

Discussion on Enterprise Logistics Management Performance Evaluation System

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Abstract: Since the establishment of China's socialist market economic system, the advent of the Internet economy has prompted the rapid development of China's logistics industry. At the same time, however, the market competition of modern enterprises is becoming increasingly fierce. However, in the current enterprise logistics management performance evaluation system, there are a series of problems that need to be further improved. Therefore, the research path of this paper is to learn from the mature theory and experience of enterprise performance evaluation, and combine the characteristics of enterprise logistics to establish a complete set of production enterprise logistics performance evaluation system. The purpose is to provide a guiding theoretical framework for production enterprises to establish a performance evaluation system in their logistics systems. This paper determines the research methods and steps of logistics management key performance indicators, and analyzes logistics management key performance indicators from the perspective of the value chain. The logistics cost that the activity cost method in this article should allocate to him is now 78.3%. It can be seen that the activity cost method is a scientific method for allocating logistics costs to cost objects. Finally, according to the actual situation, reasonable improvement measures were proposed for the construction and implementation of the enterprise logistics management performance evaluation system, which laid a solid foundation for the enterprise logistics management performance evaluation.

1. Introduction

With the continuous development of social economy, China's logistics enterprises have entered a stage of rapid development, but China's logistics management performance evaluation system has many problems. If the performance evaluation standards are different, the evaluation content lacks comprehensiveness, etc. [1]. Therefore, in order to further develop enterprise logistics, it is necessary to establish a complete logistics management performance evaluation system [2]. Logistics enterprise performance evaluation is the main indicator to measure the enterprise's benefit. According to the current situation of domestic logistics companies, we find that a large number of companies have improved to a certain extent in terms of improving logistics efficiency and reducing logistics costs [3,4]. However, there are still some problems in customer satisfaction and improving corporate image. For the development of logistics enterprises, the performance evaluation process is a key element of the logistics management structure and an important fulcrum for enterprises to further evaluate their own economic benefits. Enterprises must combine the performance evaluation process to clarify the development situation. Planning to establish a more complete quality control plan and promote the sustainable development of the enterprise.

Enterprise logistics management performance evaluation management plays a vital role in the entire enterprise logistics management process. How to establish a complete and effective enterprise logistics management performance evaluation system [5,6]. The performance evaluation should be evaluated from various aspects such as efficiency, cost, risk and customer management [7]. Although Chinese companies now fully understand the importance of the enterprise logistics management performance evaluation system, the theoretical knowledge and practical level of enterprise logistics management performance are relatively low. How to strengthen the strategy of

improving the enterprise logistics management performance evaluation system is the development of the evaluation system[8]. The construction of the comprehensive logistics enterprise management performance evaluation system must be carried out according to certain principles, and the system indicators should be analyzed from various aspects and angles to better control the performance evaluation system and establish a better enterprise logistics management performance evaluation system.

Performance evaluation is one of the important contents of enterprise logistics management. It is an important way to measure the economic benefits of the enterprise, clarify its own development status, reflect the level of enterprise logistics management, and face a series of problems. The performance evaluation system is imperfect. In order to improve the quality of logistics management of enterprises, enhance the competitiveness of logistics enterprises, and promote the stable development of logistics enterprises, it is necessary to solve the problems raised by the existing performance evaluation system. As an important means of logistics management, the evaluation of key performance indicators has an important guiding role. How to formulate a scientific and effective key performance indicator system is a complex project. In this paper, the analytic hierarchy process is used to divide the decision problem into multiple levels of control relationships. The decision-making target layer is the highest layer, the middle is the standard layer, and the lowest layer is the plan layer. Among them, more sub-standard layers can be set for the middle layer according to actual problems.

2. Method

2.1. Key performance indicators

The key performance indicators originate from the UK construction industry. As the main pillar industry of the British national economy, the annual output value of the construction industry is as high as 10% of GDP[9]. It plays an important role and has a huge impact on the national economy and national security. Therefore, project performance management in the UK construction industry has received widespread attention. Some important reports and literature, such as "Rethinking the Construction Industry" and "Accelerating Change", not only believe that the performance evaluation and improvement of construction projects are very important, but also set specific improvement goals for average performance[10]. Performance evaluation is a huge project that requires a lot of manpower and material resources. According to the principles of economics, companies need to formulate scientific and reasonable budgets for performance evaluation, and consider whether their economic costs match the benefits they bring[11]. In the performance evaluation, the company should also increase or decrease the evaluation content according to its own situation, in order to prevent the waste of manpower and material resources in the evaluation process, or because of lack of thinking about the content, it is impossible to obtain effective evaluation results. Companies need to make the most of resources and reduce waste of resources. There is a very famous management theory in management, namely the "20/80" principle, which was put forward by the economist Pareto, and is also called the Pareto principle[12]. The Pareto principle holds that human society is unbalanced. For example, the value created by 20% of employees is as high as 80%, the wealth controlled by 20% of the population reaches about 80%, and 20% of commodities contribute 80% of operating income. Therefore, in daily life and work, we need to find a key minority group, concentrate on and focus on this key minority, focus on superior resources, and focus on breaking through the key minority to achieve better or Achieve organizational goals and performance.

2.2. Characteristics of logistics enterprises

According to the stipulated standards, a logistics enterprise refers to an economic organization engaged in transportation or warehousing business, which can carry out logistics tasks such as transportation, loading and unloading, and circulation processing according to customer requirements. It also has an information management system and can independently perform

accounting and assume civil liability. It can be seen that logistics enterprises are specialized in logistics business activities, independent of the production field, and have legal personality. They provide logistics services such as warehousing, transportation, distribution, processing, and information consulting. They operate independently, develop themselves, take responsibility for their own profits and losses and self-restrain. They take logistics as the main body, covering business processes, capital flows, and information flows, including logistics business organizations that are separate from transportation, warehousing, and foreign trade. It takes more time for producers and consumers to purchase the goods themselves than the logistics companies transport more goods. Only by providing fast services can logistics companies meet the needs of producers and consumers. Logistics companies also provide a range of services. In addition to traditional warehousing, transportation, processing, packaging and other services, modern logistics companies are constantly expanding their business scope and Fokker field. They not only provide market research and forecasting, procurement, planned processing and other services for many companies, but also provide value-added logistics services, such as logistics distribution plan selection, logistics system planning, inventory control strategies, loan clearing and recovery. Logistics companies also have standardized operations. Logistics companies need to standardize and program logistics behaviors to make complex operations simple and easy to operate. Logistics companies also have systematic goals. Logistics enterprises must plan all logistics distribution activities as a whole, fully coordinate the relationship between logistics distribution and corporate goals, business process activities, and various logistics distribution activities to achieve the optimal configuration of the entire system.

3. Experiment

This article mainly collects and studies related literature to understand the historical development, research status and deficiencies of key performance indicators, and forms a literature review. At the same time, it can provide a reference for considering which key performance indicators, how to quantify the indicators, and how to evaluate and provide assistance. Using the previous research results, it supplements and improves various KPI algorithms and considerations in logistics management. The use of value analysis methods is a scientific method aimed at increasing the operating value at the lowest cost and realizing the functions necessary for management. This article is mainly reflected in maximizing the interests of third parties through reasonable value analysis. Through the quantitative management of each step, it is forced to operate in accordance with the logistics company's process requirements, and there is always the possibility of improvement. Optimization of related matters such as personnel, process, equipment, etc. This can effectively reduce costs and improve operational efficiency. Through quantitative methods to manage logistics-related indicators, improve the efficiency of logistics warehousing, distribution, personnel, etc., improve logistics business, and provide a basis for management personnel management and business decision-making. At the same time, the quantified KPI index can be used as an effective basis for the management of third-party logistics enterprises, and provide a reference for future business negotiations and business improvement.

4. Discuss

Performance evaluation standards are an important part of the evaluation system. At present, the performance evaluation standards of many logistics management companies in China are not uniform, and the performance evaluation standards of different departments of the company are also different. At the same time, it also brings difficulties to performance appraisal work, making performance appraisal work difficult. This situation is also unfair treatment of employees. Inconsistent performance assessment standards will affect the company's internal cultural spirit and operating atmosphere. Therefore, logistics enterprises must formulate unified performance evaluation standards in order to bring greater benefits to the enterprises. Activity-based costing first tracks costs to activities, then to products and other cost objects. The inherent assumption is that

operations consume resources, while products and other cost objects consume operations. In the enterprise logistics system, the calculation step using the operation cost method is to identify and define the operation and key attributes of the operation, and classify the operation. Operations performed by equipment or personnel for others. Determining work is describing the activities undertaken. The actual operation capability refers to the operation output that can be produced when the operation is effectively performed. Assign activity costs to cost objects. The results of the traditional cost calculation method and the operation cost method are very different. The specific comparison results are shown in Table 1 below.

Table 1. Comparison of the results of two different methods for calculating logistics costs

	Customer A	Customer B	Customer C
Traditional law	400	400	400
activity-based costing	513.6	313.2	389.6
Ratio	128.4%	78.3%	97.4%

Customer A has fewer orders per order, but for frequent orders, the logistics cost that should be allocated to him is now 128.4%. Customer B has more orders for each order, but fewer orders. Now the logistics cost that should be allocated to him is 78.3%. The order quantity of customer C is between A and B. The logistics cost should be similar to the calculation result of the traditional method. It can be seen that the cause of customer complaints is the uneven distribution of logistics costs, and the operating cost method is a scientific method to allocate logistics costs to cost objects.

When establishing an enterprise logistics management performance system, the principle of comparability is also one of the principles we should follow. This aspect mainly includes vertical and horizontal comparisons. Vertical comparison is to compare the company's current performance with previous performance data, and horizontal comparison is to compare it with the performance evaluation data of domestic and foreign companies. Through horizontal and vertical comparisons, the company can have a clearer understanding of its current development status and future development trends. Logistics companies are entrusted with the production and operation of logistics businesses, and logistics companies are bound to recruit low-level cultures due to lower operating costs. At the same time, it will jointly affect certain businesses of logistics companies. Time cost and financial cost are shown in Figure 1.

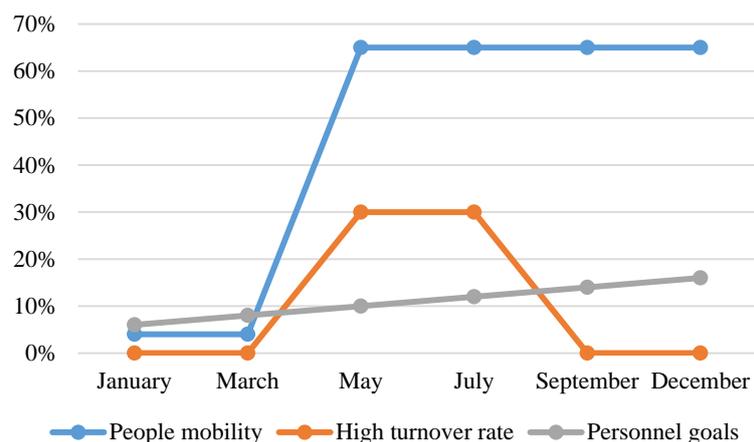


Figure 1. The turnover rate of logistics companies

In order to seek their own long-term survival and development, enterprises should pay more attention to logistics management performance evaluation, combined with the actual situation, establish a perfect performance evaluation system to enhance the company's market competitiveness and occupy a larger share. Market share, create greater economic and social benefits. In this system, the cost index is very important. It involves more economic activities and establishes a logistics data collection system. And on the basis of accounting information for further

analysis and exploration. The rate index has a great influence on enterprise logistics management. Only reasonable control of safety rate and waste rate can effectively improve the efficiency of enterprise logistics management. The customer satisfaction index plays a more prominent role in the construction of the performance evaluation system and directly affects the level of enterprise logistics management. On this basis, first of all, we must improve the construction of logistics management performance evaluation system from an ideological point of view, establish a perfect corporate culture, establish a correct cost management ideology in the development process, and improve the cost management awareness of employees. Secondly, on the basis of considering costs, risks, customer satisfaction and efficiency, etc., strengthen the construction of logistics data collection system. To establish a more rapid and flexible logistics data collection system. In addition, logistics management personnel should be reasonably allocated to ensure that all resources are sufficient to meet market development needs. The establishment of an enterprise logistics management performance evaluation system should highlight the importance of budget management, and make long-term cost calculation plans in light of accidents. Only in this way can all aspects of logistics management be integrated to improve management efficiency and quality.

Conclusion

Good logistics management of logistics enterprises is inseparable from a perfect logistics management performance evaluation system. In the process of rapid development of logistics enterprises, in order to make enterprises have good development prospects, and make the development of enterprises have certain stability. It is necessary for the relevant personnel in the logistics enterprise to make a careful analysis of the internal management of the enterprise. In addition, relevant leaders of logistics enterprises should also pay attention to management, and can appropriately increase management efforts to better ensure the quality of enterprise management performance. This is one of the contents that logistics companies need to develop and pay attention to at present. For tangible logistics companies, in the actual implementation of management performance evaluation, it is necessary to combine the problems raised by the current performance evaluation system. Combined with the basic principles that should be followed, a perfect construction of the performance evaluation index system. In the actual implementation process, it is necessary to scientifically carry out cost accounting on the basis of reaching a unified performance evaluation standard. While further improving the content of performance evaluation, construct a dynamic evaluation model to ensure the objectivity of the evaluation. Lay the foundation for the role of performance evaluation system in logistics enterprise management.

References

- [1] Hemamala, K. , Banerji, S. , & Sahay, M. . (2017). A systems approach to mapping logistics systems performance of small and medium manufacturing enterprises. *International Journal of Logistics Systems & Management*, 27(2), 164.
- [2] Abouobaida, H. , & Said, E. B. . (2017). Practical performance evaluation of maximum power point tracking algorithms in a photovoltaic system. *International Journal of Power Electronics & Drive Systems*, 8(4), 1744.
- [3] Gianluca D'Antonio, Maddis, M. D., Bedolla, J. S. , Chiabert, P. , & Lombardi, F. . (2018). Analytical models for the evaluation of deep-lane autonomous vehicle storage and retrieval system performance. *International Journal of Advanced Manufacturing Technology*, 94(4), 1-14.
- [4] Beker, K., Garces-Descovich, A. , Mangosing, J., Cabral-Goncalves, I., Hallett, D., & Morteale, K. J. . (2017). Optimizing mri logistics: prospective analysis of performance, efficiency, and patient throughput. *ajr american journal of roentgenology*, 209(4), 1.
- [5] Khan, M. K. , Hassan, M. R., Saha, S. K., Basher, M. S. , & Naushad, A. N. . (2017). An evaluation of faculty wise teaching performance in a public medical college of bangladesh.

Mymensingh Medical Journal, 26(2), 241-249.

[6] Li, S. A., Sherbino, J., & Chan, T. M. . (2017). McMaster modular assessment program (mcmmap) through the years: residents' experience with an evolving feedback culture over a 3-year period. *Aem Education & Training*, 1, S10-S11.

[7] Dat, P. T., Kanno, A., Yamamoto, N. , & Kawanishi, T. . (2018). Performance evaluation of full-duplex mimo seamless fiber–wireless system in w-band. *IEEE Photonics Technology Letters*, PP(99), 1-1.

[8] Neto, P. F., Santos, R. F. , & Oliva, F. L. . (2018). Enterprise risk management in the bus market of the city of sao paulo. *Benchmarking*, 25(9), 4103-4124.

[9] Popoola S I , Atayero A A , Faruk N , et al. Data on the Key Performance Indicators for Quality of Service of GSM Networks in Nigeria[J]. *Data in Brief*, 2018, 16(C):914–928.

[10] Vieira A S, Stewart R A , Lamberts R , et al. Residential solar water heaters in Brisbane, Australia: Key performance parameters and indicators[J]. *Renewable energy*, 2018, 116(pt.a):120-132.

[11] Tatjana V, Eslovas I . Towards Sustainable Renovation: Key Performance Indicators for Quality Monitoring[J]. *Sustainability*, 2018, 10(6):1840-.

[12] Norton B, Wright T, Coultas J, et al. PTH-048 Colonoscopist key performance indicators and the surveillance of patients with family history of colorectal cancer[J]. *Gut*, 2019, 68(Suppl 2):A36-.