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Research on Optimization of Enterprise Logistics Management Mode based on Cost Control

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Abstract

The competition among enterprises is fierce, not only in performance, price and quality, but also in high-quality customer service. The rationality of logistics system determines the reliability of services and products provided by enterprises, and the level of customer service directly affects the level of logistics costs. Reasonable planning of enterprise cost can reduce enterprise's resource energy consumption to a certain extent, thus improving enterprise's economic benefits. By analyzing the influencing factors of enterprise logistics cost and the principles of logistics cost control, this paper puts forward an enterprise logistics management model based on cost control in order to make logistics cost control serve the enterprise logistics cost strategy.

Keywords

Cost Control; Enterprise; Logistics Management.

1. Introduction

Logistics is a key process related to customer demand, service level, inventory status and other important aspects, which runs through the whole value-added process of enterprises, and it is another way to optimize costs after saving material resources and reducing labor consumption. If enterprises want to get better development, they should pay special attention to enterprise cost accounting and enterprise logistics cost control. Reasonable planning of enterprise cost can reduce enterprise's resource energy consumption to a certain extent, thus improving enterprise's economic benefits.

In enterprises, logistics cost accounts for the largest proportion of the total cost except material cost, and effective logistics cost control can reduce its cost to about half [1]. Logistics cost control plays a key role in the profit of enterprises, and logistics cost control at a lower level can maximize the profit of enterprises, so logistics cost control has become the key to whether enterprises can survive better. Therefore, the control of transportation costs is particularly important and has become a key part of enterprise management optimization.

2. Influencing Factors of Enterprise Logistics Cost

The competition among enterprises is fierce, not only in performance, price and quality, but also in high-quality customer service. The rationality of logistics system determines the reliability of services and products provided by enterprises, and the level of customer service directly affects the level of logistics costs. Therefore, the increasing competition leads to the fluctuation of logistics cost to a great extent, and enterprises must take relevant measures. Order cycle, inventory level and transportation are the three main reasons that affect the service quality of enterprises [2-3].

Managing the cost of enterprises well can increase the profit income of enterprises. Enterprises should not only form the concept of cost control internally, but also attach importance to the

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cost control management system of enterprises. Generally speaking, the more goods stored in a warehouse, the lower the inventory cost; Similarly, the greater the density of goods in the same transportation unit, that is, the more goods transported, the lower the transportation expenditure. Therefore, enterprises should first introduce the concept of cost in the arrangement of each job [4]. Various business activities related to the calculation of logistics costs are shown in Figure 1:

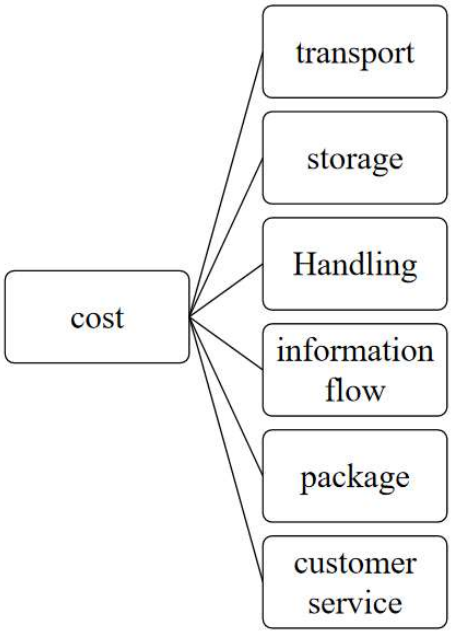

Figure 1. Influencing factors of enterprise logistics cost

The key to effective cost control lies not in paying attention to various costs and related financial data, but in the in-depth analysis and investigation of the factors that cause cost changes, especially the strategic cost drivers. Although for a company, the management cost will not have a direct impact on the quantity of its product processing and circulation, but the management cost directly affects its logistics cost. For example, reducing various management costs, including travel expenses, is conducive to the overall reduction of logistics costs [5-6].

3. Principles of Enterprise Logistics Cost Control

3.1. Principle of Strategic Consistency

Enterprise logistics cost is an important part of enterprise cost, which is of great significance to the choice and realization of enterprise competitive strategy. When controlling enterprise logistics cost, we must put it in the dynamic relationship of interaction with the whole enterprise's competitive strategy, ignore the principle of strategic consistency, and focus the perspective of enterprise logistics cost control too much on the cost itself, which may cause contradictions and conflicts between enterprise logistics cost control measures and enterprise competitive strategy selection, which is not conducive to the long-term development of the whole enterprise and the realization of the strategic objectives of enterprise logistics system.

3.2. System Principle

At present, most enterprises in China, especially small and medium-sized enterprises, are still using traditional methods to control costs, without establishing the concept of supply chain. These enterprises only pay attention to the cost control of transportation and warehousing, but lack the cost control of all logistics links in the whole supply chain process. When controlling

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the logistics cost of enterprises, we should pay attention to the optimization of total cost rather than single cost from the perspective of system. When an enterprise carries out logistics cost control, it should carry out it from two levels [7-8]: first, it should pay attention to the balance of various costs in its logistics system to achieve the optimal total logistics cost; Secondly, paying attention to the relationship between the logistics cost of this enterprise and the cost of upstream and downstream enterprises is helpful to realize supply chain management.

3.3. Principle of Objectivity

As an important part of enterprise society, it is complex. Although we can build corresponding models according to the characteristics of enterprises, we can't accurately show the ontological nature of enterprises. Therefore, the model is wonderful, it needs some principles to design the prototype and remove the prototype from the complex prototype form, which is the key to establish the model. Remove the factors unrelated to the prototype and the calculation of logistics characteristics, consider other aspects, ignore the secondary factors, and construct the problems of standardization and linearization to find the related factors closely related to the physical model, thus forming a more accurate and practical enterprise logistics model.

3.4. Principle of Cost Optimization

There is a strong contradiction between the logistics costs of enterprises, and there is also a contradiction between the logistics costs of enterprises and other costs of enterprises. When an enterprise carries out logistics cost control, it should be carried out from two levels: first, it should pay attention to the balance of various costs in its logistics system to achieve the optimal total logistics cost [9]; Secondly, pay attention to the relationship between logistics cost and the cost of production and procurement of enterprises, so that logistics cost control can help enterprises optimize the total cost. If we don't pay attention to the principle of total cost optimization, we can't achieve the goal of quality and quantity at the lowest cost in enterprise logistics cost control. It can't solve the contradiction between the internal and external objectives of its elements in the enterprise logistics system, which brings about various logistics costs of enterprises, logistics costs of enterprises and other costs of enterprises.

4. Optimization of Enterprise Logistics Management Mode based on Cost Control

4.1. Establishment of Logistics Cost Control Model

With the development of supply chain theory in modern enterprises, it has become the development trend of the times to optimize the cost control of enterprises from the perspective of supply chain. In order to ensure the economic growth of enterprises, all sectors of society turn their attention to the logistics service field called the third profit source. Third-party enterprises need to replace the traditional cost control theory with supply chain logistics management theory to improve logistics efficiency and reduce logistics costs from the perspective of the whole supply chain. This is an urgent requirement of economic development for enterprises [10]. With the diversification of customer demand, enterprises that carry out supply chain processes can provide better logistics services for target customers at all nodes.

The focus of cost leadership strategy is to provide similar products at lower cost than competitors, so as to gain competitive advantage. Obtaining cost advantage through cost control is the key for enterprises to realize cost leadership strategy. No matter whether an enterprise adopts the cost-leading strategy or the differentiation strategy, logistics plays an important role in the selection and implementation of the strategy, and both strategies are closely related to the logistics cost control of the enterprise.

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This paper constructs an enterprise logistics management model based on the perspective of cost control, in order to achieve the goal that enterprise logistics cost control provides information and decision-making basis for the formulation of enterprise competitive strategy, and at the same time, enterprise logistics cost control supports the realization of enterprise competitive strategy. The module structure is shown in Figure 2:

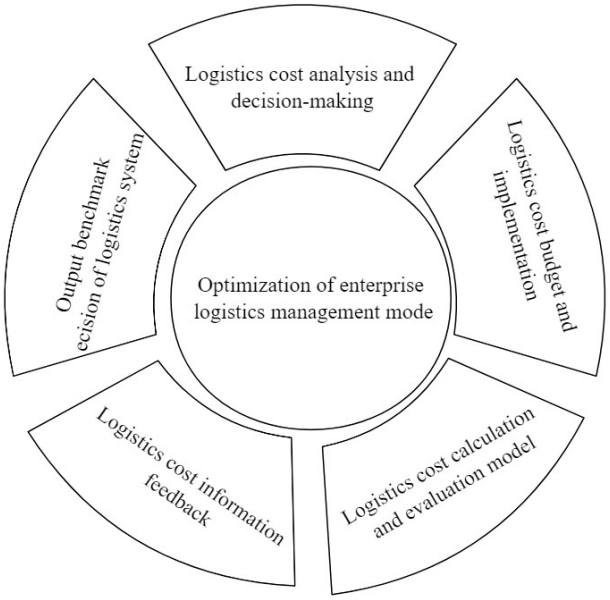

Figure 2. Enterprise logistics management mode based on cost control

Managers of various companies not only attach great importance to their own internal logistics costs, but also pay great attention to the external logistics costs. Logistics costs will directly affect the overall profits of enterprises, which is an important embodiment of the company's competitiveness.

Enterprises with lower logistics costs have greater advantages and can expand their business. This paper constructs a corresponding model based on VSM scheme, and the overall structure of the model involves three dimensions: time dimension, activity dimension and resource dimension.

$$TC = \int_O^T \left[\sum_{w=1}^{m} \sum_{v=1}^{k} C_{wv}(t) + C_m(t) \right] dt \tag{1}$$

Among them, T is the time period for the enterprise to calculate the logistics cost, and the starting point of the calculation cycle is 0 and the end point is T; $C_{wv}(t)$ is the monetary embodiment of v resources consumed by w logistics operations; $C_m(t)$ is the inventory cost held by the enterprise; TC is the sum of all calculated logistics cost periods.

To some extent, there is a close relationship between customer demand and logistics operation, and it is precisely under the impetus of demand that inventory and transportation costs are formed. Total logistics cost can be written as a factor of customer demand QTY:

$$TC = a * QTY + b * QTY + c * QTY + T_f \tag{2}$$

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Where a represents logistics operation cost, b represents inventory holding cost, c represents transportation cost, and T_{firmed} represents transportation cost.

According to the comprehensive resource utilization rate of each logistics activity link, the pure technical efficiency of the actual cost of each logistics activity plate and the size of the activity cost, the improvement rating and direction of each logistics activity cost plate can be finally given.

4.2. Evaluation and Feedback of Logistics Cost Control

The fourth module of enterprise logistics management mode based on cost control is the module of enterprise logistics cost calculation and evaluation. The task of this module is to calculate and evaluate the cost of each logistics operation after the end of a calculation period. The module of enterprise logistics cost calculation and evaluation can dig out the improvement potential of the enterprise in the utilization of related logistics resources, and the improvement points of the enterprise relative to competitors, other branches in the enterprise group or the historical level of the enterprise.

Such as improving customer order satisfaction rate while reducing inventory, increasing output while reducing production costs, reducing raw and auxiliary materials inventory while maintaining production plan completion rate and other issues. In order to do this, it is necessary to establish evaluation standards and indicators that can support the improvement of global supply chain performance on the basis of setting up departmental performance evaluation indicators. According to business needs, the weight of each indicator in each employee or department can be different, and the assessment of each indicator should be divided into different grades. Among them, the business assessment performance of the logistics department mainly includes the control of inventory level, storage and transportation costs, customer satisfaction, raw and auxiliary materials costs, sales performance growth and production crushing costs.

If the plan is well executed, the service meets the benchmark, has a cost competitive advantage over competitors, and the general service content and level of the industry have not changed significantly, it will directly enter the logistics cost planning and implementation module, that is, the logistics cost decision-making scheme of the previous period will still be adopted in the next accounting period.

From the perspective of supply chain, enterprises should have a global awareness in setting financial indicators, focusing on reducing the overall logistics cost of enterprises. The main performance indicators are cost profit rate, unit cost of accounting object, return on investment and so on. Cost profit rate is the ratio between the total cost and gross profit of an enterprise, and the level of cost profit rate can reflect the control effect of the total cost of an enterprise. Only by continuously providing high-quality logistics services to customers, regardless of improving the cooperation mode with node customers, can the company ensure the long-term cooperative relationship with node enterprises in the supply chain, enhance its reputation, reduce the cost of finding new partners and maintaining old customers in opening up new business markets, and indirectly control logistics costs.

5. Conclusion

In an enterprise, the logistics cost accounts for the largest proportion of the total cost except the material cost, and effective logistics cost control can reduce its cost to about half. Managing the cost of enterprises well can increase the profit income of enterprises. Enterprises should not only form the concept of cost control internally, but also attach importance to the cost control management system of enterprises. Although for a company, the management cost will not have a direct impact on the quantity of its product processing and circulation, but the

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management cost directly affects its logistics cost. This paper constructs an enterprise logistics management model based on the perspective of cost control, which not only strengthens the purpose, scientificity and rationality of enterprise logistics cost control, but also raises enterprise logistics cost control to the height of enterprise strategy, so that enterprise logistics cost control can serve enterprise logistics cost strategy.

Acknowledgments

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