

# Research on Inventory Management of Shunfeng Logistics Co

Jiale Li

College of Economics and Management, Southwest Petroleum University, Chengdu 610500, China  
18200550756@163.com

---

**Abstract:** With the development of the times and the progress of science and technology, the Internet Age makes inventory management in enterprise logistics activities play an increasingly important role. This paper mainly studies the inventory management of sf-ft logistics, through the analysis of the status quo of sf-ft logistics inventory management and the existing literature on the inventory management of the study, put forward suggestions for improvement of SF-FT logistics inventory management.

**Keywords:** Inventory management, SF & F, Suggestions for improvement.

---

## 1. Introduction

### 1.1. Research Background

#### 1.1.1. Status of the logistics industry

In terms of the size of the market, it is growing strongly. The frequent global trade and the explosive growth of e-commerce have greatly promoted the increase of logistics demand. According to statistics, the global logistics market transaction volume is increasing at a considerable rate every year. At home, the volume of logistics business continued to rise, especially during the e-commerce promotion campaign, the volume of logistics orders showed a blowout growth.

Technological innovation has become a key force driving the development of the logistics industry. Big data, artificial intelligence, Internet of things and other cutting-edge technologies deeply integrated into the logistics operation of each link. For example, through big data analysis, logistics enterprises can accurately predict market demand, optimize warehouse layout and distribution routes; with the help of the Internet of things, real-time monitoring of goods transport, to ensure the safety of goods and on-time delivery.

The concept of green logistics has been deeply rooted in people's mind. In order to meet the environmental challenge, logistics companies have taken measures to reduce carbon emissions, promote the use of new energy transport tools, optimize packaging materials to reduce the impact on the environment.

At the same time, logistics services continue to move towards specialization and refinement. Cold chain logistics plays an important role in ensuring the quality and safety of fresh food, and its market scale continues to expand. Cross-border logistics is also increasingly mature, providing an efficient and convenient channel for international trade.

However, the logistics industry also faces some challenges. The fierce market competition makes the enterprises face the problems of cost pressure and profit space compression, the logistics infrastructure in some regions still needs to be improved, in addition, the shortage of talents, especially the compound talents with new technology and management ability, also restricts the development of the industry to some extent.

Overall, the logistics industry in the opportunities and

challenges coexist in the environment, continue to provide an important support for economic development and people's lives.

#### 1.1.2. The importance of inventory management in Logistics Enterprises

Inventory management plays an important role in logistics enterprises. It is like the cornerstone of enterprise operation, directly affects the efficiency, cost and service quality of logistics enterprises.

First of all, good inventory management helps to optimize the cost control of logistics enterprises. The reasonable inventory level can avoid the risk of overstock, the increase of storage cost and the loss of goods, it also prevents out-of-stock costs, expedited purchases, and customer churn. For example, if a logistics enterprise overestimates the inventory of a certain type of commodity, it will not only have to bear high storage space lease costs, but also may cause huge losses due to the obsolescence or deterioration of commodities; conversely, if the inventory is too low, the customer may not be able to meet the urgent needs of customers, causing customers to turn to competitors. Second, inventory management can significantly improve the operational efficiency of logistics enterprises. Accurate Inventory Forecast and timely replenishment strategy can ensure the accurate supply of goods at the time and place required, reduce order processing time and logistics delivery delays. This is like installing a precise navigation system in a complex logistics network, making the entire logistics process smoother and more efficient. Furthermore, effective inventory management helps to improve customer satisfaction. By keeping proper inventory, logistics enterprises can quickly respond to customer orders, on time delivery of goods, to meet customer expectations, thus enhancing customer trust and loyalty to the enterprise. Imagine, when the customer is in urgent need of a commodity, logistics enterprises always from sufficient and reasonable inventory of the rapid deployment of shipments, this excellent service will undoubtedly impress customers.

To sum up, inventory management for Logistics Enterprises is a key management task, directly related to the survival and development of enterprises, is an important magic weapon to emerge in the fierce market competition.

## 1.2. Purpose and Significance of the Study

### 1.2.1. Research purpose

The research on the inventory management of sf-ft logistics aims at analyzing the current inventory management model of sf-ft logistics, and mining its potential advantages and problems. Through comprehensive and systematic research, accurately grasp the actual situation in the inventory planning, control and optimization to provide a solid foundation for subsequent improvement. The aim of this research is to explore the matching degree between sf-fcl inventory management and market demand. To understand the adaptability and flexibility of inventory management strategies in response to market dynamics, customer diversification needs and competitive pressures in the industry, in order to better meet the immediate needs of the market, to enhance SF & Fung's competitiveness in the logistics market. Furthermore, it is expected to provide scientific and reasonable suggestions and innovative ideas for SF Logistics Inventory Management. Drawing on the advanced experience and best practice in the industry, and combining the characteristics and resources of SF & F itself, the paper formulates the Inventory Management Plan in line with its development strategy, thus improving the inventory turnover rate and reducing the inventory cost, enhance the profitability of the enterprise. Finally, the research is also helpful for the entire logistics industry inventory management to provide useful reference and reference. As a well-known enterprise in the field of logistics, its inventory management experience and lessons have a representative and exemplary role, which can provide valuable enlightenment for the same industry enterprises, promote the entire logistics industry inventory management level.

### 1.2.2. Research implications

From the point of view of SF & Fung's own development, further study of its inventory management can help SF & Fung identify and solve potential management loopholes and risks, optimize resource allocation, and improve operational efficiency. For example, through scientific inventory planning, to avoid the backlog or shortage of goods, reduce the cost of warehousing and transportation costs, thereby enhancing the profitability of enterprises and market competitiveness.

This research has important demonstration value for the entire logistics industry. As one of the leading enterprises in the industry, the experience and mode of inventory management reflect the development trend and advanced level of the industry to a certain extent. The research on it can provide valuable reference for other logistics enterprises, promote the improvement of the whole industry inventory management level, and promote the standardization and development of logistics industry.

From the point of view of consumers, optimizing SF-F inventory management can improve the quality and speed of logistics services. This means that consumers can receive their packages timelier and accurately, enjoy a better logistics experience, thus enhancing the trust and satisfaction of SF Express brand.

In the academic field, the research on sf-fcl inventory management can enrich the relevant theoretical system. Providing real cases and data for scholars is helpful to further improve the academic research of logistics management and promote the innovation and development of related theories.

## 2. The Research Status of Inventory Management

### 2.1. Management Theory Research

Through the study of the existing literature, can help me better understand the concept of inventory management, as well as the importance of inventory management in enterprise production activities. Inventory refers to the enterprises to meet the production and sales needs of the reserve of goods, semi-finished products, finished products and raw materials. Inventory management refers to the enterprise through scientific management and control of inventory, to ensure the normal production and sales, and to reduce inventory costs and ensure the safety of inventory on the basis of, improve the enterprise's economic efficiency and customer satisfaction.

The paper "The research of inventory management theory" introduces the proposition of inventory problem, introduces the six development stages of inventory theory, and the concept and classification of inventory, in the process of enterprise logistics inventory can be divided into raw materials inventory, work-in-process inventory, maintenance inventory and product inventory [1]. Finally, it points out that the core of inventory management is to reduce the total cost of inventory system, improve service level, maximize profits and enhance the market competitiveness of enterprises.

### 2.2. Practical Aspects

In the practical application of inventory management, the current research focuses on the process, methods, tools and techniques of inventory management, as well as inventory management practice cases in various industries. In the aspect of process, the researcher discusses how to control the inventory reasonably and reduce the inventory cost, and puts forward some new process modes and methods. Today is the internet era, most of the development of enterprises are inseparable from the Internet, so enterprise logistics activities are also closely related to the Internet, inventory management as a key element of enterprise logistics activities, through the internet can achieve a reasonable control of inventory, to maximize the economic benefits of enterprises. In the paper "Research on process optimization of inventory management in manufacturing enterprises under the background of "Internet +": optimization strategy based on process chain network", firstly, the process chain network is used to describe and analyze the process of inventory management system in manufacturing enterprises, then the concept of "Internet +" is introduced, the information management platform is introduced, and the optimization strategy of the original inventory management system process is put forward, the paper puts forward some suggestions on how to deepen the process of inventory management system in manufacturing enterprises [2].

In the method aspect, some new inventory management methods such as ABC classification and JIT are also widely used in the actual inventory management. Chen yaling, Zhang Lingjuan and others found that after using ABC classification to manage high-value consumables, the stock of consumables in operating room decreased, the stock turnover rate increased significantly, and the shortage was significantly improved, finally, we conclude that ABC classification can optimize the inventory structure [3]. By comparing the inventory before and after the ABC classification management, we found that the ABC classification can effectively shorten the inventory turnover days, reduce the cost of drug inventory [4].

In terms of tools and technologies, the application of new technologies such as automated warehousing and Internet of things is also being explored and improved to improve the efficiency and accuracy of inventory management. Aiming at the problem of warehouse logistics management that the order data and the actual situation in the warehouse are connected in real time, Shen fan and others have designed a set of automatic warehouse management system based on image recognition [5]. The system uses raspberry PIE + OpenCV as the image recognition carrier. After the recognition result is obtained, the information is transmitted to the self-made PC software by serial communication. After receiving the recognition information, the host computer displays the data in real time through the man-machine interface, stores the data, and generates the table automatically. This system can realize the process information and data-based warehousing logistics, can improve the efficiency of warehousing while reducing labor costs. In addition, the inventory management practice cases in various industries also provide a lot of useful reference and summary experience for researchers, such as in the retail industry, using “Real-time inventory” and “Co-marketing + warehouse” to effectively control inventory. The research status of inventory management in practice shows a colorful and innovative trend.

### 2.3. The Supply Chain

In the aspect of warehouse layout, researchers use models and optimization algorithms to find the best warehouse layout, which can make the warehouse and other parts of the supply chain achieve the maximum synergy effect. In the paper “Research on the layout optimization of storage center based on the improved SLP method”(Zheng wanting, Wang Zhenzhen) , aiming at the problems of unreasonable layout pattern and immature layout method of storage center, based on the traditional SLP method, the EIQ-ABC analysis method is used to determine the distribution demand of different goods, and the analysis results of EIQ-ABC-SLP are taken into account to get the alternative scheme, the fuzzy comprehensive evaluation method is used to select the optimal scheme quantitatively. Taking the storage center of D Food Company as an example, this paper verifies the scientificity and applicability of the improved SLP method, and the research results show that the improved SLP method can effectively improve the working efficiency of the storage center, it has practical theoretical significance and practical value in optimizing the layout of storage centers [6].

In the application of warehousing technology, new technologies such as Internet of things, RFID and automation are widely used in modern warehousing to improve the efficiency and accuracy of warehousing. Zhu Weixin pointed out that in the storage of fresh products, using RFID technology can ensure the optimization of storage conditions during the storage process, and can monitor and detect the fresh agricultural product supplier's real-time information data and related product information, consumers can use RFID technology to query and track the fresh and product information in real time, to ensure the maximum product satisfaction for consumers, at the same time, the establishment of product information automatic traceability and anti-counterfeiting inquiry system, storage and management system automatic symmetry, not only effectively improve the fresh and agricultural products to maintain freshness, it also reduces the unnecessary waste of human resource information [7].

In order to improve the utilization rate and operation efficiency of storage facilities, researchers focus on the design of facilities, equipment selection, and equipment operation and maintenance. Tong ze-ping and others think that the supply chain of multi-layer logistics storage facilities balanced management, can improve the efficiency of logistics storage system [8]. In order to achieve the equilibrium management of logistics warehousing supply chain, it is necessary to establish a commodity supply chain equilibrium management model, obtain the condition of supply chain network model to achieve equilibrium, and complete the logistics warehousing supply chain equilibrium processing. The traditional method establishes the supply chain structure model with time-varying delay, obtains the time-varying characteristics of logistics system, but neglects the equilibrium condition of the supply chain structure model, which results in low management precision. A supply chain network equilibrium model including multi-layer logistics warehousing facilities and members of goods supply and demand is constructed from the perspective of value flow theory, for the supply chain topology and the storage capacity of multi-variety and complex storage facilities, the two-level solution method is used to solve the inventory strategy in the outer layer and the logistics distribution scheme in the inner layer. The experimental results show that the proposed method can effectively reduce the cost of supply chain maintenance and improve customer satisfaction.

### 2.4. Environmental and Sustainability Aspects

Green inventory management. Green inventory management is to optimize the inventory management process and technical means to reduce resource consumption and environmental pollution, to achieve energy-saving emission reduction and sustainable development of enterprises. This kind of management method realizes the optimal distribution and centralized management of the inventory through the improvement of the inventory management process and the technical means, thus the aim of reducing inventory loss, shortening inventory cycle and improving inventory utilization ratio can be achieved. Yao and others point out that the current research on supply chain mainly focuses on the traditional location design, inventory design and transportation planning, and the application of these areas has also made initial development, however, the concept of green environmental protection is not enough in supply chain design and application[9]. By analyzing the cause and risk composition of waste inventory in green supply chain, the author finds the solution to the risk of waste inventory, the method of life cycle assessment can help enterprises to analyze the source and process of waste, and fuzzy comprehensive evaluation can help enterprises to analyze the risk components and influencing factors of waste inventory At the same time, find a way to solve the problem of waste inventory from the source, stimulate the development of environment-friendly products, and solve the problem of recycling products and new product demand impact.

### **3. The Inventory Management Status and Problem Analysis of SF Logistics**

#### **3.1. Shunfeng Logistics Inventory Management Status**

##### **3.1.1. Information management**

Shunfeng logistics adopts the information technology to manage the inventory comprehensively, adopts the WMS system and other advanced information management systems to realize the functions of inventory monitoring, inventory checking and inventory inquiry, etc. improve the accuracy and efficiency of inventory management.

##### **3.1.2. Fine-grained management**

Shunfeng logistics through data analysis and optimization to adjust the inventory structure, inventory fine management. ABC analysis, seasonal analysis and inventory equilibrium analysis are used to classify the inventory management and fine optimization, so as to improve the inventory turnover rate and reduce the inventory cost.

##### **3.1.3. Environmental protection management**

Shunfeng logistics emphasizes environment-friendly inventory management, strictly controls the inventory management of environment-sensitive goods such as harmful goods and dangerous goods, strengthens the management of environment-friendly storage links, and prevents environmental pollution. In addition, Shunfeng Logistics also optimize the inventory process, promote green logistics, the use of recyclable, reusable packaging materials, reduce the environmental burden.

##### **3.1.4. Collaborative supply chain management**

Shunfeng logistics establishes supply chain coordination management system to optimize inventory management with suppliers and customers to achieve win-win inventory management. Shunfeng logistics establishes the supply chain collaborative management model, which can optimize the inventory management and improve the supply chain efficiency by sharing information, making inventory strategy and collaborative inventory planning.

#### **3.2. The Existing Problems of SF-FT Inventory Management**

##### **3.2.1. The accuracy of inventory forecasting needs to be improved**

The volatility and uncertainty of market demand make it challenging to accurately predict the flow and direction of goods. S & F may under-estimate the demand for a particular area or type of goods at some point, resulting in a shortage of inventory to meet customer demand in a timely manner, or over-forecast demand, resulting in inventory overhang, increased warehousing costs and capital requirements. The lack of effective forecasting models for emerging markets and special events (such as sudden sales promotion, natural disasters, etc.) affects the flexibility and adaptability of inventory planning.

##### **3.2.2. Inventory classification and management strategy is not detailed enough**

While basic inventory classification methods such as the ABC classification may be used, for some high-value, time-sensitive or special nature of goods, classification standards may not be detailed enough, resulting in inaccurate management strategies. For C goods attention may be

insufficient, prone to low inventory turnover rate, take up too much storage resources.

##### **3.2.3. Pressure on inventory cost control**

With the expansion of its business and the intensification of market competition, sf-fon's costs in leasing and construction of storage facilities, salary of inventory managers and inventory losses are increasing. Inadequate inventory management can lead to additional transportation costs, such as frequent replenishment shipments or emergency dispatch shipments.

##### **3.2.4. There are deficiencies in the integration and collaboration of information systems**

There may be information islands among the various business systems in SF & F, which leads to the timely and inaccurate transfer of inventory data among different departments and affects the timeliness and effectiveness of inventory decision-making. It is difficult to realize real-time inventory sharing and cooperative management in the supply chain because of the lack of smooth interface with the information systems of suppliers and customers, which increases the difficulty and risk of inventory management.

##### **3.2.5. The inventory risk management mechanism is not perfect**

There is a lack of comprehensive and systematic risk assessment and response mechanism for the impact of external risk factors such as market volatility, policy changes and natural disasters on inventory. When there are unforeseen circumstances, such as unsalable goods, quality problems, etc., may not be able to take effective measures to reduce inventory losses.

##### **3.2.6. The development and training of the talent pool needs to be strengthened**

There is a relative shortage of specialists in inventory management, and existing staff may not have the knowledge and skills to keep up with the latest demands of the industry. Lack of regular training and learning mechanisms, resulting in staff in the inventory management of new technologies, new methods of the application of lag.

### **4. The Improvement Suggestion of SF Logistics Inventory Management**

#### **4.1. Enhance the Accuracy of Inventory Forecast**

By introducing more advanced data analysis techniques and algorithms, combined with market dynamics, historical sales data and industry trends, build a more accurate demand forecasting model. At the same time, the establishment of a dedicated market monitoring team, timely capture of emerging market demand and the impact of special events, flexible adjustment forecast results. For example, the use of machine learning algorithm for deep mining of massive data, to predict the flow of goods in different regions, different seasons, inventory planning ahead of time.

#### **4.2. Optimize Inventory Classification and Management Strategies**

Fine goods classification standards, the special nature of goods separate classification management, for each type of goods to develop personalized management strategy. Strengthen the monitoring and management of Class C goods, regularly assess its inventory turnover rate, timely clearance

of unsalable inventory, release storage space. For example, for fresh products with strong timeliness, adopt more stringent inventory control strategy to ensure freshness and timely delivery.

### 4.3. Strengthen Inventory Cost Control

On the one hand, rational planning of storage facilities, the use of intelligent storage equipment to improve space utilization and reduce storage costs. On the other hand, the optimization of transport routes and distribution programs, reduce the number of unnecessary transport and mileage, reduce transport costs. At the same time, the establishment of a strict inventory loss control mechanism to strengthen the storage and quality inspection of goods, reduce the cost of loss caused by the increase

At the same time, it is essential to improve the integration and coordination of information systems. Promote the integration and interoperability of internal business systems to ensure the real-time, accurate delivery and sharing of inventory data. Strengthen the information system with suppliers and customers to achieve the visual management of the supply chain, collaborative inventory planning. For example, the establishment of electronic data exchange system with major suppliers, real-time access to supply information, coordinated adjustment of inventory levels.

### 4.4. Improve the Inventory Risk Management Mechanism

Develop a comprehensive risk assessment system, quantitative assessment of the various risk factors that may affect the inventory, and formulate the corresponding contingency plan. For example, in response to market fluctuations, the establishment of an inventory buffer mechanism; in the face of natural disasters and other force majeure factors, the early formulation of materials allocation and inventory protection programs.

### 4.5. Pay Attention to The Construction and Training of Talents

To recruit people with rich inventory management experience and expertise, while providing regular training courses and learning opportunities for existing staff to master the latest inventory management concepts and techniques. For example, organizing in-house training seminars, inviting industry experts to share their experiences, and encouraging employees to attend relevant industry seminars and training courses.

## 5. Conclusion

Shunfeng logistics has made some achievements in inventory management, with a relatively perfect inventory management system and information system, to a certain extent, to meet business needs. However, there are still some problems that cannot be ignored. At present, its inventory management process has been partially digitized, but it is still insufficient to deal with the complex and changeable market environment.

The problems mainly focus on several aspects: the accuracy of inventory forecasting needs to be improved, resulting in the inventory shortage sometimes affecting customer service, sometimes inventory overstock increases

costs; inventory classification and management strategy is not yet sufficiently refined, the inventory cost control is under great pressure, and the cost of warehousing, transportation and loss is high. There are some obstacles in the integration and coordination of information systems, this has affected the timely sharing of data and the efficiency of decision-making; the inventory risk management mechanism is not sound enough, and the ability to deal with emergencies needs to be strengthened; and there is also room to improve the professional literacy of the talent team and the ability to apply new technologies.

To solve these problems, the optimization strategy should focus on the following aspects: adopting more advanced forecasting techniques and methods, combining multi-dimensional data to improve forecasting accuracy; further refining inventory classification standards; We should establish individualized management strategy, strengthen cost control consciousness, reduce cost by optimizing storage layout and planning transportation reasonably, strengthen information system integration and cooperation, Break Information Island Build a perfect inventory risk assessment and response system; increase the training and introduction of talent, improve the overall level of the team. Through the implementation of these optimization strategies, Shunfeng Logistics is expected to achieve the quality of inventory management, enhance market competitiveness and provide customers with better service.

## References

- [1] Wang Guifeng, Zhang Dongshan. Theoretical issues in inventory management [J]. Guangdong chemical, 2018, 45(13): 197-198.
- [2] Li Zonghui, Xiao Jiongen, Lin Yangchun. Research on process optimization of inventory management in manufacturing enterprises under the background of "Internet +" optimization strategy based on process chain network [J]. Future and development, 2020, 44(08): 22-31.
- [3] Chen yaling, Zhang Linjuan, Wei Yanqiang, Wu Yue. Application of ABC classification in inventory management of high-value consumables in operating rooms [J]. Nursing study, 2019, 33(14): 2486-2489.
- [4] Liu Shui, Li Yiwen, Fan Shuo, Huang Tao, Li Jing. Application of ABC classification in inventory management of antineoplastic and adjunctive drugs in our hospital [J]. Chinese pharmacy, 2018, 29(01): 21-24.
- [5] Shen Fanchao, Li Ning, Xue Xiyi. Automatic warehouse management system based on image recognition [J]. Mechanical Manufacturing, 2022, 60(02): 74-78 + 82.
- [6] Zheng wanting, Wang Zhenzhen. Optimization of storage center layout based on improved SLP method [J]. Journal of Fujian Business School, 2021, No. 140(06): 43-49. DOI: 10.19473/J. CNKI.1008-4940.2021.06.012.
- [7] Zhu Weixin. Application of RFID technology in fresh food storage [J]. China Storage & Transportation, 2022, No. 267(12): 33-34. DOI: 10.16301/J. CNKI. CN12.1204/F. 2022.12.125.
- [8] Tong zeping, Xu Qinggen, Ren Liang. Multi-layer logistics supply chain supply chain equilibrium optimization simulation [J] -RSB-. Computer simulation, 2018, 35(03): 361-364 + 453.
- [9] Yao Jinghui, Wang Kai, Liu Junhao, etc. Waste inventory risk management in a green supply chain [J]. China market, 2020, No. 1041(14): 17-19. DOI: 10.13939/J. CNKI. April 14, 2020.