



THE POSSIBILITY OF INCREASING OF LOGISTIC PERFORMANCE FOR SMALL BUSINESS AND DISTRIBUTION COMPANY

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Abstract: *The article deals with increase of logistic performance for the retail business through operational planning and scheduling distribution of goods using micro-logistic model. The objective of the research is to rationalize the spending resources of enterprise in the distribution of final production via increase of productivity and logistic activities due to higher customer demands for speed, flexibility, and other logistic aspects of customer service.*

Key words: *Logistic performance, small business and distribution company, micrologistic model*

1 INTRODUCTION

Distribution is a sector of logistics, which currently has an important role in any company, whether it is delivery of material for processing, transport of semi-finished and finished products to warehouses or distribution of finished products to end consumers. Companies focused on distribution activities seek to provide their customers with comprehensive services, of which a significant part is focused on the fast and efficient transport. The objective of the article is to increase the performance of a small distribution company applying activities of micrologistic model, which can be achieved by, for example, the strategy of reducing overall costs while maintaining the level of logistic services, as often there is in the creation of distribution, sometimes unknowingly way to increase the cost which at first sight may seem routine and insignificant.

One of the objectives in logistics is to achieve the required level of logistic services in an efficient way. So it is not always just about high speed and smooth flow at any cost. Logistic performance is reflected in the fact that we will achieve the required level of logistic services at a reasonable total cost of all involved elements in the logistic chain.[1]

Measurement of logistic activities can be defined with application of different criteria. Selection of the indicator type for performance measurement may present a risk in terms of drawing the attention on a single area. For example, we can focus on reducing costs in one area, but they do not affect the overall performance of the chain. For this reason, often used model of Edward Frazelle 2011, which is more complex and consists of three indicators:

- quality,
- time,
- cost. [2]

In terms of monitoring performance process indicators, different types of inputs show a certain level of dispersion. The output of the process should be a higher quality product or service. The whole process should be cheaper and in view of its implementation, faster. Transformation of inputs into outputs, when analyzing process performance indicators, is shown in Fig.1.

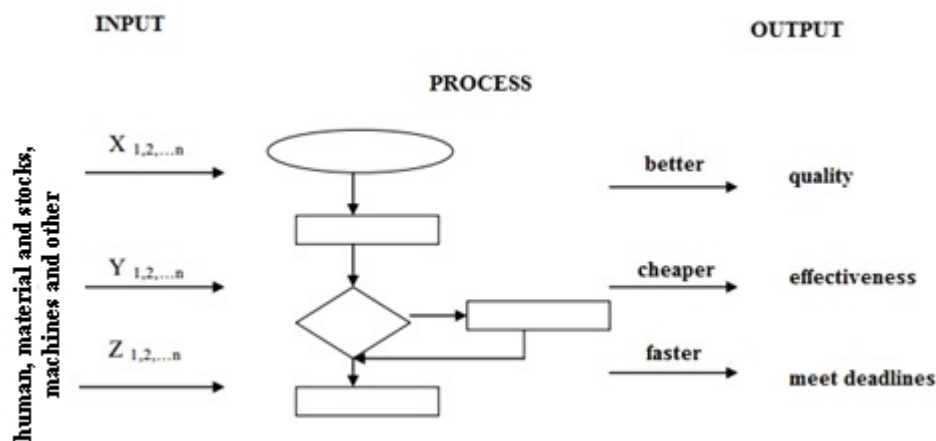


Fig.1 Performance indicators of process

We agree with the above definition views of logistic performance by different authors and logistic performance perceive as multicriteria evaluation. Logistic performance, defined by at least three indicators, can be represented by the triangle Time-Quality-Cost.

The area of a triangle symbolizes the performance. Sides of the triangle are restrictions or borders by:

- execution time - needed to take the job, ie time of receipt of the order until handover to the customer at the destination.
- costs - fuel, vehicles, human resources etc.
- quality - required quality of distribution implementation - supply service.

2 SYSTEM FOR MEASURING LOGISTIC PERFORMANCE INDICATORS OF DISTRIBUTION PROCESSES

Distribution can be defined as a set of operations, which are used to deliver goods or services from the production to the consumer or user in the right quantity, quality, price, place and time. [3]

Measurement of processes performance should be a standard activity in any of operational management. For operational management processes is important to monitor and get to know new trends in development of used indicators.

Whereas the range of quality, time, finance/costs indicators is relatively wide within distribution logistic area, we present only sample (Fig.2), where only the relevant features of a quality indicator for distribution / transportation are shown.

Each of the indicators consists of components / indicators, each of which contains:

- precise definition,
- formula for its calculation,
- purpose
- Problems connecting to this indicator,
- data sources and
- data requirements.

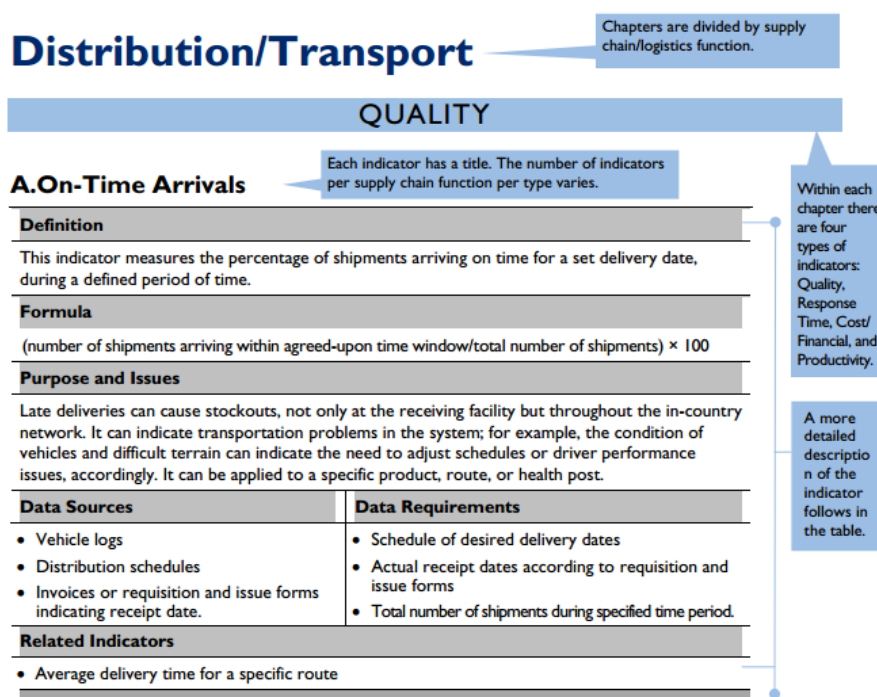


Fig.2 Detailed example of a quality indicator for Distribution/Transport [4]

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Achieving high logistic performance has an impact not only on the overall result of a particular company, but also on other companies in the chain.

Local interests of the individual elements within the logistic chain have to be overtaken.

Increase of logistic performance can be achieved in different ways :

1. Increasing the return on a better level of logistic services at the same logistic costs or raising the cost if the increase in the level of logistic services faster than the increase in costs .
2. Reducing total logistic costs while maintaining the level of logistics services .

3. Simultaneously increasing the level of logistic services and reducing overall logistic costs .
4. Alternatively, in appropriate situations by reducing the level of logistic services with the current faster decrease of cost (for example, if the customer has no interest in the delivery just in time for a high price) [5]

The first is typical for strategy of differentiation, which is oriented towards demanding customers . The other way is a reflection of low-cost strategy, which is chosen by customers with standard requirements . The third way is the most challenging and typical for hybrid strategy, where the aim is to succeed with excellent logistic services , as well as low cost. The most appropriate solution will lead to increase of service quality and at the same time will reduce the logistic costs. However in most cases the effort to raise the level of the service causes the opposite and leads to conflict with the cost.[6]

4 MICROLOGISTIC MODEL OF SMALL BUSINESS AND DISTRIBUTION COMPANY

If we see a small business and distribution company as a system which processes are described by cross-micrologistic model (Fig. 3), then input to the system consists of logistic activities in the various decision-making areas such as:

- Designing of warehouses,
- storage,
- packaging
- taking orders,
- capacity planning and and scheduling and
- transport.

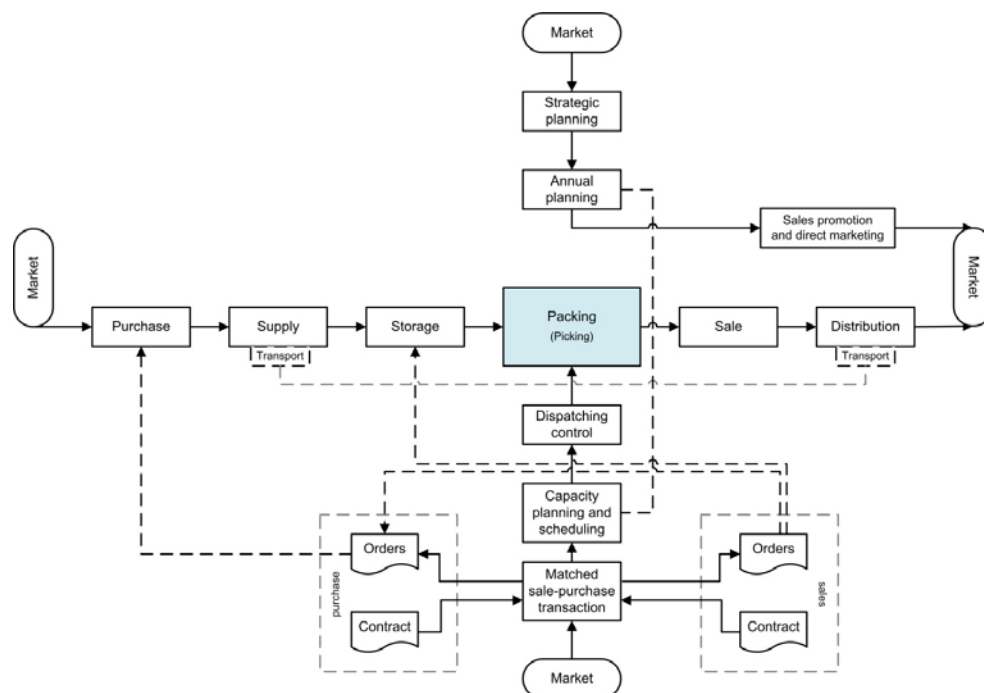


Fig.3 Micro-logistic model of business-distribution company

Output and thus the primary objective of small business and distribution company is achievement of the desired level of delivery service. Harmony between input and output is achieved by a process that unites them. Within the mentioned process logistic services are generated which are intended to achieve the desired level of delivery service.

Very central area of distribution logistics is an area of storage and area of planning and implementation services. The main issue is the storage activity, how many different kinds of goods should be stored, and when and how much should be ordered. Storage enables cost savings and creates a barrier to uncertainty. It is desirable for seasonal fluctuations in demand. The increase in service delivery can be considered to be the most important, which can be achieved by reducing probability failure to satisfy demand.

Equally important position has transport, with particular emphasis on out-plant transport. The reason is that decisions on transport address problems of supply of external stores, warehouses and customers from central, regional or local areas.

From this it is possible to derive a question about the appropriateness of means of transport, or the question of planning, management and organizational instruments for the implementation of transport.

Based on the above logistic activities, that can contribute to increase of logistic performance, two possible directions are shown for solutions:

1. Increase logistic efficiency by reducing the cost of transport and specifically in point of capacity planning and scheduling
2. Increase logistic efficiency by reducing the cost of packaging and storage.

5 CHOICE OF STRATEGY OF INCREASING LOGISTIC PERFORMANCE FOR SMALL BUSINESS AND DISTRIBUTION COMPANY

Based on character of the retail company is selected to enhance logistic performance strategy "reducing total logistic costs in transport while maintaining the level of logistic services."

Qualities and benefits of the planning model will be implemented by the increase of logistic performance.

- integration of supply and distribution-system for operational planning and scheduling routes,
- optimizing the capacity utilization of vehicles
- the adequacy of vehicles to contracts,
- The maximum benefits "due date", volumes and assortment,
- optimizing routes
- accumulation of contracts
- set a range of supply and distribution.

6 CONCLUSIONS

This article defines the solution of performance evaluation strategy for small business and distribution company based on planning and scheduling routes.

Describes the methodology of the strategy, with help of which is possible to increase business performance using a micro-logistic model small business and distribution company.

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