

# About the research concerning the relations between logistics and business management. A wide back to the past and a brief look into the future

*Z badań nad relacjami między logistyką i zarządzaniem przedsiębiorstwem. Szeroki powrót do przeszłości oraz krótkie spojrzenie w przyszłość*

Logistics is the concept of materials, goods and information flow management, both within the firm, as well as the entire supply chain or even supply network. Nowadays, logistics is perceived as the determinant of achieving the expected market and economic outcomes by the firm, which are the symptoms of firm success and the basis for building a sustained, long-term competitive advantage. The article refers to the research conducted in recent years within the Chair of Logistics and Marketing at the University of Opole, Poland, including in particular research carried out by the *Opole Logistics Research Team*, concerning the relations between logistics and business management. Apart from the broad reference to the results of research carried out in the past, further directions of research on logistics and business management, planned in the near future, are also briefly presented in the article.

**Key words:**

Logistics, logistics concept, business management, determinants.

Logistyka stanowi koncepcję zarządzania przepływami materiałów, towarów i informacji, zarówno w skali przedsiębiorstwa, jak i całego łańcucha, a nawet całej sieci dostaw. Współcześnie, logistyka jest postrzegana jako determinanta osiągania oczekiwanych efektów rynkowych i ekonomicznych przez przedsiębiorstwo, będących wyznacznikami jego sukcesu oraz podstawą budowania trwałej, długofalowej przewagi konkurencyjnej. W artykule nawiązano do badań prowadzonych w ostatnich latach w Zakładzie Logistyki i Marketingu Uniwersytetu Opolskiego, w tym w szczególności badań zrealizowanych przez *Opole Logistics Research Team*, związanych z relacjami występującymi pomiędzy logistyką a zarządzaniem przedsiębiorstwem. Poza szerokim odniesieniem się do wyników badań przeprowadzonych w przeszłości, w artykule przedstawiono również krótko dalsze kierunki badań dotyczących logistyki i zarządzania przedsiębiorstwem, planowanych w najbliższej przyszłości.

**Słowa kluczowe:**

logistyka, koncepcja logistyki, zarządzanie przedsiębiorstwem, determinanty.

## Introduction

Firms constantly search for ways to improve their management systems as well as for new solutions enabling them to achieve and maintain long-term competitive advantage. Among the factors influencing the business management system a very important role is assigned to factors (determinants) related to logistics area. These factors may create possibilities for targeting expected market and economic outcomes, conditioning achieving and maintaining business competitive advantage.

The aim of the article is to presents the original concept of logistics determinants of business management, conducted and developed by *Opole Logistics Research Team* in the Chair of Logistics and Marketing, Faculty of Economics, University of Opole, Poland<sup>1</sup>. In particular, the article presents the results of the theoretical and empirical research carried out during several last years, concerning logistics factors (determinants) influence on business management system, as well as further research intentions and plans.

## Logistics and business management issues within the research carried out by the Chair of Logistics and Marketing, including *Opole Logistics Research Team*

Logistics area and its relations to business management, including strategic management, has been the basis of the research conducted since late 1980s by the Chair of Logistics and Marketing at University of Opole, Poland. The Chair of Logistics and Marketing research stream is presented at figure 1.

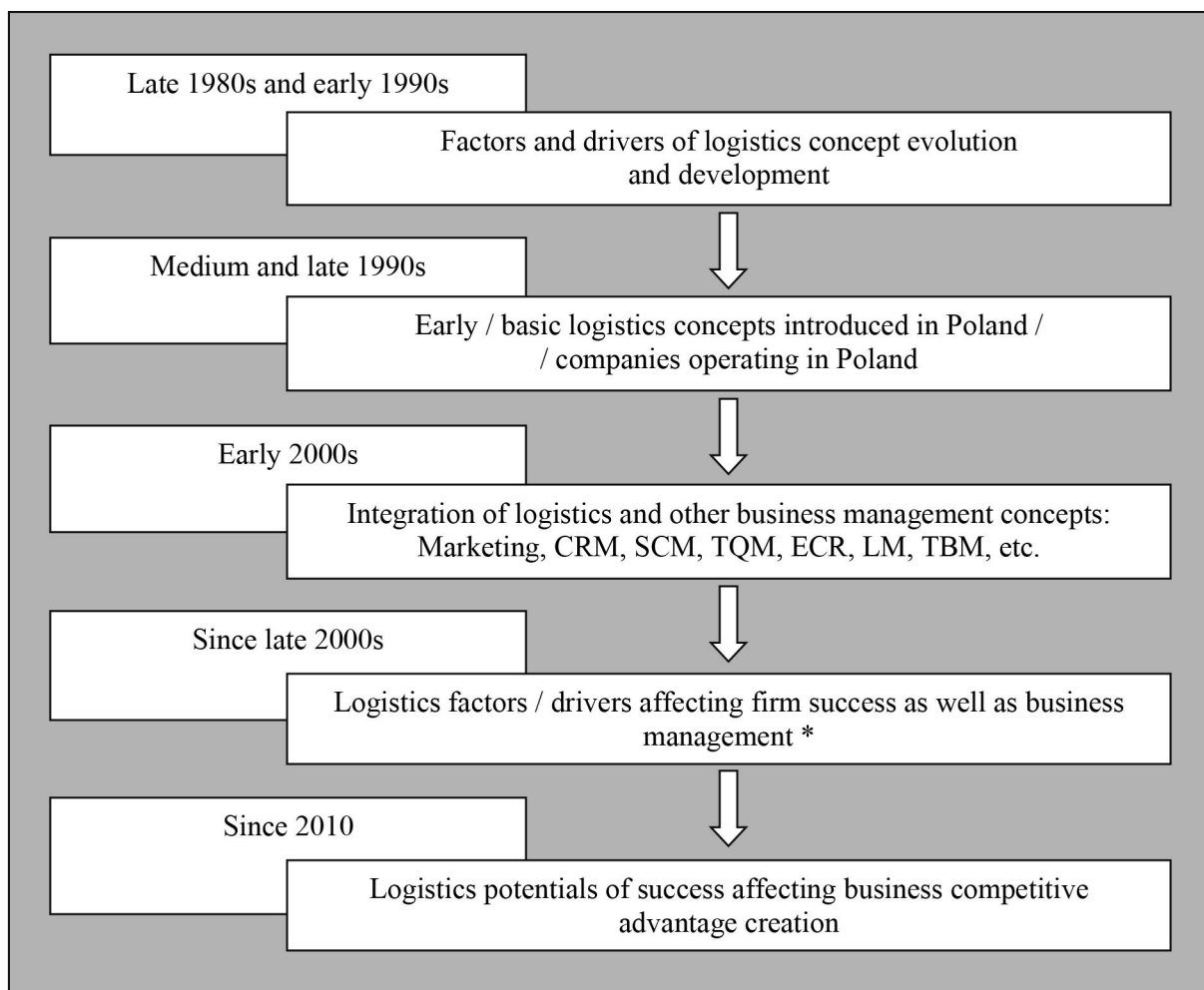
Firms' natural way of behaviour is aspiration to reach an economic as well as market success. Superior indicators of firms' success are expected market and economic outcomes. Simultaneously, one of the most significant symptoms of firms'

success is business competitive advantage. Trying to achieve sustained and long-term competitive advantage, firms are supposed to create and employ a large number of changes in their management systems and processes. The reality of these changes depends on so called "business potentials", comprising: (1) resources, (2) capabilities and (3) competences (Matwiejczuk, 2014; Matwiejczuk, 2015). A general framework of the study conducted by *Opole Logistics Research Team*, involving relationships among business potentials, changes in business management system and success symptoms is presented in figure 2.

The growing role of logistics is a result of its crucial influence on changes in business management systems. The changes contribute to achieving greater market and economic outcomes ("benefits") by firms. Logistics in its newest concepts is often seen as systemic determinant of

Figure 1

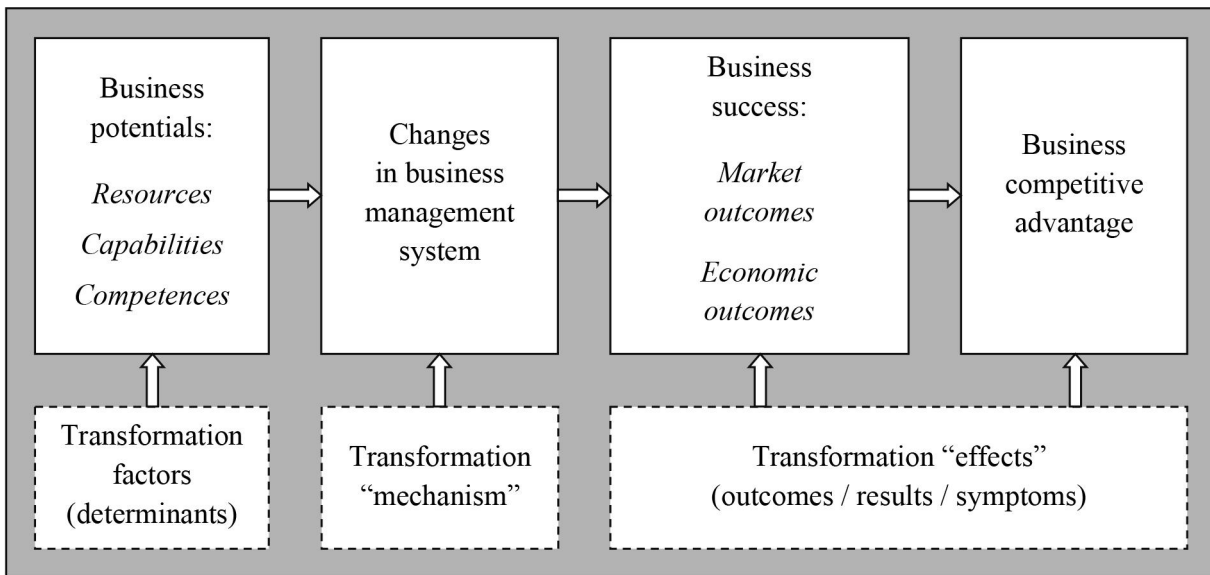
The Chair of Logistics and Marketing at University of Opole research stream



\* Including the research project named *Logistics Determinants of Business Management*, supported and financed by Polish Ministry of Science and Higher Education, performed in years 2009–2011 by *Opole Logistics Research Team* under the supervision of Professor Piotr Blaik within the Chair of Logistics and Marketing, Faculty of Economics, University of Opole, Poland, EU.

Figure 2

A general framework of the study concerning determinants of business management



business management, conditioning and stimulating a great number of crucial changes in specified management subsystems: planning, organizing, motivation and human resources management (HRM) as well as controlling. The changes also involve fundamental components of management concept (i.e.: strategic analysis, goals, strategies and tools) as well as management levels (normative, strategic and operational) (Blaik, 2015; Blaik, 2017).

### The identification of logistics determinants of business management within the research carried out by *Opole Logistics Research Team*

In general, logistics determinants affect the expected changes in the business management system and its subsystems. *Logistics determinants of business management* are characterized by three fundamental features (Blaik, Bruska, Kauf, Matwiejczuk, 2013):

- 1) They influence changes of forms, parameters, features and/or structure of "object" on which they have an impact (for example management system),
- 2) They form and determine expected change directions of the "object" and its parameters, features and structure,

- 3) They generate expected effects of changes (market and economic outcomes).

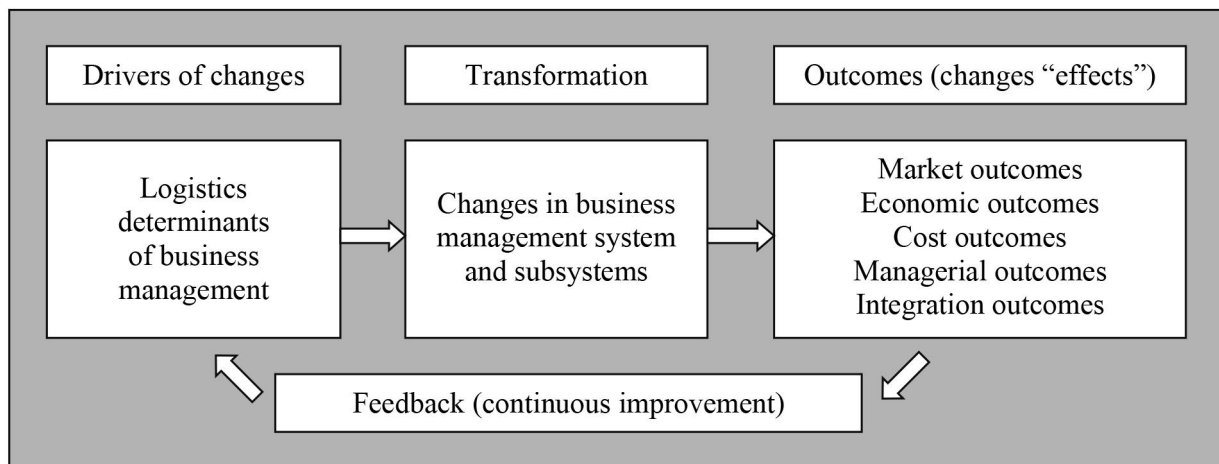
On the one hand, logistics determinants of business management determine expected directions of changes related to business management system and its subsystems. On the other hand, they lead to expected market and economic outcomes achievement by the firm. The most significant function of management determinants is to cause such changes in business management system which lead to the growth of total benefits achieved both by customers as well as by firms.

Logistics determinants of business management are specific "drivers" of changes which occur in management system and its subsystems. As a result of the logistics determinants influence, there appears a unique transformation in management system and its subsystems. The transformation makes it possible to "go" from up-to-now solutions to solutions which condition achieving expected and more profitable outcomes, connected with benefits for customers and firms. A firm desire to improve achieved outcomes requires — among others — continuous improvement of logistics systems, logistics processes and logistics solutions, which is seen in the feedback between achieved outcomes and "drivers" of changes in a firm (figure 3).

In recent years one may notice the growing importance of strategic decisions related to logistics and supply chain management areas. Such decisions can significantly contribute to the creation and exploration of new premises,

Figure 3

Logistics determinants as drivers of changes in business management



opportunities, possibilities, etc., related to business success as well as business competitive advantage creation.

The scope and symptoms of logistics determinants influence on business management system and process have been the subject of the research project named *Logistics Determinants of Business Management*, carried out by *Opole Logistics Research Team* in the Chair of Logistics and Marketing, Faculty of Economics, University of Opole, Poland, in years 2009–2011.

The basic objective of the research project was to identify the most important multidimensional relationships between logistics and business management system and process, as well as the possibilities of expected market and economic outcomes achievement.

Within the research project *Logistics Determinants of Business Management* it was assumed that logistics determinants of business management can be seen as factors related to logistics and supply chain management areas, which may affect the changes within business management system and process, as well as provide the opportunities for the expected market and economic outcomes achievement.

As a result of the research carried out by *Opole Logistics Research Team*, the following logistics determinants of business management have been identified (Blaik, Bruska, Kauf, Matwiejczuk, 2013):

- 1) Flow orientation,
- 2) Logistics and supply chain competences,
- 3) Logistics strategies,
- 4) Logistics management tools,

- 5) Logistics planning,
- 6) Organizational solutions related to logistics and supply chain management,
- 7) Logistics controlling.

The research conducted by *Opole Logistics Research Team* included a sample of 111 firms operating in Poland, representing five lines of business. The questionnaire comprised 21 detailed questions concerning multidimensional relations between logistics and business management system. Figure 4 presents percentage structure of firms taking part in the research, while table 1 shows percentage employment level in the researched firms.

Table 1

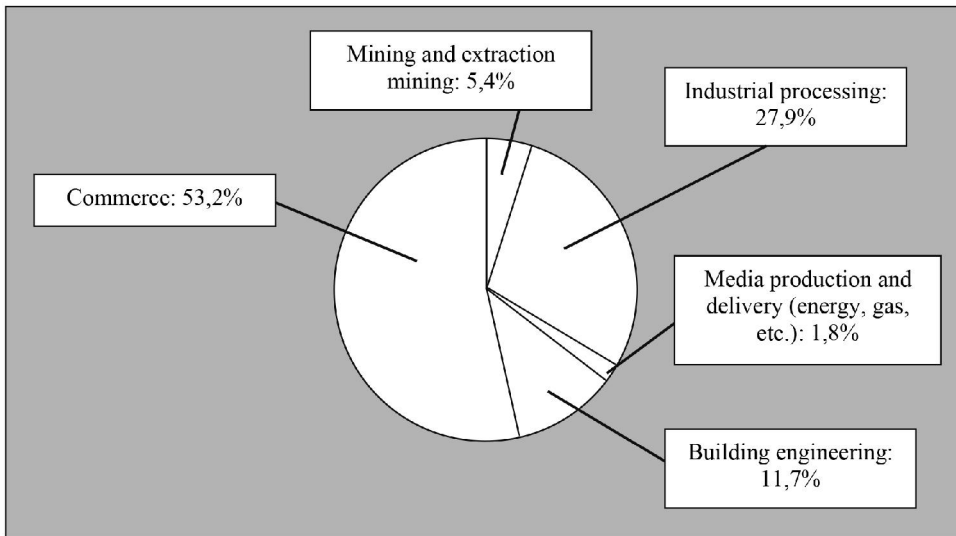
Research sample (employment level structure) within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*

Number of employed	% share
1–100 employed	26,1
101–500 employed	41,4
501–1000 employed	13,5
1001–2500 employed	9,9
2501–5000 employed	2,7
Over 5000 employed	6,3
Total:	100

Source: Based on: *Sprawozdanie merytoryczne...*, 2011, p. 16.

Figure 4

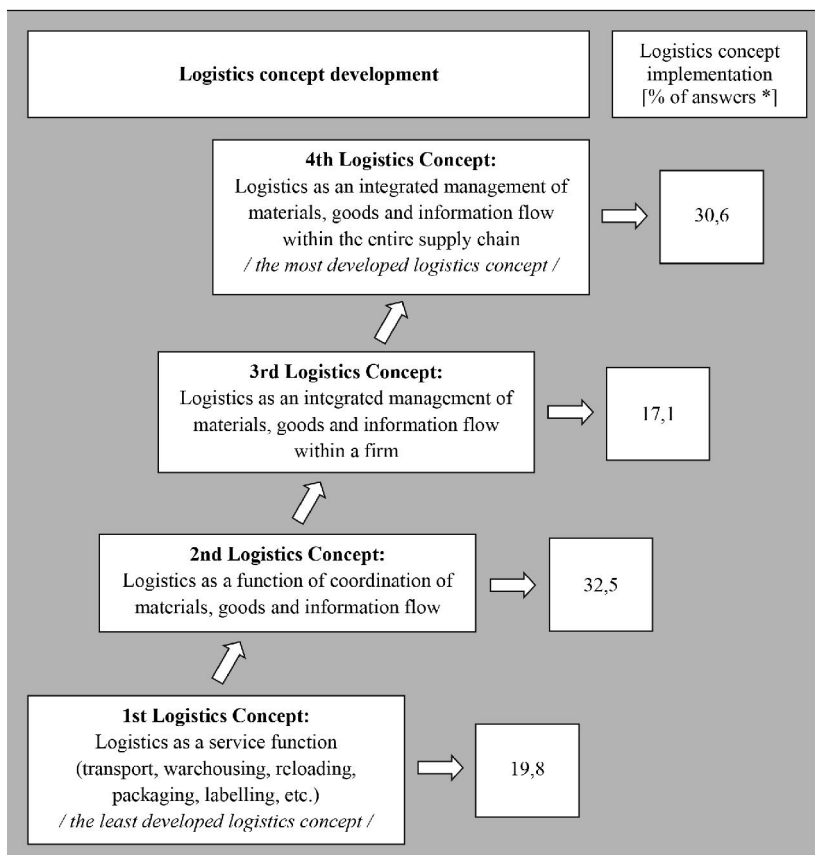
Research sample (lines of business structure) within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*



Source: Based on: *Sprawozdanie merytoryczne...*, 2011, p. 15.

Figure 5

Logistics concept development and implementation within the research carried out by *Opole Logistics Research Team*



\* single choice

Source: Based on: *Sprawozdanie merytoryczne...*, 2011, p. 17.

## Logistics concept within the research carried out by Opole Logistics Research Team

Within the research project Logistics Determinants of Business Management performed by *Opole Logistics Research Team* it was assumed that the development of logistics concept comprises four "stages". The short description of the following logistics concepts as well as research results concerning logistics concept implementation in firms operating in Poland are presented in figure 5.

Most of the firms admit that their activity involves logistics as a function responsible for entire coordination of activities and tasks connected with materials, goods and information flow. Logistics concept understood in such a way is not, however, related to flow management.

Implementation of the fourth, the most developed logistics concept, is also relatively widely declared.

Logistics as a concept of flow management within the entire supply chain requires, however, more precise feedback in the course of conducted empirical research<sup>2</sup>.

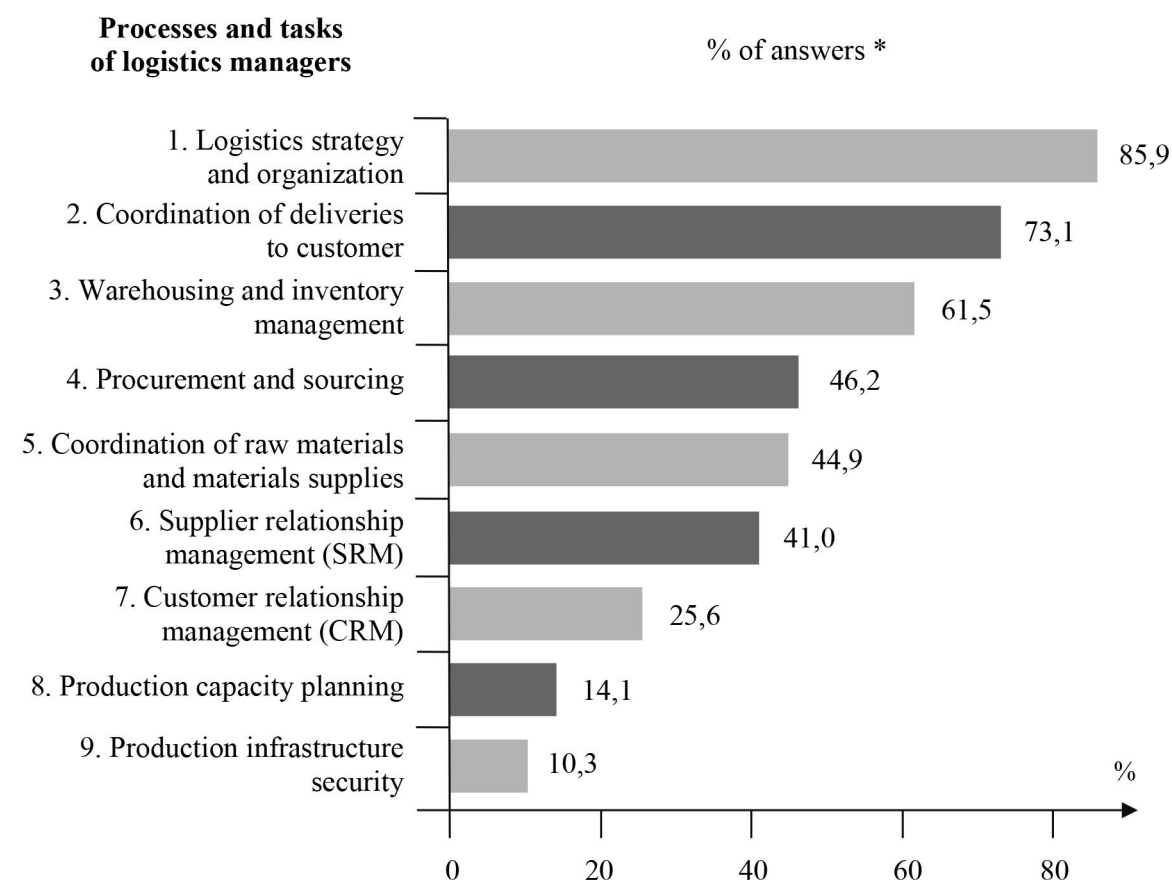
## Processes and tasks conducted by logistics managers in the light of the research carried out by Opole Logistics Research Team

There are three major tasks carried out by logistics managers: participation in developing logistics strategy and logistics organizational solutions, coordination of deliveries to customers, and procedures related to warehousing and inventory management (figure 6).

Warehousing and inventory management are typical logistics activities, and they are independent

Figure 6

The most important processes and tasks of logistics managers within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*



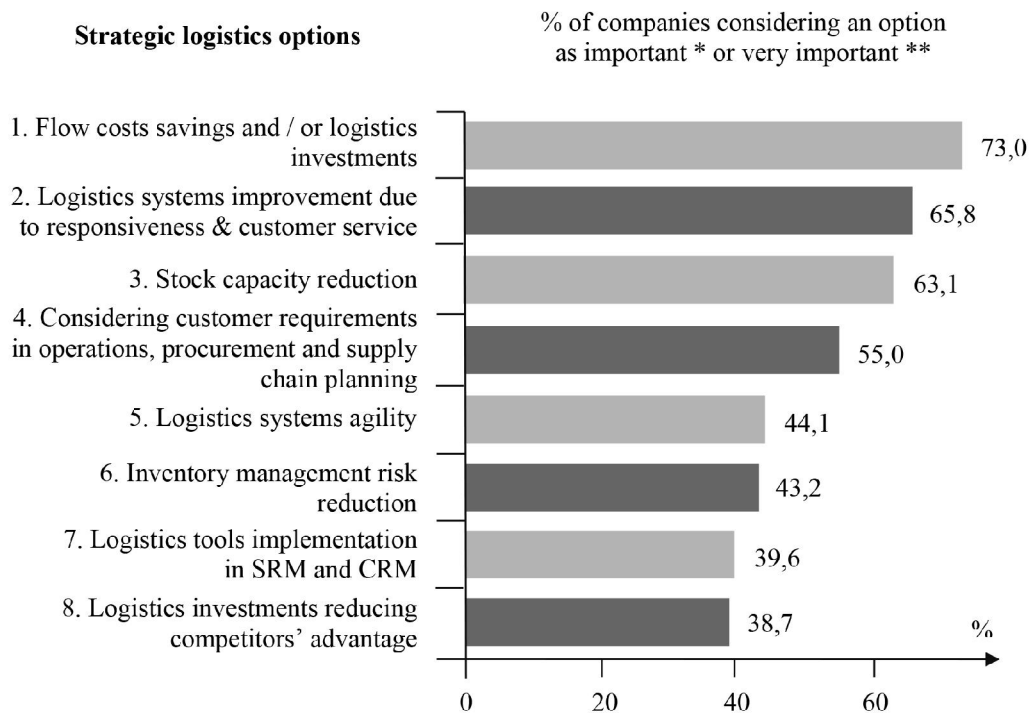
\* multiple choice

Source: Based on: *Sprawozdanie merytoryczne...*, 2011, p. 29–32.



Figure 8

Importance of strategic options in business logistics within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*



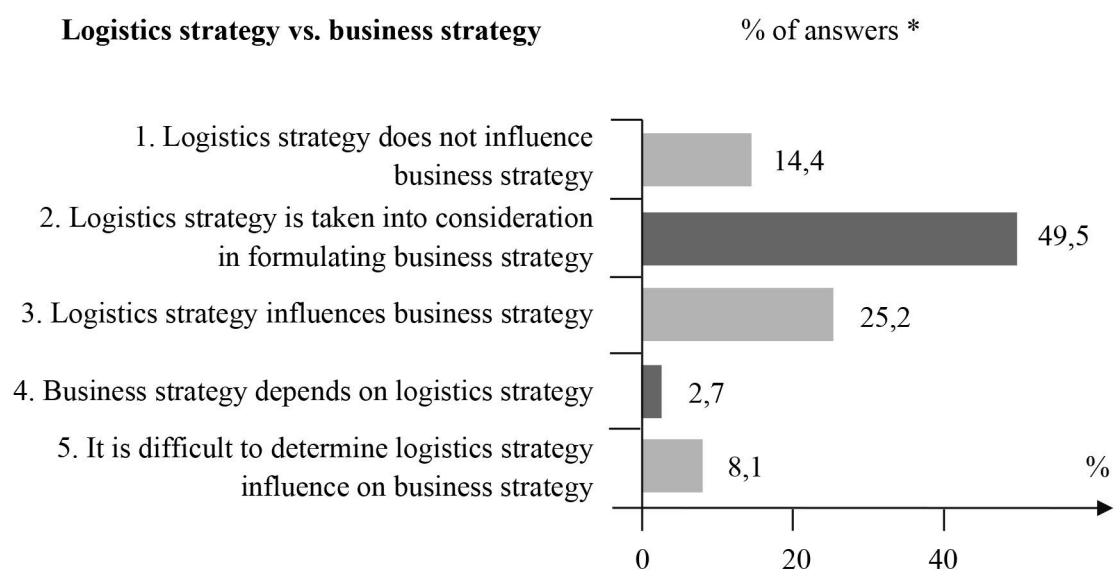
\* 4 points in Likert scale (from 1 to 5)

\*\* 5 points in Likert scale (from 1 to 5)

Source: Based on: *Sprawozdanie merytoryczne...*, 2011, p. 41-42.

Figure 9

Influence of logistics strategy on business strategy within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*



\* single choice

Source: Based on: *Sprawozdanie merytoryczne...*, 2011, p. 43.



An important role should be also assigned to the logistics strategy, which not only has a decisive role in logistics goals achievement, but may be an important part of the entire corporate strategy as well (Matwiejczuk, 2018). These "features" refer especially to such processes as the coordination and management of the materials, goods and information flows, which affect not only the efficiency and effectiveness of these flows (creation of firm's value added), but also the possibilities of customer needs and expectations satisfaction (creation of customer value added).

Previous research conducted within the Chair of Logistics and Marketing confirmed the key importance and significance of the so-called "logistics potentials of success", including: (1) resources, (2) capabilities and (3) competences, in achieving the expected market and economic

outcomes, as well as in creating a sustained, long-term competitive advantage. Most of all, the research results confirmed the key importance of logistics competences in creating the strong competitive advantage of a firm.

The future research concerning logistics determinants of business management should be focused on in-depth analysis of the variety of logistics determinants impact on business success, business competitive advantage creation and "general" business performance. First of all, it requires a precise identification of logistics resources, capabilities and competences which affect firm performance, strategy creation process and business models development, as well as creating a sustained, long-term competitive advantage and — as a result — a strong competitive position of a firm on the market.

## Przypisy

<sup>1</sup> *Opole Logistics Research Team* is an informal group of researchers associated with research on logistics and business management carried out within the Chair of Logistics and Marketing at University of Opole, Poland.

<sup>2</sup> The newest research indicate also the fifth logistics concept related to supply network. See: Blaik, 2017.

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