

Section 7. Logistics

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THE NEED FOR PERFORMANCE INDICATORS IN TRANSPORT LOGISTICS ENTERPRISES

Abstract. This article examines the necessity, methods and main indicators of determining efficiency and evaluating it in enterprises providing transport logistics services. The main performance indicators that can be used in transport logistics enterprises are presented.

Key words: efficiency, key indicators of efficiency, efficiency assessment, transport logistics enterprises, cargo transportation, vehicles.

Introduction

Determining the level of efficiency of the work performed or the service provided in each organization serves to ensure the future perspective of the activity of this organization. It is also important to determine efficiency in enterprises that provide transport logistics services.

In Uzbekistan, the issue of determining and increasing the efficiency of the transport logistics sector is urgent. This can also be seen through statistics. The number of newly established enterprises in the transportation and storage sector of the economy increased by 164% in 2021 compared to 2013, and by 110% compared to 2020. This shows that the demand for services in this field is increasing in the economy of our country. Transport services in our country are mainly carried out by road transport. The volume of motor transport services increased by 115.5% in 2021. The volume of goods transported by road transport from 2010 to 2021 showed only an increasing trend and reached 1282 million tons in 2021. This is 90% of the total volume of transported goods. Taking into account that transport services

have a large share, determining the performance indicators of enterprises providing transport logistics services, their improvement and increase will lead to the growth of our national economy.

In enterprises operating in the field of transport logistics, the determination of efficiency is generally expressed through the profit received and logistics costs in the management chain. Determining profitability in the field of logistics services requires a somewhat unique approach. Because such enterprises do not have uniform standards for calculating efficiency. It is for this reason that efficiency determination is carried out on the basis of a general methodology, taking into account the specificity of the enterprise's activity. This article talks about performance indicators in enterprises operating in the field of transport logistics.

Methods

The concept of efficiency usually expresses the ratio between the achieved result and the spent resources. Determination of efficiency in enterprises providing transport logistics services is also carried out on the basis of this efficiency principle. The pur-

pose of determining efficiency in transport logistics enterprises is to know how work is distributed between each participant in the delivery process. The success of the company's activities, which stage is lagging, identifying the shortcomings and eliminating them in time are based on these performance indicators. Currently, when talking about efficiency, the term KPI (key performance index), i.e. key indicators of efficiency, is used more widely.

This term was proposed by Peter Drucker in the 1960s, who explained the need for this system through his expression "a strategy without measurement is just a desire" [5]. This system became widely used after 2000 years. KPI is mainly considered as a tool for evaluating the performance of employees, increasing profits, and achieving goals in enterprises and organizations. Today, KPI is widely used to determine the share of employees in the overall result, set bonuses, and motivate. When determining the main indicators of efficiency in transport logistics enterprises, it is necessary to study them not only in the activities of dispatchers, but also in each stage of the processes.

There is no universal classification of KPI in the field of transport logistics. According to Y. Melnikov, the main performance indicators can be divided into two groups: service and financial indicators. In this case, service indicators refer to services related to logistics operations.

Service KPIs include: perfect order, on-time shipment, on-time return of documents.

The financial KPI includes the ratio of the cost of delivery to the sales volume, the average cost of shipments, the ratio of the transported cargo to the capacity of the vehicle (utilization level).

According to K. S. Kryvakin firstly indicators which illustrate the effectiveness of all logistic system should be classified on base of activity of enterprise. He divided indicators in 6 groups:

1. Delivering system
2. Storage
3. Transportation

4. Producing system

5. Sales system

6. Information system

Each if this system has its own indicator for evaluating the effectiveness. Enterprises can calculate these indicators independently. The company may also include other indicators that it believes have an impact on performance among these indicators. In general, the company itself determines how many indicators should be taken as the main ones.

Kaplan and Norton believed that the number of such indicators should not exceed 20, and Hope and Fraser should not exceed 10. Based on the experience of business activities, he considered the «10/80/10» rule to be the best choice. According to this rule, an enterprise or organization must have 10 key performance indicators, up to 80 production indicators and 10 key performance indicators. According to Panov, no more than 10–15 indicators should be applied to departments. Because as the number of indicators increases, more weight falls on the divisions. The main time is spent on planning processes according to these indicators, their analysis. This does not have a significant effect on increasing the overall efficiency [3].

Based on Panov's proposal, we summarize the main influencing indicators for transport logistics enterprises. Panov and other scientists used this rule in the example of enterprises engaged in production to determine the efficiency of their employees and certain processes. Continuing with this idea, the following 10 performance indicators can be used in the field of transport logistics:

1. The level of availability of vehicles of various sizes — the availability of vehicles, trucks, airplanes and helicopters, which are widely used in the transportation of goods, and the possibility of using sea and railway transport without problems are assessed. 5 types of freight transport are considered as 100% according to which of them are available.

2. The degree of capacity utilization of the cargo transport vehicle.

3. The time when vehicles are not busy with cargo transportation during the period of general use. In this way, you can find out the technical capability of the vehicle and the extent to which it has been used. Based on this indicator, it will be possible to choose one of the following options: purchase, stop using, or use outsourcing.

4. Cargo storage capacity — the number and capacity of warehouses of this enterprise, the possibility of storing what types of cargo are evaluated.

5. The ratio of the storage time of cargo in warehouses to the duration of delivery of the total cargo.

6. The ratio of returned goods to the total transported goods due to the deterioration of the quality of goods during unloading, storage, reloading.

7. The ratio of the goods delivered by the enterprise during the month, quarter, year to the total goods transported in the area where the enterprise operates. This indicator can be used to increase competitiveness and plan future business expansion. This indicator can be used to plan which season to increase or decrease cargo transportation, and when to use outsourcing. This indicator can be divided into sub-indicators and used for planning by studying the section of cargo transported by each vehicle.

8. The dispatcher's time to complete one order. In this case, it is necessary to calculate the time of execution of the order in the segment of large, medium and small loads. Also, it is necessary to calculate a separate time consumption according to the distance of delivery of the cargo.

9. The dispatcher's level of monitoring of cargo by means of transport. From this, it is possible to find out which type of vehicle the dispatcher performs well in tracking cargo. Dispatchers are tasked with this indicator when distributing orders.

10. Degree of completion of orders. The ratio of orders completely fulfilled by the enterprise to total orders. In this case, orders canceled or returned due to the fault of the company or by the customer should be expressed in a separate sub-indicator.

These indicators mainly depend directly on the capabilities of the transport logistics enterprise. Basically, the indicators represent the efficiency of using the company's service capacity (vehicles and warehouses), the efficiency of dispatchers and the level of satisfaction with delivery in 3 directions.

Among these indicators can be included indicators that represent processes related to formalization. Among these indicators, an indicator of the level of flexibility of the transport logistics system available in the enterprise can be added. As the demand for goods and services changes not only in quantity, but also in quality, delivery and storage services, as well as payment methods for these services, must be ready for change. The widespread use of digital technologies in this field also requires the system to be flexible to changes.

These 10 indicators were proposed based on the analysis of transportation services provided by transport logistics enterprises. Some metrics may not be key performance indicators for some businesses.

2 methods are usually used to determine the efficiency of transport logistics activities.

1. The method of evaluating efficiency through criteria that can be calculated through objective-accurate quantitative measurements.

2. Subjective — a method of evaluating efficiency using criteria that cannot be expressed by quantity.

The indicators proposed to be used in the expression of efficiency given above are calculated only by exact numbers.

Summary

In order to measure efficiency, the enterprise should introduce indicators, change them, introduce new ones, and temporarily abandon some of them. These indicators should be constantly monitored. Because they are based on only one of the efficiency assessment methods. While there is a difference between the 2 methods of performance evaluation, there is also a relationship. A major problem in evaluating efficiency through these methods is that some indicators require both quantitative and qualitative

performance. This makes it difficult to express them through a common parameter. In order to avoid such problems, the following 4 main indicators should be analyzed when evaluating efficiency:

1. General expenses. Each cost is grouped and indicators show their share in the total cost.

2. Duration of the logistic cycle. Indicators representing the time it takes to complete one order.

3. Quality of service. This indicator is summarized by getting answers to questions on several criteria based on feedback from customers.

4. Logistic efficiency. An indicator that represents the distribution of the received profit by each stage of the logistic cycle.

Through the analysis of these indicators, issues of further improvement are considered by assessing the level of efficiency. Today, the most optimal way to

increase efficiency in transport logistics enterprises is the maximum automation of processes. Implementation of this method, in turn, creates a number of difficulties.

The calculation of the proposed efficiency indicators will show at which stage in the activity of transport logistics enterprises the result is good and which link is leaking. The main advantage of these indicators is that their calculation is simple. It can be calculated without any special program software. In addition, they can be adapted to the main purpose of the enterprise.

Overall the effectiveness of enterprise mostly calculated by the dividing the profit to the expenditure. However this cannot illustrate detail information. While using key performance indicators it can be seen all process performance.

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