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The Study on Development of Green Logistics Enterprise Service Route in Beijing

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Abstract: **In recent years, with the development of technology and the era, the changing of human environmental awareness, the green service has been given a distinctive characteristic of the times. Logistics enterprises is an important part of the green logistics research, it plays a key role for development of green logistics. Logistics enterprises have some main types such as transport companies, warehousing companies, express company etc. This article studied development route for green services of these three types of companies of Beijing, and the details on the development path for the corresponding respectively. So we can improve the green service of logistics enterprises and to promote the development of green logistics in Beijing.**

Keywords: Logistics enterprises; Environmental logistics; Green services; Development route

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1. Introduction

Green Logistics is the theme of contemporary logistics industry. It should be the future direction of logistics. It emerged in the "low carbon economy and environment conference in Copenhagen," and be the official advocate of green. "Twelve Five Year Plan" period, Beijing logistics industry will take scientific development as the theme and accelerate the transformation of development as the main line, carry out and implement the strategy for "humanistic Beijing, Science and Technology Beijing, Green Beijing", take serve the world's urban construction with Chinese characteristics as the goal, and further improve the efficiency, intensive and low-carbon urban logistics system to enhance the modernization and internationalization of the level of development of the logistics industry. Then we can build logistics center city with wide international influence. We will take save resources and reduce waste, prevent pollution as long-term development goals for logistics enterprises. Logistics enterprises will carry out the development route in green ,and the research include: To create a good environment and service system for green development; To implement green transportation management, management of green packaging, green warehousing management, green distribution processing and the effective management of waste utilization; To using new energy, new materials, new technology, accelerate vehicles and equipment technological innovation and upgrade; To promote the building of enterprise information, enterprise intensification, the development of green. In this paper we analyze three types of enterprises' development path of green service.

2. Transportation Enterprise

2.1. Implement Common Distribution

This mainly refers to the situation that the small number customers of certain areas and the use of vehicle are not fully loaded. Common distribution can be classified into two types: the owner as the mainstay and the logistics enterprises as the mainstay. From the perspective of the owner, common distribution can improve the efficiency of logistics, such as small and medium-sized wholesale. If distribution respectively is difficult to meet the retailers' delivery requirements that several batches and small volume, they could use common distribution which can help them achieve the aim of improving logistics service level by realizing a small amount of delivery and making unified inspection. From the perspective of logistics enterprises especially the small and medium-sized logistics enterprises, due to the capital, talent, management and other constraints, they have restriction on logistics rationalization and efficiency such as the less volume, low efficiency, the use of vehicles etc. If they cooperate with each other using common distribution, then the fund-raising, bulk cargo, improve vehicle utilization problems can be better solved through the information network. Therefore, common distribution can maximize efficient use of personnel, material, financial and time resources. Then obtain maximum economic benefits. At the meantime, they can remove excess staggered transportation, ease the traffic, and protect the environmental benefits.

2.2. Take Combined Transportation

It means to combine the basic strengths of railway transport, automobiles, ships, and aircraft. Then make the transport of goods by using multi-link, multi-sector, multi-transport. This kind of transportation takes containers as a universal tool to connect various media, so it can play a catalytic role in the composite direct transport. Therefore, this is the reason why it requests loading tools and package sizes will be standardized. Since the full use of containers and other form of packaging, it can reduce packaging expenses and cargo

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damage during transportation. Advantages of combined transportation also reflected in the follow two sides: in the one hand, it overcomes the inherent limitations of individual mode of transport, so as to ensure the process optimization and efficiency of whole transport. On the other hand, from the point of view of logistics channels, it solves the separation in the production and marketing of space and time which due to various environmental differences in geography, climate, infrastructure and other goods effectively. Thus, it promotes the close integration between production and marketing as well as production and operation of effective functioning.

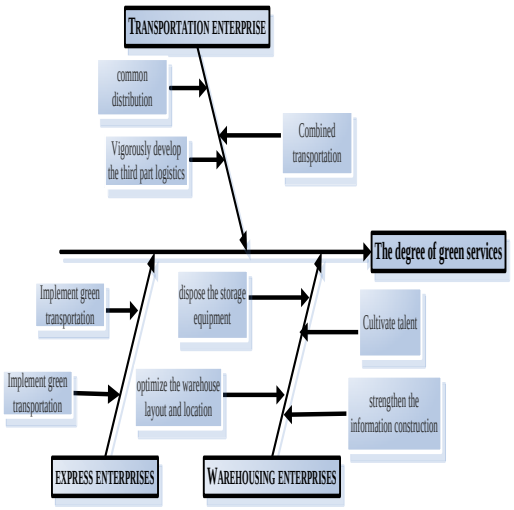

Figure1. Fishbone Diagram of Enterprise Green Service Development.

3. Weather Warehousing Enterprises

3.1. To Strengthen the Information Construction in Warehousing Enterprise and Raise the Management Level

As the major player in economic activities, enterprise should enlarge the investment to informatization. Enterprise manager must pay attention to the green information from information system in decision making. The assessment objectives of warehouse management system must be including green standards. If enterprise using the warehouse management system, then we can make the various logistics work more accurate and more fast. In so doing, we can do some related predictive analytics by collecting data in warehouse management system. Then reduce the cost of logistics actives. Therefore, we must strengthen awareness of implementation of network information, improve the level of informatization, and use the information in green storage.

3.2. To Dispose the Storage Equipment Efficient, Improve the Warehousing Operation Mode

Enterprise should show great foresight, and pay attention to the storage equipment. Although it will increase the cost in short term, this is the guarantee of healthy development for enterprise in long term. Dispose the storage equipment efficient, promote the development of green warehousing system, and improve the efficiency of warehousing operations. Enterprise can use the retrieval system to solve the management and access issues of special cargo, so they can protect the staff. In addition, use retrieval system and take ergonomics into it to realize standardization management, then we can possess inventory management accurate and improve operational efficiency. In so doing, we can make operational management and protection of the environment in coordination, so that we can improve the efficiency of green management.

3.3. To Optimize the Warehouse Layout and Location

When enterprises do warehouse layout and location, they should take view of the system into it. More importantly than of that, enterprise should incorporate green factor into decision making and increase decisions' green benefits. Enterprise also should make conformity for existing warehouse reasonably. Additionally they should take scientific green thought into overall planning, coordinate the inventory of goods, optimize work processes, and improve warehouse space utilization efficiency. Optimizing the warehouse layout and location, not only convenient operations personnel work and reduce storage costs, but also improve internal storage management in warehouse and the quality of special items of green storage.

3.4. To Cultivate Green Storage Management Personnel

The biggest driver of development of green warehousing is talent. The bottleneck of the development of green storage is lack of green storage management personnel, so we should cultivate or absorb number of technical personnel to manage the green storage. Specially, university should increase research efforts in green warehousing and develop the school-enterprise cooperation training plan. So it can provide interrelated professional to develop the green warehousing. In addition, we should carry out expert lectures and other activities, raise leaders' awareness of sustainable development. Start training classes, and enhance the concept of green warehousing business leaders and employees, raise awareness of green warehousing applications green business. Enhance awareness of the importance of enterprise leaders and staff of the green storage and raise awareness of the application of green storage and green management.

4. Express Companies

4.1. Implement Green Transportation

From the transport enterprises of United States Green experience, it is an effective way for a lot of companies take Multimodal Transport is compliance with national laws and regulations to implement green

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logistics. It is can reduce packaging expenditure to use multimodal transport, and it can reduce cargo damage during transport. By optimizing the choice of transport routes, with a reasonable variety of modes of transport so that it can avoid various modes of transport weaknesses and achieve transport integration. Thus, in order to reduce energy waste and environmental pollution, it should be ensuring the optimization of the overall efficiency of the transport process. On the other hand, from the view of logistics channels we can effectively solves the separation in the sales space of time of market due to the change of geography and climate, and so the infrastructure construction. Then we can promote the close integration between production and marketing as well as the effective operation of production and operation. Express enterprises can rational planning routes, carry out common distribution to reduce duplication of routes and ease traffic obtain environmental protection and other social benefits by alliance forms. Express is bound to packaged, so how to handle the package is a necessary way for private courier industry to greening. And actively develop green packaging materials, avoid the use of toxic materials, using recycled materials, choose a single packaging material, so we can make the disintegration of the material without the use of special tools. We can also save the recovery and separation time, avoid the use of bonding methods lead to recovery difficult separation; increase packaging recycling encourage and support technology research etc.

4.2. Implement Green Transportation and Green Distribution Processing

Express enterprises reduction through the introduction of packaging reduction in meeting the conditions for the protection of the role of convenience. Packaging should be reused or recycled, we should select degradable materials so that can improve the soil. On the other hand, it can be use a professional centralized processing when it sorting. Then improve resource utilization efficiency in scale practices. Furthermore is centralized processing produced goods packaging to reduce waste pollution caused by consumers distributed processing and the corresponding environmental problems.

Vigorously develop third-party logistics. It refers to the way in which the third-party logistics companies provide services for supply-side and demand side. By doing so, on the one hand, it can realize the optimization of logistics resources distribution from the higher perspective and in the wider range, on the other hand, it can avoid the occupation of funds caused by logistics, transportation inefficiency, cumbersome distribution sectors, enterprise burden, intensified urban pollution and other issues. When the vehicle distribution is saturated in some large cities, the emergence of specialized logistics enterprises reduces the use of the transportation vehicles in these cities and eases the pressure of logistics on the urban environment. In addition, in response to the call of the government, on the one hand, enterprises need to speed up the upgrading of transport. On the other hand, enterprises should also take environmental and raw materials for power, such as the use of liquefied petroleum gas and the solar energy.

5. Conclusion

Development of green logistics is theme of the times, business development green services is an important part of the green logistics development. In this paper, we analyze the development of green service routes for the three types of logistics enterprises: transport enterprises, warehousing enterprises, express enterprises. In this paper, we analyze the overall development of the green service routes all types of enterprises, but there is no specific link steps were discussed. The next thing to do is to run all aspects of business will be specifically implemented.

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References

[1] G. Qiang, Market Modernization, 13 (2013) 96-97.
[2] L. Qu, Modern Business Trade Industry, 07 (2013) 174.
[3] G. Li, Enterprise Reform and Management, 03 (2013).
[4] Balan Sundarakani and Robertde Souza. Production Economics (2010).
[5] Cachon, G. The INFORMS Annual Meeting, San Diego, CA, 2009.
[6] N. S. Kim, M. Janic, B. Wee, Transportation Research Record, 2139 (2009) 107-116.
[7] H. Huang, International Conference (2010).
[8] H. Pan, L. Zhang, Jiangsu Commercial Forum, 10 (2010) 53-55.
[9] Y. Wang, Z. J. Li, Commercial Times, 14 (2010) 32-33.
[10] C. C. Guo, H. Y. Yin, China Business and Trade, 7 (2013)137-138.

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