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Research on the Management System of enterprises using Modern Logistics Supply Chain Theory

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Abstract

To consolidate the enterprise's market position, it needs a powerful material supply chain to support the enterprise's development. However, the material supply cannot keep pace with the rapid speed of the construction of the most enterprises. To overcome this problem, this paper has presented a new management system of material supplies based on the modern Logistics supply chain theory for the enterprise material supply management. By the use of modern Logistics supply chain theory, the enterprise material supply can be formed as a powerful circle. This chain structure can help the Logistics cost reduction, and improve the enterprise's core competitiveness. The function design of the chain system components has been discussed. The analysis results show that the proposed management system could impel the development of the supply intensification strategy and provide theory and technology support to the advanced material supply management for enterprises. Thus, the proposed method has application importance.

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Keywords: Enterprise management; material supply chain; advanced Logistics theory

1. Introduction

In recent years, with the increasing construction speed and scale expansion, enterprises face new challenges on the cost control of equipment purchasing and storage, maintenance, supply, and so on. According to the operational control requirement, it is necessary to gradually realize centralized control on the key elements of the enterprise, such as the human, financial and material resources, to build suitable company supply chain management system [1-3]. The reasons are that the market competition is gradually fierce, and the cost of production is also increasing such that it requires the enterprise exploring new competitive methods from the internal and external of organization boundary for different aspects [4, 5]. According to the material entities flow pattern principle and application of management scientific method, the logistics supply chain management can make the logistics activities achieve the best

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coordination and cooperation. By doing so, it can reduce logistics costs and improve the logistics efficiency and economic benefit [6]. Obviously modern logistics supply chain management is the source of enterprises core competence [7].

Now logistics supply chain management is not a unified theory system, and the research and practice of supply chain management are still in a sustainable development stage [8]. How to extend the traditional business logistics management and blend into new modern logistics management theory system is a world wide topic, and the result of which can benefit the enterprise operation, enhance the efficiency of the material supply and management and reduce enterprise cost. Therefore, this paper has discussed the new enterprise material management method based on the modern logistics supply chain management system to provide the theoretical guiding for sustainable development of the enterprise.

2. The research of logistics and supply chain management

Logistics and supply chain are two different concepts, not only in definition, but also in actual practice [9]. The objects of Logistics management are directly related to logistics activity and behavior and even include logistics network information. But supply chain management includes more, from the feed-forward and feed-back of material and information flow, to the suppliers, manufacturers, distributors and retailers, until the end users, forming an entire system [10]. The supply chain management is based on the internet information management of the supply chain; however, the logistics management can run without supply chain management conditions. Logistics management can be seen as a part of supply chain management in turn. Thanks to the perfect logistics management, it can keep supply chain management in an orderly way. In other words, they are logistics activities among supply chain alliance. Therefore, the modern logistics supply chain management theory system comes into being to link the logistics management into supply chain management and establish a more rich modern enterprise management system. The modern logistics supply chain management integrates the enterprise supply, production, sale, storage, after sale and so on into a whole flexible management which can improve the enterprise competitive ability. The logistics supply chain management theory system described in this paper can be seen in Fig. 1, where S denotes the supplier, P denotes the production, and C denotes the client.

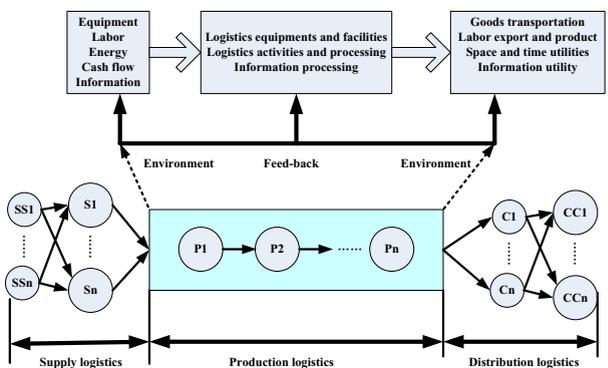


Fig. 1. The proposed logistics supply chain management system

3. The enterprise material logistics supply chain system

The logistics cost distribution mainly concentrates in three aspects, including the circulation, inventory maintain and storage. Therefore, the three aspects of the cost control are considered in the logistics supply chain management system. From the global system point of view, comprehensive management of material circulation and storage to a reasonable inventory and properly safeguard measures may regulate the declaration administration demand plan, strict change demand management, and establish a

forecasting mechanism, so as to realize grasping the required quantity and time accurately, and to make the enterprise's operation in a smooth and high efficiency way.

Therefore, this paper has proposed that enterprise material supply chain management system should include a few major parts (as shown in Fig. 2).

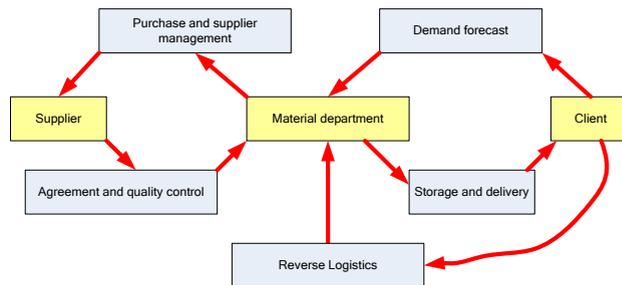


Fig. 2. The enterprise logistics supply chain management system

As shown in Fig. 2, the purchase and supplier management model and the agreement and quality control model circle the supplier and the production, and the demand forecasting model and the storage and delivery model connect the production and client. What more important is that the reverse Logistics model connect the supplier, production and the client together to form a supply management chain. The main characteristics of the proposed structure have been discussed below, where the agreement and quality control model and the demand forecasting model have been combined as the information management.

3.1. Purchasing management

(1) It is necessary to establish a standardized and efficient bidding management mechanism. Establish the company bidding service center and improve the bidding management system and healthy competition pricing mechanism, and gradually introduce the whole life cycle cost of materials for the bid evaluation method, and establish flexible emergency materials procurement procedure are necessary at present. It is also necessary to strengthen the price monitoring, and to track and comparison and analysis on all supplies the purchase price and the market price of main raw material. According to the value of procurement and market supply risk factors, the corresponding procurement strategies can be determined, including purchase mode, the management of the purchase price and principle and content of the bid evaluation.

(2) It is necessary to realize the Objective whole process of management in supplier. The five grade management can be implied through the registration category supplier to form unified management. It is necessary to adhere to the strict access, quantitative comparison, fault exit, dynamic management principle, the implementation of goods suppliers before the examination to the comprehensive evaluation of after service management, the establishment long-term relationship of excellent supplier which can drive supplier to self optimizing development.

(3) It is necessary to build evaluation expert database and assessment mechanism. The management of evaluation expert database should be abided by the principle of classification management, coordination use, the resource sharing and the dynamic adjustment. Forming a unified evaluation expert database and building perfect incentive mechanism are important.

3.2. Warehouse management

(1) It is necessary to set up modern warehouse management method. The three level management and

two levels of warehouse management mode can be adopted, and the different storage strategy can be adopted according to different types of materials. The internal layout of warehouse should be for scientific planning, the modern shelf type storage store management method can be applied. Using of materials information digitization and intelligent technology, the intelligent management can be implementation which can realize the dynamic material reserve quota management and information synchronous monitoring. Finally it can realize the material allocations and balance in network-wide.

(2) It is necessary to set up accurate accident spare parts management. Establishing unitive coding and materials reserve quota standards, and making the accident produces spare parts, in-out, storage, virtual warehouse management methods are very important. It is necessary to strengthen focus reserve on accident spare parts, make full use of virtual storage resources, and to reduce inventory capital to take up.

3.3. Reverse Logistics management

(1) It is necessary to strengthen the recovery of waste materials, storage, processing, supervision and management of the whole process. The administration departments should recycle waste materials according to the division of labor organization, and evaluate technology and quality of waste materials under the limit procedures, then classify the waste materials according to the property, finally Set up the procedures and standards which can apply to manage waste materials recycled. Each enterprise focus on scrap materials auction at a regular time, and the recovery funds from scrap materials all put into financial department. Overall, waste materials processing should be paid more attention to meet safety, quality and the demands of the environment, preventing to reuse and pollute environment phenomenon.

(2) It is necessary to promote idle materials recycling and reasonable allocation. The unified and standard management procedure should be draw up for idle materials which are beneficial to storage management work and information sharing. The dynamic management can realize and at the same time the procedure should be adopted for allocations across zone and profit and loss of conceit. Each unit can assess idle materials and reduce inventory and improve the utilization ratio which can eliminate the assets loss and realize efficient management.

3.4. Information management

(1) It is necessary to build a comprehensive, powerful material management information system. The information system research can be carried out with the whole life cycle of management information system as the core. The material management information system and sunshine e-commerce platform can be designed detailed which can meet accurate demands. At the same time the information system and business platform comprehensive covering all major business module and all levels logistics agencies should be set up and extend to the main supplier of production processes, and strengthen the fusion of business and information.

(2) It is necessary to transfer business management mode through the use of information integration and interactive platform. The information technology should be applied for effectively control and management on business flow, logistics flow and fund flow and information flow and gradually realize the four flows above synchronous development. The digital foundation of each employee, each procedure, and each department can be cohesion and reconstruction through the management mode above which can meet standardization requirements. The leadership and management personnel may extract purchasing, storage and other data at any time which can realize the resource share real-time monitoring.

(3) It is necessary to make unified information resources utilization planning. Company information department can make unified functional planning of information acquisition, transmission, processing, regeneration and using. At the same time intelligent tool can be equipped corresponding to the scale of company material management which is helpful to mining information productivity.

4. Conclusions

At present, each enterprise should be rapid and continuous improvement which can ensure the strong position. In this paper the research based on supply chain management system is a prospective study. Logistics supply chain process management system can be set up in comprehensive consideration of four aspects which involve materials purchasing, inventory, and so on. The advantage of the proposed method is to integrate the advanced logistics into the supply chain management to strengthen the centralized management and improve the overall level of material management. Compared with traditional chain system, the proposed method can reduce the logistics cost and thus benefit the enterprise management.

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