

Research on Port Logistics Based on Supply Chain Management

Peng Wang*

School of Economics and Management, Dalian University, No.10, Xuefu Avenue, Economic & Technical Development Zone, Dalian, Liaoning, The People's Republic of China (PRC)

**corresponding author: Peng Wang*

Keywords: *Supply chain management; Port logistics research.*

Abstract: With the vigorous development of science and technology and productivity, to a certain extent, it has accelerated the global economic process. In order to further enhance its comprehensive strength in the industry, China's port logistics is looking for management that meets its actual development in the context of current global development Based on the supply chain management model, this article first outlines port logistics and its advantages, and analyses how to promote the development of port logistics in the context of supply chain management for reference.

1. Introduction

With the rapid development of economic globalization, port logistics plays a role of ties and interfaces in global trade. Traditional port logistics attaches more importance to its own scope of development. The mode of port logistics management has not met the requirements of port development in the current era, which requires port logistics enterprises to actively develop a management mode that conforms to the development of the times ^[1].

2. Outline Port Logistics and Its Advantages

2.1. Overview of Port Logistics

The so-called port logistics, specifically, is the development advantage in cities with a certain geographical advantage, with the city as the center, the port as the support, and the hardware and software as the objective conditions, which further enables the city to expand the range of logistics activities around the port location. Highlight the advantages of port logistics in terms of storage, concentration, and distribution of goods. In addition to the advancement of information technology in the current era, the rational use and allocation of resources in ports has further promoted port logistics to gradually include logistics in the development process. The development characteristics and service system of the industrial chain make it an important work link that cannot be replaced in the current logistics supply chain ^[2].

2.2. Port Logistics Supply Chain Model

Firstly, the internalization model. The so-called internalized port supply chain is specifically the activities involved in the full distribution process through the use of internalization of enterprises in the upstream and downstream regions. It is integrated into the port supply chain through an integrated method, and the unified management of material distribution is based on reducing transaction costs and improving efficiency. This is also the closest relationship between partners in all current port logistics supply chains. A supply chain model. However, by using the internalized port supply chain model, all the activities and problems in the distribution of materials in the entire port logistics are integrated, which requires relevant port logistics companies to invest more capital, manpower and cycles in the the construction and management of materials in the distribution process and the integration of facilities, logistics management and material inspection ^[3].

Secondly, the form of outsourcing. The main purpose of the port logistics supply chain in the form of outsourcing is to ease the competition between port logistics in our country. The entire process of material distribution is outsourced to professional port logistics enterprises. On the one hand, it eases competition between ports in China and satisfies different requirements. The different needs of customers for port logistics fundamentally effectively save the internal resources of port logistics companies. On the other hand, it can effectively improve the work efficiency and logistics professional level of the entire port logistics supply chain, and further promote our ports. Development of the logistics industry. However, it should also be noted about the outsourcing port logistics supply chain model: although this model has certain advantages in the development process, because the connection between suppliers in the transportation process has the power to determine the overall transportation of materials, Therefore, in order to better complete the entire material transportation process, port logistics enterprises need to strengthen the seamless connection between related enterprises in the entire supply chain ^[4].

Thirdly, the integrated dynamic alliance port logistics supply chain model. Regarding the integrated dynamic alliance port logistics supply chain model, specifically refers to the dynamic combination between the internalized port logistics supply chain model and the outsourced port supply chain model described above. This supply chain model with certain information technology capabilities and a high-efficiency information management work platform, on the one hand, it can effectively promote the port logistics companies and the internal structure of the enterprise.

The new combination, based on the cooperation between port logistics enterprises, can also restructure the internal organizational structure between port logistics enterprises, which will greatly enhance the overall professional ability and innovation level of the future development of port logistics. ; On the other hand, it not only realizes the effective use of funds and resources in port logistics enterprises, but also combines the existing advantages of port logistics enterprises to gradually become the future development direction of port logistics models in the current era.

3. Construction of Port Logistics Mode Based on Supply Chain Management

3.1. Collaborators Choosing a Port Logistics Supply Chain Model

For the selection of a cooperative enterprise that conforms to its own reality, port logistics is the middle part of the link. The main job is to connect the cooperation between various enterprises. Therefore, if port logistics is to promote itself, it needs to be effective. Develop and apply the management advantages of the supply chain, and consider all aspects of the advantages of the cooperative enterprise and the economic benefits it can bring from the perspective of cooperation and win-win. The development goals of the two companies should be selected in a way that is compatible with their own development and that allows the two companies to give full play to their

complementary advantages. For example, the position of xx port is relatively shallow, so it can only provide corresponding services for small vessels. In this case, choose the large port logistics company adjacent to it as a partner. Both can get economic benefits and achieve a win-win situation.

3.2. Realize the Information Management of Port Logistics Supply Chain

With the vigorous development of information technology in the current era, the original port logistics supply chain management model cannot meet the current economic development situation. Based on the above, it is necessary for port logistics enterprises to create an information management model that is in line with the development of the current era. To promote the effective integration of China and the world economic and trade development. In order to further promote the effective management of port logistics supply chain management, the most advanced information technology in the current era should be combined with the Internet information platform in line with the port to realize the online management of the port logistics supply chain. The main reason is that information technology has certain positive and scientific meanings, and has the positive significance of rational allocation of resources. Through information sharing and online management, it can promote more transparent and efficient development of cooperation in port logistics.

3.3. Set up the Supply Chain Organization Properly

First of all, the main purpose of setting up a supply chain organization is to manage and operate all links in the port logistics supply chain accordingly. Therefore, only a scientific and reasonable supply chain management organization has certain effects on the operation and development of the entire port logistics and is beneficial to Further promote the rapid development of port logistics; secondly, by setting up a port logistics supply chain, the main purpose is to ensure the integrity of the entire port logistics chain, thereby promoting the rapid formation of an integrated dynamic alliance supply chain management model, and setting up the port logistics supply chain. The focus is on the corresponding management of the entire supply chain in the supply chain, to better promote the communication and cooperation between the links in the supply chain.

4. Conclusions

In summary, in the context of the current global supply chain management, port logistics is also facing increasingly fierce international competition, and China's port logistics are diversified in scale, and their operating goals and market positioning also differ greatly. Therefore, in the process of development, port logistics should combine with its own reality, build a port logistics supply chain management model that is in line with its own development, and fundamentally enhance its competitive strength in international development.

Acknowledgements

This article was specially funded by Dalian University's 2019 Ph.D. Startup Fund (20182QL001) and 2019 Jinpu New District Science and Technology Project.

References

[1] Pan, X. F. (2020) *The influence of green supply chain management on manufacturing enterprise performance: moderating effect of collaborative communication*, *Production Planning & Control*, 31, 245-258.

- [2] Rosangela, M. V. (2020) *Risk management in the automotive supply chain: an exploratory study in Brazil*, *International Journal of Production Research*, 10, 783-799.
- [3] Abhijeet, G. (2020) *Managing climate change risks in global supply chains: a review and research agenda*, *International Journal of Production Research*, 1, 44-64.
- [4] Yu, W. T. (2020) *Green human resource management and environmental cooperation: An ability-motivation-opportunity and contingency perspective*, *International Journal of Production Economics*, 6, 224-235.