LogForum

> Scientific Journal of Logistics <

2016, 12 (3), 215-224

DOI: 10.17270/J.LOG.2016.3.3

http://www.logforum.net p-ISSN 1895-2038 e-ISSN 1734-459X

ENTERPRISES' READINESS TO ESTABLISH AND DEVELOP COLLABORATION IN THE AREA OF LOGISTICS

Marcin Świtała

University of Economics in Katowice, **Poland**

ABSTRACT. **Background:** Despite the large number of studies on various aspects and forms of supply chain collaboration, the issue is still classified as a relatively poorly recognized research problem in the logistics field. This article is crucial in the discussion on the further directions for the development of cross-organizational collaboration. The main objective of these studies was to assess the readiness of companies to start and develop vertical and horizontal collaboration within logistics.

Methods: The research problem was analysed on the basis of primary and secondary data sources. Primary research was conducted among manufacturing and trade companies as well as logistics service providers. In the statistical description the Mann-Whitney U test and Wilcoxon test were used. It was assumed that the result was statistically significant for $p<0.05$.

Results: The results show a high readiness of the companies surveyed for further vertical integration and two variables had a statistically significant effect on the assessment of the respondents, i.e. the current level of integration and the role the respondents played in the supply chain. As far as horizontal cooperation is concerned, the readiness of the companies surveyed for further integration was slightly above the average level. Compared to vertical collaboration, the difference between the average rating was statistically highly significant.

Conclusions: The study indicates the need for the companies surveyed to be involved in logistics collaboration. However, it should be emphasized that the respondents prefer collaboration with companies which do not operate at the same level in the supply chain. As far as horizontal collaboration is concerned, the results can be explained by a number of concerns expressed by the respondents regarding the behavior of potential collaborators. Apparently, in this case, an individual approach with a competitive attitude dominates among the respondents.

Key words: logistics collaboration, supply chain collaboration, vertical and horizontal collaboration.

INTRODUCTION

Supply chain collaboration has become the subject of many research papers over recent years [e.g. Scholten et al. 2015, Pomponi et al. 2015, Soosay et al. 2015, Montoya-Torres et al. 2014, Kohli et al. 2010]. Based on the results of these studies, it can be assumed that companies are aware of the need for collaboration and the main triggers leading to this type of activities are current supply chain challenges, e.g.: visibility, cost reduction, growing customer demand and globalisation [Miryala et al. 2015]. Basically, companies decide to collaborate due to their inability to address these challenges alone.

The results of several studies, including research conducted by Soosay and Hyland [2015], based on the analysis of the content of 207 scientific articles on cross-organizational collaboration, show how important and currently relevant this issue is. The authors' analysis revealed that despite major academic efforts in this area, the concept of supply chain collaboration is still not well understood. A similar opinion was also expressed by

Citation: Świtała M., 2016, Enterprises' readiness to establish and develop collaboration in the area of logistics. LogForum 12 (3), 215-224, DOI: 10.17270/J.LOG.2016.3.3

URL: http://www.logforum.net/vol12/issue3/no3

Accepted: 17.6.2016, on-line: 7.07.2016.

Holweg et al. [2005]. Furthermore, it should be emphasized that according to many researchers [Pomponi et al. 2015, Adenso-Díaz et al. 2014, Leitner et al. 2011], horizontal collaboration remains an area very poorly recognizable.

Taking into account the above arguments, this article aims to fill this knowledge gap and provide empirical evidence on the readiness of companies to establish and develop collaboration in logistics. According to the author, the study is one of the first which at the same time provides insight into both horizontal and vertical collaboration from the perspective of two supply chain members.

The article is organized as follows. In the theoretical part based on the research literature, three stages of the supply chain partnership are presented, with special emphasis on collaboration which requires a deeper integration between chain members compared to cooperation and coordination. Then, some of directions in which collaboration takes place are distinguished, also paying attention to collaboration occurring between supply chain links and LSPs. In the empirical part, the article presents the methodology and results of primary research conducted among manufacturing, trade companies and LSPs. The main conclusions, limitations and directions for further research are also presented.

TOWARDS SUPPLY CHAIN COLLABORATION- THEORETICAL APPROACH

Inter-firm relationships can take various forms. Partnership based on the principles of cooperation is considered to be the basic level of supply chain integration. Usually, this type of cooperation is limited to joint implementation of a narrow range of selected functions. In addition, two other forms of supply chain integration are worthy of consideration: coordination and collaboration [Kotzab et al. 2005]. In the first case, the companies that are willing to achieve common goals cooperate involving all necessary business areas, while in the second one it is a matter of even closer cooperation, "closer integration", when the companies treat each other as "an extension" of their organization [Świerczek 2012]. It should be emphasized that the strength of inter-organizational ties is largely defined by the supply chain members' compatibility towards collaboration. Research by Cruijssen et al. [2007] shows that the choice of partner is of vital importance here and affects the success or failure of collaborative efforts.

There are many definitions of collaboration in the literature of supply chain management. Generally speaking, collaboration is a specific type of long-lasting activity that companies perform together in multiple areas of supply chain management. In particular, a movement towards collaboration requires openness and trust among all partners. [Olorunniwo et al. 2010]. It should be also noted that many scholars consider successful collaboration as a achievement of benefits which can't be reached in a independent way [Niestrój et al. 2015]. A good example of this point of view is the definition proposed by Soosay and Hyland [2015], who understand the concept of collaboration as: "two or more companies working together to create a competitive advantage and higher profits than can be achieved by operating alone". Apart from these motives for collaboration, there are other benefits listed in the literature, i.e.: increased customer satisfaction, shorter lead times, better information visibility and a clearer division of responsibilities among partners [Kohli et al. 2010]. What's more, Kohli et al. [2010] provide empirical evidence that firms which collaborate extensively tend to value the effectiveness of collaboration more highly. Interesting research findings are also cited by Latusek-Jurczak [2011], who indicates that entities generate approximately 25-33% of their current market value thanks to cross-organization collaboration.

Supply chain collaboration may have two directions, i.e. horizontal and vertical. The first refers to collaboration between the units with a similar business profile. In practice, these are companies that are on the same level of the supply chain. This form of relationship is often called coopetition or cooperation between competitors. Wallenburg and Schafller [2016] emphasize that horizontal collaboration is a common practice among LSPs who form alliances to meet the growing expectations of supply chain members. Similar conclusions were formulated by Verstrepen et al. [2009], who indicated that through this kind of collaboration LSPs can enjoy many benefits, e.g.: increases the company's productivity on core activities and extending geographical coverage by combining the networks of all LSPs. However, according to Soosay and Hyland [2015], in this case, the scope of horizontal collaboration is largely limited to transportation management.

As far as vertical collaboration is concerned, it is a collaboration established by adjoining businesses. A good example of such collaboration is the dyadic buyer-supplier relation. The literature of logistics also distinguishes lateral collaboration, which is a combination of two of the above-mentioned types [Kersten et al. 2010]. For example, this form of collaboration occurs when a supplier supplies both the customer and the customer's supplier at the same time [New et al. 2004].

An important issue is the collaboration established between the key supply chain links and LSPs. Research shows that the competences of LSPs make them an attractive partner for logistics collaboration [Świtała et al. 2015]. Basically, collaboration with LSPs has a positive effect on the efficiency of logistics performance, which in turn translates into the increased competitiveness of supply chains. Most importantly, as Rydzkowski noted [2011], those inter-firm relations should be based on partnership and mutual trust.

RESEARCH MATERIAL AND METHODS

The research was conducted in 2015 on a sample of 50 business entities. This sample was chosen in a targeted manner. 850 e-mail invitations were sent. Less than 6% of the addressees responded to the invitation. The participants filled out an online questionnaire.

The research questionnaire consisted of several closed questions organized in three topic areas. The first part included two 5-grade ordinal scales and one nominal scale. These scales were used to find out respondents' opinions on the previous conditions of their partnerships in logistics. The second part of the questionnaire included questions designed to assess the degree of readiness of the entities to start building closer collaboration in logistics, and used 5-stage ordinal scales. The last part included questions about the respondents in the form of ratio and nominal scales.

When developing the results, the version 22.0 of SPSS software was used, and for statistical analysis descriptive statistics methods were used, in particular, measures of central tendency and dispersion, as well as two kinds of non-parametric test (the Mann-Whitney U test and Wilcoxon test). The result of $p < 0.05$ was statistically significant.

The respondents were dominated by representatives of the key supply chain links (60%), i.e. manufacturing companies (26%) and trading companies (34%). LSPs, the so-called supporting (specialized) participants, accounted for 40% of the research sample.

The first group was dominated by businesses employing over 250 people. Workers employed in the SME sector accounted for just over 40% of the population. The research was dominated by companies with domestic capital (46%). Foreign capital was declared by 39% of the respondents, and mixed capital by 14%. In terms of the geographical coverage, the segment was dominated by companies operating globally and internationally. On the other hand, activities in the domestic market were indicated by 27% of the research participants. According to the results, all survey entitles outsourced their logistics to external LSPs. The FMCG industry was the main area of these activities.

The group of LSPs was also dominated by large companies. Small and medium-sized companies represented 40% the research sample. The research population was dominated by companies operating internationally (45%). 40% of the respondents were global logistics service providers, and 15% service providers operating on the domestic market. The most numerous group comprised companies with Polish capital

(50%). Foreign capital was declared by 40% of the respondents and mixed capital by 10%. In this case, the highest percentage of entities operated in the FMCG industry (90%).

In both cases, companies participating in the research were represented by senior and mid-level managers responsible for logistics and trade.

RESEARCH RESULTS

The readiness of enterprises to start and develop collaborative relationships (a vertical perspective)

The research findings confirm the readiness of the entities surveyed to become involved in collaboration systems. Specifically, the research participants were asked the following question: "Do you agree with the opinion that while working together with other companies you can accomplish more than by acting alone?". When answering this question, as many as 60% of the respondents chose "I strongly agree" and a total of 92% of the sample confirmed the view of collaboration being superior to a lack of it. The distribution of responses clearly shows a high level of support for organizing and implementing joint activities. It needs to be emphasized that no opposing opinions were recorded in the research and only 8% of the respondents chose the answer "neither disagree nor agree". This high level of support can be explained to a large extent by the positive experience of the respondents in the area of collaboration (the vast majority of responses indicate the existence of a partnership form between all participants in the supply chain).

Against this background, it is interesting to see the results of research on the readiness of enterprises to integrate more deeply with different participants of the supply chains (Table 1). Interest in strengthening inter-organizational ties dominates in all cases, i.e. in relations with customers, suppliers and subcontractors. Moreover, relatively small standard deviations indicate a small dispersion in these results.

Generally speaking, in each case, the average score on the 5-grade scale oscillated around 4, indicating the respondents' high motivation to establish a partnership with the members of their supply chain, while the most frequently chosen answer confirming a high and very high degree of readiness was the willingness of the respondents to integrate further with cargo recipients (86%). What is important, when compared with the results concerning the development of relationships with suppliers (72%), the difference in the result is statistically significant.

Table 1. Readiness of the respondents to integrate further in the supply chain
Tabela 1. Gotowość respondentów do dalszej integracji w ramach łańcucha dostaw

No	Description	$\bar{x}$	σ	1	2	3	4	5	Total
				Very low	Low	Average	High	Very high	
				%					
1.	In collaboration with suppliers	3.84	0.91	2.0	6.0	20.0	50.0	22.0	100.0
2.	In collaboration with customers	4.18	0.85	2.0	2.0	10.0	48.0	38.0	100.0
3.	In collaboration with subcontractors	4.00	0.85	0.0	6.0	18.0	46.0	30.0	100.0
Statistical description: 1.1.-1.2. Z=-2.456, p=0.01*; 1.1.-1.3. Z=-1,095 p=0.274; 1.2.-1.3. Z=-1.578 p=0.115.									

This research also shows that the eagerness to integrate further is not varied between subgroups distinguished in terms of the type of business activity, the origin of the capital or geographical coverage. To some extent this is determined by the current level of integration and the role played by the entity in the supply chain. It transpires that the respondents indicating a partnership model express greater readiness to develop relations with their partners than companies declaring the transactional approach. This is particularly evident when analyzing the results showing the tendency of respondents towards further integration with cargo suppliers, where the average score in the first group was 4.09, while in the second this stood at 3.31. The Mann-Whitney U test results prove that these differences are highly statistically significant (U=126.000, **p=0.001). Statistically significant differences in the responses are also seen between the key and supporting participants in the supply chain (Figure 1).

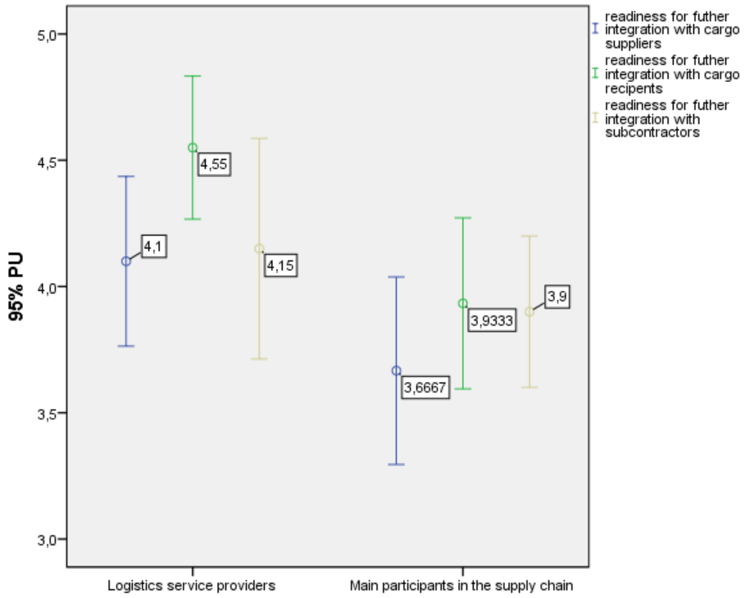

Fig. 1. Readiness of respondents for further integration, taking into account the role played by them in the supply chain
Rys. 1. Gotowość respondentów do dalszej integracji z uwzględnieniem roli pełnionej w łańcuchu dostaw

The respondents were also asked to identify the areas of logistics in which they would be ready to undertake collaboration. Their opinions revealed that the highest readiness to collaborate was recorded in the field of reverse logistics related to waste transportation, storage, recycling and disposal. It should be noted that so far these actions have not often constituted the subject of logistics outsourcing. Additionally, over 80% of the respondents declared high and very high readiness for further integration in the field of transportation and storage. The respondents are also interested in logistics collaboration in the field of research and development. In this case, they mean the joint implementation of logistics projects. At the same time, as many as ⅔ of the respondents were in favor of implementing a set of modular containers. In this regard, the majority of the respondents declare very high interest in the new delivery system, thanks to which their vehicles, railway wagons or sea containers can be loaded more fully and which at the same time will reduce the time of handling operations.

The readiness of enterprises to start collaboration with competitors

Collaboration based on the principle of full integration also includes relationships occurring between competitors, and therefore it applies to collaboration between the main links acting at the same stage of the supply chain, as well as between LSPs providing services to these entities. Among the total number of enterprises, the average score in the 5-grade scale was 3.33, which means that the eagerness to enter into relationships with competitors is at a slightly above average level. For comparison, the readiness to become engaged in deeper collaboration with non-competing entities was 4.47 (Figure 2). The results of the Wilcoxon test show that the difference between the average score is highly statistically significant (Z=-3.632, p=0.000**). At the same time, it is worth noting that similar results were recorded in the group of LSPs (3.45) and in companies representing the main supply chain links (3.23). As we can see, the difference in the assessment is small and not statistically significant (Table 2).

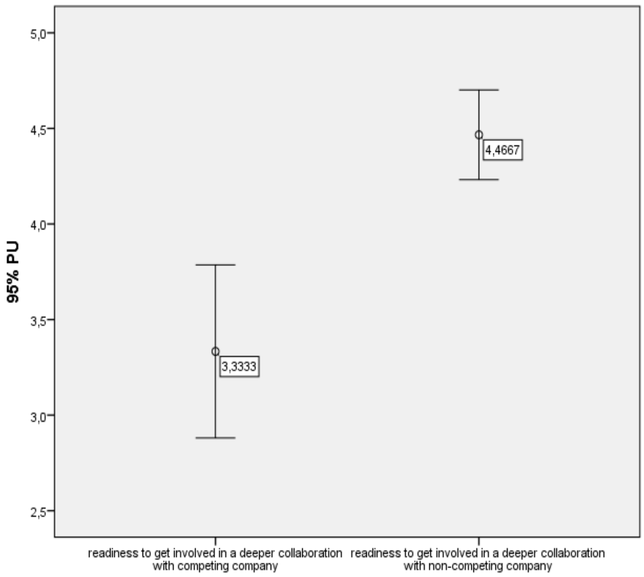

Fig. 2. Preferences of collaboration with the participants of supply chains
Rys. 2. Preferencje w zakresie współpracy z uczestnikami łańcucha dostaw

Table 2. Readiness of the respondents to enter into horizontal collaboration
Tabela 2. Gotowość respondentów do zaangażowania się we współpracę horyzontalną

No	Description	$\bar{x}$	σ	Main participants in the supply chain		Supporting participants in the supply chain		Statistical description
				$\bar{x}$	σ	$\bar{x}$	σ	
1.	Readiness to get involved in a deeper collaboration with the competitors	3.33	1.16	3.23	1.21	3.45	1.09	U=270,000, p=0.535
2.	Readiness to share resources with the competitors	3.22	1.22	3.07	1.31	3.45	1.05	U=245,000, p=0.258
3.	Readiness to use resources owned by the competitors	3.32	1.18	3.13	1.30	3.60	0.94	U=234,500, p=0.177

The above results are confirmed by answers to the following questions, which were designed to verify whether the collaborating respondents would be ready to share with other entities their own resources, and whether at the same time they would use the resources owned by collaborating entities. It appears that in this case most opinions focused on the value 3, which indicates that the readiness of respondents to make such decisions is rather limited. This time, however, slightly more pronounced differences between two groups (although not statistically significant) were recorded. Therefore, one can assume that LSPs are slightly more ready to collaborate than production and trade enterprises.

CONCLUSIONS

The paper investigates enterprises' readiness to establish and develop vertical and horizontal collaboration in logistics. The study indicates a need for companies to become involved in logistics collaboration. However, it should be emphasized that the respondents prefer to collaborate with companies which do not operate at the same level in the supply chain.

In terms of vertical collaboration, special attention should be paid to the willingness of the companies surveyed to further develop their collaboration in the area of logistics. The research shows that in all cases analysed, i.e. with respect to transportation, storage, purchasing and inventories, packaging and reverses logistics, the dominance of high prices over low ones is evident, which confirms that closer logistics partnership is needed. The results also show that although in both cases the level of readiness to strengthen relations is relatively high, it seems that the pressure to start and develop logistics collaboration is stronger in the group of LSPs, which may indicate their weaker position in the supply chain.

In the second case, i.e. with regard to horizontal collaboration, the results indicate insufficient preparation on the part of the companies surveyed to share their supply network and logistics operations with competitors. One should note the fact that the respondents' caution to engage in this type of system exists even on the assumption that this collaboration can lead to significant cost savings and will improve competitiveness against other competitors. Importantly, this is evident both in the case of major links of the supply chain, i.e. manufacturing and trading companies, and in the case of LSPs who are generally more open to a closer collaboration. These findings can be explained by the numerous concerns of the respondents regarding the behavior of potential collaborators. On the one hand, this may be a fear that the competitors will gain relevant information on their activities, which will then be used to gain a competitive advantage. On the other hand, the respondents may be unwilling to relinquish control of logistics services. We can guess that in relation to the competitors, the companies surveyed are dominated by an individualistic approach with a focus on enduring rivalry. It seems that this attitude has its sources in the fact that such relationships are characterized by a simultaneous occurrence of two opposing qualities, i.e. trust and conflict [Cygler et al. 2013]. From this point of view, it will be rather difficult for the businesses to achieve a high degree of openness towards horizontal collaboration.

It is worth mentioning that the findings of this study are consistent with those of other studies suggesting the existence of many difficulties in strengthening inter-organizational relationships [e.g. Fawcett et al. 2015, Holweg et al. 2005, Barratt 2004]. Particularly noteworthy are the results of a study conducted by Holweg et al. [2005], who based the study on observation of different collaboration projects, have identified the main factors responsible for the course of collaboration. In this case, the authors draw special attention to the significance of three elements: geographical dispersion of customers and supplier plants, consumer demand and product characteristics (i.e. selling periods, shelf life and market value).

The research described in this paper has several limitations. Firstly, one should note the small size of the survey sample, which adversely affects the accuracy and reliability of the results. This is especially important when interpreting the results of a comparative analysis of the two groups distinguished from the survey sample. Secondly, the scope of the research is limited to the overall assessment of the degree of readiness to work together in ways which are both horizontal and vertical. In terms of the collaboration with competitors, this topic was examined to a lesser extent and certainly requires further exploration. The research did not take into account a wide range of conditions that may affect the decisions of companies taken on the issues raised in this article. More specifically, the determinants that can provide an incentive for the enterprises to start collaboration should be better understood, as well as the factors that may be perceived by the respondents as a barrier to this kind of partnership. It is also important to identify the influence of these factors on the opinions of the companies surveyed. Among the factors that can have a positive impact on the collaboration one can find the following: shorter delivery time, improvements in key logistics indicators, reduction of fixed assets, empty runs, drivers' working time, and also reductions in greenhouse gas emissions. As regards the threats, apart from the aforementioned aspects, more research is needed to understand the determinants adversely affecting the readiness to start collaboration. In this regard, special attention should be paid to the reluctance of companies to make their scarce resources and skills available to others.

REFERENCES

Andenso-Diaz B., Lozano S., Garcia-Carbajal S., Smith-Miles K., 2014. Assessing partnership savings in horizontal cooperation by planning linked deliveries. Transportation Research Part A (66), 268-279. DOI:10.1016/j.tra.2014.05.013.

Barratt M., 2004. Understanding the meaning of collaboration in the supply chain. Supply Chain Management: An International Journal, 9 (1), 30-42. DOI: 10.1108/ 13598540410517566.

Cruijssen F., Cools M., Dullaert W., 2007. Horizontal cooperation in logistics: opportunities and impediments. Transportation Research Part E (43), 129-142. DOI:10.1016/j.tre.2005.09.007.

Cygler J., Aluchna M., Marciszewska E., Witek_Hajduk M.K., Materna G., 2013. The coopetition in the era of globalization - the strategic challenges, legal conditions [Kooperencja przedsiębiorstw w dobie globalizacji - wyzwania strategiczne, uwarunkowania prawne]. Wolters Kluwers, Warszawa, 17.

Fawcett S. E., Mc Carter M. W., Fawcett A. M., Webb G. S., Magnan G. M., 2015. Why supply chain collaboration fails: the socio-structural view of resistance to relational strategies. Supply Chain Management: An International Journal 20(6), 648-664. DOI: http://dx.doi.org/10.1108/SCM-08-2015-0331

Holweg M., Disney S., Holmstrom J., Smaros J., 2005. Supply chain collaboration: making sense of the strategy continuum. European Management Journal 23 (2), 170-181. DOI: http://dx.doi.org/10.1016/ j.emj.2005.02.008.

Kersten W., Blecker T., Luthje C. (eds.), 2010. Pioneering solutions in supply chain management - a comprehensive insight into current management approaches. ESV, Berlin, 142.

Kohli A.S., Jensen J.B., 2010. Assessing effectiveness of supply chain collaboration: an empirical study. Supply Chain Forum: An International Journal 11 (2), 2-16.

Kotzab H., Seuring S., Muller M., Reiner G., 2005. Research metodologies in supply chain management. Physica-Verlag, Berlin, 49.

Leitner R., Meizer F., Prochazka M., Sihn W., 2011. Structural concepts for horizontal cooperation to increase efficiency in logistics. CIRP J. Manuf. Sci. Technol 4 (3), 332-337. DOI: http://dx.doi.org/ 10.1016/j.cirpj.2011.01.009.

Latusek-Jurczak D., 2011. Inter-organizational management [Zarządzanie międzyorganizacyjne]. Wolters Kluwer Business, Warszawa, 12.

Miryala R. K., Reddy V. R., 2015. Trends, challenges and innovations in management. Zenon Academic Publishing, Hyderabad, 154.

Montoya-Torres, J.R., Ortiz-Vargas, D.A., 2014. Collaboration and information sharing in dyadic supply chains: a literature review over the period 2000-2012. Estudios Gerenciales 30 (133), 343-354. DOI: http://dx.doi.org/10.1016/j.estger.2014.05.006.

New S., Westbrook R. (eds.), 2010. Understanding supply chain concepts, critiques and futures, Oxford University Press, New York, 52.

Niestrój K, Świtała M., 2015. The impact of innovativeness of logistics service providers on their relationships with customers. Gospodarka Materiałowa & Logistyka (8), 2-10.

Olorunniwo F.O., Li X., 2010. Information sharing and collaboration practices in reverse logistics. Supply Chain Management: An International Journal 15 (6), 454-462. DOI: http://dx.doi.org/ 10.1108/13598541011080437.

Pomponi F., Fratocchi L., Tafuri S.R., 2015. Trust development and horizontal collaboration in logistics: a theory based evolutionary framework. Supply Chain Management: An International Journal 20 (1), 83-97. DOI: http://dx.doi.org/10.1108/SCM-02-2014-0078.

Rydzkowski W., 2009. Logistics services - theory and practice (Usługi logistyczne - teoria i praktyka), ILiM, Poznań, 28-29.

Wallenburg C.M., Schaffler T., 2016. Performance measurement in horizontal LSP cooperation as a field of conflict: the preventive role of collaborative processes. Logistics Research 9(7): 1-15. DOI: 10.1007/s12159-016-0134-y.

Verstrepen S., Cools M., Cruijssen F., Dullaert W., 2009. A dynamic framework for managing horizontal cooperation in logistics. Int. J. Logistics Systems and Management 5(3), 228-248. DOI: http://dx.doi.org/10.1504/IJLSM.2009.022497.

Scholten K., Schilder S, 2015. The role of collaboration in supply chain resilience. Supply Chain Management: An International Journal 20(4), 471-484. DOI: http://dx.doi.org/10.1108/SCM-11-2014-0386.

Soosay C.A., Hyland P., 2015. A decade of supply chain collaboration and directions for future research. Supply Chain Management: An International Journal 20 (6), 613-630. DOI: http://dx.doi.org/10.1108/SCM-06-2015-0217.

Świerczek A., 2012. The risk management in the transmission of disruptions in supply chain collaboration (Zarządzanie ryzykiem w transmisji zakłóceń we współdziałaniu przedsiębiorstw w łańcuchach dostaw), UE, Katowice, 128.

Stank, T. P., Keller, S. B., Daugherty, P. J., 2001. Supply chain collaboration and logistical service performance. Journal of Business Logistics 22(1), 29-48. DOI: 10.1002/j.2158-1592.2001.tb00158.x.

Świtała M., Klosa E., 2015. The determinants of logistics cooperation in the supply chain - selected results of the opinion poll within logistics service providers and their customers. LogForum 11 (4), 329-340. DOI: 10.17270/J.LOG.2015.4.2.

GOTOWOŚĆ PRZEDSIĘBIORSTW DO PODJĘCIA I ROZWOJU KOLABORACJI W OBSZARZE LOGISTYKI

STRESZCZENIE. **Wstęp:** Pomimo dużej liczby badań poświęconych różnym aspektom i formom współpracy zachodzącej w łańcuchu dostaw, zagadnienie to nadal zaliczane jest do stosunkowo słabo rozpoznanych problemów badawczych. Wobec powyższego, niniejszy artykuł stanowi głos w dyskusji poświęconej dalszym kierunkom rozwoju współpracy międzyorganizacyjnej. Głównym celem podjętych badań była ocena gotowości przedsiębiorstw do podjęcia i rozwoju kolaboracji w obszarze logistyki.

Metody: Podjęty problem badawczy zrealizowano na podstawie wtórnych i pierwotnych źródeł danych. Badania pierwotne przeprowadzono wśród przedsiębiorstw produkcyjnych, handlowych oraz usługodawców logistycznych. W statystycznej analizie wyników badań użyto dwóch testów nieparametrycznych. Przyjęto, że wynik jest istotny statystycznie dla $p<0,05$.

Wyniki: Wyniki badań wskazują na wysoką gotowość badanych przedsiębiorstw do rozwoju współpracy wertykalnej, a statystycznie istotny wpływ na oceny respondentów miały tu dwie zmienne, tj. model dotychczasowej współpracy oraz rola, która badani pełnili w łańcuchu dostaw. Jeśli chodzi o kolaborację horyzontalną to gotowość badanych firm do jej podjęcia nie jest tak wyraźnie zauważalna jak przy współpracy wertykalnej. Różnica między średnimi ocen okazała się tu być wysoce istotna statystycznie.

Wnioski: Przeprowadzone badania wskazują na potrzebę kolaboracji w obszarze logistyki wśród ankietowanych przedsiębiorstw, choć należy podkreślić, że badani preferują współpracę z firmami znajdującymi się na innym poziomie łańcucha dostaw. W odniesieniu do współpracy horyzontalnej otrzymane wyniki można tłumaczyć licznymi obawami respondentów dotyczącymi zachowań potencjalnych kolaborantów. Najprawdopodobniej, w tym przypadku, wśród respondentów dominuje podejście indywidualistyczne z nastawieniem rywalizacyjnym.

Słowa kluczowe: współpraca logistyczna, kolaboracja w łańcuchu dostaw, kolaboracja wertykalna i horyzontalna.

DIE BEREITSCHAFT VON UNTERNEHMEN ZUR AUFNAHME UND ENTWICKLUNG EINER ZUSAMMENARBEIT IM BEREICH DER LOGISTIK

ZUSAMMENFASSUNG. Einführung: Trotz der Mehrzahl von Untersuchungen, die verschiedenen Aspekten und Formen der in der Lieferkette bestehenden Zusammenarbeit gewidmet wurden, ist das betreffende Untersuchungsproblem im Bereich der Logistik immer noch nicht genügend erkannt. Daher ist der vorliegende Artikel als Diskussionsbeitrag zu weiteren Entwicklungstrends der Zusammenarbeit zwischen Teilnehmern der Lieferkette gedacht. Das Hauptziel der unternommenen Untersuchungen war die Bewertung der Unternehmensbereitschaft zur Aufnahme und Entwicklung der Zusammenarbeit im Bereich der Logistik.

Methoden: Das betreffende Untersuchungsproblem wurde aufgrund von sekundären und primären Datenquellen durchgeführt. Die Primäruntersuchungen wurden unter Herstellungsunternehmen, Handelsunternehmen und Logistikdienstleistern durchgeführt. In der statistischen Analyse der Untersuchungsergebnisse wurden zwei nichtparametrische Tests angewendet. Man hat angenommen, dass das Ergebnis statistisch signifikant $p<0,05$ ist.

Ergebnisse: Die Untersuchungsergebnisse weisen auf eine hohe Bereitschaft der untersuchten Unternehmen zum Starten einer vertikalen Zusammenarbeit hin. Statistisch gesehen hatten hier zwei Variablen den wesentlichen Einfluss auf die Bewertungen der Befragten, d.h. deren bisherige Erfahrung im Bereich der Zusammenarbeit und die Rolle, die sie in der Lieferkette gespielt haben. Wenn es sich um die horizontale Zusammenarbeit handelt, lag bei den untersuchten Unternehmen die Bewertung ihrer Bereitschaft zur weiteren Integration etwas höher als durchschnittliches Niveau. Im Vergleich zu der vertikalen Zusammenarbeit hat sich der Unterschied zwischen dem Bewertungsdurchschnitt statistisch als eindeutig wesentlich erwiesen.

Fazit: Die durchgeführten Untersuchungen bestätigen das Bedürfnis der Aufnahme einer logistischen Zusammenarbeit unter den befragten Unternehmen. Man soll unterstreichen, dass die Befragten die Zusammenarbeit mit den Unternehmen, die sich nicht an der gleichen Stelle in der Lieferkette befinden, bevorzugen. In Bezug auf die horizontale Zusammenarbeit lassen sich die erzielten Ergebnisse damit erklären, dass die Befragten eine Furcht vor dem Verhalten der potenziellen Mitspieler empfinden. Wahrscheinlich dominiert unter den Befragten im besagten Falle ein individualistischer, durch ihre Rivalitätsausrichtung determinierter Ansatz.

Codewörter: Zusammenarbeit in der Logistik, Zusammenarbeit in der Lieferkette, vertikale und horizontale Zusammenarbeit.

Marcin Świtała
University of Economics in Katowice
Department of Business Logistics
ul. 1 Maja 50, 40-287 Katowice, **Poland**
phone: +48/32 257 7302
e-mail: marcin.switala@ue.katowice.pl