

LOGISTICS OUTSOURCING AS A DETERMINANT OF ENTERPRISE EFFECTIVENESS

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Abstract: The aim of the article is to identify key factors related to logistics outsourcing having an influence on the enterprise effectiveness on the basis of the selected Polish manufacturing, trade and service enterprises. The first part of the article presents the essence and paradigm of the effectiveness of outsourcing of logistics processes. The second part describes the concept of own empirical research. The author has made an attempt to identify the most important, in her opinion, factors associated with logistics outsourcing affecting the effectiveness of the surveyed enterprises.

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1. INTRODUCTION

Contemporary challenges of the world economy determine conditions and a way of functioning of an organization. Enterprises are under pressure to reduce costs, increase customer satisfaction, shorten delivery time and have constant access to information. A growth of innovative requirements towards logistics is visible; it is expected to increase flexibility and reaction time and reduce influence of disruptions on logistics processes taking into account the principles of sustainable development and high adaptability of the applied solutions (Jedliński, 2015, pp. 45–47; König & Spinler, 2016, pp. 122–134; Niedzielski, Wojewódzka-Król & Załoga, 2016, pp. 11–49). Logistics processes in contemporary companies should be systemically directed in the global supply chain so that requirements and expectations of customers are fulfilled with the greatest satisfaction, with adherence to the agreed sales price and taking into account requirements and expectations of the environment. As a result, enterprises create more and more complex logistics systems in which they cooperate with organizations participating in the process of delivering the product or service to the customer in order to meet growing and changing requirements of customers, improve their competitiveness and reduce business risk.

Economic entities strive to achieve high effectiveness as it is a tool to build their competitiveness. The appropriate configuration of the logistics system significantly affects the enterprise effectiveness and constitutes a great challenge for logistics managers. The effectiveness of the logistics system is conditioned by efficient and effective logistics processes. The effective processes allow for the usage of market opportunities and achievement of the accurate balance between the expected and actually achieved effects. The efficient logistics processes constitute the result of a rational action, they enable to achieve the best possible relation of the operation effects and, associated with it, consumption of the resources (Engler, 2012, p. 6; Blaik, 2015, p. 31). The separation of the resources and use of logistics services offered by specialized external entities may be a tool to increase the enterprise effectiveness. The aim of the article is to identify key factors related to logistics outsourcing having an influence on the enterprise effectiveness on the basis of the selected Polish manufacturing, trade and service enterprises.

2. EFFECTIVENESS OF LOGISTICS OUTSOURCING

Outsourcing consists in using goods and services offered by the external provider which are the subject of the market transaction. In the literature of the subject, the most frequently mentioned objectives of outsourcing include: economic, strategic, marketing and organizational objectives (Dyczkowska, 2014, p. 20; Foltys, 2012, pp. 59-61). Outsourcing is widely regarded as a way to improve the en-

enterprise effectiveness. The practice, however, shows that outsourcing can lead to negative consequences (Gąsowska, 2015, pp. 33–41; Radło, 2011, pp. 27–31).

Logistics outsourcing is based on the release of the resources and use of logistics services offered by specialized external entities that, at their own risk and usually using their own resources, take over the managerial and executive functions of the enterprise. Widely interpreted logistics outsourcing also includes the purchase of various logistics services from external entities without meeting the conditions of transformation of the resources (Witkowski, 2008, p. 79). Efficient and effective management of logistics processes in contemporary market conditions require taking into account connections of all organizations that are suppliers and customers to each other. Enterprises achieving high effectiveness compete by supply chains which include the whole system of the value creation. Therefore, the logistics provider works with more than one entity; using its competencies and assets integrates logistics processes of enterprises that are logistics links.

Contract logistics outsourcing arises when an enterprise gives up on the implementation of logistics processes in its structure and passes it to an unrelated, in terms of capital, economic entity on the basis of a contract, i.e. an agreement or contract. The content of the contract depends on the subject of the agreement, interests of the parties and nature of the relationship the client wants to build with the supplier. On the other hand, the capital logistics outsourcing consists in the fact that the enterprise creates an entity affiliated in terms of capital, but independent, working at its own risk and on its own account, which provides for that enterprise determined services. Capital outsourcing is associated with a change from the organizational subordination and influence to the capital subordination and influence of ownership (Radło, 2013, p. 35). This solution guarantees the safety of implementation of dedicated logistics processes.

In order to enable logistics outsourcing bring the planned benefits, it has to be carefully considered and professionally implemented. In the literature of the subject, the general feeling is that the enterprise should not outsource its key competencies. If logistics constitutes an outstanding potential of the enterprise, enabling the achievement of the strategic market and economic effects, it should not be outsourced (Jeszka, 2013, pp. 86–87; Matwiejczuk, 2013, p. 125). The enterprise entrusting the logistics provider implementation of the logistics processes expects to achieve determined benefits and, consequently, increase its competitiveness.

Research on logistics outsourcing conducted among logistics managers in 2015 by Appgaration Company, eCommerce Connections Cluster and Letson Company led to the conclusion that enterprises primarily outsource logistics to reduce costs maintaining or improving, at the same time, the quality of logistics processes and as a result of lack of willingness to build the internal resources of the company (Appgaration, eCommerce Connections, Letson, 2016, pp. 70–73). Nearly half of the logistics managers, apart from reducing costs, expected that the logistics service provider would introduce innovations and build an advantage of the enterprise on the market. The great importance of logistics outsourcing in operation of Polish

enterprises has been confirmed by growing revenues of most of the companies participating in the TSL ranking of companies in 2015 (Brdulak, 2016, p. 4). The mentioned research on logistics outsourcing shows that many logistics managers intended, in the upcoming year, reintegrate into the enterprise customer service (47.0%), transport planning and management (31.0%) and managing warehouse processes (25.0%). Logistics managers being aware of the great influence of logistics processes on the enterprise effectiveness, in case of not meeting the expectations associated with the logistics outsourcing, should renegotiate the contract, change the service provider or reintegrate the released processes into the enterprise.

Contemporary enterprises strive to achieve benefits associated with the access to the global market through offshoring, which consists in outsourcing production, services and business processes or parts of them overseas. Making decision about offshoring, logistics managers strive primarily to reduce costs and achieve access to knowledge, latest technologies and new markets. Currently, it is emphasized that offshoring causes increased transport and environmental costs, reduction in quick response ability, higher costs in case of unexpected circumstances, greater difficulties associated with management, risk of losing control over processes, risk associated with intellectual property, risk of charges for non-compliance with rules of corporate social responsibility, pressure to keep the jobs in the country and cultural barriers, which may cause that outsourcing of logistics processes is more profitable to places which are closer to the sales markets (Livanis, Robertson, Al-Shuaibi & Hussain, 2016, pp. 51–87; Mykhaylenko, Motika, Waehrens & Slepniiov 2015, pp. 262–283; Khan & Lacity, 2012, pp. 166–179). The majority of allegations associated with offshoring logistics processes refers to the ineffective supply chain management (Laskowska-Rutkowska, 2015, pp. 350–361). Increase in the supply chain flexibility, effective risk management associated with logistics processes and appropriate supplier relationship management can eliminate problems related to offshoring and help to achieve the desired effectiveness.

Methods of testing the effectiveness of logistics processes are very diverse. Their number, scope and applicability arise from the nature of the enterprise, its strategy and purpose of the research. The basic dimensions of the concept of logistics effectiveness in the enterprise include: marketing, economic, managerial, potential, procedural and synergetic dimensions (Bendkowski & Kramarz, 2011, pp. 436–452; Blaik, 2015, p. 25). The quantified assessment of outsourcing in terms of cost savings, benefits not connected with costs and risk assessment should be the main criterion during deciding about logistics outsourcing. There are four groups of indicators used to evaluate the effectiveness of outsourcing logistics processes: changes in costs, changes in profitability, changes in turnover and changes in break-even point (Szukalski, 2016, pp. 49–59). Comparison of changes in cost indicators allows for the assessment of savings in the area of operating costs resulting from the logistics outsourcing. Analysis of changes in profitability ratios allows for the assessment of influence of logistics outsourcing on the profit achieved by the enterprise. Turnover ratios allow for the evaluation of effectiveness

of logistics outsourcing if the outsourcing of logistics processes causes a change in the value of assets. Analysis of the break-even point before and after logistics outsourcing allows for the assessment of profitability of the outsourcing. Lowering the break-even point constitutes a beneficial change. Analysis of the risk associated with the outsourcing of logistics processes should be carried out in the following areas: operational risk arising from the possibility of losing control over logistics processes, access of the external entity to the confidential data, risk associated with a choice of the logistics service provider, risk associated with a quality of logistics services and consequences for errors in the outsourced logistics processes, risk associated with protection of the confidential data of the enterprise and risk associated with organizational changes in the company.

The most common is the transaction cost approach towards outsourcing, in which each company is focused on what is best for them instead of cooperating with other parties of the contract in order to pursue common goals. Contemporary enterprises should apply a model of the engaged outsourcing establishing a longer lasting agreement, in which effective outsourcing is based on the optimization of three key objectives: innovation and a higher level of services, cost reduction in the company using outsourcing and increased profits for the supplier. The aim of the model of the engaged outsourcing is the effective partnership and achievement of the objectives set by the parties of the contract (Vitasek, 2016, pp. 126–138). Finding an agreement that would balance risk and benefits of the service provider and customer, and taking into account the incentive system for both parties is not a simple task (Nowicka, 2015, pp. 6–13).

Enterprises which outsource the logistics processes should develop an evaluation system of outsourcing effectiveness and permanently monitor the adopted measures of effectiveness. This motivates service providers to take actions adjusting offered logistics services to the requirements of the service recipients, develop cooperation, introduce innovations and find ways to reduce costs improving, at the same time, a quality of the applied solutions.

The effectiveness of logistics outsourcing depends mainly on the appropriately identified areas that can be outsourced, selection of the right partner possessing sufficient infrastructure and experience, correctly identified requirements, common vision of cooperation, appropriate flow of information between the service provider and service recipient, relationship management with the supplier, process of buyer-supplier cooperation and fulfilment of determined requirements (Lazzarotto, Borchardt, Pereira & Almeida, 2014, pp. 178–194; Yang, Wacker & Sheu 2012, pp. 4462–4476; Kłos, 2009, pp. 102–104). The service recipient and service provider have to demonstrate a high degree of flexibility in relation to the need to change or modify the assumptions of their cooperation which result from collaboration in permanently changing market conditions.

Enterprises achieving competitive advantage by using logistics outsourcing: reduce internal logistics costs, cooperate with logistics operators in order to optimize logistics costs, establish cooperation based on partnership, possess extended know-

ledge of the qualitative factors of logistics processes, constantly monitor the assessment indicators of their partners and providers of logistics services, skilfully manage the outsourcing assigning a leader and teams responsible for the strategy of logistics operations. Enterprises reaching high effectiveness of logistics outsourcing are distinguished by innovative approaches to the supply chain organization, uniqueness of the supply chain organization, practical skills of cooperation to improve logistics processes, understanding the qualitative and quantitative limitations in the supply chain, engagement in the logistics processes and business reliability (Eurologistics, Data Group Consulting, 2016, p. 42). Logistics outsourcing can help to improve financial liquidity, increase return on sales, return on assets, return on investment and, consequently, increase the profitability of operations and profitability of invested capital, which translates into an increase in the profitability of the enterprise.

3. RESEARCH METHODOLOGY

The aim of the empirical research presented in the article was to analyse the outsourcing of logistics processes in enterprises of north-eastern Poland. The research was conducted in 2016, a direct interview method with people responsible for logistics processes in the surveyed companies based on a developed questionnaire was used for its implementation. The conducted research covered years from 2013 to 2015. The study involved 172 small, medium and large enterprises from north-eastern Poland outsourcing logistics processes in 2013–2015. The study involved manufacturing, trade and service enterprises characterized by a diversified competitive position on the market.

The largest part of the surveyed population constituted small enterprises (47.1%). Medium enterprises constituted 32.0% of the surveyed sample. The lowest percentage in the surveyed group had large companies (20.9%). Trade enterprises constituted 37.2% of the surveyed companies (15.1% small, 13.4% medium, 8.7% large trade enterprises). Manufacturing enterprises constituted 33.7% of the surveyed population (18.0% small, 8.1% medium, 7.6% large manufacturing enterprises). The smallest percentage of the surveyed sample of the enterprises (29.1%) had service enterprises (14.0% small, 10.5% medium, 4.6% large service enterprises).

Research results presented in the article relate to the selected aspects of logistics outsourcing in the surveyed enterprises in 2013–2015.

4. LOGISTICS OUTSOURCING IN THE SURVEYED ENTERPRISES – ASPECTS OF EFFECTIVENESS

The importance of logistics in activities of the surveyed enterprises was the object of the research. The vast majority of the respondents indicated that in years 2013-2015 activities and logistics solutions had a significant influence on the reduction in operating costs of the enterprise (72.1%). In most of the surveyed companies logistics had a significant influence on: increase in financial liquidity of the enterprise (55.8%), increase in operating incomes (53.4%), increase in resource productivity (52.3%) and increase in flexibility of the enterprise (50.6%). Further, the research participants indicated that logistics has a significant influence on: reduction in transport costs (49.4%), storage costs (45.3%) and inventory costs (40.1%).

According to the majority of the respondents (57.6%), operations and logistics solutions have a significant influence on the creation of competitive advantage of the surveyed enterprises. Almost in every fourth examined enterprise (23.8%), logistics is a tool for sustainable development. In 21.5% of the surveyed population, activities and logistics solutions had a significant influence on the value of the enterprise. Most participants of the research (41.9%) indicated that logistics processes are being developed as a part of the logistics system of the enterprise. 35.0% of the surveyed companies competed through the supply chain, within which enterprise cooperated with organizations participating in the process of delivering the product or service to the customer. In these enterprises, operations and logistics solutions were used to coordinate flow of materials and information throughout the whole supply chain. The lowest percentage in the research population (22.6%) constituted companies in which applied operations and logistics solutions were merely a reaction to the market conditions.

Analysis of the research results allowed for the conclusion that in years 2013–2015 the objects of logistics outsourcing were logistics processes associated with the following areas of activity of the surveyed enterprises: delivery of the final products in the country (50.6%), implementation of procurement transport (48.3%), reverse logistics – repairs, returns, recycling (32.6%), delivery of the final products outside the country (26.2%), information technology (21.5%), carrier selection (19.8%), storage (18.0%), packaging (11.0%), acquisition of logistics information (9.3%), inventory management (7.0%) and production (5.2%).

The respondents were asked to identify a type of logistics outsourcing used in the surveyed companies. The analysis of the empirical material shows that the vast majority of the enterprises (86.6%) in 2013–2015 used contract outsourcing. Capital outsourcing was used by 9.3% of the surveyed companies. The participants of the research from enterprises using capital logistics outsourcing emphasized that logistics has a significant influence on the results of the enterprise, thus, the enterprise has to be able to control logistics processes. The smallest percentage of the research population constituted enterprises using offshoring (4.1%). The vast ma-

jority of the surveyed companies did not attain benefits associated with the access to the global market.

The author analysed relationships of the surveyed enterprises with companies providing logistics services. The vast majority of the surveyed companies (62.2%) applied a transactional approach to logistics outsourcing and focused on implementation of their own goals. 25.6% of the respondents indicated that the surveyed enterprises try to cooperate with logistics service providers to achieve a higher level of service and balance, at the same time, benefits and risks of both parties. Only 12.2% of the respondents indicated relations of the surveyed companies with logistics service providers as a partnership. All companies using capital outsourcing strived to balance benefits and risks of both parties.

Motives for using logistics outsourcing in the surveyed enterprises in 2013–2015 were the object of the research. The motives for using logistics outsourcing most often indicated by respondents were: striving for cost reduction (77.3%), increase in customer satisfaction (66.3%), changing customer requirements and striving for increase in enterprise flexibility (52.9%). Subsequently, the following factors determining the outsourcing of logistic processes were mentioned: optimization of logistics costs (40.1%), reduction in capital expenditure (36.0%), possibility to focus on the core business (35.0%), high competencies of logistics companies (34.3%), reduction in economic risk (32.0%), new products and markets (32.0%), transition from fixed costs to variable costs (29.7%), possibility to use licenses and permits held by the logistics service provider (27.9%), simplifying the supply chain (23.8%). Analysis of the research results allowed for the conclusion that current market conditions make logistics outsourcing the main reason in striving to reduce costs, delivering better customer service and responding as fast as possible to changing market conditions.

The author analysed the actual benefits achieved by the surveyed enterprises through outsourcing the logistic processes in 2013–2015. The benefits of logistics outsourcing most often indicated by respondents include: reduction in costs (67.4%), increase in customer satisfaction (51.1%), time saving (48.3%), improvement of enterprise flexibility (40.7%), optimization of logistics processes (35.5%), possibility to focus on the core business (34.3%) and timely delivered services (33.1%). Next benefits of logistics outsourcing most often indicated by the respondents include: reduction in capital engagement (30.2%), reduction in capital expenditure (29.7%), usage of licenses and permits held by the logistics service provider (26.7%), reduction in economic risk (26.2%), usage of high competencies of logistics companies to create competitive advantage (24.4%) and usage of modern technologies (23.3%).

The respondents were asked to indicate key problems associated with logistics outsourcing in the surveyed companies. Analysis of the results allowed for the conclusion that in the opinion of the participants of the research the key problems associated with outsourcing logistics processes were: dependence on the service provider (44.2%), higher costs than expected (40.1%), lack of control over some

important processes (38.4%), failure to meet expectations (27.3%), difficulties in maintaining the quality level in accordance with company's requirements (26.2%) and failure to execute the service on time (23.3%). Subsequently, the respondents mentioned the following key problems related to logistics outsourcing: the difficulties in choosing a partner (19.8%), problems with coordination and communication (16.3%), shipment damage (15.7%), organizational changes (15.1%), badly formulated outsourcing contract (11.0%), loss of a parcel (9.3%), loss of competencies and uncontrolled outflow of information from the enterprise (8.7%). Only 12 out of 172 respondents (7.0%) indicated that cooperation with the logistics service provider in the analysed period was associated only with the benefits for the enterprise. Enterprises using logistics outsourcing verify the consistence of the offer of the logistics service provider with the results. However, the vast majority of the surveyed companies (80.2%) do not make the comprehensive and permanent evaluation of the effectiveness of the outsourced logistics processes.

Almost every third respondent (33.1%) indicated that the key factor favourably affecting the optimization of logistics processes in the enterprise was logistics outsourcing. On the other hand, however, 15.7% of the research participants indicated that logistics outsourcing constituted a key barrier in striving for optimization of logistics processes. According to 41.9% of the research participants, in logistics still lies a great potential for improvement. Respondents most often indicated the following motives for logistics outsourcing: striving to reduce costs, delivering better customer service and responding as fast as possible to changing market conditions. The vast majority of the surveyed enterprises applied the transactional approach to logistics outsourcing and focused on the achievement of their own goals. The majority of the enterprises realized the established objectives of the logistics outsourcing, which contributed to reducing the enterprise's costs, generating higher sales revenue, increasing resource productivity and improving financial liquidity, and consequently, increasing profitability of operations and profitability of the invested capital. It should be emphasized, however, that in many of the surveyed enterprises logistics outsourcing did not bring the expected results, was associated with higher costs than expected and resulted in negative consequences in the process of shaping enterprise effectiveness. The vast majority of the surveyed enterprises did not make the comprehensive and permanent evaluation of the effectiveness of the outsourced logistics processes, which impeded their effective creation.

5. CONCLUSION

The conducted studies have confirmed that logistics processes have a significant influence on the competitiveness of contemporary enterprises, what causes that it is necessary to continuously care for the improvement of the effectiveness of these processes. The analysed enterprises that decided to outsource logistics strived pri-

marily to reduce costs, improve customer service and respond as quickly as possible to the changing market conditions. Most of the examined enterprises have realized the established objectives of the logistics outsourcing. On the other hand, however, only less than 10% of the respondents indicated that cooperation with the logistics service provider did not bring additional problems. The research shows that the key factors associated with the logistics outsourcing, significantly determining the effectiveness of the surveyed entities, were: detailed analysis of the decision about outsourcing; taking the quantified assessment of the logistics outsourcing as the main criterion while making decision about this outsourcing from the point of view of: cost savings, other benefits and risk assessment; selection of the appropriate supplier of logistics services; cooperation with the service provider and other links of the supply chain aimed at the maximization of the benefits and reduction of the risk of the enterprise and entire supply chain; establishing own evaluation system of the effectiveness of outsourcing; constant monitoring of the effects of activities of logistics service providers and willingness to change and modify the established assumptions of the cooperation. It is obvious that the presented results of the empirical research concern the conditions and circumstances of a particular population of enterprises; moreover, studies carried out by various research centres confirmed some of these results. Nevertheless, generalization of the conclusions of this study to the entire population of enterprises requires further extended and deepened research on the subject.

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REFERENCES

- Appgaration, eCommerce Connections, Letson, (2016), Wyniki badania outsourcing logistyki, *Logistyka a Jakość*, No. 1, pp. 70–73.
- Bendkowski J., Kramarz M., (2011), *Logistyka stosowana. Metody, techniki, analizy. Część II*, Wydawnictwo Politechniki Śląskiej, Gliwice.
- Blaik P., (2015), *Efektywność logistyki. Aspekt systemowy i zarządczy*, Polskie Wydawnictwo Ekonomiczne, Warszawa.
- Brdulak H., (2016), Ranking firm TSL, *Gazeta Prawna*, No. 122, pp. 1–20.
- Dyczkowska J., (2014), *Marketing usług logistycznych*, Difin, Warszawa.
- Engler T., (2012), *Steuerung der Effizienz und Effektivität im Vertrieb zur Unternehmenswertsteigerung*, Diplomica Verlag, Hamburg.
- Eurologistics, Data Group Consulting, (2016), *Supply Chain Designer 2015*, Eurologistics, No. 1.

- Foltys J. (2012), Outsourcing w przedsiębiorstwach sektora MŚP. Scenariusz aplikacyjny, Wydawnictwo Uniwersytetu Śląskiego, Katowice.
- Gąsowska M. K., Logistics outsourcing – results of the research, *Research in Logistics & Production*, Vol. 5, No. 1., pp. 33–41.
- Jedliński M., (2015), Logistyczna optyka w biznesie - panaceum pewności wobec ekonomii niepewności?, J. Witkowski, A. Skowrońska (Eds.), *Strategie i logistyka w warunkach kryzysu*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław, pp. 41–52.
- Jeszka A. M., (2013), *Sektor usług logistycznych w teorii i w praktyce*, Difin, Warszawa.
- Khan S. & Lacity M., (2012), Survey results: are client organizations responding to anti-offshoring pressures?, *Strategic Outsourcing: An International Journal*, Vol. 5, No. 2, pp. 166–179.
- Kłos M., (2009), *Outsourcing w polskich przedsiębiorstwach*, CeDeWu, Warszawa.
- König A. & Spinler S., (2016), The effect of logistics outsourcing on the supply chain vulnerability of shippers, *The International Journal of Logistics Management*, Vol. 27, No. 1, pp. 122–141.
- Laskowska-Rutkowska A., (2015), Blaski i cienie offshoringu, J. Witkowski, A. Skowrońska (Eds.), *Strategie i logistyka w warunkach kryzysu*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław, pp. 350–361.
- Lazzarotto B. O., Borchardt M., Pereira G., Almeida C., (2014), Analysis of management practices in performance-based outsourcing contracts, *Business Process Management Journal*, Vol. 20, No. 2, pp. 178–194.
- Livanis G., Robertson Ch. J., Al-Shuaibi K. M. & Hussain K., (2016), Outsourcing destination choices: the role of economic and cultural attributes, *International Marketing Review*, Vol. 33, No. 1, pp. 51–87.
- Matwiejczuk R. (2013), Kompetencje logistyki jako czynniki determinujące zmiany w zarządzaniu przedsiębiorstwem, P. Blaik, A. Bruska, S. Kauf, R. Matwiejczuk, *Logistyka w systemie zarządzania przedsiębiorstwem*, Polskie Wydawnictwo Ekonomiczne, Warszawa, pp. 120–150.
- Mykhaylenko A., Motika Á., Wachrens B. V. & Slepniov D., (2015), Accessing offshoring advantages: what and how to offshore, *Strategic Outsourcing: An International Journal*, Vol. 8, No. 2/3, pp. 262–283.
- Niedzielski P., Wojewódzka-Król K. & Załoga E., (2016), Nowe wyzwania stojące przed transportem, K. Wojewódzka-Król, E. Załoga (Eds.), *Transport. Nowe wyzwania*, Wydawnictwo Naukowe PWN, Warszawa, pp. 11–49.
- Nowicka K., (2015), Outsourcing: kontrakt – konfrontacja – kompromis – korzyści, *Gospodarka Materialowa i Logistyka*, No. 3, pp. 6–13.
- Radło M. J., (2013), Offshoring i outsourcing. Implikacje dla gospodarki i przedsiębiorstw, Szkoła Główna Handlowa, Warszawa.
- Radło M. J., (2011), Outsourcing w strategiach przedsiębiorstw, D. Ciesielska, M. J. Radło (Eds.), *Outsourcing w praktyce*, Poltext, Warszawa, pp. 13–31.
- Szukalski S. M., (2016), Metody oceny efektywności rozwiązań outsourcingowych, *Ekonomika i Organizacja Przedsiębiorstwa*, No. 2, pp. 49–59.
- Vitasek K., (2016), Strategic sourcing business models, *Strategic Outsourcing: An International Journal*, Vol. 9, No. 2, pp. 126–138.

- Witkowski J., (2008), Uwarunkowania i perspektywy rozwoju outsourcingu logistycznego w Europie, E. Gołemska, M. Schuster (Eds.), *Logistyka międzynarodowa w gospodarce światowej*, Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań, pp. 79–87.
- Yang Ch., Wacker J. G. & Sheu Ch., (2012), What makes outsourcing effective? A transaction-cost economics analysis, *International Journal of Production Research*, No. 16, pp. 4462–4476.

BIOGRAPHICAL NOTES

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