ABSTRACT. Background: Companies constantly search for ways to achieve and sustain long-term competitive advantage. Among the factors influencing the competitive advantage creation there are so called logistics potentials, which constitute a component part of a business strategic potentials. Logistics resources, logistics capabilities and logistics competences are the main components of the logistics potentials structure and hierarchy.

Methods: In order to recognize the logistics potentials which determine the competitive advantage creation one may use the assumptions and elements of contemporary management concepts, including strategic management. In particular the article deals with Resource-Based View (RBV), Dynamic Capabilities Concept (DCC) and - first of all - Competence-Based Management (CBM).

Results and conclusions: Several significant research projects have presented a wide scope and a large number of possibilities of logistics potentials (and logistics competences in particular) influence on business competitive advantage creation. The article briefly presents the research results conducted by: (1) Michigan State University (USA), (2) European Logistics Association (ELA) in cooperation with A.T. Kearney, (3) Computer Sciences Corporation and (4) Capgemini. The research results have pointed out to differentiated but at the same distinctive symptoms of logistics competences influence on competitive advantage creation. The article also refers to the results of the research carried out by the Chair of Logistics & Marketing at Opole University (Poland) in companies operating in Poland. The research has been mainly dealing with the significance of logistics competences in competitive advantage creation.

Key words: logistics, competitive advantage, potentials, resources, capabilities, competences.

INTRODUCTION

Firms constantly aim at gaining and maintaining competitive advantage. Such advantage seems to be the central "point of interest" within contemporary strategic management. In competitive advantage creation the key role is assigned to so called "business success potentials", also referred to as "strategic potentials of business success". In general, the potentials may be understood as factors influencing business success [Blaik, Matwiejczuk 2011]. The most important symptom of the success is when the firm reaches the expected market outcomes (for example: market share, customer satisfaction, customer loyalty) and economic outcomes (for example: profit, profitability, ROA, ROE, ROI, EVA). The outcomes are related to competitive advantage.

Many business success potentials are related to logistics area. Among these potentials there are logistics resources, logistics capabilities and logistics competences. Logistics potentials should be embedded on strategic management concepts, which allows their exploration and exploitation. It is strategic management which creates a basis of defining so called "strategic profile of business success potentials", including logistics competences which rely on logistics resources and logistics capabilities.
STRATEGIC MANAGEMENT AS A BASIS OF BUSINESS SUCCESS POTENTIALS DEVELOPMENT

Among different fields and disciplines of management sciences, a key role is assigned to strategic management due to its practical aspects and matters [Kaleta 2008]. Many practical aspects of strategic management are related to managers' expectations formulation, connected with proposals and solutions leading to a firm's expected market and economic outcomes achievement and business competitive advantage creation.

The majority of authors distinguish two basic approaches to a firm strategy - resource oriented approach, based on business success potentials (resources, capabilities, and competences) and positioning approach, based on competitive position of a firm within the market. P. Huovinen [2008] enumerates a more detailed proposition of contemporary approaches within strategic management field:

− Porterian value chain concept,
− Resource-based approach,
− Competence-based management,
− Knowledge-based management,
− Organization-based management,
− Process-based management,
− Dynamism-based management,
− Evolutionary approach.

Business success potentials which influence competitive advantage creation are widely presented especially within three superior strategic management concepts: Resource Based View (RBV), Dynamic Capabilities Concept (DCC) and Competence Based Management (CBM).

HIERARCHY OF BUSINESS SUCCESS POTENTIALS AS FACTORS INFLUENCING COMPETITIVE ADVANTAGE CREATION (BASED ON RBV, DCC AND CBM CONCEPTS)

According to RBV concept, sustained competitive advantage achievement depends particularly on resources and capabilities of their exploitation in relation to assumed goals [Barney, Clark 2007]. Resources, generally understood as tangible and intangible assets, occupy the lowest (first) level in the hierarchy of business success potentials. Such assets ensure business tasks performance and result in assumed goals achievement related to competitive advantage creation [Sanchez, Heene 2004]. Resources which are particularly important in achieving competitive advantage are referred to as key resources. J. Barney [1991] suggests that key resources have to be valuable, rare, difficult to imitate and non-substitutable.

DCC concept emphasises the key importance of dynamic business capabilities in competitive advantage creation. The capabilities, which occupy the medium (second) level in the hierarchy of business success potentials, make it possible to acquire, integrate and reconfigure the resources and to adjust a firm to market changes. Dynamic capabilities involve strategically important processes, activities and mechanisms, which enable a firm to create new resources configurations within new markets emergence, their differentiation, development and decline [Eisenhardt, Martin 2000]. Dynamic capabilities determine the creation, integration and reconfiguration of operational capabilities connected with securing current tasks performance [Teece, Pisano, Shuen 1997] and create premises and possibilities of business success. It may be said that within DCC concept, the most important sources of competitive advantage are assigned not just to business (firm) resources, but to firm capabilities of their use and effective exploitation (business dynamic capabilities).

Within the CBM concept, competences are the main "component" of business success potentials related to competitive advantage creation. R. Sanchez and A. Heene [2004] define organizational competence as the ability of an organization to sustain coordinated deployments of resources in ways that help the organization to achieve its goals. Competences result from interfunctional integration and coordination of capabilities relating to processes, activities and resources performed and exploited within the firm as well as the whole value chain [Javidan 1998].
Competences integrate firm resources with capabilities of their exploitation, accounting for the highest (third) level in the hierarchy of business success potentials which influence competitive advantage creation (figure 1) [Matwiejczuk 2011d].

As presented at figure 1, the hierarchy of business success potentials comprises the following components situated at three levels: resources (level 1), capabilities (level 2), and competences (level 3). Such components may be referred to as "strategic profile of business success potentials". The profile involves many detailed factors (types of resources, capabilities, and competences) influencing competitive advantage creation. Apart from "normative" factors concerning general business management, one may distinguish several "functional" types of factors determining competitive advantage. One of such areas is contemporary logistics.

LOGISTICS POTENTIALS AS COMPONENTS OF STRATEGIC PROFILE OF BUSINESS SUCCESS POTENTIALS

A. Sennheiser and M. Schnetzler [2008], who use the term "logistics potentials of outcomes", define the potentials as specific resources and capabilities in the logistics or even supply chain management area. A firm can exploit and / or develop these potentials in the long run in order to achieve sustained and significant outcomes within logistics / supply chain management area.

According to P. J. Daugherty et al. [2009], logistics resources may be perceived as
Logistics competences and their influence on competitive advantage creation have been the subject of several interesting research studies. Among them there is the research carried out by: (1) Michigan State University (MSU) /in two editions: 1995 and 1999/, (2) European Logistics Association in cooperation with A.T. Kearney (ELA/A.T. Kearney), (3) Computer Sciences Corporation (CSC) and (4) Capgemini (table 1).

<table>
<thead>
<tr>
<th>Logistics competences</th>
<th>MSU 1995</th>
<th>MSU 1999</th>
<th>ELA / A.T. Kearney</th>
<th>CSC</th>
<th>Capgemini</th>
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<td>1. Logistics positioning and integration within business management</td>
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<td>7. Flow leaness and transparency</td>
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<td>8. Logistics processes</td>
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<td>9. Order management</td>
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<td>10. Information systems and technologies</td>
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Logistics competences presented in relatively wide scope within world-wide research studies
Logistics competences presented in relatively narrow scope within world-wide research studies

Source: Own concept based on: Blaik et al. 2013; Matwiejczuk 2011a; Matwiejczuk 2011b; Matwiejczuk 2012a; Matwiejczuk 2012b
The above research studies have confirmed relatively differentiated, but - in general - positive impact of complex logistics competences on business success and competitive advantage creation [Matwiejczuk 2011a, Matwiejczuk 2011b]. The world-wide research results have been a basis of research on logistics competences as factors influencing business competitive advantage carried out at Chair of Logistics and Marketing at Opole University, Poland. (The research has been carried out by author during 2012 using CAWI (Computer Assisted Web Interview), CATI (Computer Assisted Telephone Interview), and CAPI (Computer Assisted Personal Interview) methods. The sample comprised 62 firms representing the following lines of business (sectors): mining and extraction mining (1 firm), industrial processing (19), media production and delivery - energy, gas, etc. (2), building engineering (3), commerce (21), transport and warehousing (7), accommodation and catering (2), information and communication (7)). The most significant result of the research has been the original model of business success potentials and symptoms with highlighted role of logistics competences influencing competitive advantage creation (figure 2).

![Fig. 2. Logistics competences within the model of business success potentials and symptoms](image-url)

Rys. 2. Kompetencje logistyki w modelu potencjałów i wyznaczników sukcesu przedsiębiorstwa
Firstly, four key (superior) logistics competences have been distinguished. They may vary significantly contribute to business competitive advantage creation. These competences are as follows:
1. Logistics positioning and integration within business management,
2. Vertical and internal integration,
3. Flow management,
4. Information systems and technologies.

Within logistics competences concerning vertical and internal integration there are:
1. Integration with suppliers,
2. Integration with distribution companies,
3. Integration with customers,
4. Internal integration (integration within the firm).

As to logistics competences within flow management, the following competences have been specified:
1. Agility, comprising adaptability and flexibility,
2. Flow leanness and transparency,
3. Logistics processes,
4. Order management.

In the next step, the mentioned (ten) groups of logistics competences have been detailed into itemized logistics capabilities influencing business competitive advantage creation (table 2).

Table 2. Structure of logistics competences (detailed logistics capabilities) influencing business competitive advantage creation
Tabela 2. Strukturyzacja kompetencji logistyki (szczegółowe zdolności logistyczne) wpływających na tworzenie przewagi konkurencyjnej przedsiębiorstwa

<table>
<thead>
<tr>
<th>Logistics competences influencing competitive advantage</th>
<th>Detailed logistics capabilities (“bricks” of logistics competences) influencing competitive advantage</th>
</tr>
</thead>
</table>
| 1. Logistics positioning and integration within business management | 1.1. Logistics integration within corporate mission and strategic trends of business development  
1.2. Integration of logistics goals with general corporate goals  
1.3. Integration of logistics strategies with general corporate strategy  
1.4. Integration of logistics operational tasks with corporate tasks  
1.5. Integration of logistics planning with corporate planning  
1.6. Logistics as functional area within corporate organizational structure |
| 2. Integration with suppliers | 2.1. Suppliers segmentation  
2.2. Key suppliers identification  
2.3. Business information sharing with suppliers  
2.4. Suppliers engagement within product development process  
2.5. Revenues, costs and profits sharing with suppliers |
| 3. Integration with distribution companies | 3.1. Distribution companies segmentation  
3.2. Key distribution companies identification  
3.3. Business information sharing with distribution companies  
3.4. Distribution companies engagement within product development process  
3.5. Revenues, costs and profits sharing with distribution companies |
| 4. Integration with customers | 4.1. Customers segmentation  
4.2. Key customers identification  
4.3. Business information sharing with customers  
4.4. Customers engagement within product development process  
4.5. Revenues, costs and profits sharing with customers |
| 5. Internal integration | 5.1. Logistics and operations management (production) integration  
5.2. Logistics and marketing / promotion integration  
5.3. Logistics and technology development integration  
5.4. Logistics and trade / sales integration  
5.5. Logistics and procurement integration |
The aim of the research conducted by the author within the Chair of Logistics and Marketing research studies has been an attempt to evaluate logistics competences significance in business competitive advantage creation. Every time the evaluation has been related to two basic dimensions of competitive advantage: (1) competitive advantage achieved through focusing on costs (cost leadership) and (2) competitive advantage achieved through focusing on customer service (creation and delivering of unique value for customers) (figure 3).

The research results have mostly confirmed the significant importance of logistics competences as potentials of a business competitive advantage creation. According to firms (managers) which (who) took part in the research, logistics competences concerning customers’ orders management are the most important factors influencing competitive advantage creation. These competences contribute to both: competitive advantage based on cost leadership, as well as competitive advantage based on customer service.

Relatively high importance has also been assigned to competences related to logistics processes and competences related to information systems and technologies. These two groups of competences contribute mainly to competitive advantage based on costs.
### Logistics competences influencing competitive advantage creation

<table>
<thead>
<tr>
<th>Area</th>
<th>Assessment of logistics competences significance in business competitive advantage creation *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Logistics positioning and integration within business management</td>
<td>3.70</td>
</tr>
<tr>
<td>2. Integration with suppliers</td>
<td>3.23</td>
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<tr>
<td>3. Integration with distribution companies</td>
<td>3.03</td>
</tr>
<tr>
<td>4. Integration with customers</td>
<td>3.32</td>
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<tr>
<td>5. Internal integration</td>
<td>3.77</td>
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<tr>
<td>6. Agility (adaptability and flexibility)</td>
<td>3.70</td>
</tr>
<tr>
<td>7. Flow leaness and transparency</td>
<td>3.84</td>
</tr>
<tr>
<td>8. Logistics processes</td>
<td>3.84</td>
</tr>
<tr>
<td>9. Order management</td>
<td>4.03</td>
</tr>
<tr>
<td>10. Information systems and technologies</td>
<td>3.98</td>
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</tbody>
</table>

* Assessment of significance based on Likert scale from 1 (the lowest significance) to 5 (the highest significance). Shown values are arithmetic averages.

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<tr>
<th>0</th>
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Source: Own concept based on conducted empirical research

**Fig. 3.** The significance of logistics competences in business competitive advantage creation in the light of research conducted in firms operating in Poland

**Rys. 3.** Znaczenie kompetencji logistyki w tworzeniu przewagi konkurencyjnej przedsiębiorstwa w świetle badań w przedsiębiorstwach w Polsce

### FURTHER RESEARCH

The purpose of further research will be a more detailed identification of premises and possibilities concerning logistics potentials influence on competitive advantage creation. Logistics resources as potential business success factors and logistics capabilities as well as logistics competences as key (superior) business success factors require deeper and more comprehensive assessment. Such assessment could lead to better embedding of logistics potentials (i.e., resources, capabilities and competences) within strategic management area, and especially within competitive advantage creation problems.
REFERENCES


Matwiejczuk R., 2011a, Kompetencje logistyki i łańcucha dostaw w świetle badań (cz. I) [Logistics and Supply Chain Competences in the Light of Research Studies (part I)], Gospodarka Materialowa i Logistyka, 3, 18-23.


Prockl G., 2007, Logistik-Management im Spannungsfeld zwischen wissenschaftlicher Erklärung und praktischer Handlung [Logistics Management in the Field of Tension Between Scientific Explanation...
POTENCJAŁY LOGISTYKI W TWORZENIU PRZEWAGI KONKURENCYJNEJ PRZEDSIĘBIORSTWA

STRESZCZENIE. Wstęp: Przedsiębiorstwa stale poszukują sposobów osiągania i utrzymywania przewagi konkurencyjnej na rynku. Wśród czynników determinantujących ten proces można wymienić m.in. tzw. potencjały logistyki, stanowiące część składową potencjału strategicznego przedsiębiorstwa. Strukturę i - jednocześnie - hierarchię potencjałów logistyki tworzą w kolejności: (1) zasoby logistyczne, (2) zdolności logistyczne oraz (3) kompetencje logistyki.

Metody: W celu rozpoznania potencjałów logistyki determinujących tworzenie przewagi konkurencyjnej warto wykorzystać założenia i elementy współczesnych koncepcji zarządzania, w tym zwłaszcza zarządzania strategicznego. Szczególną rolę w świetle problematyki niniejszego artykułu można przypisać koncepcji zasobowej, koncepcji dynamicznych zdolności oraz - przede wszystkim - koncepcji zarządzania opierającej się na kompetencjach.


Słowa kluczowe: logistyka, przewaga konkurencyjna, potencjały, zasoby, zdolności, kompetencje.
haben auf differenzierte, aber zugleich deutliche Einwirkungszeichen der Logistikkompetenz auf die Bildung des Konkurrenzvorsprungs des Unternehmens hingewiesen. Im Artikel hat man sich auch auf die Ergebnisse der Forschungen des Lehrstuhls für Logistik und Marketing der Universität Opole bezogen, die in den Unternehmen in Polen durchgeführt worden sind und die Bedeutung der Logistikkompetenz in der Bildung des Konkurrenzvorsprungs betroffen haben.

**Codewörter:** Logistik, Konkurrenzvorsprung, Potentiale, Bestände, Fähigkeiten, Kompetenzen

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