THE IMPORTANCE OF LOGISTICS IN A STRATEGIC MANAGEMENT ON THE BASIS OF SEVERAL EUROPEAN CAPITAL CITIES

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Abstract

The purpose of the paper is an analysis of the importance of logistics in city strategic management illustrated by an example of selected European capital cities. As a result of research a tool for the assessment of the scope of logistics involvement into strategic management in a city has been developed. On the basis of this tool a primary assessment of selected cities in this area has been conducted. According to the study there are still many European cities where freight transport is neglected. Despite the fact that all of the analyzed cities take into account objectives of freight transport in their development strategies, in practice many of them have not implemented any or a negligible number of projects in this area. The tool developed by the author will allow local governments to self-assess in a fairly simple way and based on it to take further steps to integrate logistics into all phases of strategic management in the city.

Keywords: City logistics strategy, local authorities, strategic planning

1. INTRODUCTION

Urban logistics plays an increasingly important role in strategic management in the city. Problems with congestion, air pollution or lack of sense of security due to the increased traffic of people and goods in the city cause a need to take actions with long-term effects (over a year or even a few years). Although local governments are more often trying to implement different solutions, they are not always effective. This is due to many factors related to a lack of experience and knowledge, a lack of access to modern technologies, funds or simply insignificant involvement of local government employees and / or other urban logistics stakeholders. The purpose of the paper is an analysis of the importance of logistics in city strategic management illustrated by an example of selected European capital cities. In order to reach the goal the following questions have been developed:

- What is the role of logistics in strategic management in a city?
- How can cities assess the scope of logistics involvement into strategic management in a city?
- What kind of long term projects have been developed regarding strategic goals in analyzed cities?

As a result of research a tool for the assessment of the scope of logistics involvement into strategic management in a city has been developed. On the basis of this tool a primary assessment of selected cities in this area has been conducted.

The structure of the paper is as follows: in the second section determinants influencing logistics in city strategic management have been described. In this sections external and internal factors influencing logistics in strategic management have been presented. The following section presents characteristic of a research method. In the next section an authorial tool for the assessment of the scope of logistics involvement into city strategic management has been described. Section 5 presents study results and the last section includes conclusions.

2. DETERMINATNS INFLUENCING LOGISTICS IN A CITY STRATEGIC MANAGEMENT

One of the tasks of local government (city council) is the organization of city traffic, which takes into account the efficient and safe movement of people and cargo. For many years local governments in many cities focused their attention on neglecting urban freight transport [1, 2]. The scientific world became interested in the problem of freight transport in the city already in the 70's of the 20th century locating it in the area of urban logistics. Nevertheless, a broad spectrum of interest in this area of research took place only at the turn of 1990 - 2000 [3]. Over the last few decades, two streams of urban logistics emerged: fragmentary - focusing only on commodity flows and holistic - involving flows of people, goods, waste and related services [4, 5, 6, 7, 8, 9, 10].

This paper takes a holistic approach to urban logistics, defining it as "planning, implementing, coordinating and controlling processes related to the movement of people, goods and information related to them in urban areas in order to reduce costs and improve the quality of life achieved through the compromise developed between the differentiated needs of stakeholders " [11]. Among stakeholders such as: local government, freight operators, Logistics companies, manufacturing firms, retailers, public transport operator, residents and various associations, local government plays the most important role. It is responsible for the quality of life in the city and thus the safety of inhabitants, the protection of the environment and the efficient movement of people and loads in the city [10, 12]. While manufacturing and transport companies are interested in urban logistics solutions aimed at improving their efficiency, local government is keen for the interests of all stakeholders and much for the high quality of a life of the population. City logistics, therefore, should be one of the most important strategic management areas in the city, meaning "future-oriented planning and a choice of development goals and implementation objectives, implementation of the adopted provisions and monitoring and a control of the implementation of agreed arrangements" [13].

Strategic management in a city is a process that encompasses the development, implementation and a control of a development strategy [13]. What distinguishes strategic management in self-government from private organizations is legislation restricting a decision-making discretion, a lack of ownership of management (city councils are elected), overriding goals of improving a quality of life, meeting the needs of different stakeholder groups rather than focusing on only on goals of improving efficiency. Considering the above, it can be assumed that strategic management in local government should holistically cover a variety of urban spheres so as to improve the quality of life of the population as a result of the implementation of the strategy. Long-term functional strategies are developed within the city's strategic management areas. One such an area is urban logistics which should facilitate access to a variety of public spaces [11]. The role of logistics in strategic management in a city is conditioned by a variety of external factors - independent from local government or internal ones, which are influenced by local government. Among the external factors can be listed legal regulations at European and national level. The European Commission has developed a number of strategic papers defining the long-term goals for urban logistics, including, inter alia, restrictions on moving in the city center of conventional cars [14, 15, 16]. The other external factors include local authority elections, budged of a city, access to modern technology, the openness of urban logistics stakeholders to cooperation with local government, the location of the city, the size of the city, etc. The internal factors include the openness of the city authorities to actions related to Including logistics for strategic purposes of the city in collaboration with other stakeholders, taking into account the urban logistics workplace in the city's organizational structure, the number and a type of urban logistics projects implemented and developing tools for their control. As a result, these factors influence the formulation of the city's logistics strategy, which should be complementary to other functional strategies and consistent with the main objectives of the city's development strategy.

3. RESEARCH METHODS AND PROCEDURE

In the paper four stages to implement the study have been developed:

Stage 1. The development of research methodological foundations

In this stage the domestic and foreign literature in the field of city logistics and city strategic planning has been analyzed.

Stage 2. Research tool's development (questionnaire)

The research tool has been developed on the basis of the relevant literature (Lindholm, 2012; Witkowski and Kiba-Janiak, 2014), knowledge and personal experience of the author. The purpose of the survey was to obtain information from European capitals about logistics in cities' strategic developments. The survey consisted of four parts (A, B, C and D) and contained open as well as closed questions.

Stage 3. The study results' gathering and analyzing

The research was conducted from 17th May 2015 to 15th March 2016. This extended period of the study was determined by difficulties which arose during the collection of the completed questionnaires. The questionnaires were sent via e-mail to mayors of 28 EU capital cities and to the employees of the division "Mobilität und Planung" in the City Hall of Zurich. As a result 9 completed questionnaires were obtained. Some cities regretted to fill in the questionnaire because of its extended scope (the questionnaire included questions regarding strategic planning and activities related to passenger and freight transport). Therefore the reduced version of the questionnaire has been developed and sent to those cities which hadn't filled in the first version of the questionnaire. Finally, fifteen completed questionnaires have been obtained. The research results have been elaborated in Excel spread sheet.

Stage 4. Development of a tool for an assessment of logistics' involvement in a city strategic management

As a result of the survey conducted among European cities a tool for identification of the scope of logistics involvement in a city strategic management has been developed. On the basis of this tool an attempt of the assessment of selected cities in this field has been made. For this stage of analysis 9 cities which completed the extended version of the questionnaire were selected.

4. A FRAMEWORK FOR AN ASSESSMENT OF LOGISTICS' INVOLVEMENT IN STRATEGIC MANAGEMENT IN A CITY

The essence of urban logistics in strategic management in a city has already been recognized in scientific papers developed by [11, 17] who in their studies have noticed a little consideration of freight transport in many urban development strategies. In addition, Kiba-Janiak [11] has highlighted the need for an integrated and comprehensive approach to urban logistics (including the flow of people, goods and services related to them) in strategic management. Unfortunately, the approach to urban logistics is still selective in many cities. There are also no simple tools that would allow local governments to make a specific self-assessment of the extent to which logistics is integrated into strategic management in the city. In literature, basic model of strategic management covers four stages [18]. In this paper, these steps have been reduced to three: (1) environment analysis and strategy formulation, (2) implementation and (3) control and evaluation. Local governments can make so so-called initial self-assessment by answering questions pertaining to each of these phases (**Table 1**). The list of questions presented in the table below is based on surveys conducted in the analyzed cities. These questions are a preliminary diagnosis of local governments. Based on the responses received, local authorities can obtain information to what extent and areas logistics is included in strategic management in the city. Each question that local government responds to (yes) can be assigned one point, a question that local government responds 'in developing phase/to a limited stage' can be assigned a 0.5 point (if any action has been taken or is at "an implementation stage") and in the case of negative responses 0 points. Points are awarded based on a questionnaire that contains profound questions for each area. For example, in a question about the implementation of infrastructure projects in the city, respondents could choose three types of projects for freight transport and four for public transport. So if the local government indicated that it had implemented all types of infrastructure projects then it got 1 point, if it even marked one project it received 0.5 points and if it did not implemented any of it got 0 points. A similar attitude was used for the remaining questions.

Table 1 A tool to assess the extent of logistics integration in strategic management in the city

Stages of strategic management	Selected questions verifying the importance of logistics in strategic management in the city
Environmental analysis and strategy formulation	1. Does the city include urban logistics (especially freight) targets for city development strategies? 2. Has a local authority started to organize traffic in order to reduce the degradation of the environment? 3. Has the city developed a freight transport plan? 4. Does the city have an integrated plan for urban logistics (including passenger and freight transport and its related services)? 5. Is there a position / person responsible for the organization of freight transport in the city? 6. Does the local government cooperate with urban logistics stakeholders?
	Total scores for analysis and planning phase
Implementation	1. Have projects in the city been implemented to improve the infrastructure in the area of urban logistics? 2. Did the local government cooperate with urban logistics stakeholders when implementing projects related to the improvement of the infrastructure in the city? 3. Have in the city been implemented projects related to land use management in the area of urban logistics? 4. Did the local government cooperate with urban logistics stakeholders when implementing land use management projects? 5. Have urban access projects been implemented in urban logistics? 6. Did the local government cooperate with urban logistics stakeholders when implementing projects related to the access condition? 7. Have in the city been implemented projects connected with innovation and ideas in the area of urban logistics? 8. Did local government cooperate with urban logistics stakeholders when implementing projects related to innovation and ideas? 9. Have in the city been implemented projects related to the promotion and dissemination of ecological transport in the area of urban logistics? 10. Did local government cooperate with urban logistics stakeholders in the implementation of dissemination of ecological transport projects?
	Total scores for implementation phase
Control and evaluation	1. Does the local government collect data on the operation of public transport? 2. Does the local government collect data on the functioning of individual transport? 3. Does the local government collect data on the functioning of urban freight transport? 4. Does local government share data with city logistics stakeholders?
	Total scores for control phase

Source: Own work

Due to limited space in this publication, only general questions are presented without a detailed description. The presented tool for assessing the extent to which logistics is integrated into strategic management in a city serves as an initial assessment and requires additional tools based, for example, on Key Performance Indicators (KPIs) to intensify and more accurately analyze areas that have undergone incomplete scoring (below 1 point). Nevertheless, this kind of a tool can easily assist local governments in assessing the progress of logistics-related activities in strategic management in the city.

5. STUDY RESULTS

Based on the tool presented in section 4, attempts were made to assess the importance of logistics in strategic management in selected European cities (**Table 2**). Considering analysed cities the best results were obtained by two such as Berlin (17 points) and Helsinki (13.5 points). Berlin gained the highest score in the second phase (implementation) and in the first phase it scored the same number of points as Helsinki city, which in turn gained the most points in the third phase "control and evaluation". Helsinki, compared to other cities is the only one gathering data on the functioning of urban freight transport. Nevertheless, the city did not cooperate with the other municipal logistics stakeholders (except for the project related to the introduction of the city logistics forum) during most of the implemented projects. What sets Berlin and Helsinki apart from other cities is the implementation of freight transport projects. Unfortunately, many European cities do not carry out freight transport activities, considering it to be a private business. Among surveyed cities the lowest score gained Athens. It should be emphasised, however, that the city has been included in EU projects, including the Novelog project, which will result in the development of a logistics strategy for the city. So in the short term, this city can significantly improve its position regarding logistics in strategic management.

Table 2 Assessment of the extent of logistics integration in strategic management in the city

Stages of strategic management in a city	Warsaw	Dublin	Berlin	Lisbon	Helsinki	Riga	Budapeszt	Tallinn	Athens
Scores for analysis and planning phase	5	5.5	6	4	6	5.5	5.5	4	4
Scores for implementation phase	4.5	2.5	8	5	3.5	2.0	4.0	4	1
Scores for control phase	2	3	3	2	4	2	2	3	1
Total scores	11.5	10	17	11	13.5	9.5	11.5	11	6

Source: own work

6. CONCLUSION

The main purpose of the paper was the analysis of the importance of logistics in strategic management in the selected European capital cities. In the article the authorial tool for the assessment of the scope of logistics involvement into strategic management in a city has been developed. On the basis of this tool the assessment of 9 cities has been conducted. According to the study there are still many European cities where freight transport is neglected. Despite the fact that all of the analyzed cities take into account objectives of freight transport in their development strategies, in practice many of them have not implemented any or a negligible number of projects in this area. Unfortunately, the most popular solution in the examined cities is the access restriction, which is a relatively cheap solution from the perspective of local authorities and not necessarily cheap from the perspective of private carriers. Despite the fact that the most advanced cities in terms of integrating logistics into city strategic management are Berlin and Helsinki, these cities also need some improvements in this area. Therefore, the tool developed by the author will allow local governments to self-assess in a fairly simple way, which will show them the scope of logistics involved in strategic management in a city. Based on this assessment, local governments will be able to take further steps to integrate logistics into all phases of strategic management in the city. The tool presented in this paper is a very simplified version and allows for a first and a preliminary assessment of including logistics into strategic city management. In the future, this tool will be expanded to allow for a more profound assessment of the different stages of strategic management. For example, Key Pefromance Indicators could be used.

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