

A PROPOSAL OF METHODOLOGY FOR DEVELOPING A LOGISTICS STRATEGY FOR INDUSTRIAL COMPANIES IN SLOVAKIA

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Abstracts

Presented paper is a part of the dissertation thesis titled as "A proposal of methodology for developing a logistics strategy for industrial companies in Slovakia. The main aim of the paper is to propose and present methodology for developing logistics strategy for industrial companies in Slovakia based on theoretical knowledge gained by studying domestic and foreign literature and analysis of the current state of the logistics strategies issues in industrial companies in Slovakia, as well as surveys conducted abroad. At the present, the logistics strategy becomes one of the most important success factor of the companies. Companies which realize the importance of logistics strategy for them will be able to succeed both at domestic and foreign markets. The reality is that there are still exist companies which think that they can survive without any strategy. These are particularly companies, which take a view that the strategy has a long-term nature and will not help them to solve the current problems. The opposite is true, companies create conditions of growth and competitiveness to the future and at the same time they perform activities which have desired effect in the short term by developing strategy.

Keywords: Logistics Strategy, Industrial Companies, Slovakia

1. INTRODUCTION

Companies in order to survive in today's rapidly changing global business environment, they must have a competently constructed/developed business strategy, to which a high-quality knowledge in the field of strategic management can be helpful. This fact can be also applied to the logistics strategy of the company. Therefore logistics can be currently considered as an important tool of the successful direction of the company. Logistics managers have the opportunity to exploit the strategic potential of logistics and thus significantly contribute to the overall success of the company. Logistics strategy presents a way how the logistics system should perform single steps of strategy to ensure the fulfilment of logistics objectives. The focus of logistics strategy depends on the focus and the process of developing of corporate strategy. Traditionally, the formulation of logistics strategies is done by human experts. Well developed logistics strategy can greatly help companies to eliminate time in introducing new principles and thus ensure greater competitiveness (1). The basis of accomplishment is not only implementation of world news and trends, but also qualified processing and application of already well-known principles and best practices. Correct logistics strategy also enables companies to succeed while minimizing current assets usage and maintaining high customer satisfaction level simultaneously (2). The term logistics strategy is not currently strictly limited and defined in the literature.

2. THE ANALYSIS OF THE CURRENT STATE OF THE LOGISTICS STRATEGY IN INDUSTRIAL COMPANIES IN SLOVAKIA AND ABROAD

The analysis of the current state of the logistics strategy in Slovakia was conducted based on quantitative and qualitative research. The qualitative part of the analysis was performed based on the interviews with the experts, who operate in the logistics sector at the senior level. The examination objects were one large-sized automotive industrial company and one medium-sized mechanical engineering industrial company. The methodology for developing logistics strategy was absent in both companies. The quantitative part of



the analysis was carried out based on the questionnaire survey in Slovak industrial companies. The questionnaire was sent to 426 companies in Slovakia which were asked to complete the survey anonymously. The return on the questionnaire was 14.8%. The questionnaire consists of 23 questions. Results of the questionnaire survey conducted in Slovakia were consequently compared with the results of surveys carried out by universities and agencies dealing with logistics strategy and supply chain strategy abroad. Among the key findings arising from analysis of the current state of logistics strategy in Slovakia and their subsequent comparison with the results of surveys conducted abroad (3,4,5,6) may include:

- 1. Logistics, as well as the entire supply chain is currently considered as an important part of business and logistics strategy becomes a strategy in the true sense with a continuous process of its creation/development.
- 2. There is a lack of alignment of logistics strategy to other functional strategies and the higher levels of the strategies. Slovak industrial companies verify alignment of logistics strategy with other functional areas in 39 % of cases. This fact is also results from surveys conducted abroad which confirmed that the links and cooperation between functional areas occurs rarely, and there is lack of alignment with the strategies of higher levels.
- 3. There is a position in logistics, which implies responsibility for developing logistics strategy in companies abroad. The active involvement of top management in the process of creating logistics strategy is in most cases minimal. The opposite situation is in Slovakia, where the responsibility for developing of logistics strategy lies on the top management.
- 4. The change of focus of logistics objectives was confirmed, too. Despite the fact that all the surveys show that the reduction of logistics costs continue to be a top strategic objective, increasing of customer service in last few years has gained in importance.

3. THE PROPOSAL OF METHODOLOGY FOR DEVELOPING A LOGISTICS STRATEGY FOR INDUSTRIAL COMPANIES IN SLOVAKIA

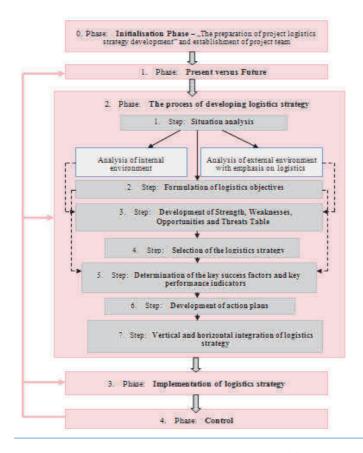


Fig. 1 A proposed methodology for developing logistics strategy for industrial companies in Slovakia In the following part of third charter will be steps and stages described in brief.



The proposed methodology is a general methodology that can be adapted to individual companies needs. The following **Fig. 1** shows the main stages/phases and steps of proposed methodology.

In the following part of third charter will be steps and stages described in brief.

0. Phase: Initialisation phase

Initialisation phase named as "The preparation of project logistics strategy development" consists of the following steps:

- 1. Step: Establishment of project team members and senior team member who will participate in developing logistics strategy
- 2. Step: Welcome meeting of project team:
- Formulation of the main project goal.
- Establishment of the preliminary project schedule.
- 1. Phase: Present versus future
- 1. Step: Definition of desire (future) state
- Formulation of logistics strategy vision which has to be in harmony with corporate strategy vision.

2. Step: A knowledge of actual (current) state

<u>Assumptions of logistics strategy development process:</u> detailed knowledge of corporate strategic imperatives, corporate strategy, corporate strategic goals and their decomposition into lower levels, action plans and assigned responsibilities for specific activities which have to be undertaken towards achieving the strategic objectives and knowledge of competitive strategy.

- 2. Phase: The process of developing logistics strategy
- 1. Step: Situation analysis

A. Analysis of external environment

The questionnaire survey showed that the majority of businesses does not perform a separate analysis of the external environment.

<u>Recommendation:</u> Conduct an analysis of the external environment - using PESTLE analysis adapted to the area of logistics.

TRENDS AND THEIR IMPACT ON LOGISTICS

While developing logistics strategy it is needed, along with the factors summarised in PESTLE table, to consider also the trends in the sector, which the companies operate in and ultimately also their impact on the nature of the logistics strategy in the upcoming years.

The major and important trends affecting directly the logistics are following: globalization and urbanization, turbulent business environment, technology, network economics and consumerism. The mentioned trends are closely linked and have a significant impact on the focus of the strategic objectives within the logistics strategy.

B. Analysis of the internal environment of business logistics (with emphasis on logistics)

It is important to apply a systematic approach to analyse the internal environment of logistics. Based on the mentioned reason, it is recommended to use a logistics audit.



PILLARS OF LOGISTICS STRATEGY

In order to achieve the main goal of logistics and while taking into account external factors affecting logistics and will have a impact on the nature of logistics strategies in the future are designed following basic pillars of logistics strategy and supporting parts - communication and cooperation (see Fig. 2).

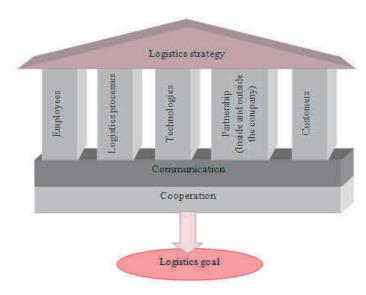


Fig. 2 Pillars of logistics strategy

2. Step: Formulation of logistics objectives

Logistics objectives are supportive and complementary objectives in relation to business objectives, but also logistics objectives have strategic importance. These objectives must be in harmony with business objectives. In addition to corporate goals and objectives of competitive strategy it is also needed to consider objectives of other functional strategies if they are formulated in the company.

If there are set more logistics objectives, it is needed to prioritize them based on the criteria according to which the objectives will be considered, for example:

- 1. Their position in the hierarchy of strategic objectives in the company.
- 2. Customer value.
- 3. Time.

3. Step: Development of Strength, Weaknesses, Opportunities and Threats Table

Authors developed Strength, Weaknesses, Opportunities and Threats Table based on the idea of the method P-TRIZ and supported questions. According to P-TRIZ method, the strength eliminates the weakness and at the same time it creates an opportunity. The same is applicable for the, weakness, opportunity and threat (7).

4. Step: Selection of the logistics strategy variant using a shortcut of the method TOPSIS

The method of multi criteria decision making TOPSIS in combination with the Strength, Weaknesses, Opportunities and Threats Table was chosen for the selection of the logistics strategy variant.

5. Step: Determination of the key success factors and key performance indicators

Each of the objectives set in process of developing logistics strategy, it is necessary to decompose to partial objectives which ensure the fulfillment of a specific strategic objective. The reason for decomposing objectives is that on fulfillment of these objectives can be involved more than one department. For each of the objectives the key success factors (abbreviation KSF) will be set in the Step 5. Subsequently, the key performance indicators will be set for each objective (abbreviation KSF), which will help us to measure progress towards meeting the logistics objective. If there is a common strategic goal for several departments, KPIs should be harmonized to follow the same strategic objective.



6. Step: Development of action plans

It is not enough to determine only KPI and KSF, but it is also necessary to develop the action plans action plan which contains the activities that need to be done to achieve the logistics objectives. The individual actions will be implemented based on their priority. Criteria include impact on the objective and the objectivity of implementation.

7. Step: Vertical and horizontal integration of logistics strategy

An important step in the process of developing logistics strategy is to ensure the vertical and horizontal integration in meaning to create harmony of logistics strategy with the strategies of the same and higher levels in the company.

The idea is to link to the specific areas that need to be taken into consideration in the process of horizontal integration of logistics strategy. Basis is pillars of the logistics strategy projected into five basic components (personnel, logistics processes, technologies, customers, partnerships) that are equal and interdependent. Based on the principle that logistics strategy cannot be formed as a separate entity, these components present areas in which there must be made a connection with other functional strategies as follows:

- Employees connection with personal strategy.
- Logistics processes connection with production strategy.
- Technologies connection with IT strategy.
- Customers connection with marketing strategy.
- Partnership (inside and outside the company).

Supporting and cross-cutting activities are cooperation - willingness to cooperate and make compromise and communication - interaction and communication between departments on the vertical as well as horizontal level.

3. and 4. Phase: Implementation and control of logistics strategy

The proposal of the implementation of the logistics strategy is based on the fact that 80% of causes of failure are employees and only 20% are of a technical nature (8). Therefore the implementation is based on the following basic assumptions:

- 1. Effective communication exchanging and sharing information.
- 2. Organisational structure known to all employees.
- Willingness to cooperate.
- 4. Successful vertical and horizontal integration of logistics strategy
- 5. Well formulated logistics objectives and their consistency validated by the senior team member.

Control and monitoring of the progress of logistics strategy implementation will be performed by determined KPI on a monthly basis. The process of developing logistics strategy is a continuous process which consists of several stages. Therefore the control needs to be performed continuously in every single phase of logistics strategy development.

CONCLUSION

Authors would like to suggest a new and important role of logistics strategy for industrial companies, which will help them to consolidate their position in a competitive environment. Company that wants to be competitive should therefore have thoroughly developed logistics strategy, which alongside with other functional strategies forms the basis for the successful achievement of the overall corporate strategy. The methodology was proposed for medium-sized and large-sized companies. It is true that even experienced logistics planners spend a long time searching for relevant information and the correct techniques to formulate the most appropriate strategy. The proposed methodology for developing logistics strategy which is an outcome of the



thesis could help even the less experienced strategy planners and is understandable for everyone. The methodology is designed to provide the possibility of adjusting/adapt each step of logistics strategy methodology to individual and specific company needs of the companies and usability of some steps of methodology for developing logistics strategy in the formation of other functional strategies.

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REFERENCES

- [1] Straka, M. Logistika Distribúcie. EPOS: Bratislava 2013, ISBN 978-80-562-0015-5
- [2] STOCK, G. N., GREIS, N. P., KASARDA, J. D. Logistics, Strategy and Structure. In: Internatioal Journal of Operations and Production Management. Available on internet:

 http://www.aerotropolis.com/files/1998_JournalOperationsProductionManagement.pdf
- [3] WILDING, R. Supply Chain Strategy in the Board Room. 2012. Available on internet:

 <a href="http://www.som.cranfield.ac.uk/som/p14733/Research/Research-Centres/Centre-for-Logistics-and-Supply-Chain-Management/Research-and-Clubs/Supply-Chain-Research-Centre/Current-research-projects/Supply-Chain-Strategy-in-the-Boardroom-Survey-Results

 WILDING, R. Supply Chain Strategy in the Board Room. 2012. Available on internet:

 http://www.som.cranfield.ac.uk/som/p14733/Research/Research-Centres/Centre-for-Logistics-and-Supply-Chain-Management/Research-and-Clubs/Supply-Chain-Research-Centre/Current-research-projects/Supply-Chain-Strategy-in-the-Boardroom-Survey-Results
- [4] APICS. Supply Chain Strategy Challenges and Practices. 2011. Available on internet:

 http://www.apics.org/industry-content-research/research-overview/apics-folios/apics-supply-chain-strategy-report
- [5] Canadian Shipper.com. UPS Survey finds having a defined supply chain strategy leads to growth and performance. 2013. Available on internet: http://www.canadianshipper.com/sustainability/ups-survey-finds-having-a-definedsupply-chain-strategy-leads-to-growth-and-performance/1002704975/
- [6] McKinsey & Company. The challenges ahead for supply chains: McKinsey Global Survey results. 2010. Available on internet:
 http://www.mckinsey.com/insights/operations/the-challenges-ahead-for-supply-chains-mckinsey-global-survey-results
- [7] SMITH, H. Beyond SWOT and towards change. 2006. Available on internet: http://www.bptrends.com/publicationfiles/07-06-COL-P-TRIZ-6-SMITH.pdf
- [8] Solving Efeso. Supply Chain Strategy in the Board Room The reality Closing the implementation gap. 2012.

 Available on internet:

 http://www.solvingefeso.com/upload/2012 06 18 SC Strategy in the Boardroom the reality.pdf