# Research on Supply Chain Management Operation Mode and Optimization Path of Logistics Enterprises Based on Core Competence

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**Keywords:** Core Competitiveness, Logistics Enterprises, Supply Chain Management, Optimization Path

Abstract: Global Logistics Has Entered the Era of Supply Chain, and the Competition among Enterprises Has Developed into the Competition of Supply Chain. Traditional Transportation Can No Longer Meet the Needs of Suppliers and Customer Groups. in Recent Years, the Service Industry Has Become More and More Important in the National Economy, and the Competition among Logistics Enterprises Has Become More and More Fierce. Therefore, How to Improve Distribution Efficiency and Reduce Transportation Costs Has Become the Top Priority of the Development of Logistics Enterprises. This Requires Optimizing the Operation Path of Supply Chain Management of Logistics Enterprises in the Era of Big Data from Improving Product Quality, Improving Data Management and Accelerating Industrial Upgrading. Based on the Perspective of Core Competitiveness, This Paper Studies the Specific Operation Mode of Logistics Enterprises, Discusses the Value Model of Logistics Enterprises' Participation in Supply Chain Management, Analyzes the Shortcomings of Logistics Enterprises' Participation in Supply Chain Management, and Puts Forward Corresponding Improvement Suggestions.

#### 1. Introduction

With the Progress of the Times and the Development of Science and Technology, All Kinds of Information Are Showing an Explosive Growth Trend. Digital Information is Everywhere. the Emergence and Development of the Big Data Era Has Become Unstoppable. Supply Chain Management and Big Data Operation of Various Companies Have Become the General Trend [1]. Judging from the Traditional Business Operation Process of China's Logistics Enterprises, There Are Many Problems and Become a Major Obstacle to the Continued Development of Logistics Enterprises, Which Have Been Unable to Meet the New Needs of Logistics Enterprises and Market Development, as the Basic Service Part of the Development of e-Commerce, Logistics Management Has Also Received More Attention in the Supply Chain Management. How to Improve the Ability of Resource Integration Has Also Become the Key Research Object for the Development of Logistics Enterprises [2]. Supply Chain Management Advocates the Integration of Different Enterprises to Increase the Efficiency of the Supply Chain. It Pays Attention to the Cooperation between Enterprises and Regards Each Enterprise in the Supply Chain as an Indivisible Whole, Making the Functions of Purchasing, Transportation, Distribution and Distribution Shared by Each Enterprise in the Supply Chain a Coordinated Development Organism [3]. in Order to Cope with This Severe Market Competition Environment, Domestic Logistics Enterprises Must First Strengthen the Construction and Management of the Logistics Supply Chain, and Continuously Improve Their Own Strength and Service Level. Supply Chain Management Should Become the New Development Direction and Focus of Logistics Enterprises. This Paper Takes Logistics Enterprises as an Example, Taking Big Data as the Center, Analyzes the Advantages and Disadvantages of the Supply Chain Management Operation Mode, and the Great Significance of Coordinating the Development of Big Data. At the Same Time, It Also Analyzes and Studies the Enterprise Supply Chain Management under the Background of Big Data.

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# 2. Operation Mode of Supply Chain Management in Logistics Enterprises

### 2.1 Connotation of Core Competitiveness

The Core Competitiveness of Logistics Enterprises is Formed in the Long-Term Process of Enterprises Accumulating, Learning and Utilizing Various Resources and Capabilities [4]. Usually We Can Use Two Tools to Identify and Establish Core Competitiveness, Namely, the Four Criteria of Sustainable Competitive Advantage and Value Chain Analysis. the Core Competitiveness of an Enterprise is Actually Formed by Multiple Combinations of These Four Subsystems. Values Belong to the First Dimension and Are Located At the Center of the Core Competitiveness. They Are the Source Points of the Core Competitiveness. Organization and Management Are the Second Dimension. Knowledge and Skills Are the Third Dimension: Software and Hardware Are Also Called Physical Systems and Belong to the Fourth Dimension [5]. a Series of Unique and Intensive Skills and Knowledge Produced by Enterprises through the Integration of Their Own Resources and Core Competence Elements Enable Enterprises to Learn Faster Than Their Competitors and Bring Lasting Competitive Advantages to Enterprises.

Supply chain refers to the whole process of controlling the information management, logistics, capital, etc. of a core enterprise with an enterprise as the core, starting from the purchase of raw materials to the intermediate participants and final products, and finally selling the products through the distribution network [6]. As shown in Figure 1 below, each link in the supply chain has a supply-demand relationship, accompanied by information transmission and logistics distribution, and these steps together form the supply chain.

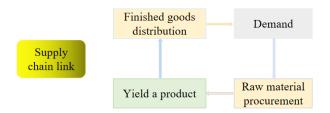


Fig.1 Supply Chain Link Diagram

This paper holds that the core competitiveness of logistics enterprises refers to the enterprise's ability to serve as a source of competitive advantage for logistics enterprises. With this competitive advantage, logistics enterprises can defeat competitors. Every enterprise's resources are extremely limited and it is impossible to be handy in all fields. Therefore, logistics enterprises should carefully analyze their market environment, competitors and their own advantages and disadvantages. Identify one or more core areas, adopt a centralized strategy, and focus limited resources on key breakthrough areas. It is the result of the integration of the enterprise's history and present resources and core elements. It is the integration of all the key resources and capability elements of the enterprise. It is absolutely impossible for the enterprise to be replaced in the short term.

#### 2.2 Logistics Enterprise Supply Chain Management Operation Mode

Logistics industry is an industry with great development prospect and adapting to the development of the times. With the progress of the times, the development of economy and the change of people's life style, logistics industry has increasingly become a very important industry [7]. As an important link in the whole logistics business process, the order business link is the beginning of the whole logistics business. The acceptance and arrangement of orders can provide sufficient quality assurance for the service requirements of the corresponding customers. Therefore, the integration of resources is also related to the adaptability of logistics enterprises in the face of market competition environment. Only by fully understanding the current development plan can the next enterprise development adjust its direction in time and reduce the risk of economic losses caused by changes in market environment to the lowest standard [8]. Whether the logistics party and the buyer can quickly, efficiently and accurately hand over goods and services, whether the

upstream and downstream enterprises can cooperate with each other, etc. Under such a big background, the supply chain management mode of logistics industry arises at the historic moment. Through supply chain management, the work efficiency and service quality of logistics enterprises are greatly improved. It includes all the affiliated node enterprises. It is not only a material chain, information chain and capital chain connecting suppliers to users, but also a value-added chain. Material increases its value in the supply chain due to processing, packaging, transportation and other processes, bringing benefits to related enterprises [9]. On the one hand, it improves the work efficiency of supplying goods and promotes the development of the industry; on the other hand, it also needs to ensure the sustainable operation of the supply chain. Logistics enterprises should maintain close contact and cooperation with suppliers. The processing worksheet of order business links is now in each basic document department, which can effectively connect all links in the logistics supply chain at the same time, thus ensuring that all links in the whole logistics business process form an organic working system.

# 3. Problems Existing in Supply Chain Management of Big Data in Logistics Enterprises

# 3.1 The Product Quality Needs to Be Improved

As the main business of logistics enterprises lay particular stress on logistics and transportation, its distribution center, as the intermediary between consignors and suppliers, is responsible for the transportation of goods, but to become an excellent logistics enterprise, the choice of suppliers is very important [10]. Secondly, the warehousing business, which is a necessary link in the logistics business process, mainly includes the warehousing management, in-warehouse and out-ofwarehouse management of goods, etc., and the warehousing of goods is an important link in the warehouse management. The service content involved in this process is relatively complex. How to control the service quality in this environment is the decisive factor for the development of logistics enterprises. Product quality problems need to be managed from supplier selection to subsequent product warehousing and delivery. This is a prerequisite for the coordinated operation of the supply chain, because if there is no seamless connection of the logistics system, the transported goods are overdue, the needs of customers cannot be met in a timely manner, and the procurement of goods is blocked halfway, the cooperation of the supply chain will be greatly reduced. Most logistics enterprises can only provide a few simple logistics service operations such as storage, transportation and distribution, and lack a perfect logistics service network and systematic logistics services. The opacity of logistics information is not conducive to the optimal allocation and integration of logistics resources, which seriously restricts the overall planning and planning of logistics economically and reasonably in the whole society and affects the systematicness and unity of logistics.

#### 3.2 Data Management Needs to Be Improved

Logistics enterprise supply chain operation collaborative big data management mode is not yet mature in data management and needs to be improved. In this information age, data management is very important to the operation of enterprises. As a link that can provide comprehensive services in the logistics business process, the distribution business process is mainly composed of various small links such as stock-up, storage of goods, sorting and distribution of goods, distribution and packaging of goods, and distribution and transportation of goods. The distribution process is usually located in the initial department and intermediate link of the logistics business process. It is aimed at the resource utilization ability of logistics enterprises under the market competition environment. Logistics enterprises are facing the buyers to carry out services. If they cannot achieve the desired effect in their own management system, the service quality will naturally be affected. The continuous improvement of data management is also the process of making full use of big data in supply chain operation. The continuous improvement of data management is of great significance to the further development of enterprises. Order processing is a part of the business process of an enterprise. Shortening the order cycle can shorten the entire production cycle. In particular, the lack

of logistics coordination capability of logistics itself often leads to poor coordination between logistics enterprises and other node enterprises in the supply chain, making it difficult to give full play to the overall benefits of the supply chain. Therefore, in order for enterprises to make better use of the supply chain operation management mode under big data analysis, enterprises must continuously improve data management.

# 3.3 Inadequate Industrial Optimization and Upgrading

Under the background of the information age, the explosive growth of information and the continuous development of social productivity have led to the emergence of a management mode of collaborative big data analysis for enterprise supply chain operations. Due to the obvious effect of external factors in the logistics and transportation process, this stage is risky, complicated and timeconsuming, which requires logistics enterprises to provide reliable transportation facilities and timely tracking service of logistics and transportation information. The main problems existing in the current operation mode of logistics enterprises can also be summarized as follows: on the one hand, the problems existing between production and supply cause the intermediate links of logistics services to be affected and cannot be carried out quickly. The optimization and upgrading of industry is crucial to the survival and development of enterprises. Enterprises may encounter problems such as failure to effectively expand the industrial chain, insufficient effective market demand, and choice of upstream high-quality suppliers. Cash conversion cycle Determines Efficiency of Enterprise Funds Use. The shortening of cash conversion cycle is a key indicator to improve the efficiency of enterprises, and shortening the inventory cycle through the supply chain process is the core to shorten the entire cash conversion cycle. Through the integration of resources, it can create more economic benefits for enterprises, form a stable access to funds, and minimize the impact in the market environment.

# 4. Optimization Path of Supply Chain Management for Logistics Enterprises' Core Competitiveness

# 4.1 Improve Product Quality

Product quality has always been the key and core of enterprise development. No matter how the supply chain operation mode is updated, good quality control is the premise of enterprise survival and development. However, the big data supply chain operation management mode should be fully utilized and the big data analysis should be used to control product quality more efficiently. Production enterprises are generally reluctant to share their own information with the outside world. Due to the limited information sharing in the entire supply chain, it is difficult to deepen the cooperation between enterprises in the supply chain and the advantages of the supply chain cannot be brought into full play.

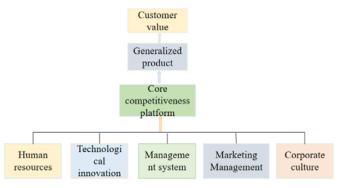


Fig.2 The Structural Model of Core Competitiveness Supporting Platform

The sustainable development of an enterprise is determined by the combination of its material resources and human resources, of which the first is still the overall level of human resources. Most economists believe that what ultimately determines the development and progress of an enterprise is

the human resources it has. This paper also directly gives the structural model of the supporting platform for the final core competitiveness as shown in Figure 2 below. Among them, "generalized products" include four categories: hardware products, software products, process materials and services.

According to the main structure of logistics service development, the value network is constructed, and the information resources therein are gradually improved to achieve a more ideal use form, and the integration of resources in the operation of the value network becomes more specific. The key elements that constitute the core competitiveness can be that enterprises can do better than competitors in improving operating efficiency, reducing costs and creating value, creating more value for customers. Enterprises themselves can also participate in logistics distribution activities. Through the first-time transmission of information, the efficiency of logistics distribution can be improved, and the efficient management and monitoring of enterprise logistics can be realized. The main business of logistics enterprises lies in the transportation of goods, but it acts as a bridge between suppliers and consignors and as an intermediary between the two. Integrated logistics management in the supply chain requires all node enterprises to participate in efforts to reduce costs, improve quality and respond quickly. Therefore, it is very important for all enterprises to fully do a good job in information sharing.

# **4.2 Perfect Data Management**

On the basis of ensuring product quality, the supply chain operation management mode of enterprise big data should be fully utilized in data management, and big data analysis should be used to continuously improve enterprise data management. Therefore, all partners in the supply chain need to reach a consensus and desire so that they can make short-term adjustments in order to improve the competitiveness and long-term interests of all members. Organizations committed to improving their own comprehensive logistics operation level must make appropriate adjustments to the current logistics management policies and practices. The core competitiveness must be able to continuously adapt to the changes of the new internal and external environment, further develop a series of new business and service modes on the original basis, and maintain the advantages of enterprises in the market competition. To study the integration of developing logistics information resources, and be good at observing market changes in positions, and introduce the environmental factors of market changes into the resource integration stage to achieve more efficient resource integration effect. Owner data information, order generation and processing information, data information related to management decisions, etc., if enterprises can gradually make full use of the advantages and convenience of big data, they can make the supply chain operation of enterprises more smooth and stand at the forefront. E-commerce enterprises outsource logistics distribution to professional enterprises, and can control logistics distribution information in real time, greatly improving the service efficiency of e-commerce enterprises. In particular, the efficiency of logistics services, such as timely delivery, arrival of goods and transit information, etc. Different logistics consumption requires different logistics services, so logistics enterprises should provide targeted personalized services and value-added services according to the requirements of consumers.

#### 4.3 Optimize Industrial Upgrading

With the development and progress of enterprises and the inevitable requirements of the information age, the collaborative big data management mode of enterprise supply chain operation emerges as the times require. Therefore, enterprises cannot only introduce this cutting-edge management mode. For the improvement of the supply chain, we should consider the overall working capacity of the logistics platform, as well as the parts of the technical methods that need to be further improved, strengthen the integration research in technology, and promote the further implementation and development of the management system. Objectively speaking, joint distribution is an optimized distribution mode that takes into account self-management distribution and outsourcing distribution. Its advantages lie in reducing logistics costs, improving logistics efficiency and promoting the modern, low-carbon and sustainable development of distribution. After a long period of practice, the formation and development of core competitiveness has become

a comprehensive manifestation of the common values and multiple functions and technical capabilities of enterprises throughout the entire business activities. The industrial upgrading of an enterprise cannot keep pace with the development of the times and cannot fit in with the new management mode. On the contrary, it will have a negative impact on the development of the enterprise. Therefore, timely industrial upgrading is of great help to the development of the supply chain management operation mode of big data. Therefore, in order to enhance the competitiveness of logistics enterprises, logistics enterprises should attach importance to the transformation of business concepts into internal business processes with supply chain ideas. Logistics enterprises should optimize their internal business processes with the idea of supply chain integration, starting from users, taking logistics as the core, and paying attention to increasing user value and service level. Each enterprise can grasp the latest market trends in its development, and the management plan and resource integration system formulated are more in line with the current situation, which is an effective way to improve the efficiency of information resource integration.

#### 5. Conclusion

The integration of resources in economic society should be the arrangement, acquisition and combination of resources. The author believes that resource integration is to obtain useful resources through different ways, not only to reduce the cost of resource acquisition for enterprises at the micro level, but also to improve the efficiency of resource utilization at the macro level. As an important node enterprise in the supply chain, logistics enterprises participate in the operation and management of the supply chain in an all-round way, which can bring win-win results to the logistics enterprises themselves and other node enterprises in the supply chain. The establishment of a customer-oriented, safe and reliable logistics information platform system can enable customers in the supply chain to communicate with logistics enterprises conveniently and safely. Logistics hardware facilities are the foundation and premise of the development of logistics system. The research and development of logistics software is conducive to the function of logistics hardware facilities. The two interact and influence each other. An excellent logistics information platform system can quickly identify customers' identities and needs as soon as they enter, thus providing personalized services quickly. More importantly, the use of modern information technology can make the entire supply chain smoothly connected to form a customer-oriented service chain.

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