

**RESEARCH
IN BUSINESS LOGISTICS
AND SUPPLY CHAIN
MANAGEMENT**

**2014 REPORT:
LOGISTICS
DETERMINANTS
OF BUSINESS
MANAGEMENT**



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1. PREFACE

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.

This report 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, Opole University, Poland, EU. In particular, the report presents the results of the empirical research carried out in years 2009-2011, **concerning logistics factors (determinants) influence on business management system.**

Key words

Logistics, logistics concept, business management, determinants

2. THE CHAIR OF LOGISTICS AND MARKETING (FACULTY OF ECONOMICS, OPOLE UNIVERSITY, POLAND, EU) RESEARCH PROGRAM: PAST – PRESENT – FUTURE

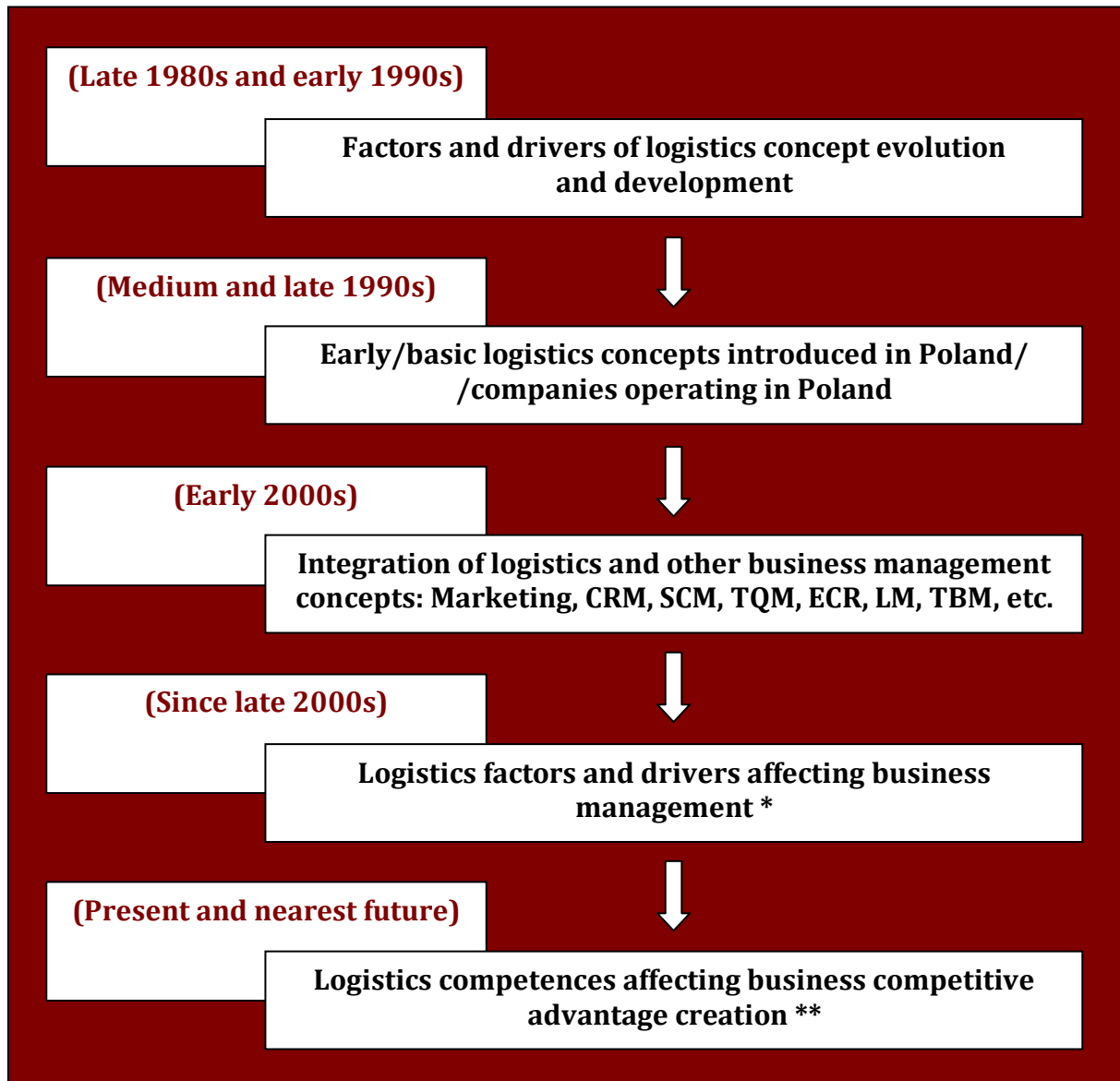


Figure 1. The Chair of Logistics and Marketing at Opole University research stream.

* The research project *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 in the Chair of Logistics and Marketing, Faculty of Economics, Opole University, Poland, EU.

** The report concerning logistics competences influence on business competitive advantage creation, based on the research carried out by Rafał Matwiejczuk representing *Opole Logistics Research Team*, will be released in 2015.

3. THE IDENTIFICATION OF LOGISTICS DETERMINANTS OF BUSINESS MANAGEMENT WITHIN THE RESEARCH CARRIED OUT BY *OPOLE LOGISTICS RESEARCH TEAM*

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: resources, capabilities and competences. 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.

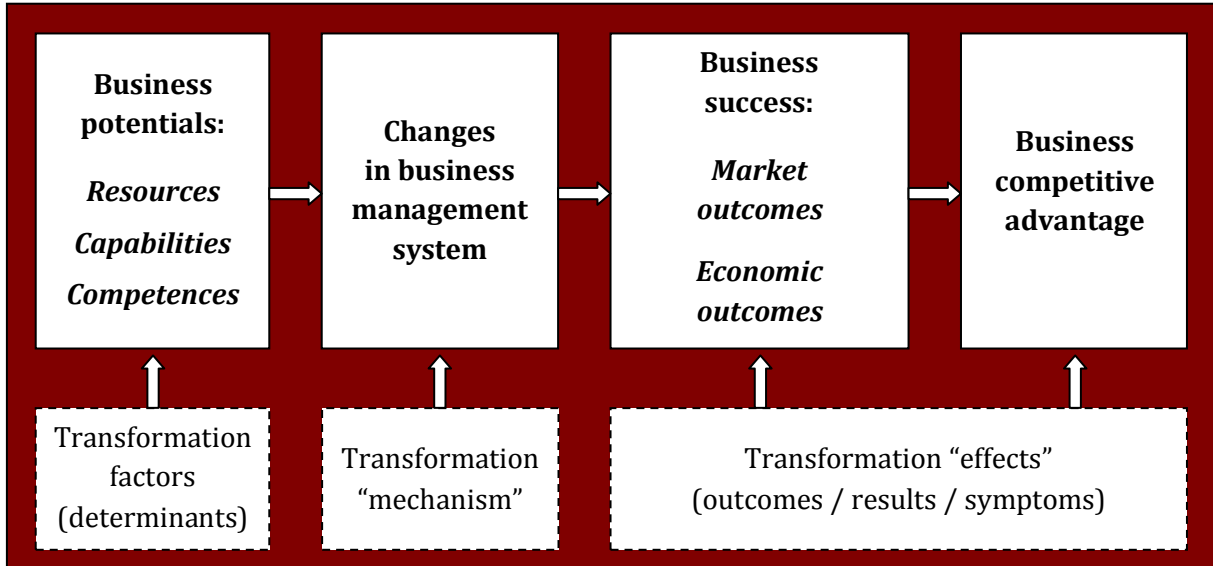


Figure 2. A general framework of the study concerning determinants of business management.

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 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) (figure 3).

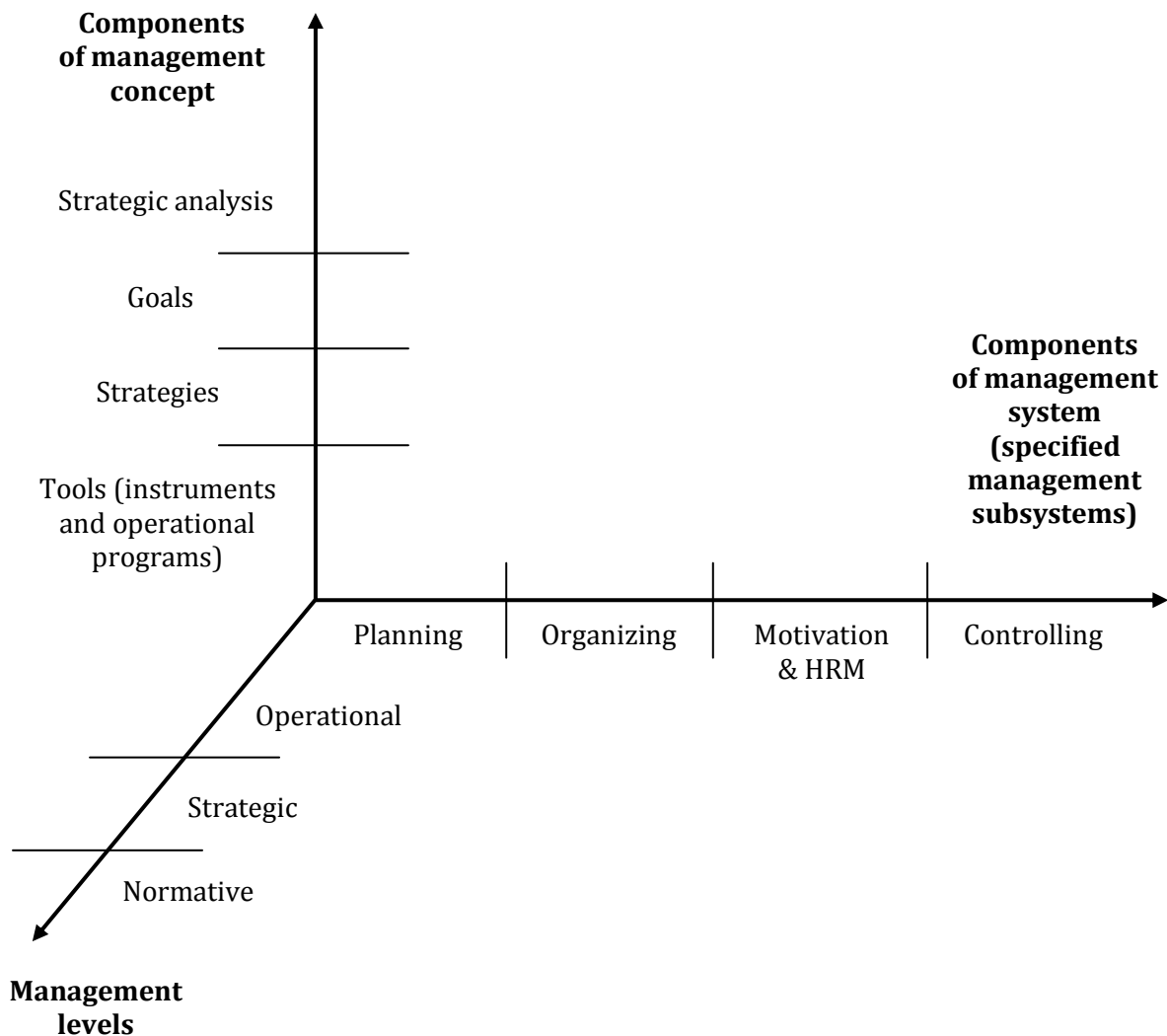


Figure 3. Basic dimensions of business management system.

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:

- 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 a 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 4).

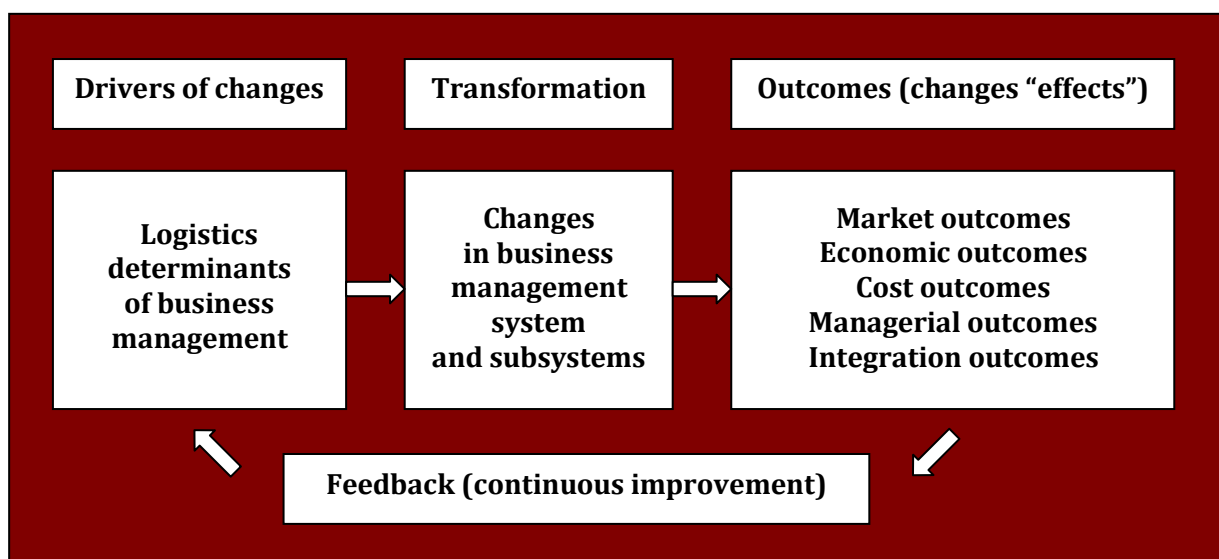


Figure 4. Logistics determinants as drivers of changes in business management.

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, 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, Opole University, Poland, EU, 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:

- 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 5 presents percentage structure of firms taking part in the research, while table 1 shows percentage employment level in the researched firms.

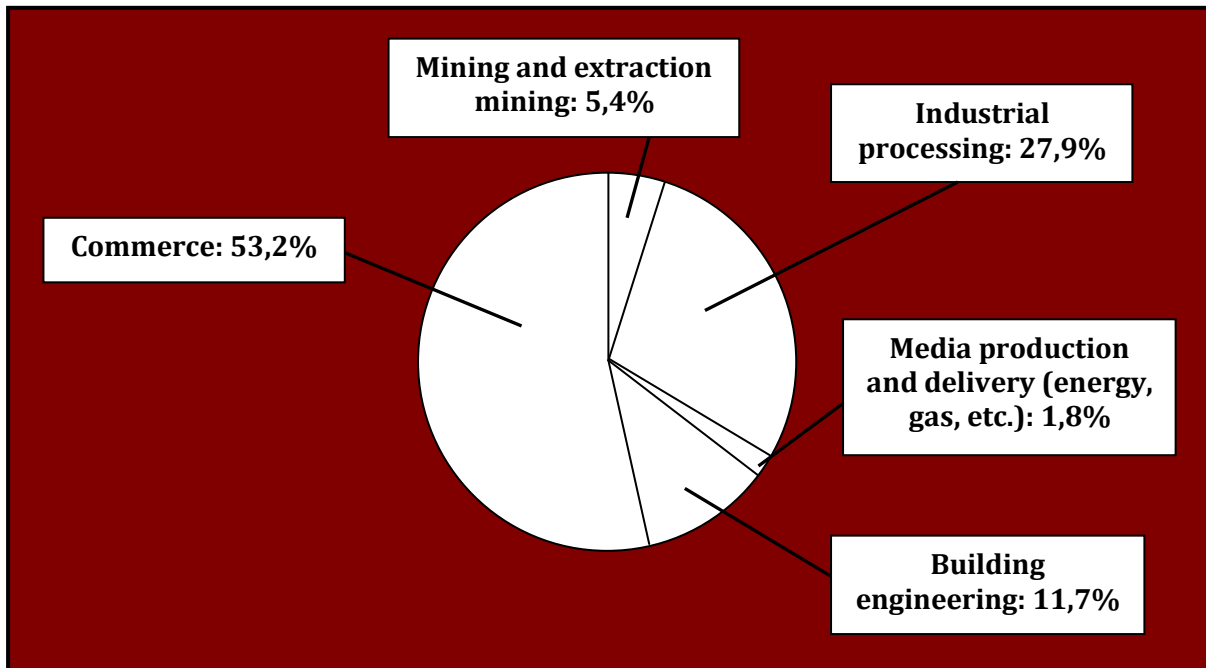


Figure 5. Research sample (lines of business structure) within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

Table 1. Research sample (employment level structure) within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

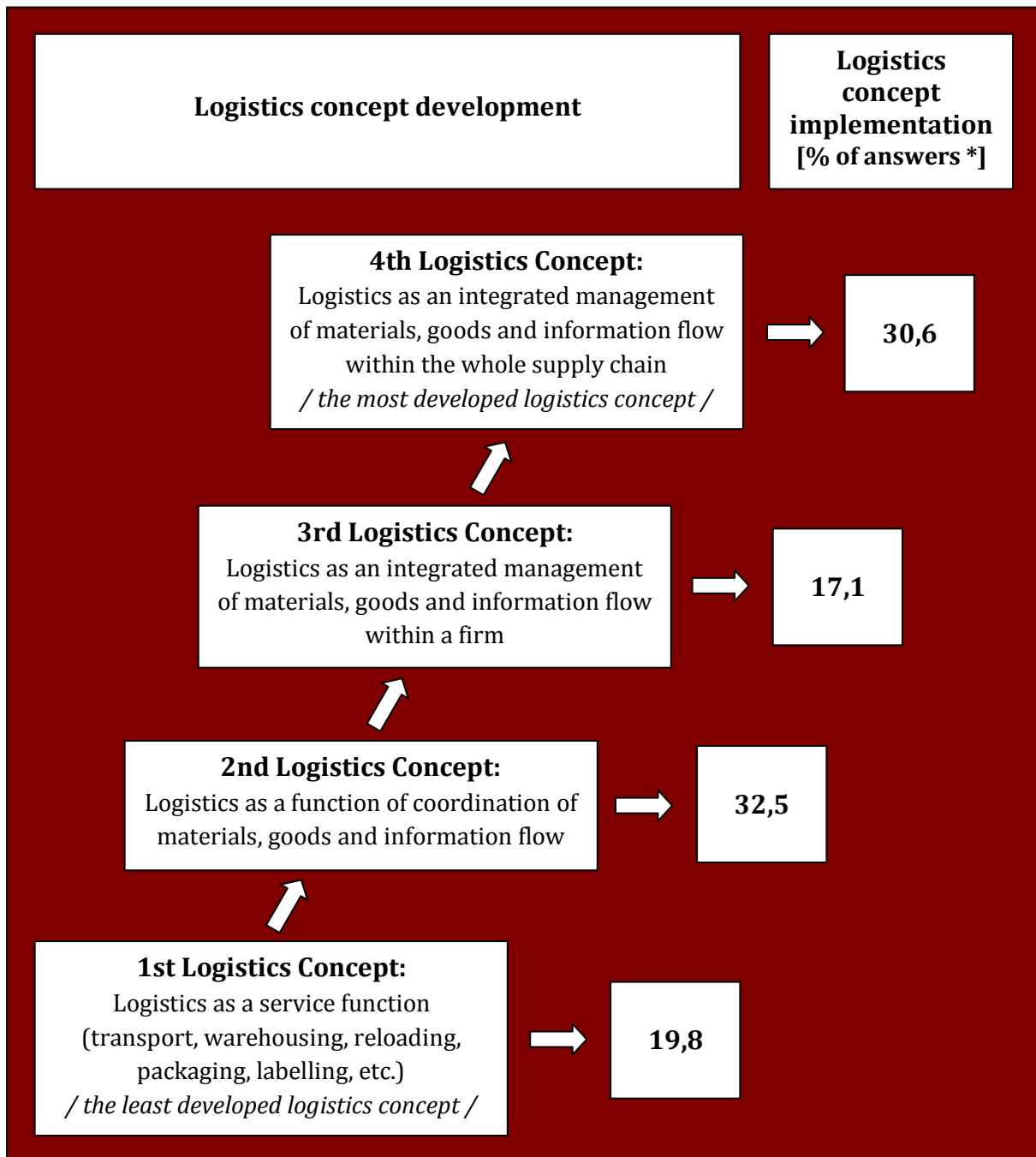
Number of employed	% share
1-100 employed	26,1
101-500 employed	41,4
501-1000 employed	13,5
1001-2500 employed	9,9
2501-5000 employed	2,7
Over 5000 employed	6,3
Total:	100

4. LOGISTICS CONCEPT WITHIN THE RESEARCH CARRIED OUT BY *OPOLE LOGISTICS RESEARCH TEAM*

Question 1:

What is the nature (essence) of logistics?

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 6.



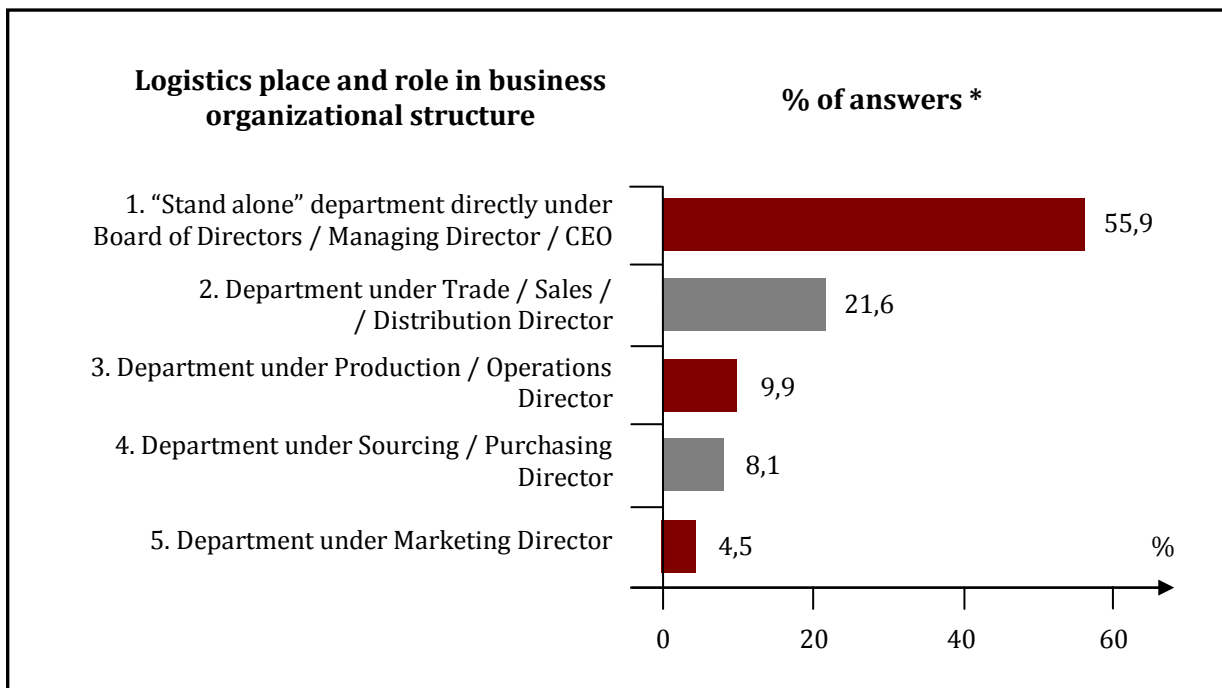
* single choice

Figure 6. Logistics concept development and implementation within the research carried out by Opole Logistics Research Team.

5. LOGISTICS ORGANIZATION WITHIN THE FIRM

Question 2:

How could you describe the place and role of logistics within the business organizational structure in your firm?



* single choice

Figure 7. Logistics place and role in business organizational structure within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

6. PROCESSES AND TASKS PERFORMED BY LOGISTICS MANAGERS

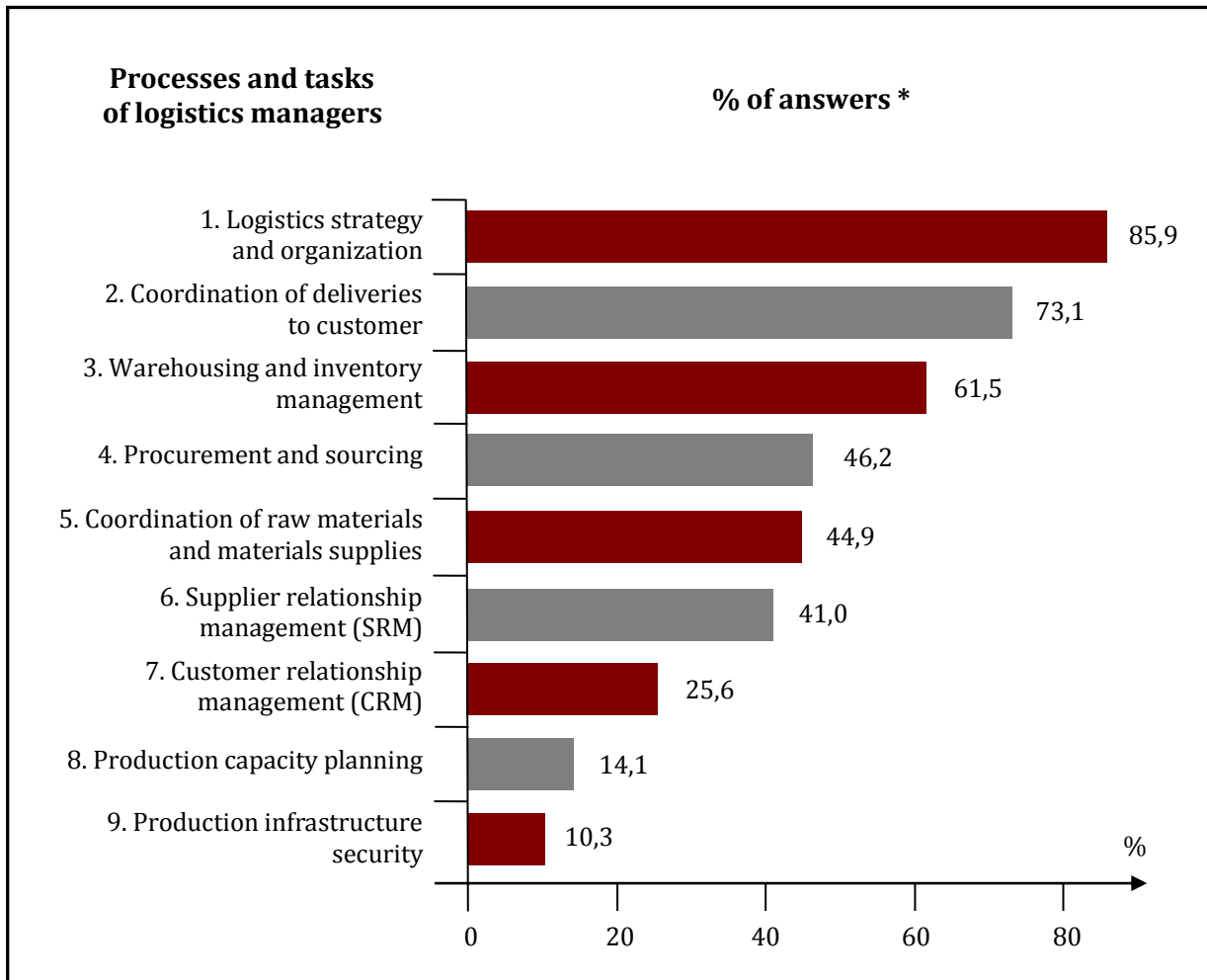
Question 4:

Which processes and tasks carried out by logistics managers in your firm are the most important?

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 whole supply chain requires, however, more precise feedback in the course of conducted empirical research.

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 8). Warehousing and inventory management are typical logistics activities, and they are independent from logistics concept implementation level in a firm. Deliveries coordination suggests that at least the second logistics concept has been implemented. The interpretation of logistics strategy and organization causes serious problems as they are differently perceived and understood by managers. Therefore, this issue requires more detailed research.



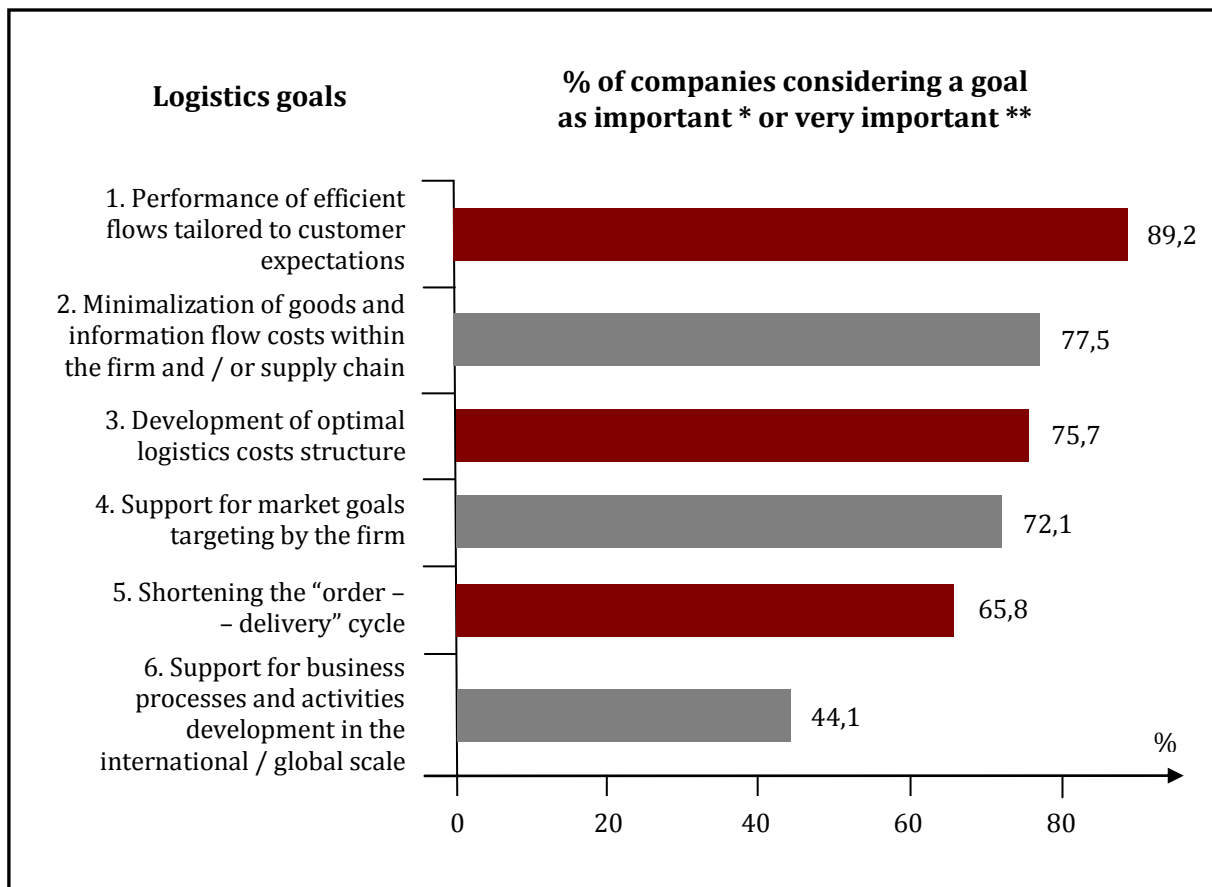
* multiple choice

Figure 8. 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*.

7. LOGISTICS GOALS

Question 5:

How important are logistics goals in your firm?



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

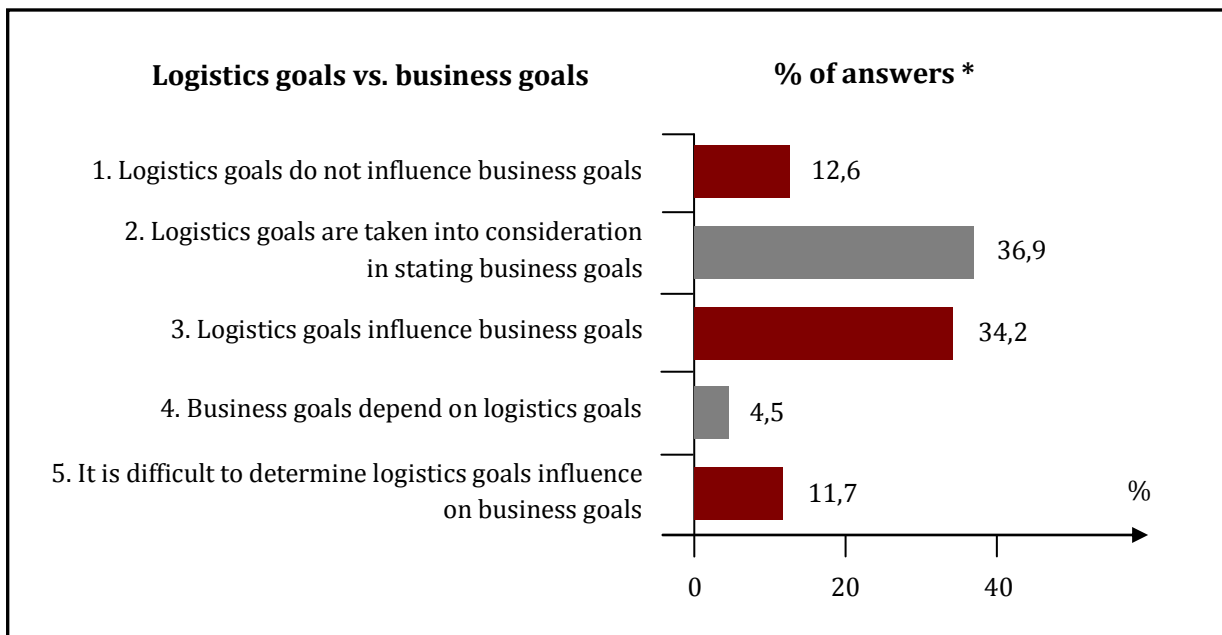
** 5 points in Likert scale (from 1 to 5)

Figure 9. Importance of logistics goals within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

Question 6:

How could you describe the relationship between logistics goals and business goals in your firm?

Evaluating the influence of logistics goals and strategies according to business (corporate) goals and strategy, logistics goals and strategies are most often taken into consideration in business (corporate) goals identification as well as business (corporate) strategy development. The majority of managers have admitted that logistics goals have direct influence on business goals, while logistics strategies have a direct influence on a business strategy (figure 10).



* single choice

Figure 10. Influence of logistics goals on business goals within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

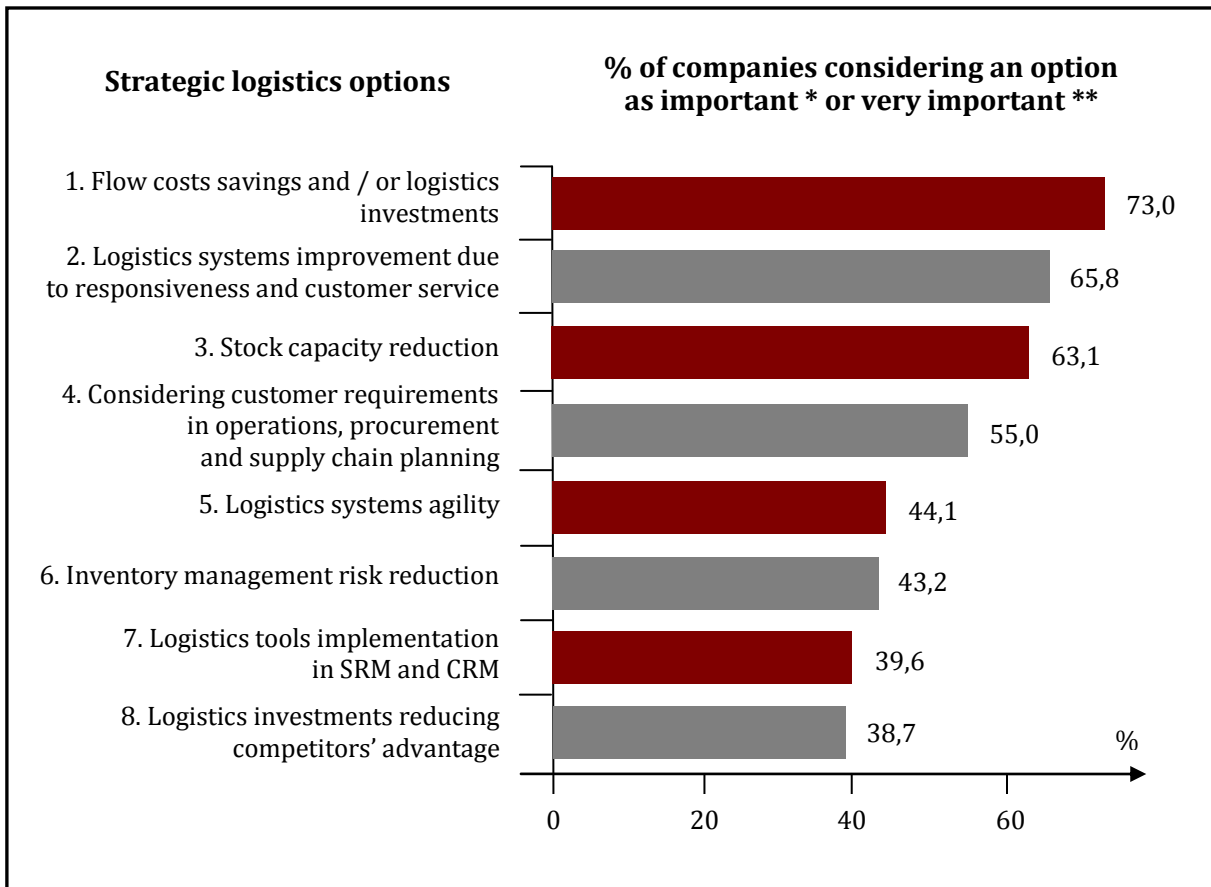
8. LOGISTICS STRATEGIES

Question 7:

How important are strategic logistics options in your firm?

In order to estimate the relationships between logistics strategy and business / corporate strategy, it is important to choose proper strategic option in logistics. The options are potential parts of logistics strategy, as well as the determinant of reaching expected market and economic outcomes by a firm. The research of *Opole Logistics Research Team* has involved eight strategic options (figure 11).

In the opinion of 73% of surveyed firms, the most important logistics option leading to successful logistics strategy and business success is flow costs savings and / or logistics investments. It seems that these firms implement primarily cost orientation in their business management systems. Almost 66% of surveyed firms assign importance to logistics systems improvement due to responsiveness and customer service, and 63,1% to stock capacity reductions.



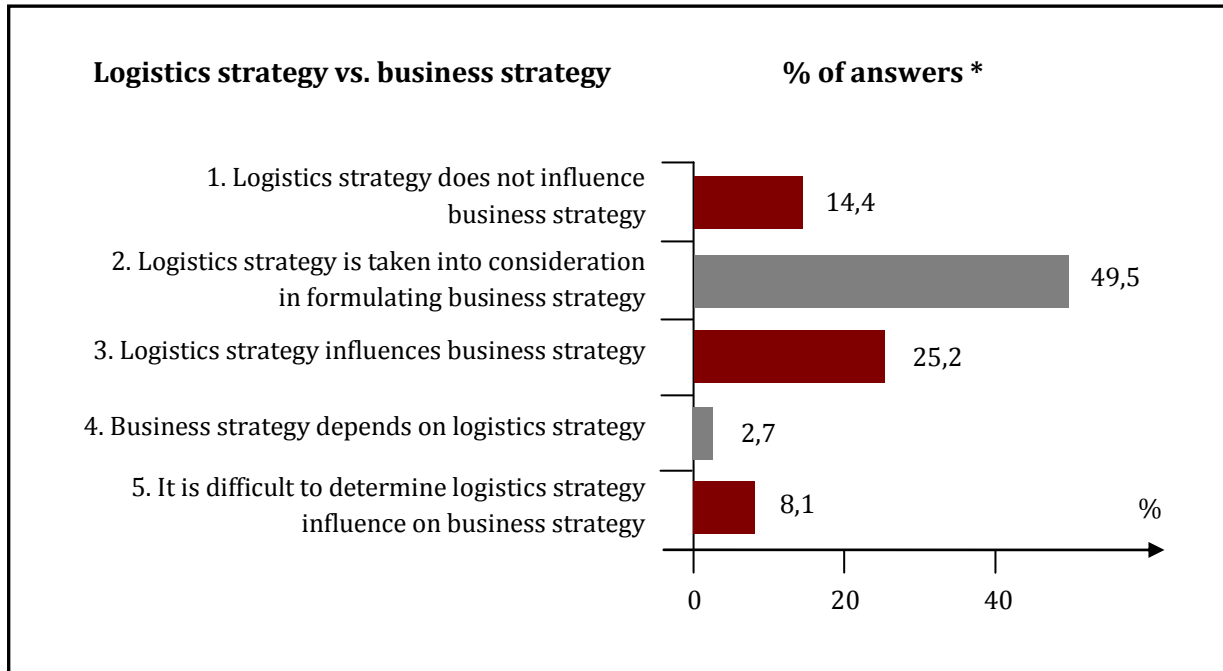
* 4 points in Likert scale (from 1 to 5)

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

Figure 11. Importance of strategic options in business logistics within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

Question 8:

How could you describe the relationship between logistics strategy and business strategy in your firm?



* single choice

Figure 12. Influence of logistics strategy on business strategy within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

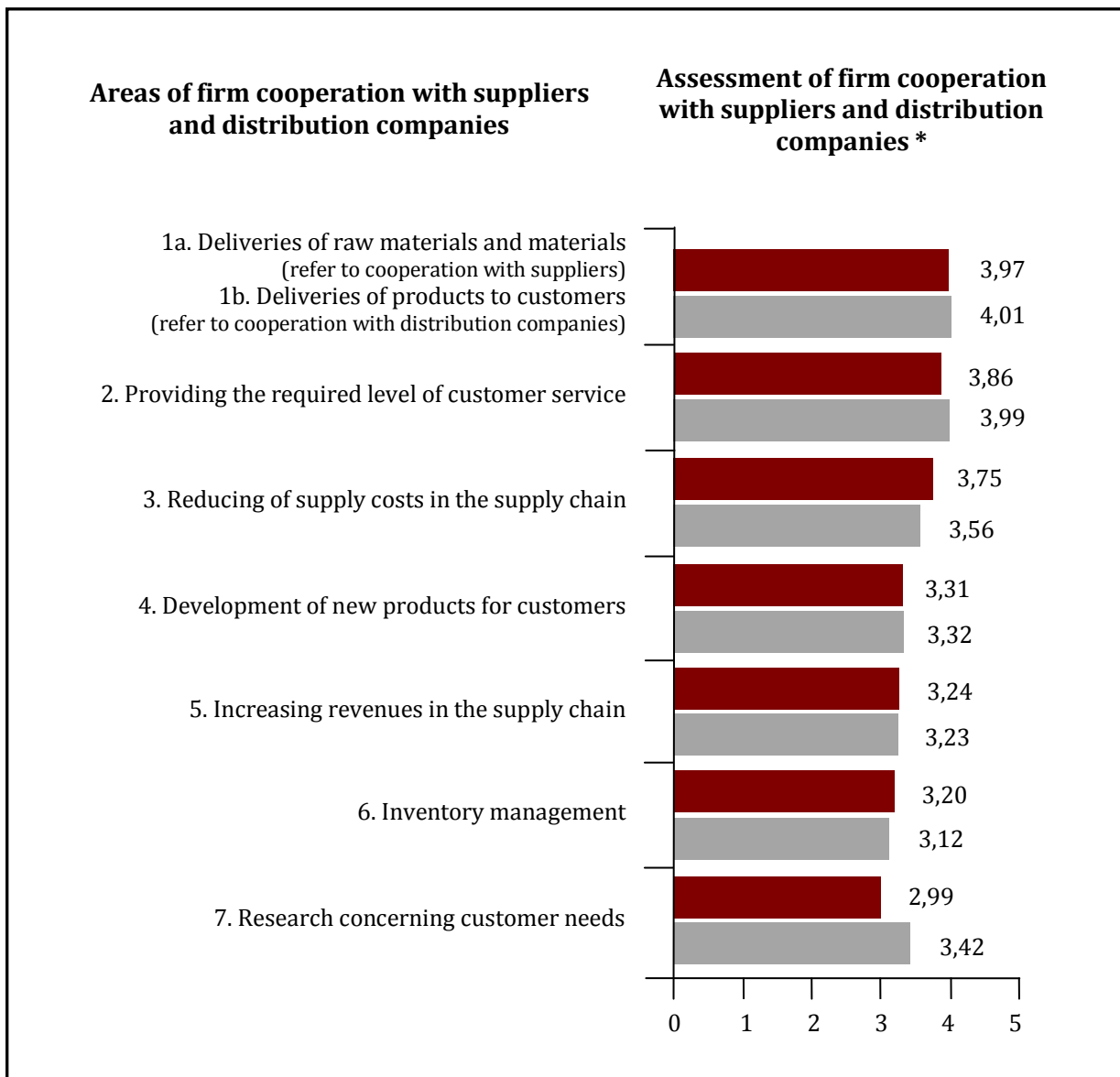
9. COOPERATION WITH SUPPLIERS AND DISTRIBUTION COMPANIES

Question 9:

What is the scope of your firm cooperation with suppliers?

Question 10:

What is the scope of your firm cooperation with distribution companies?



* average values in Likert scale (from 1 to 5)
 1 – very low (basic) scope of cooperation
 5 – very high (advanced) scope of cooperation

Cooperation with: suppliers distribution companies

Figure 13. The scope of firm cooperation with suppliers and distribution companies within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

10. CONCLUSION AND FURTHER RESEARCH

In the light of the research carried out by *Opole Logistics Research Team* one may notice that logistics plays an important role in the business goals formulation and development process. One of the most significant conditions for the real impact of logistics goals on the overall corporate goals seems to be “the presence of consciousness” concerning the growing importance of logistics within business management. It is particularly important from the perspective of business success and competitive advantage creation.

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. 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).

The future research concerning logistics determinants of business management should be focused on in-depth analysis of these determinants impact on business success, business competitive advantage creation and “general” business performance.

11. LIST OF FIGURES AND TABLES

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- Figure 4. Logistics determinants as drivers of changes in business management.
- Figure 5. Research sample (lines of business structure) within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.
- Figure 6. Logistics concept development and implementation within the research carried out by *Opole Logistics Research Team*.
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- Figure 8. 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*.
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- Figure 13. The scope of firm cooperation with suppliers and distribution companies within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.
- Table 1. Research sample (employment level structure) within the research concerning logistics determinants of business management carried out by *Opole Logistics Research Team*.

12. LIST OF PUBLICATIONS CONCERNING THE RESEARCH CARRIED OUT BY *OPOLE LOGISTICS RESEARCH TEAM*

BASIC READING (ENGLISH)

P. Blaik, R. Matwiejczuk, *Logistic Processes and Potentials in A Value Chain*, „LogForum. Electronic Scientific Journal of Logistics” 2009, Wyższa Szkoła Logistyki w Poznaniu, Poznań, Vol. 5, Issue 2, No. 2, pp. 1-8.

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