THE ROLE OF LOGISTICS IN PERFORMANCE MANAGEMENT

ULOJA LOGISTIKE U POBOLJŠANJU PERFORMANS MENADŽMENTA

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Abstract: Apart from the proven and significant role of logistics in integrating marketing and management systems of a company, the position on the connection between the logistics and institutional (top) level of a business strategy in contemporary literature and business practice is being acknowledged. The mentioned position implies the implementation of performance management. In this way, the earlier opinion and practice of connecting logistics with operations and provisional functioning in the area concerning a degree of integrations of business functions are being surpassed. The relationship between performance management and logistics can be considered from two aspects: a) role of logistics in enhancement of performance management and b) roles of measuring and analysis in enhancing the logistics performances themselves. This paper explains the mentioned dual relationship through the prism of acquisition of key competences and competitive advantages of an organization through enhancement of certain performances.

Key words: Performance Management, Logistics, Logistics Competencies.

1. Introduction

The business philosophy pursuing success, in the last few decades, as never before, uses scientific, technological and organizational development more and more. In this way, the importance of knowledge, skills and creativity, as well as possibilities of influencing them, came to the forefront. In parallel, the significance of performance management as a modern approach to managing an organization and its adaptation to turbulent changes in overall environment had increased (Drašković, 2008, p. 63) and it also implies realization of a vision and mission of a company and achieving success. Most of authors are of the opinion that the key place in the process of strategic management belongs to directing of organization towards achieving success, which supposes the right choice, concretization and enhancement of a mission and strategic goals of the organization. In order to be successful, the organization has to constantly explore, identify and assess its limitations, chances and possibilities in its environment, to search for the best ways to adapt and make the best business results (performance). In that sense, the organization has to improve its strong and to revitalize its weak business characteristics and to insist on the use of its competitive advantages.

All mentioned tasks of the strategic management and performance management can basically be reduced to one essential task: creation of permanent competitive advantage. Marketing logistics has a similar task as well. Roca (2004: 145) states that the strategic management of integrated logistics basically contains planning and strategy, and usually regards design of a network, human resources, managerial relations, organizational strategy, measuring of performances, goals and standards. Logistics strategy comprehends that business option which in the most optimal way finds a balance between costs and results of trading (Ibid.: 148). In principle, it has to be original (unique) as suggested by S. Harvey (as according to Sergejev, 2005: 810). The most widespread logistics strategies are:

a) strategy of minimizing general logistics costs,

b) strategy for improving quality of logistics services,

c) strategy for optimization of configuration of logistics infrastructure and

d) insisting on key logistics competencies.
They are all functionally connected with enhancement of performance management. When dealing with strategy of logistics, managers tend to achieve a compromise between decrease of costs and improvement of level of services, i.e. performances of an organization.

This paper analyses the concept of performance management and possibilities of increased role of logistics in formulation of its strategy on the top management level, related to acquiring of key competencies and competitive advantage.

2. Essence of performance management

In literature, and especially on Internet, one can find different interpretations of performance management, which is usually confused with problematic of human resources, even though it is much broader. The performance management combines methodology, metrics, processes, software systems and other systems which govern performances of an organization. Speaking generally, it seems that many authors prefer the definition according to which the performance management represents a process of managing and implementing strategies within an organization, by which plans turn into results. Performance management is also considered as a process for constituting common understanding about what is desired to be achieved and how it will be accomplished. Therefore, it is an approach about managing people which increases the probability for achieving success.

One example of a performance measurement system is the TOPP system, which was developed by SINTEF (Moseng, 1996) in Norway in partnership with the Norwegian Institute of Technology (NTH), the Norwegian Federation of Engineering Industries (TBL), and 56 participating enterprises. The TOPP system views performance along three dimensions (Moseng and Bredrup, 1993). These are illustrated in Figure 1.

Figure 1. Performance measurement (Moseng and Bredrup, 1993)

- Effectiveness - satisfaction of customer needs.
- Efficiency - economic and optimal use of enterprise resources.
- Changeability - strategic awareness to handle changes.

In TOPP a number of performance measures were developed based on these dimensions. One example of a recent performance measurement system is the ENAPS (European Network for Advanced Performance Studies) performance measurement system, developed in the EU financed project ENAPS. This was based on a number of performance measurement systems and recent research.

Figure 2. The extended ENAPS business model (Ibid.)
The ENAPS business model is shown in Figure 2 and reflects a future view of a manufacturing enterprise as it incorporates the end of life use of products (Andersen, Rolstadås, and Fagerhaug, 1998). Based on this business model, ENAPS has suggested three levels of hierarchy for defining performance indicators. Each performance indicator is a function of two or more performance measures. The three levels of hierarchy for defining performance indicators are: “Enterprise Level”, “Process Level” and “Function Level”. The performance measures used in calculating these performance indicators are measured from all over the enterprise (Andersen et al., 1998).

Experienced researchers identified few characteristics that represent preconditions for creation of an efficient system of performance management. However, it is also pointed out that there are many decisions which should be brought in order to design an original system which fully satisfies needs of a concrete organization. It is also stressed that the system of performance management does not have to strive for implementation of numerous number of goals, because in that case there is a danger of fiasco. The same author schematically explains the process of performance management (figure 3).

Figure 3. Typical Performance Management Process
(source: Pulacos, E. et al., 2004: 4)

The process of performance management can be presented from the aspect of the mentioned definition as a circular interdependence between goals of an organization, performance measures (parameters), performance goals, actions, results, analysis and assessment of results (figure 4). The performance management is a system process with which an organization activates all its employees in bringing and implementation of decisions and concrete measures for improvement of efficiency in achieving goals. Many authors believe that performance management represents a process used for introducing and maintaining corporate responsibility (and relevant behaviour) for results within an organization, as well as for planning, trainings, and assessment.

Figure 4. Performance Management Cycle
(according to: http://www.datainitwales.gov.uk, p. 8)

2.1 A New Improvement Oriented Model

There are a number of ways of classifying business. In the current paper it has been chosen to use the classification suggested by Fagerhaug (1999), which is based on a self-assessment approach. He suggested that the following five types of processes/structures could be used when classifying the processes of a business:
Primary processes - The value-adding processes commonly found in any organization, often labeled main processes.

Secondary processes - Processes supporting the execution of the primary processes. These are often labeled support processes.

Development processes - Processes aimed at improving the organization’s performance, for instance new product development.

Structural factors - Innate characteristics of the organization, for instance resources.

Stakeholders - The stakeholders are the parties that can affect or are affected by the degree of achievement of an organization’s purpose.

Figure 5 shows a business mode based on the five types of processes/structures (Fagerhaug, 1999).

When describing and measuring the performance level in a business process, a number of parameters might be used. It is pivotal to employ a balanced set of measures in order to understand the performance of the process and be able to identify improvement areas. Typical dimensions for describing and measuring performance are (Ibid.): a) qualitative and quantitative measures, b) “hard” versus “soft” measures, c) financial versus non-financial measures, d) result versus process measures, e) measures defined by their purpose (result, diagnostic, and competence), f) efficiency, effectiveness, and changeability and g) the six classic measures (cost, time, quality, flexibility, environment, and ethics). All areas should be considered when developing performance measures. It should be emphasized that these dimensions overlap. In order to diagnose the “health status” of an organization one should ideally employ a balanced combination of measures.

3. Concept of a business model as a connection between logistics and performance management

Exploring a business model is a respective route for searching methods for establishment and maintenance of a certain strategy. Business models as theoretical concept have their own history and are known as archetypes, structures, schools, gestalts, and in certain situations even as strategies and business ideas. The most common use of terminologies and concepts of business model in contemporary examinations can be found in combining management and Information Technology (IT). The concept of business model relates to the logic and functioning of a company (Tikkanen, H. et al., 2005: 791) and in the long term it is an instrument which can be used in describing relations between activities and...
strategies. In this way, activities and logistics processes are being connected with a strategy. Afuah (2004: 9) emphasises that the business model represents “a set of activities which a company is carrying out, a way in which the activities are implemented as well as time in which they are carried out using resources for implementing activities, taking into account the industry it deals with, and all towards creation of a superior selling price (low price of different products) and creation of a position for determining such price”. The mentioned possibility of a business model for helping the connection between activities and strategy of a company means that the business model can be used as a means in analysing roles of these activities and those processes in which these activities are carried out, within the company’s strategy.

This business model is a successor of two completely incompatible teachings in a theory of strategy: schools of thought based on resources (resource based view – RBV) and industrial organization (IO). They are different theoretical explanations on why some companies’ performances are successful and others are not. In the context of the current discussion on models of doing business it is important to take into account the real activities of a company, meaning that descriptions and analysis of the role of logistics in the strategy of a company are implied. Kihlén (2007: 7) believes that when exploring business models based on logistics of these two schools, they still have to be harmonised and adapted, in order to ensure their combining. He points out that in business models based on logistics, management of a company sees logistics as a very important factor which stands behind the strategy of performance management. It means that the logistics is very significant for development of business and performance management. Concept of a business model is often considered together with a strategy.

As a result of the mentioned interpretations, a need for new researches arose. These researches were aimed at explaining the role of logistics in the strategy of performance management. Earlier approaches on the role of logistics in the strategy from logistics point of view were abandoned, so its role from the point of view of strategic management is discussed more and more, that is from the point of view of a model of performance management. Certainly, motivation for the latest examinations derives from the fast growth of importance of logistics in company’s competitiveness (Abråhmsson, M. et al., 2003). The model of performance management is used as a practical means for developing business of companies that are following their competition, orientated towards logistics. Much of attention is being dedicated to that what connects logistics activities and strategy of performance management, which implies knowing the answer to the questions: what is the role of logistics in performance management?

Logistics includes all functions of a company and it integrates all logistics activities, coordination and cooperation with all partners in logistics canal (suppliers, agents, external services and customers) with the aim to satisfy customers’ requirements. Starting from this definition and earlier definition of performance management, a very significant role of logistics in strategy of performance management is very clear and it is illustrated in the figure 7.

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**Figure 6. Optimal Logistics-Support Model**
(source: Beggs, J., Kime and T., Jones, M., 2007: p. 2)

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**Figure 7. Relationship between the Logistics and Performance Management**
(adapted to Ferreira, J. et al., Ibid.: 7)
4. Performance measures of logistics activities

Measuring, analysis and enhancement of logistics performances are the basis of continual improvement of quality of logistics services. There are four key areas for measuring performances in logistics and they are the following: measuring the level of customer satisfaction, measuring the level of satisfaction of all actors and other interested subjects, measuring characteristics of logistics services and measuring performances of logistics processes.

Measuring and monitoring the level of customer satisfaction is the basic factor for conquering and keeping the market and it is realized through methodologies and models that match concrete specificities of a market and practices of a company. The choice and use of relevant sources of information is of extreme importance here.

Measuring and monitoring of logistics processes based on a defined methodology are aimed at assessing performance of the mentioned process such as: reliability, precision, time and cost structure, security, effectiveness, efficiency, use of capacities and so on. Measuring and control of executed logistics services enables us to determine harmonisation of planned and realized services.

Measuring satisfaction of actors and other interested subjects means determining their needs in certain phases of logistics course (from making an agreement to delivering goods to the final customer). Analysis of gathered and established facts and parameters enables the assessment of realized performance in relation to projected values and established plans and goals. Analysis and assessment of performance enables us to determine inconsistencies and to define potential areas of possible improvement of quality of logistics services. Different quantitative and qualitative methods and techniques are used for gathering and processing of data. One complex integrated supply chain of metrics model is shown in the figure 8.

Figure 8: Integrated Supply Chain Metrics Model (adapted to Lawrence, F. B.:5)

5. Conclusions

Besides evident role of logistics in integrating marketing and management functions of a company, contemporary literature and business praxis put more emphasis on the connection between the logistics strategy and institutional (top) level of a business strategy. This leads to overcoming former interpretation and praxis related to the connection of logistics and operative level as well as conditional functioning in the level of integration of business activities.

The use of logistics enables companies to significantly decrease their stockpiles, to speed up floating capital flows, to decrease the price of product and logistics costs, to better satisfy needs of customers etc. The end result is creation of added value of a product through enhancement of performances, which increases satisfaction of customers and competitive advantage of a company. It implicates a significant role of logistics in performance management. Functional complex of logistics also confirms this conclusion. The existence of close reciprocal interrelationship and conditionality of logistics and performance management is confirmed by their numerous common business areas, trends, functions, effects and activities.
Pored dokazane uloge logistike u integraciji marketing i menadžment funkcija firme, u savremenoj literaturi i poslovnjoj praksi se sve više afirmira stav o povezanosti logističke strategije sa institucionalnim (top) nivoom biznis strategije. Na taj način se prevarlazi ranije shvatanje i praksu povezivanja logistike s operativnim nivoom, ali i uslovnim funkcionisanjem u dijelu stepena integracije poslovnih funkcija. Primjena logistike omogućuje firmama da značajno skrate robne zalihe, ubrzaju tokove obrtnog kapitala, smanje cijenu proizvoda i logističke troškove, potpunije zadovolje potrebe korisnika, itd. Krajnji rezultat je stvaranje dodatne vrijednosti proizvoda preko poboljšanja performansi, čime se povećava zadovoljstvo korisnika i konkurentska prednost firme. To implicira značajnu ulogu logistike u performans menadžmentu. Funkcionalni kompleks logistike takode potvrđuje navedeni zaključak.

Postoji tjesne međusobne povezanosti i uslavljenosti logistike i performansi menadžmenta potvrđuju njihova brojna zajednička poslovna polja, tokovi, funkcije, dejstva i aktivnosti.