

# *Application Research of Supply Chain Management in Civil Aviation Logistics Enterprises*

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**Abstract:** This article focuses on the subject of supply chain management based on civil aviation logistics enterprises. It mainly adopts the research method of literature review and combines the important position of supply chain in civil aviation logistics enterprises. The logistics management optimization helps and contributes. From the perspective of the civil aviation cargo industry, this paper selects this topic for research and in-depth analysis. It has reference significance for civil aviation enterprises to improve customer satisfaction, improve the operation efficiency of cargo terminals, and develop the performance capabilities and strategic management capabilities of civil aviation cargo enterprises.

## **1. Introduction**

The civil aviation industry is an important basic industry for the development of a country's economy. The degree of development of the civil aviation industry reflects the state's economic structure, openness, and modernization level. Shanghai, an international metropolis, is the epitome of the development of the country's civil aviation industry as the economic and financial center of our country. After many years of hard work, Shanghai, with its unique geographical location and economic strength, has the advantages of developing into an aviation hub and an international air transport port. Shanghai has achieved great success in the development of its civil air transportation business. At the airport, Shanghai is also constantly opening new routes and new businesses to attract more customers. Compared with the passenger transportation industry, compared with other developed countries, civil aviation cargo companies such as Pudong International Airport Cargo Terminal and Dongyuan Logistics are far behind. It exceeds the level of civil aviation cargo enterprises in China. Therefore, the application of supply chain management to civil aviation cargo enterprises has become an urgent problem for civil aviation logistics enterprises[1].

## **2. Overview of Basic Theory**

In today's global market, competition is intensifying, product lifecycles are beginning to decline, and customer expectations are rising. All of the above causes companies to continue to pay attention and increase capital into the supply chain. At the same time, the development of transportation technology and communication means caused by economic development has also promoted the

further development of supply chain and logistics technology. The company starts by purchasing raw materials, produces products in the factory, then transports the products to the warehouse for storage, and finally sends them to the retailer to sell the products to the end users—customers. In this process, effective supply chain strategies and invalid supply chains The strategy will be greatly reflected in cost and efficiency. In order to reduce costs and improve service levels and efficiency, each link in the supply chain and the key to each other should be fully considered. It is a structure composed of suppliers, manufacturing centers, warehouses, distribution centers, and retailers. Interdependence and interaction between each other. An effective supply chain is an important decision support system for enterprises. The definition of supply chain is: supply chain is a series of methods for effectively integrating suppliers, manufacturers, warehouses and stores. Through these methods, the produced products can be sent to the right place in the right quantity and at the right time, so that the cost of the system can be minimized while meeting the service level requirements[2].

In the supply chain management, there are several key issues that need special attention from enterprises. They are: ① Supply chain integration and selection of strategic partners. Because enterprises pursue different goals, the choice of integration and strategic partners is particularly important. On the basis of information sharing, there are higher requirements on how to integrate information, design and layout for global optimization, and thereby increase market share and corporate performance. And difficulty. ② Inventory control. Due to the changing demand of customers, the inventory can only be based on historical data, but it is still necessary to minimize the inventory. The uncertainties that exist directly between consumers and suppliers at retail terminals have created problems for suppliers, but also brought business opportunities. How to grasp the amount of inventory is a problem that suppliers need to solve urgently. ③ Supply contract. In traditional supply chains, members generally only consider their own interests and pay little attention to the performance of other members in the chain. Therefore, they rarely consider the influence of supply chain partners when making new decisions. Impact, the quantity distribution and benefit distribution in the supply contract will have an impact on the performance of the supply chain. It is a good way to increase profits through certain pricing strategies. ④ Distribution network configuration. Changes in demand patterns may lead to new supplier selection, changes in the distribution network approach, and changes in commodity output. How to determine the output, achieve the optimal distribution network, determine the transportation distance between the equipment, the location of the storage and meet the customer's service level, it is necessary to continuously optimize the design, and use data models and advanced technology to effectively support it. ⑤ Outsourcing and procurement strategy. Enterprises need to identify their core competitiveness and increase investment in research and development. For manufacturing activities that do not belong to their own scope, outsourcing can be used to reduce corporate risk. This has a greater relationship with corporate products, but only if the product is capable of Supply on time. ⑥ Customer value. Customer value, as the ultimate measure of an enterprise, determines all of its tangible products, intangible services, and life cycle. The impact of information technology on customer value, the accumulation of experience in customer relationship management, and the relationship between brand and price will affect the performance and assessment of the supply chain. Therefore, if an enterprise wants to meet customer needs, an effective supply chain is essential. ⑦ Information technology and decision support system. The high development of information technology provides a guarantee for the supply chain. Through the analysis of data and model analysis, it greatly increases business opportunities and reduces costs. How to analyze and use data and judge the importance of data, effectively e-commerce and the supply chain Combining applications and applying data to decision support systems are difficult issues facing companies.

### 3. Overview of the Layout of Civil Aviation Logistics Enterprises

#### 3.1. The Principle of Combining External and Internal Conditions

First of all, we must consider that the logistics industry is a pillar industry that the country requires to develop vigorously. Local governments have a series of policy support. The layout can enjoy policy benefits, which can save a lot of manpower and material resources for enterprises. The requirements of the manufacturing industry, the closer to the large-scale manufacturing plant, the better, so that the distribution efficiency is higher; there is a relatively good traffic condition in the area, make use of all available transportation network advantages and distribution advantages, so that in the future Logistics is more convenient and competitive[3].

#### 3.2. The Principle of Combining Subsystems with the Entire System

Supply chain nodes can be large or small. A logistics center is a large system compared to a small-scale logistics distribution company, but it is only a subsystem of the entire logistics park. Therefore, the logistics layout must be positioned first, which position in the entire logistics system is clear, what are the advantages of other horizontal companies to complement each other, and what services can be provided for the large logistics system. At the same time, it is necessary to understand the deficiencies of the subordinate subsystems, whether they can be compensated during the layout, or integration. Do not make the transportation process detour and backflow, which will affect the efficiency of logistics operations, and must be developed with the final large logistics system Matching strategies[4].

#### 3.3. The Principle of Combining Current Interests with Long-Term Interests

Civil aviation cargo companies have relatively large investments, long payback periods, and relatively high risks and pressures on business operators. Therefore, when choosing a solution, the current and long-term interests should be considered as much as possible without conflicting with the final goal, or the layout implementation should be carried out in stages and in batches. This can reduce waste of resources, reduce the risk of decision-making, and reflect the logistics layout Implementation and sustainability.

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