THE SCOR METHOD FOR MEASURING PERFORMANCE – THE WAY TO MONITOR THE PERFORMANCE OF ENTERPRISE LOGISTICS

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Introduction

The emergence of the concept of Supply Chain Management (SCM), a supply chain management dates back to the 80 20th century, but its expansion to occur approximately from the second half of the 90 years. It consists of the interconnection of all companies involved in the production process, from suppliers through manufacturers, wholesalers, retailers to reach final consumers, it also includes the process of waste management and recycling. Enterprises involved in the SCM record significant cost savings, reduction of running times, decreasing the number of occurrences of the scarcity of goods in stock and the time needed to complete stock. Each business is part of a chain, but not all can take advantage of this fact and drive chain in order to achieve strategic advantage.

The basic premise is looking at a network of technical resources, processes and people involved in the production of raw materials, transforming them into products and distribute them to customers, such as an integrated chain rather than a group of separate, although in some way related tasks. Process chain management becomes more challenging, the larger the business, product range, or more extensive geographic dispersion of cells. Individual companies may also be part of more chains.

Performance methods of Logistics

Methods of measuring the performance of enterprise logistics can be defined as internal and external measurements. Internal (internal) performance monitoring is carried out directly in the company, and research shows that it can be further divided into categories relating to the costs, levels of customer service, productivity, profitability and quality. The achieved results are compared with past data or targets that a firm in a given area for a certain period to achieve. These measurements are commonly used as sources of information management means and the data are relatively easy to find.

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Monitoring and evaluation of performance measures of external logistics business is equally important. The simple reason is to focus on customer requirements.

Usually the business in line with its vision or strategy will establish a plan in logistics, where you determine what level should reach customer service. In order to achieve the greatest possible satisfaction of customer needs, it is more than appropriate to this level in the external power measurement control, ask customers to their satisfaction or dissatisfaction, think about the improvements that are possible in the area of customer service to perform. A typical survey involves measuring customer satisfaction regarding the availability of the product or service, the time from order to delivery, availability of information, willingness to address any problems or after-sales service. External performance measurement can be performed directly by the firm itself or various intermediary consultant services agencies.

Benchmarking

One of the possible methods for measuring the performance of a comprehensive logistics enterprise is benchmarking. More and more companies use this technique to compare their operations not only competitive, but also non-competitive businesses from various industries. Benchmarking is especially utilized in strategic areas such as instrument control logistics operations, focusing on indicators, activities and processes performed comparable now. The resulting overview shows the key performance indicators and, where possible, will map the level of past and current performance of the company (corporate logistics).

Given that the method is applied in many fields of business activities, its definition is not completely uniform. According to the author describes the nature of benchmarking very well this definition: "Benchmarking is a continuous and systematic comparison of own performance in productivity, quality, and manufacturing process, enterprises and organizations representing excellence."

Benchmarking can be divided into external and internal. The first option is a systematic comparison with other companies, the other races are then compared, branches or stores in a particular company.

Benchmarking methodology in the literature always in several steps. Although the number varies in different books, in principle, but a different distribution of the same activity. It was therefore selected seven steps leading to a successful benchmarking:

1) First are the criteria for comparing companies. It is useful to know the cost, time and data characteristics, which are then organized into a questionnaire. The least problematic is the acquisition of data from publicly available databases and press releases, for making large-scale surveys and in-depth interviews of other companies is almost feasible. Then it must be determined where the acquisition of new knowledge and how to move the business to help him. The questionnaire, which arises in the first stage are filled in-house to verify the availability of data, the complexity and cost.

2) The second step is the internal analysis. Information obtained in our own company will be subject to analysis, may be modified or supplemented criteria which have been found to be unsatisfactory. Now you can begin preparing for external benchmarking.

3) For comparison, you must select a top firm in their own or another field, not a direct competitor. Benchmarking is carried out between two enterprises, where each at least one characteristic shows better results, comparison to the benefitovali both partners.

4) Following the acquisition of data for benchmarking and best business practices. In determining information about the business must be conducted exhaustive investigation eg customers or suppliers, appropriately and also the experts thorough examination of publicly available sources.

5) Analysis and interpretation of data obtained. Emphasis is placed on the expression distance from the comparator own business and discover its causes. This assessment is appropriate to invite internal and external experts from the functional areas.

6) The results are transformed into goals to be in the future achieved. These goals should exceed the level that achieves comparator enterprise, but also be realistic to have motivational for employees of a business. The purpose of setting such level goals comparator is closer to the company and eventually overtake him.

7) In the seventh step, the objectives translated into concrete actions and strategies improvement is a plan of the project.

When data acquisition companies usually apply one of the following methods. Can used logistic data that are commonly available from periodicals, university surveys and technical publications. Although these are readily available from the public nature of the data that are seldom able to provide the desired competitive advantage. The second option is to implement

benchmarking privately. Whereas uncompetitive undertaking in the same or similar field. This bilateral approach, while providing depth of knowledge, but does not a broad perspective.

The second method is an alliance of organizations that systematically share data. Although this requires more effort in terms of maintenance of the system, but provides much better information than the previous methods.

Logistics system of indicators

For the above-mentioned internal performance measurement system used by businesses usually logistics indicators. As a basis for the analysis of indicators shows Schulte creation and structural framework of indicators that describe:

- The scope of the tasks to be fulfilled (volume and structure of output),

- The number and capacity of carriers tasks (human resources and material resources)

- Reference period, resulting costs.

If these indicators are not available, you can proceed on this basis to create other types of indicators that will be used for the management of logistics performance and costs:

> *Indicators of productivity - are compiled to measure the productivity of labor in the distribution for example, a number of orders processed per worker, then the transport mileage is related transport.*

> *Economy indicators - These indicators express a ratio logistic The cost performance of certain units. Indicator of efficiency in the purchase department for example cost per order, storage company can monitor the rate should be the cost of holding inventory.*

> *Indicators of quality - quality indicators (or quality) is used to assess the degree of achievement of the objective. Usually follows the error rate in some operation, such as the number of delays or speed of inventory turnover.*

Each of the areas of corporate activities, which may include purchasing, material flow and transport, storage, planning and management of production or distribution, there may be a certain set of logistics indicators monitored. In order to ensure effective use of indicators must correspond to the individual needs of enterprises to meet the following conditions:

➢ *Usability - When examining a particular indicator or group of indicators for the enterprise must answer a series of questions relating to the applicability of such internal current and historical data or data from other companies.*

➢ *Cost / benefit - You often create major problems, the usual problem is the cost or time required for detection of specific indicators, whose benefits may not be large enough to offset the cost.*

➢ *Eligibility - The indicator is capable, able to clearly show the desired area, it is clearly interpreted, or if in the detection of excessive number of errors occur.*

➢ *Purpose - The purpose of watching any indicator must be specified. The pointer can be used to control or analysis (analysis of vulnerabilities, economy or structural analysis), may be used or individual company management services company.*

➢ *Organisation - is related to the process of identifying indicators. Indicates who is responsible for identifying the values of the sources and who values evaluated. This is followed by transfer of the results of the person responsible, their documentation and it must be determined who is responsible for compliance with the parametric values.*

SCOR model

SCOR Methodology (The Supply-Chain Operations Reference-model) model performance measurement in supply chains is an independent nonprofit organization developed the Supply-Chain Council. This model combines business processes, metrics, best practices and technological solutions into a single structure that supports communication between the elements of the supply chain. Improves efficiency of SCM and related activities.

Picture 1 The Boundaries of the SCOR model

Source: Supply-Chain Council

SCOR as a management tool is a process reference model for managing the supply chain space spanning literally from suppliers suppliers to customers' customers. It was developed to describe the activities associated with all phases of satisfying customer demand, both in simple and highly complex supply chains.

From the first release of SCOR model in 1996 was already several revisions, the current version 9.0 is dated March 2008, which among others also includes metrics for risk monitoring and resources aimed at protecting the environment, ie metrics regarding the ratio of the volume of waste to the volume of production or cost the energy consumption for production, etc.

The basis of the reference model are 5 main parts (processes):

➢ *planning,*

➢ *procurement,*

➢ *production,*

➢ *supply and*

➢ *return flows.*

Besides the main processes in the model are distinguished by the three process types (elements) - planning, implementation and support. The planning process ensures conformity between the anticipated and expected sources of demand, it is usually done periodically, and may significantly affect the response time of the whole chain. Implementation processes are triggered by planned or current demand and changes the state of the material. They consist of scheduling production, transformation and transfer product and is strongly influenced by their

cycle length order. Supporting processes prepare, administer, or control information and relationships, on which depend the processes of planning and implementation.

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