RETURNS MANAGEMENT IN THE SUPPLY CHAIN

Anna Maria Jeszka

Poznan University of Economics, Poznan, **Poland**

ABSTRACT. Background: The aim of this exploratory empirical research was to evaluate the level of cooperation in the area of reverse logistics between selected retail chains and logistics operators and suppliers; to identify and evaluate the influence the procedures of handling returns have on the relationships with customers, cost reduction, value recovery, inventory reduction and increasing profitability; as well as determining to what extent logistics operators are involved in the procedures of handling returns in the analysed chains.

Methods: Based on the literature and the experience of researchers from developed countries a questionnaire was constructed which was subsequently used to conduct empirical research in selected retail chains operating in two provinces in Poland. The questionnaire survey involved the sales personnel of selected retail chains in the clothing industry. Overall, 105 questionnaires were collected and analysed.

Results: Various aspects of cooperation with suppliers and logistics operators in respect of handling returns were evaluated. Most indicators of cooperation were evaluated favourably, with the exception of joint access to the database, the use of inventory data available online, and access to information from the warehouse, which received low marks from the respondents. In the case of the studied stores, some of the activities in the area of reverse logistics are outsourced; for example, obtaining products from users, logistics, and the transport of returns are typically done by an outside operator. Inspection, sorting, appraisal, repairs, as well as the sales of refurbished products are usually performed within the studied retail corporations.

Conclusions: The research has shown that the retail chains developed very good programmes for handling returns in the supply chain, as evidenced by the presented and highly rated indicators of cooperation, with the exception of information exchange where there is still much room for improvement. The sales personnel assessed the impact of corporate know-how in respect of handling returns on the relationships with customers, cost reduction, value recovery, inventory reduction and increasing profitability, of which the most significant turned out to be the impact on improving relationships with customers.

Key words: supply chain, collaboration, returns management performance.

INTRODUCTION

The attention of logisticians focuses primarily on the sales and delivery of the product to the customer, although experience shows that returns (reverse flow) in the supply chain, although undesirable, are also inevitable. There are a number of questions, such as: when do returns of goods occur at different stages in the flow of the supply chain?; what are the reasons for the intensification of this phenomenon? how can the returns volume be limited?; as well as other aspects of returns management, which should be of interest to practitioners and academics. This is an increasingly important issue in logistics management, and for academics this can serve as an inspiration for further study.

The information which forms the basis of this empirical research relates to the cooperation with suppliers and logistics operators among networks of clothing stores. The second aspect which was examined was

the results of returns management in the industry under examination. The research sample consisted of over 100 stores belonging to the apparel industry. This article is an exploratory academic study and its aim is to answer several questions relating to the management of returns in the clothing industry.

COLLABORATION IN THE SUPPLY CHAIN

Cooperation in the supply chain is a concept which has been discussed for many years. Popular and widely used in practice, projects such as the ECR, CPFR and VMI are characteristic of the FMCG sector. Until now, the issue of cooperation between suppliers, logistics providers and customers in the apparel industry has not attracted a great deal of interest. One of the major benefits of such cooperation should be a lower level of inventory at every link of the supply chain. Trade returns are closely connected with a mismatch between stocks and sales forecasts. This article attempts to explore the relationship between collaboration in the supply chain and returns management performance. In order to fully understand the issues relating to supply chain management it may be useful to make a conceptual distinction between the following two areas:

 − in the narrower sense - supply chain management is the ultimate form of integrated logistics (a network of companies jointly managing the flow of goods and information) - an approach reflected in the trend of operational integration and the evolution of logistics,
 − in a broader sense - supply chain management is the management of collaborative business networks in many areas of activity (new products, logistics, marketing) - an approach promoted by the creators of the Supply Chain Operations Reference (SCOR) model and the Global Supply Chain Forum (GSCF) model.

Example definitions of supply chain management (SCM) are presented below:

Supply Chain Management, according to the Council of Supply Chain Management

Professionals (CSCMP), encompasses the planning and management of all the activities involved in sourcing, procurement, conversion, and logistics management. It also includes coordination and collaboration with channel partners, which may be suppliers, intermediaries, third-party service providers, or customers. Supply chain management integrates supply and demand management within and across companies. More recently, the loosely coupled self-organizing network of businesses that cooperate to provide product and service offerings has been called the extended enterprise [Schary&Skjott-Larsen 2001].

The supply chain refers to the network of organizations that are involved in the diverse processes and activities that generate value in the form of goods and services in the hands of the end customer. Supply Chain Management (SCM) is the "strategic and efficient coordination of the conventional business functions and the strategies across these business functions within a specific corporate and across businesses within a supply chain, for the aims of developing the long-term performance of the corporate and the supply chain as an entire process" [Christopher 2009].

Supply Chain management (SCM) refers to "a set of methods used to effectively coordinate suppliers, producers, depots, and stores, so that the commodity is produced and distributed at the correct quantities, to the correct locations, and at the correct time, in order to reduce system costs while satisfying service level requirements." The fundamental notion of these definitions is that a Supply Chain must be controlled in order to be fast and trustworthy, cost-effective, and flexible enough to meet customers' requirements. [Simchi-Levi, Kaminsky, & Simchi-Levi 2009].

Supply Chain management refers to corporate business processes integration from end users through suppliers that provides information, goods, and services that add value for customers [Lambert 1998].

Definitions of SCM commonly use phrases such as planning, relationship management, link integration, coordination of activities, flow

of information, cost reduction and inventory levels. Some of the definitions focus on activities, while others focus on the flows or on individual links. Some of them refer to a narrower understanding of SCM (a form of integrated logistics), whereas others adopt a broader approach to SCM in terms of network business management. In this study it has been assumed that cooperation in the supply chain - with suppliers and logistics operators - can result in performance improvements in the management of returns.

RETURNS MANAGEMENT

In the literature there is a distinction between two terms: reverse logistics and returns management. REVLOG – The European Working Group on Reverse Logistics in 1998 proposed the following definition of reverse logistics: "The process of planning, implementing and controlling backward flows of raw materials, in-process inventory, packaging and finished goods, from a manufacturing, distribution or use point, to a point of recovery or point of proper disposal."

The management of returned products is known as returns management. In this analysis, we are primarily interested in the relationship between the supplier and the recipient. The management of returns has a wider context than is usually perceived by managers. It is necessary to understand the multi-functional components of marketing, logistics, operations and finance / accounting functions which actively engage in managing return products. [Mollenkopf, Frankel, and Russo, 2011].

Returns management entails significant costs relating to the implementation of each individual process, which is connected with the involvement of human and equipment resources.

Returns management is costly and time-consuming [Rogers and Tibben Lembke, 2001]. This has a direct impact on logistics costs and consequently on the financial results of companies. It is estimated that the volume of product returns is between 5% and as much as 40% of the goods sold, depending on the industry. [Rogers and Tibben-Lembke, 1998]. In catalogue retailing the figure can be up to 60%. [Richey, Chen, Genchev and Daugherty, 2005]. It seems, therefore, that returns management issues deserve the attention of managers, as there is a need for efficient management of returned goods, which can lead to a lowering of costs. Taking into account the growing number of returns and the relationship between effective returns management and a company's financial results there are many questions that should be considered and answered.

To begin with, it seems useful to systematise the available knowledge in this field. As in the conventional direction of the movement of goods from the vendor to the customer, the stages of product flow in the supply chain have their counterparts in the opposite direction. Thus, three types of returns can be distinguished: returns in production, customer returns and returns in distribution. The case under analysis concerns the management of returns in distribution. The following categories will be considered [Blumberg, 2004, Rogers and Tibben-Lembke, 1999, Rogers and Tibben-Lembke 1998, De Brito and Dekker 2003]: distribution returns - referring to types of returns such as product recalls (for the safety and health of consumers, usually initiated by the manufacturer or supplier); or B2B commercial returns where the retailer under the terms of the contract can return a product to the supplier which refers to goods which do not comply with the order, are damaged, have too short shelf life / expiration date, or are unsold goods which the retailer (distributor) has the right to return to the manufacturer or wholesaler. This includes products which are past the expiration date (such as food products and pharmaceuticals). Other reasons for returns in distribution include the adjustment and redistribution of stocks of seasonal products (e.g. connected with festivals) between warehouses and shops, or returns of packaging and unit loads (functional returns) that allow the flow of products in the supply chain. A retailer can also return goods to the supplier when a product has been discontinued or replaced with a newer version, when the stock is too high because the product is slow-moving, or because a retail outlet closes down.

RESEARCH QUESTIONS

In the context of the need to rationalize costs and the increased efficiency that can be achieved by strengthening cooperation in the supply chain, attention should paid to the possibilities offered by the effective management of returns. Taking into account the increasing number of returns and the relationship between effective returns management and the chance of reducing costs by companies, the following important questions arise:
1. What does cooperation with suppliers and logistics operator in the studied clothing chains look like?
2. Does the company policy for handling returned goods result in better relations with customers, cost reduction, value recovery, inventory reduction and increased profitability?
3. Which of the actions involved in the returns management are transferred to the logistics operator?

SELECTION OF THE SAMPLE

Returns management is perceived by managers as a problem. Their focus is mainly on the sale of products. The fashion industry is one of the sectors where returns management plays a unique role. The sale of clothes is determined by fashion and seasonal fluctuations. Variation in demand is dependent on trends in fashion, design and the current collections. The success of the previous collection does not guarantee a similar success in the new season, as the new collection may not suit the tastes of consumers, the more so that collections are designed a year in advance. The analysis has involved shops that are part of retail chains (the ownership status was not taken into account), and the choice of clothing retailers (franchise or retail stores) as subjects of the analysis can be justified by several arguments.

The characteristics of such shops include the necessity for the adjustment and redistribution of stocks of seasonal products. Also, the retailer (distributor) is entitled to return goods which have not been sold due to changing seasons (spring/summer/autumn/winter). In retail chains deliveries sometimes do not comply with orders, the stocks can turn out to be too large, the sales forecasts can be overestimated, or sometimes outlets in unprofitable locations are closed down, which involves a movement of unsold goods. The research sample comprised shops located in large shopping centres; the number of shops per number of inhabitants being taken into account.

THE QUESTIONNAIRE AND DATA COLLECTION

The questionnaire was developed on the basis of the literature and interviews with employees of retail networks. After a pilot study (12 questionnaires), which was intended to eliminate any ambiguity so that respondents would not have any doubts as to the meaning of the questions, the principal part of the study began. Due to financial and organisational constraints the representative sample of retailers was restricted to the regions of Wielkopolska and Lubuskie (western Poland). Data was collected by students in National and International Logistics at the Poznan University of Economics. Out of 128 questionnaires, 10 were eliminated for formal reasons.

ANALYSIS AND RESULTS

The study on co-operation and exchange of information in the supply chain was adapted from (Olorunniwo and Li, 2010). When analysing collaboration between the suppliers and logistics operators of the companies surveyed, for all the questions the most common answer was 'good' (median = good for all the questions). However, the answer 'very good' was more often given by the respondents to questions 5, 6, 7 and 8, which were related to the trust between partners (55 responses); well-defined objectives, scope and responsibilities within the framework of cooperation (54); and joint arrangements regarding planning and forecasting (55). When the respondents were asked to assess the joint arrangements regarding planning and forecasting and the mutually agreed performance indicators they tended to indicate

the answer 'average' (25 and 28 indications respectively). The companies surveyed were not generally satisfied regarding the area of information and data exchange with suppliers and operators in the supply chain. For questions about the evaluation of mutual access to databases, using data on stock levels over the Internet and access to information from warehouses the number of 'average' answers was 25, 20 and 23 respectively, and 'low' 17, 17 and 15. This may mean that in respect of the exchange of information there is a lot of room for improvement. The results are shown in Table 1 and Figure 1.

Table 1. Cooperation and exchange of information in the supply chain with suppliers and third party logistics operators
Tabela 1. Współpraca i wymiana informacji w obrębie łańcucha dostaw między dostawcami i operatorami logistycznymi

|	Median	average	Standard deviation
Accuracy of information shared with our partners	3	3,2	0,8
Mutual access to our partners' databases	3	2,7	1,1
The use of web-enabled inventory data that we share	3	2,8	1,1
Warehouse information we both share	3	2,8	1,0
Trust between us and our partners	3	3,2	0,8
Long term alliances	3	3,2	0,7
Well defined collaborative objectives, scope and responsibilities	3	3,1	0,8
Joint forecast and planning arrangements	3	2,9	0,8
Joint established performance measures	3	2,8	0,8
Sharing of risk and reward with our partners	3	2,6	0,8

Source: Empirical research
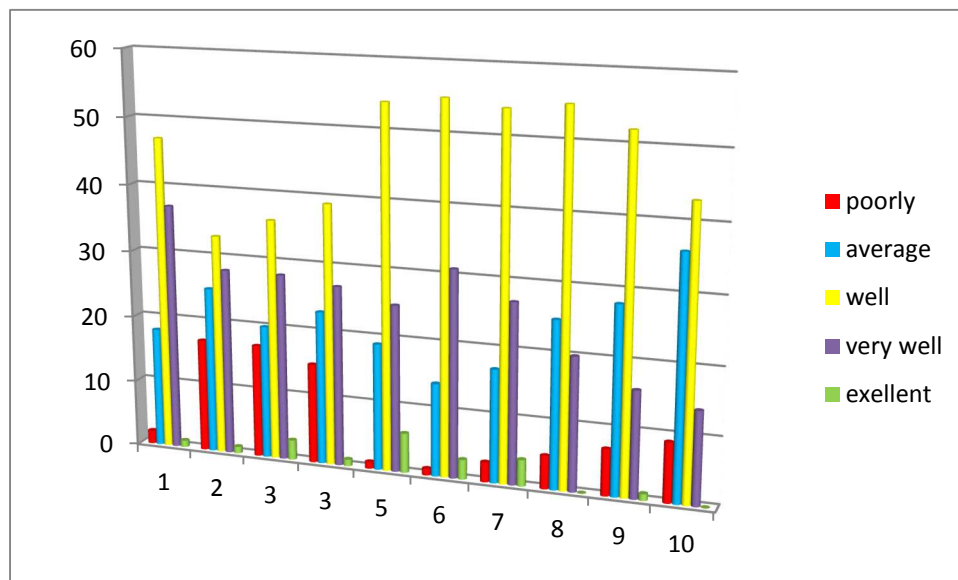
Fig. 1. The cooperation of stores with suppliers and logistics operators
Rys. 1. Współpraca sieci handlowych z dostawcami i operatorami logistycznymi
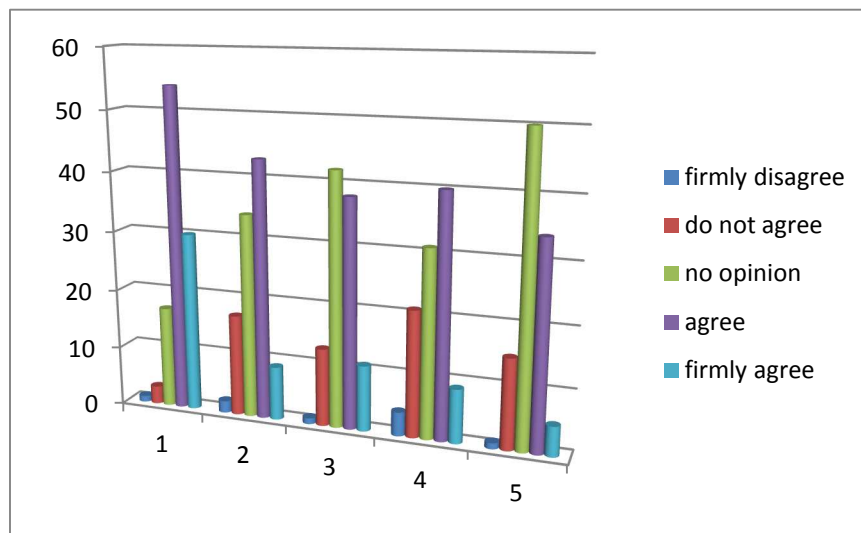
RETURNS MANAGEMENT PERFORMANCE

Questions about returns management results were partially adapted from (Autry, 2005). The analysed stores confirm that the management of returns has a positive effect on customer relations (53 indicated "agree" and 30 indicated "strongly agree") and on cost reduction (43). As regards the impact of the management of goods returned to the supplier on the costs, 33 respondents had no opinion; and 50 respondents had no opinion as to its influence on profitability. This is probably due to the fact that store managers do not have access to the full financial data. According to 21 respondents the handling of

returns did not contribute to a decrease in stocks, whereas 40 respondents believed that it did play a significant role in this respect. The results are shown in Table 2 and Figure 2.

Table 2. Returns management performance
Tabela 2. Zarządzanie zwrotami

	Median	average
Improved customer relations	4	4,0
Cost reduction	3	3,4
Value recovery	3	3,4
Decrease in stock	3	3,3
Increase in profitability	3	3,3

Source: Empirical research

Source: Empirical research

Fig. 2. Do you think that the handling of the returned goods affects returns management performance?
Rys. 2. Czy handling zwrotów wpływana za jakość zarządzania zwrotami?

RETURNS MANAGEMENT AND 3PL

The questions about returns management activities outsourced to logistics providers are derived from (Saibani, 2010). What is characteristic about this question is the fact that in most cases the stores surveyed outsourced part of the work: collecting goods from users as well as the logistics and transport of the returned products normally belonged to

an outside operator (51 indications); however, the inspection, sorting, classification (question 3), repair and sale of the refurbished products (question number 4) as well as remarketing (question 5) are typically implemented within the enterprise (52, 54 and 62 indications respectively). The results are shown in Table 3 and Figure 3.

Table 3. Which of the activities do you / your company outsource to logistics operators?
Tabela 3. Które obszary działań Państwa firmy są obsugiwane outsourcingowo przez operatorów logistycznych?

Type of activity	Median	average
Product acquisitions (obtaining products from the last user or point of return)	2	1,7
Reverse distribution (logistics involved in transporting returned products)	2	1,9
Test control dispositioning	1	1,7
Refurbishing	1	1,6
Remarketing (development of secondary market)	1	1,5

Source: Empirical research
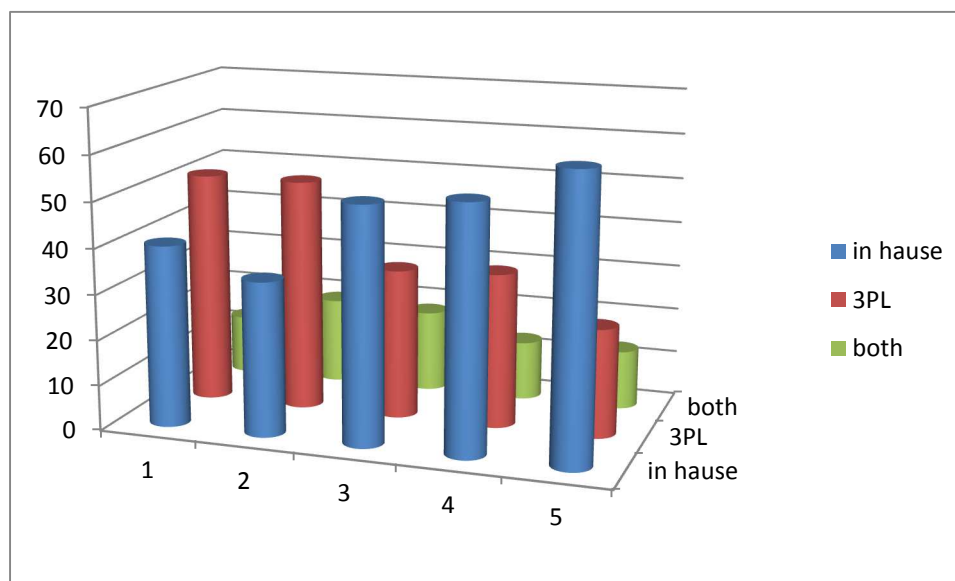
Source: Empirical research

Fig. 3. Which activities related to the management of returns are usually outsourced to logistics operators?
Rys. 3. Które obszary działalności związane z zarządzaniem zwrotami są zwykle outsourcingowane do operatorów logistycznych?

CONCLUSION

On the basis of empirical research conducted on a sample of clothing chains in Poland it is possible to formulate some conclusions. The study answers the questions on how the clothing retail industry assesses collaboration with suppliers and logistics operators and how the actions undertaken in the management of returns affect the results of returns management, such as the relationship with the customers and costs; as well as which operations and activities of reverse logistics are transferred to logistics operators.

The generally held opinion is that cooperation with suppliers in the supply chain increases the efficiency, effectiveness and improves financial results. Here, collaboration in the supply chain and the exchange of information between the supplier, the customer and the logistics operator was related to the results of returns management.

Based on Spearman's and Kendall's correlation test - respectively 0.077 and 0,055 ($p<0,05$) it can be concluded that this relationship does not exist: there seems to be no correlation between co-operation and

exchange of information and returns management performance.

Most empirical studies refer to a segment of the market or a particular group of companies. So it was in this case. The sample was narrowed down to the clothing retail chains in two provinces in Poland.

Methodologically, the study was based on a questionnaire survey and the analysis is strongly based on the perceptions of the respondents. This resulted from two factors: the complexity and the amount of data collected, and in particular the confidentiality of data that we guaranteed in the course of the study. The research study results are used as measures of perceived performance results. Hard data in the form of financial results could reveal other relationships and connections. Future studies ought to take this into account.

This study focused on describing a state of affairs and making a diagnosis but it did not take into account changes over time. Future research ought to conduct an analysis over a period of time and include different industries.

REFERENCES

Autry C.W., 2005. Formalization of reverse logistics programs: a strategy for managing liberalized returns. Industrial Marketing Management, 34(7), 749-757.

Bernon Michael, Rossi S., & Cullen J., 2011. Retail reverse logistics: a call and grounding framework for research. International Journal of Physical Distribution & Logistics Management, 41(5), 484-510.

Blumberg D.F., 2004. Introduction to Management of Reverse Logistics and Closed Loop Supply Chain Processes (1. wyd.). CRC Press.

Christopher M., 2009. Logistics and supply chain management: creating value-adding networks. Harlow [u.a.]: Prentice Hall, Financial Times.

Genchev S.E., Richey R.G., & Gabler C.B., 2011. Evaluating reverse logistics programs: a suggested process formalization. International Journal of Logistics Management, The, 22(2), 242-263.

De Brito M.P., Dekker R., 2003. A Framework for Reverse Logistics (No. No. ERS-2003-045-LIS).

Jack E.P., Powers T.L., Skinner L., 2010. Reverse logistics capabilities: antecedents and cost savings. International Journal of Physical Distribution & Logistics Management, 40(3), 228-246.

Lambert D.M., 1998. Fundamentals of logistics management. Boston: Irwin/McGraw-Hill.

Mollenkopf D.A., Frankel R., Russo I., 2011. Creating value through returns management: Exploring the marketing-operations interface. Journal of Operations Management, 29(5), 391-403. doi:10.1016/j.jom.2010.11.004

Olorunniwo F.O., Li X., 2010. Information sharing and collaboration practices in reverse logistics. Supply Chain Management: An International Journal, 15(6), 454-462.

Richey R.G., Chen H., Genchev S.E., Daugherty P.J., 2005. Developing effective reverse logistics programs. Industrial Marketing Management, 34(8), 830-840. Rogers, D., & Tibben-Lembke, R. (1999). Going backwards: reverse logistics trends and practices. RLA Council.

Saibani N., 2010. Performance Measurement for Reverse and Closed-loop Supply Chains. University of Nottingham Hallward Librar1: The University of Nottingham.

Schary P.B., Skjott-Larsen T., 2001. Managing the global supply chain. Copenhagen, Denmark: Copenhagen Business School Press.

Simchi-Levi D., Kaminsky P., Simchi-Levi E., 2009. Designing and managing the supply chain: concepts, strategies, and case studies. London: McGraw-Hill.

Tibben-Lembke R.S., Rogers D.S., 2002. Differences between forward and reverse logistics in a retail environment. Supply Chain Management: An International Journal, 7(5), 271-282.

Christopher M., 2009. Logistics and supply chain management: creating value-adding networks. Harlow [u.a.]: Prentice Hall, Financial Times.

Lambert D.M., 1998. Fundamentals of logistics management. Boston: Irwin/McGraw-Hill.

Saibani N., 2010. Performance Measurement for Reverse and Closed-loop Supply Chains. University of Nottingham Hallward Librar1: The University of Nottingham.

Schary P.B., Skjott-Larsen T., 2001. Managing the global supply chain. Copenhagen, Denmark: Copenhagen Business School Press.

Simchi-Levi D., Kaminsky P., Simchi-Levi E., 2009. Designing and managing the supply chain: concepts, strategies, and case studies. London: McGraw-Hill.

ZARZĄDZANIE ZWROTAMI W ŁAŃCUCHU DOSTAW

STRESZCZENIE. **Wstęp:** Celem eksploracyjnych badań empirycznych była ocena poziomu współpracy w zakresie logistyki zawrotów wybranych sieci handlowych z operatorem logistycznym i dostawcami, ocena i diagnoza wpływu sposobu postępowania z towarem zwróconym na relacje z klientami, ograniczanie kosztów, odzyskiwanie wartości, zmniejszenie zapasów, zwiększenie rentowności oraz rozpoznanie w jakim stopniu operatorzy logistyczni uczestniczą w obsłudze zwrotów analizowanych sieci handlowych.
Metody: Na podstawie literatury i doświadczeń naukowców z krajów rozwiniętych sformułowano formularz ankiety a następie przeprowadzono badania empiryczne na wybranych sieciach handlowych na terenie dwóch województw w Polsce. Przeprowadzono badania opinii sprzedawców w wybranych sieciach handlowych branży odzieżowej. Zebrano i ostatecznie poddano analizie 105 wywiadów.
Wyniki: Ocenie poddano różne aspekty współpracy z dostawcami i operatorami logistycznymi w zakresie obsługi zwrotów towarów. Większość wskaźników współpracy zostało ocenionych dobrze. Sprzedawcy źle ocenili wzajemny dostęp do bazy danych, wykorzystywania danych dotyczących zapasów przez Internet oraz dostęp do informacji z magazynu. W przypadku badanych sklepów w zakresie logistyki zwrotnej część działań jest zlecanych na zewnątrz tj. pozyskiwanie produktów od użytkowników, logistyka i transport produktów zwróconych zazwyczaj należy do operatora. Kontrola, sortowanie, kwalifikacja, naprawa oraz sprzedaż odnowionych produktów zazwyczaj są realizowane w ramach badanych korporacji handlowych.
Wnioski i podsumowanie: Przeprowadzone badania pokazują, że sieci wypracowały bardzo dobre programy obsługi zwrotów w łańcuchu dostaw. Dowodem są opisane i wysoko ocenione wskaźniki współpracy, jedynie w kwestii wymiany informacji jest wiele miejsca na poprawę wyników. Sprzedawcy ocenili wpływ korporacyjnego know-how w zakresie obsługi zwrotów na relacje z klientami, ograniczanie kosztów, odzyskiwanie wartości, zmniejszenie zapasów, zwiększenie rentowności, z czego najistotniejszy okazał się wpływ na poprawę relacji z klientami..

Słowa kluczowe: łańcuch dostaw, współpraca, efektywność zarządzania zwrotami produktów.

MANAGEMENT VON RÜCKSENDUNGEN IN DER LIEFERKETTE

ZUSAMMENFASSUNG. Einleitung: Das Ziel der empirischen Untersuchungen war es, das Niveau der Zusammenarbeit im Bereich der Logistik von Rücksendungen in ausgewählten Handelsnetzen mit Logistik-Betreibern und Zulieferanten zu beurteilen, die Vorgehensweise bei den Rücksendungen und deren Einfluss auf Relationen mit den Kunden zu diagnostizieren und zu beurteilen, Kosten einzuschränken, Werte wiederzugewinnen, Vorräte zu minimalisieren, ferner die Rentabilität zu erhöhen und es zu erkunden, in welchem Ausmaße die Logistik-Betreiber sich an der Abwicklung der in den ausgewählten Handelsnetzen analysierten Rücksendungen beteiligen.
Methoden: Auf Grund einer Literaturrecherche und gestützt auf die Erfahrungen aus den hochentwickelten Ländern sind ein Umfrage-Bogen formuliert und dann empirische Untersuchungen innerhalb der in zwei Wojewodschaften in Polen lokalisierten Handelsnetzen durchgeführt worden. Dazu nahm man Meinungsuntersuchungen bei Verkäufern in ausgewählten Handelsnetzen in der Bekleidungsbranche vor. Es wurden 105 Interviews erfasst und endgültig einer Analyse unterzogen.
Ergebnisse: Einer Beurteilung wurden unterschiedliche Aspekte der Zusammenarbeit mit den Lieferanten und Logistik-Betreibern im Bereich der Bedienung von Waren-Rücksendungen unterzogen. Die meisten Kennziffern der Kooperation wurden als positiv beurteilt. Die Verkäufer haben dagegen den gegenseitigen Zugriff zur Datenbank, ferner die Inanspruchnahme der die Vorräte anbetreffenden Daten durch das Internet und den Zugriff zu den Informationen aus dem Lager negativ beurteilt. Im Falle der in Bezug auf die Entsorgungslogistik untersuchten Handelseinrichtungen wird ein Teil der Aktivitäten außerhalb der Einrichtungen in Auftrag gestellt, d.h. die Gewinnung der Rückwaren von den Benutzern, die Logistik und der Transport der Rücksendungen fällt dem jeweiligen Logistik-Betreiber anheim. Dagegen

die Kontrolle, Sortierung, ferner die Reparaturen und der Verkauf der sanierten Produkte werden gewöhnlich innerhalb der untersuchten Handelseinrichtungen vorgenommen.

Fazit: Die durchgeführten Untersuchungen bestätigen, dass die Handelsnetze sehr gute Programme für die Abwicklung der Waren-Rücksendungen in der Lieferkette ausgearbeitet haben. Die Beweise dafür stellen die beschriebenen und hoch bewerteten Kennziffern der Kooperation dar. Lediglich die Fragen des Informationsaustausches weisen gewisse Verbesserungspotenziale auf. Die Verkäufer haben den Einfluss des handelseinrichtungsmäßigen Know-Hows im Bereich der Bedienung der Waren-Rücksendungen auf den Kundenservice, auf die Verminderung von Kosten, die Rückgewinnung von Werten, ferner die Minimalisierung von Vorräten und die Erhöhung der Rentabilität als positiv beurteilt, wobei der Einfluss auf die Verbesserung der Relationen mit den Kunden sich als der wesentlichste erwiesen hat..

Codewörter: Lieferkette, Zusammenarbeit, Management-Effizienz bei Produkten-Rücksendungen

Dr Anna Maria Jeszka
Department of Logistics and Transport
Poznan University of Economics
Poznan, Poland
e-mail: a.jeszka@ue.poznan.pl