technology and e-commerce has put forward new requirements for the development of logistics industry, strengthened the cooperation and exchange between China's logistics industry and the world logistics industry, and made the development of China's logistics industry begin to become international and global. But it also faces many challenges. How to cultivate and accelerate the improvement of its international competitiveness. Faced with the challenge of the logistics industry opening up to foreign capital, how can China's logistics industry play its advantages, enhance its international competitiveness and reduce environmental pollution. This paper intends to explore the development path of green logistics with its own characteristics through the comparison between China and foreign countries, drawing on the advanced experience of developed countries.

The Development Status of Logistics under the E-commerce Environment

In recent years, the overall scale of China's logistics industry has grown rapidly, the level of logistics services has improved remarkably, and the environment and conditions for development have continued to improve, laying a solid foundation for further accelerating the development of China's logistics industry. Some manufacturing companies and commercial enterprises have begun to adopt modern logistics management concepts, methods and technologies to implement process reengineering and service outsourcing; traditional transportation, warehousing, freight forwarding
enterprises have implemented functional integration and service extension, and accelerated the transition to modern logistics enterprises; a new type of logistics has formed a group of logistics enterprises with multiple ownership systems, multiple service models and multiple levels. For example, the establishment of high-level logistics systems of Huawei, Haier and many tobacco companies in recent years has played a strong role in ensuring the sustainable development of enterprises.

The improvement of logistics technology and equipment level has provided a good material foundation and technical support for China's logistics modernization. The cost of logistics costs has shown a downward trend, which has promoted the improvement of the quality of economic operations. The scale of facilities has expanded rapidly, the construction of logistics parks has begun, and the level of modernization of warehousing and distribution facilities has been continuously improved. A number of regional logistics centers are taking shape. The logistics technology equipment has been accelerated and upgraded. At present, China has more than 300,000 kilometers of trunk cable for telecommunications networks, and has basically formed a large-capacity digital trunk transmission network with optical cable as the main component and digital microwave and satellite communication as auxiliary means. This has enabled the application of EDI, ERP, MRP, GPS and other technologies around logistics information exchange, management and control, and breakthroughs have been made in the construction of logistics information.

The Gap between Green Logistics and Existing Problems

China's logistics industry started late, low-carbon logistics has just emerged, people's understanding of it is still very limited, and it is still in its infancy in the service level and research of low-carbon logistics. We are in low-carbon logistics with international advanced technology countries. There are big gaps in concept, policy and technology.

On the one hand, the concepts of individual leaders and local governments have not changed. For the concept that logistics is not green, there is still a lack of forward-looking development, and there is a gap with the pace of the times. On the other hand, operators and consumers are still very weak on the concept of logistics green business consumption, and the idea of low-carbon logistics is almost zero. The operators are pursuing green products, green signs, green marketing and green services, while consumers pay attention to green consumption and green security, and the green channel, the logistics link, has not paid enough attention and concern.

Low-carbon logistics is an important part of the sustainable development of the economy today. It is of great significance to the continuous development of the country, the social economy and the continuous improvement of the quality of human life. Because of this, the implementation of low-carbon logistics is not only a matter of enterprises, but also must be constrained and macro-regulated from the government, strengthen management of the existing logistics system, build a framework for the establishment and development of low-carbon logistics, and do a low-carbon The policy construction of logistics is the government's top priority.

The key to low-carbon logistics is not only relying on the establishment of green logistics ideas, the formulation and follow-up of logistics policies, but also the mastery and application of green technologies. And our logistics technology, equipment and developed countries are quite different. It is far from enough to rely solely on the investment of enterprises. It also requires government guidance and support subsidies.

The Development Path of Green Logistics under the E-commerce Environment

The birth and promotion of any new thing is inseparable from the policy. Therefore, China can learn from the developed countries' legislation on low-carbon economy to a certain extent: First, carbon tax. The introduction of a carbon tax is considered by developed countries to be a fruitful policy tool. In recent years, the United Kingdom, the United States, Japan, Germany, Denmark, Norway, Sweden and other developed countries have imposed national carbon taxes on fossil fuels
that burn carbon dioxide, such as Japan’s enterprises that have signed voluntary climate change agreements with the government. The specified energy efficiency or emission reduction can reduce 80% of the carbon tax and give a certain amount of reward. Second, financial subsidies. The government subsidizes producers or economic activities that are conducive to the development of a low-carbon economy and is an important economic tool for promoting the development of a low-carbon economy. Japan has adopted a series of financial subsidies for the use of renewable energy. For example, Japan has not only imposed measures on the upgrading of large-scale logistics enterprises, but also subsidized SMEs to purchase new energy vehicles. Third, tax incentives. Implementing preferential tax policies for low-carbon economic development is a common measure adopted by developed countries. The US government stipulates that 20%-30% of the cost of renewable energy-related equipment can be used for tax deduction. Renewable energy-related enterprises and individuals can also enjoy tax credits ranging from 10% to 40%. The EU, the United Kingdom, Denmark and other member states stipulate that no energy tax is levied on renewable energy.

The logistics industry, which relies heavily on energy, should be low-carbon, manifested in the use of new energy and the use of new energy. Encourage the development and utilization of new energy and renewable energy such as solar energy, wind energy, geothermal energy and biomass energy. Gradually adopt new energy vehicles and environmentally friendly low-carbon logistics equipment, such as the development and utilization of hybrid vehicles, and the replacement of internal combustion forklifts by electric forklifts. It is reported that Toyota forklift has developed the world's first internal combustion hybrid forklift - HYBRID. The forklift combines a diesel engine, an electric motor and a nickel-hydrogen animal battery. The carbon dioxide emissions and fuel consumption are only about 50% of the equivalent diesel.

It is an indisputable fact that automobile exhaust emissions have become the main source of pollution. In recent years, the smog weather that has appeared in various large and medium-sized cities has been widely criticized by the masses, and the exhaust emissions of automobiles are the first to bear the brunt. In today's low-carbon logistics environment, China is also actively studying the development of railway logistics policies, such as the future transport of goods over 500 kilometers by rail, to achieve low-carbon logistics. According to research data, the pollution intensity per ton of freight transport to the environment is about ten times that of the railway, and its cost is more than ten times, and it is much higher than water transport. Therefore, the proportion of automobile transportation in logistics is reduced, and the transmission ratio of China's multimodal transportation mode is greatly increased, and logistics has a very large space for emission reduction. Secondly, full use of administrative means such as market access to control high-energy, high-emission and other non-standard transport vehicles into the road transport market. Actively guide and encourage transportation enterprises to speed up the replacement of old vehicles and high-energy vehicles, encourage the development of special models and green environmental protection models, and actively develop modern transportation modes such as transportation, container transportation, van transportation, and LTL. In the field of urban passenger transportation, carry out purification energy transformation projects, promote the application of natural gas fuel to bus taxi vehicles, and reduce carbon emissions. It is also necessary to use bus renewal opportunities to promote the use of a number of new energy buses to contribute to the purification and improvement of urban air quality.

The I/M Inspection Maintenance Program is a system for compulsory periodic inspection of in-use vehicles in the developed industrial countries and regions in the world, and forcibly repairing defective vehicles. The system can prevent excessive emissions and atmospheric pollution caused by the failure of the vehicle in use, and can minimize the energy consumption of the vehicle in use. Although China has already had various inspection systems for motor vehicles, it is basically ineffective and the policies have not been thoroughly implemented and implemented. Therefore, how to completely implement and implement the inspection system by government departments is a considerable problem.

The problem of white pollution in China is now caused by the extensive use of non-degradable
plastic packaging. A large amount of packaging materials are discarded by consumers after being used once, causing environmental problems. The author believes that the product design and packaging are based on the product life cycle, based on 3R (Reduce reduction, Reuse reuse, Recycle recycling) as the basic principle, use less packaging or use renewable packaging, cut from the source and Control the production of pollutants. On the other hand, the development of new packaging materials and packaging equipment, the high functionality of packaging, and the promotion of recyclable materials for processing packaging. For example, recycling a used container can save 1.7 tons of steel and 0.4 cubic meters of wood, reducing carbon dioxide by 3.49 tons. If 100,000 used containers are used in one year, it can reduce 439,000 tons of carbon dioxide.

Conclusion

China's development of green and low-carbon logistics has a long way to go, and the logistics industry, as one of the national key planning industries, not only plays an important role in the development of the economy, but also plays a decisive role in the development of our living environment and future generations and influences. Therefore, we should immediately promote the development of green logistics, keep up with the pace of the industry, and take a green and sustainable development path.

References


