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PRICE RELATED ASSESSMENT DETERMINANTS OF LOGISTICS OPERATORS

Content: This article presents the price as the primary determinant in the selection of a supplier of logistics services. The logistics operator provides basic logistics services and additional services that increase their value. The individual customer that is found at the end of the logistics chain decides about the choice of a logistics operator. An analysis of a pricing strategy allows one to provide logistics services on a high level with the use of competitive prices and the shortest lead time possible.

Keywords: logistics operator, element sof logistics, price, competition.

Introduction

Customer service in delivery chains requires high standards of performance. As for the other elements of logistics customer service, an optimal price decides about the selection of a logistics operator. The determination of a level which is acceptable to the customer helps a TSL company achieve a competitive advantage on the market, while a low level eliminates the company from a given e-commerce segment, the segment which is defined as the one that is the most dynamically developing. The purpose of this article is a presentation of the price as the determinant in the selection of a TSL (transport – carriage – logistics) company in relation to other elements of customer service in delivery chains and changes concerning consumers' decisions during the delivery of products by a logistics operator. The methods used herein include an analysis of literature and an indirect survey measurement method with the use of the survey questionnaire technique. These days, it is not only the price for the basic service, i.e. transport, that contributes to effectiveness but also the effectiveness of delivery and its time. A lack of quick reaction in logistic processes brings about a risk of the loss of the customer, and quality determines the effectiveness of the whole chain. Each day of the flow of products through the chain constitutes a specified cost to the

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company. Shortening the flow time of products and a reduction of costs brings benefits in the form of the financial result and ensures a higher level of customer service.

Logistics services

Logistics service is a set of intangible logistics operations, ensuring the maximum satisfaction of consumer demand in the management of material, financial and information flows, the most optimal in terms of costs means¹. The market of logistics services is constantly and dynamically developing; it is more and more frequently perceived by various types of services and also by segments operated, which brings about specialization of work and realization of services of a high quality. Due to the realization by companies of areas connected with transport, shipping and logistics, an analysis of the market was undertaken in a wide scope while introducing the notion of the market of TSL services². Professor Krawczyk presented logistics as the management of processes and a potential for the coordinated realization of external and internal material flows and the flows of information connected with them³. Coordination related to materials in the area of supplies involves in particular horizontal coordination between suppliers, company departments and final customers in the sphere of distribution. Vertical coordination involves the planning plane, controlling, realization and inspection on operational, tactical and strategic levels.

The growing significance of logistics in the modern way of management, whose determinants present entrepreneurs with the need to meet requirements that are set both by customers and competitors, is connected with the common perception of logistics as a source of competitive advantage. The logistics service is organized by an external company (a TSL company or a logistics operator) including complete formal and legal as well as customs services. The logistics service is defined under the principle of 7W – in English: 7 right, that is the appropriate product in the appropriate quantity, at the appropriate time and place, for the appropriate customer, for the appropriate price and in the appropriate quality. E. Gołemska additionally distinguishes the following in the logistics service⁴:

¹ P. R. Levkovets, M. M. Moroz, A. V. Bubela, A. V. Labuta, *System aspects of improving the logistics service*, „Journal of KNPU Mykhailo Ostrohradskyi”, Issue 5 (52), 2008, Part 2, p. 108.

² W. Rydzkowski, K. Wojewódzka-Król, *Transport*, PWN, Warszawa 2007, p. 262.

³ S. Krawczyk, *Logistyka. Teoria i praktyka*, T. 1, Difin, Warszawa 2011, p. 168.

⁴ E. Gołemska, *Kompendium wiedzy o logistyce*, ILiM, Poznań 2007, pp. 254-255.

- a departure from typical secondary demand for this service, while the transport service is provided as a result of the occurrence of the secondary demand for this service;
- the price of the logistics service, which is the function of the prices of storing, transport and the customer service process;
- an increase not only of the value of the commodity owing to the logistics service but also an extension of the grace period on international markets.

The benefits that are related to services provided by a logistics company include the following:

- the company may focus on its core activities;
- it avoids expensive investments in the fleet and warehouses, there is a reduction or lowering of the costs of transport owing to the use of multimodal transport in the place of the fragmentation of the transport of goods;
- owing to this, fixed costs can be transformed into variable costs;
- the balance and financial liquidity improve, there is an improvement of the arrangement of the logistics infrastructure owing to the appropriate arrangement of storage facilities; also, use of geographical determinants to compensate demand and supply;
- seasonal changes can more easily be dealt with, current compensation of the effects of the seasonal nature of demand for logistics products by concluding contracts with manufacturers related to stockpiling and handling stock in regional warehouses where storage space is not fully made use of;
- the risk of activities connected with the development of new market decreases, an introduction of new products on the market through an examination of demand by fast provisions of small batches of products yet simultaneously in many retail outlets in short time;
- the company gains the awareness of the real costs of logistics.

A trading and manufacturing enterprise that outsources logistics services should permanently identify changes to the external environment and implement improvements in the logistics process. At this stage, companies expect from their contractors continuous search for solutions and an innovative attitude towards problems that arise. Companies integrate in the delivery chain through joint solutions in the area of IT.

Delivery chain

Efforts aimed at an efficient and effective control of supplies for an optimization of the path from the markets of supplies to the market place is considered as the basic cause of the occurrence of the conception of delivery chains. The notion of delivery chains is defined as cooperation in various functional areas between mining, manufacturing, trading and service enterprises as well as their customers, between whom streams of products, information and monies flow⁵. The delivery chain involves typical logistics activities that are related to the supply of materials, organization of production and distribution as well as activities concerning the management of demand and development of products, which are located in the areas of marketing and production management⁶. Formation of the supply chain provides comprehensive support for this process, which has a marketing, logistics, information and communication measurement and adjustment of contemporary supply chains based on the detection and elimination of "bottlenecks" in the supply chain⁷. In the era of globalization, partner cooperation between the links of the delivery chain achieves synergistic effects, which lead to an increase of the potential which would not be realized without cooperation between suppliers, producers and distributors with the help of an integrator, i.e. a logistics operator. The fundamental goals of the chain include the following⁸:

- flexibility that is manifested by prompt reaction to changes in demand and supply and an efficient elimination of internal disruptions;
- an adaptation to the market consisting in an adaptation of the design of the delivery chain to structural changes on markets, as well as a modification of the supply network in such a way that it corresponds to the accepted strategy of the company, its products and technologies;
- mutual taking into consideration the interests of the business partners by the creation of incentives to greater effectiveness.

The real configuration of the delivery chain and thereby the degree of its complexity is determined by the goals and strategies of the functioning of the delivery chain, its scope of activity, internal organization of those entities that

⁵ J. Witkowski, *Zarządzanie łańcuchem dostaw*, PWE, Warszawa 2003, p. 17.

⁶ M. Sołtysik, *Łańcuchy i sieci dostaw*, w: *Logistyka*, red. D. Kisperska-Moroń, S. Krzyżaniak, Wyd. Biblioteka Logistyka, Poznań 2009, p. 35.

⁷ N. I. Chukhrai, O. B. Girna, *Formation of the supply chain: Theory and Practice*, „Intelligence-West”, Lviv 2007, p. 94.

⁸ H. L. Lee, *Sekret najbardziej efektywnych łańcuchów dostaw*, Harvard Business Review Polska, luty 2005, p. 93.

form it, their sizes and scopes of activities⁹. Functioning of the delivery chain may be less or more effective, yet it results in a quick transfer of goods regardless of the place of delivery (Poland, Europe and the world). The joint elements of the delivery chain management presented in the literature are the following¹⁰:

- the development of the delivery chain management takes place on several stages of the internal and external integration and coordination of the organization;
- the delivery chain management involves a potentially large quantity of independent organizations, it emphasizes the internal and external relations of organizations;
- the delivery chain management concerns a bi-directional flow of tangible goods, services and information as well as activities connected with them;
- in the delivery chain management, efforts are undertaken to fulfil tasks that create a high value for the customer through the rational management of reserves.

Management in the area of the delivery chain should take into consideration the level of confidence between partners. Nonetheless, dominance can be observed of one of the links in delivery chains. In the case of a monopolistic market, these tendencies are demonstrated by the dominating company, in some situations the freight forwarder dominates, but in the case of a free market economy, it is the purchaser of a given good that imposes terms. The force of domination is a fundamental element that is worked out in cooperation in the chain. Certain conditions are favourable to cooperation, such as the scope, flexibility of deliveries or comprehensiveness of the services offered by the logistics operator. Satisfaction with the customer service is a factor which affects the logistics delivery chain. A number of measures to assess the service quality is the effect of the logistics operator being focused on the customer service. These measures may include the following:

- the lead time of the order and a proportion of non-realized transports in accordance with the declared time,
- the percentage of shipments that were provided complete (without any damages to the commodity or its divisions),
- documentary conformity (no mistakes in invoices, bills of lading and a complete set of documentation: the delivery note, specification, invoice),

⁹ B. Skowrońska-Grabowska, *Centra logistyczne w łańcuchach dostaw*, PWE, Warszawa 2010, p. 59.

¹⁰ M. C. Cooper, D. M. Lambert, J. D. Pagh, *Supply chain management: more than a new name for logistics*, „The International Journal of Logistics Management”, vol. 8, no. 1, 1997, pp. 3-12.

- comfort of deliveries in a specified time interval,
- satisfaction in the service by the whole team: drivers, dispatchers, marketing, traffic organization and bookkeeping.

The personnel of a logistics operator are motivated to undertake creative activity aimed at an increased added value. An effective implementation of the conception of the delivery chain is usually accompanied by key strategies which include: shortening the order processing cycle, quality management, increasing productivity, implementation of innovation in the scope of organizational and technological solutions and placing particular emphasis on the customer satisfaction¹¹. Effective management in the delivery chain requires a coordination of these activities while taking into consideration costs and fixing an optimal price for the logistics services offered by the logistics operator.

Pricing strategies on TSL market

Formation of the pricing policy in TSL companies is made conditional on the strategy concerning the position of a given company on the market. The high quality of services offered by logistics operators is connected to an increasing extent with the provision of an added value to customers, one which is based on modern information systems. The recipients of logistics services are able to pay a higher price for what they consider to be a high added value. This concerns the organization of deliveries in the whole chain or deliveries without any stoppages related to the lack of raw materials. What is important for them is short lead time, and the time when they receive feedback information on the shipment delivered. Forwarders are interested in unassisted generation of reports concerning the realization of orders and the promptness of reaction to diversified demand, which has an impact on competing on the market. From the customer's point of view, the management of a warehouse and commodities included in the whole delivery chain as well as integrated activities in the logistics of supplies, production and distribution constitute an added value. Logistics operators, by offering packages of services, may obtain higher prices, but they also frequently compete with each other for an attractive customer. Hence, they make attempts to distinguish their offer as TNT by transporting unique products of a high value, e.g. paintings or diamonds from a mine in the Republic of South Africa for grinders in Amsterdam and then to auctions all over the world. Logistics operators possess an appropriate information base and appropriately trained personnel, who broaden their knowledge and abilities.

¹¹ J. J. Coyle, E. J. Bardi, C. J. Langley, *The Management of Business Logistics*, West Publishing Company, Mason 2003, pp. 44-45.

The contribution of logistics in the competitiveness of the delivery chain comes down to the fulfilment of the final purchaser's demand through the delivery of appropriate products for a competitive price, in an appropriate form and at an appropriate moment¹². Three methods of building the logistics advantage are distinguished:

1. "Hard" methods based on goals in the scope of quality, time and costs. A high quality reduces costs through the elimination of errors and is advantageous to reliability. The quality of logistics comes down to realization based on 7R. Those suppliers of logistics services who carry out orders according to the highest standards of quality enjoy a significant advantage over other companies. Time refers to how long a customer has to wait for the provision of a given product or service. The factor of time is used to gain the market by those companies that notice that the customer is ready to pay more for a reduction of the lead time (automotive industry). Low costs translate into a market advantage in the form of low prices or high profit margins.
2. Auxiliary abilities that cover verification of variability in logistics processes and coping with uncertainty, which may turn out to be equally useful. Uncertainty means lack of knowledge in the sphere of logistics and it results from the necessity of managing those situations which cannot be predicted; hence, one needs to be guided by advantage that consists in reliability and elasticity in operation.
3. "Soft" methods that are related to the service part of the product and that are oriented onto building the customer's trust as for the efficiency of logistics functions and the sense of security as regards the customer's data confidentiality.

Formulation of a strategy is connected with an examination of the needs of purchasers and their potential to purchase products, an analysis of the prices offered by competition and compliance of a relative price level resulting from an analysis of price-related factors with the characterization of the target market, a positioning strategy and remaining marketing instruments. The following pricing strategies are to be distinguished¹³:

1. Strategy of high prices (strategy of taking the credit): a company establishes prices on a given product market on a level that is higher than the average market price or the upper part of the permissible price range. Ceva logistics operator is an example here, which transports unique

¹² A. Harrison, R. van Hoek, *Zarządzanie logistyką*, PWE, Warszawa 2010, p. 46.

¹³ G. Karasiewicz, *Marketingowe strategie cen*, Wyd. PWE, Warszawa 1997, pp. 198-219.

products of a high value, or Fresh Logistic, which offers transport of goods in low storage temperatures.

2. Sequential strategy of high prices: companies use a modified version of a general pricing strategy that consists in establishing in an initial period the price for a given service on a high level and later its gradual reduction. The possibility of a significant reduction of unit costs as a result of an increase of an accumulated sales volume is a condition of its application: this strategy was used by DHL, Schenker and DPD for low weight shipments (parcels).
3. Strategy of prestigious prices: this is used in the case of those services that function as a symbol of a social status and are characterized by high qualitative parameters. These are branded products and those manufactured in relatively small quantities in order to create an impression of their rarity and uniqueness: GEODIS manages the delivery chain of its loyal customers providing end-to-end solutions, which are possible owing to employees, infrastructure, processes and systems.
4. Strategy of neutral prices: this consists in the determination by the company's management of prices that are close to average prices on a given market of services or segment. The role of the price as an instrument of competition is minimized and attention is focused on other marketing instruments which are more effective. This strategy is used in relation to services in the phase of increase and maturity and in those conditions where there is an elastic demand and low pricing flexibility of the market demand. Raben and DB Schenker apply this strategy in the case of pallet shipments (a quantity of pallets for one recipient regardless of the distance).
5. Strategy of customary price: this consists in maintaining the price for a service on a constant level for a relatively long period. Because of this, after some time, the service becomes relatively cheap (the parcel forwarding service offered by the Polish Post or Inpost in the e-commerce segment). By applying such a pricing strategy, service companies try to create stable purchasing conditions for the buyer so that the purchaser's activity on the market gains a customary and routine nature. The purpose is to maintain stable prices over a long period of time so that purchasers' behaviour on the market becomes customary to a greater extent.

The majority of logistics operators operate on international markets by adapting rates in a given country. The reasons of entering global markets are connected with an increase of volumes and the occurring unlimited opportunities.

Analysis of prices on the market of logistics services

In the flow of goods, there are those logistics operators who determine the price for individual services dedicated to customers. In the case of individual customers, it is them who decide on the selection of a TSL company. The research covered the price in relation to other elements of the logistics service of individual customers, where logistics operators deal with the delivery of products.

The research was carried out on the territory of North Poland covering Zachodniopomorskie and Pomorskie Provinces in the period from November 2014 to March 2015. Individual customers constituted a sample of 165 people (17 questionnaire forms were rejected due to the lack of data), out of whom women constituted 45,45% and men 54,55%, those aged below 20: 1,82%, those aged 20-29: 86,06%, those aged 30-39: 9,09% and those aged 40-49: 3,03%; those aged over 50 did not occur. 30,3% of the respondents reside in towns with over 100 residents; the residents of places with 50 to 100 thousand inhabitants constituted 6,67%; the residents of places from 20 to 50 thousand constituted 13,33%; the residents of places from 5 to 20 thousand constituted 13,94%; the residents of small places: 7,88% and villages: 27,88%. 77,55% of the respondents were the recipients of shipments and 21,43% of them were senders. In the majority of cases, they are occasional customers of these services as 41,84% of them use them rarely (less than once a month); 30,61% a minimum once a month; 20,41% frequently (at least once a week) and 7,14% send parcels every day. Almost a half of them (48,98%) receive parcels up to 1 kilogramme; 47,96% in the range from 1 to 5 kilogramme and 9,18% parcels of over 5 kilogramme. They most frequently use the services of the following TSL companies: DP DHL – 54,8%; DPD – 53,06%; Poczta Polska – 47,96%; UPS – 18,37%; GLS – 17,35%; K-ex – 4,08%; DB Schenker – 2,04% and OPEK – 1,02%.

The customers determined the most important criteria of the selection of a logistics company apart from the price by which they are guided when selecting one (58,16%), and these are the following: the lead time; basic services offered included in the price and additional services for which the customer is obliged to pay additionally; the quality of the services offered and also the image of the company which is assessed based on the appearance of the drivers and the transport fleet. The customers assessed the level of the prices of the services offered from the perspective of other companies that offer similar services. Table 1 presents the price in relation to other elements indicated by the respondents who decide about a higher value, whereas 1 means very low assessment, 2 – low, 3 – average, 4 – high, 5 – very high assessment.

Table 1. Assessment criteria of the logistic elements of customer service in relation to the level of price determined by TSL companies

Criterion of assessment in relation to the price of service	1	2	3	4	5
Price and quality	1,02%	6,12%	41,84%	45,92%	5,1%
Price and appearance of company	3,06%	8,16%	42,86%	40,82%	5,1%
Price and lead time connected to service	2,04%	5,1%	26,53%	51,02%	15,31%
Price and basic service	1,02%	7,14%	45,92%	36,73%	9,19%
Price and additional service	3,06%	11,22%	45,92%	26,59%	10,21%
Price and competition	2,04%	5,1%	34,69%	44,9%	13,27%

Source: Author's own study on the basis of author's own research.

Individual customers are most ready to pay for a short lead time of the delivery. At each shipment, they compare the price offered by the competition in relation to the delivery time. Additional services have significance, such as shipment insurance or charging cash for the commodity and an assigned freight fee. They consider the basic price for the service as high or average, and quality should be included in the standard of the services provided. The appearance of the company including its drivers and cars is of the smallest significance, and the customers have no contact with terminals and frequently they do not often know where these are located.

The average of assessments for the selected elements of the logistic customers service is presented in Fig. 1. According to the respondents, the price level for logistics services is the most important: 78,57%; the short time of the transport and delivery of the shipment comes second: 64,29%; a high quality of the service offered: 23,47%. The smaller significance is attributed to the promotion of dedicated services: 18,37% and the image: as little as 6,12%.

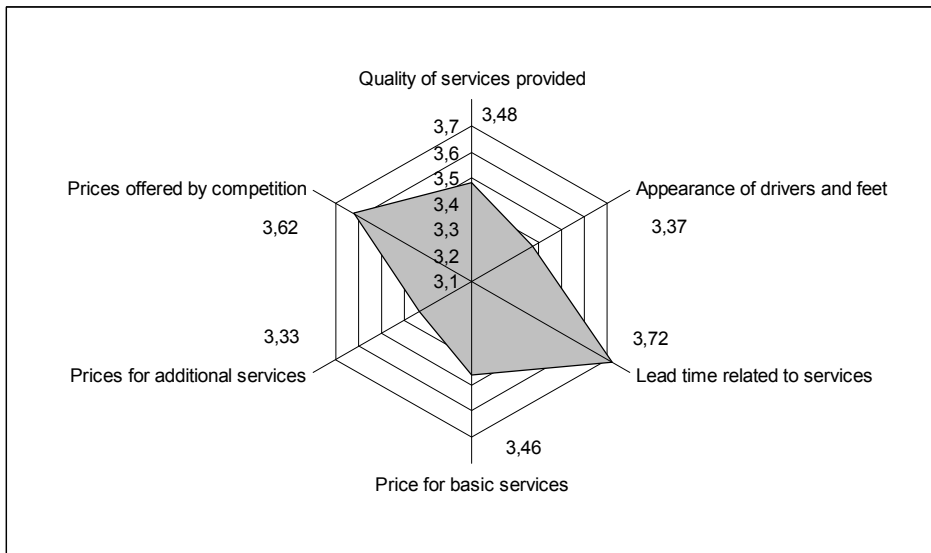


Figure 1. Assessment of the logistics elements of services provided to individual customer by TSL companies

Source: Author's own study on the basis of author's own research.

The customers check the delivery time (average assessment: 3,72) and compare it with the prices offered by competition, and then they select their logistics operator. They try to limit additional services, that is they pay for the commodity with a sender and they do not choose any express deliveries. The quality of a given service must be guaranteed through tracking with the use of the bill of lading number. The recipient monitors this on websites and gets a notification via e-mail and SMS.

In Table 2 are shown the extent to which individual consumers and institutional guided by quality and price when choosing an operator. For individual customers price and quality when choosing a company TSL is more important than in the case of companies.

Table 2. Criteria for selection of services in the field of TSL by individual and institutional customers

Criteria	Individual customers	Institutional customers
Price	67,27%	56%
Service quality	47,27%	36%

Source: J. Dyczkowska, *Konkurencja w sektorze TSL – cena czy jakość?*, „Logistyka” no. 6/2012, p. 740.

Client B2B market only 36% draws attention to the quality, as a selection criterion, because the process of providing the quality is comparable in all the surveyed enterprises. B2C market price almost 70% determines the choice of the carrier, hence the high share of the Polish Post Office as a service provider TSL. Consumers are guided prices when choosing a company, similar values in both groups. It must be concluded that providing high quality services may not be the price low.

Summary

Competition based on the elements of logistics customer service by TSL companies is currently accepted as the place where competitive advantage can be obtained. Not all deliveries require short delivery time but it is the customer who decides and requires shortening of the cycle. For this, the customer is ready to pay an additional price to the logistics operator, which creates an additional added value in the logistics chain. The price is the most important criterion in the selection of the supplier of logistics services, and a reduction of time allows one to increase the freight. Individual customers, who decide on the selection of the forwarder, are guided first by the price and the delivery lead time. The quality of services should be guaranteed on the European level. If customers opt for additional services, they are ready to pay more for them. The appearance of the drivers and the fleet is of the smallest significance for them. Modern technology offered as standard allows the company to maintain contact with the customer and to notify the customer about the status of the service. Based on the research results, it can be stated that customers compare the prices of services offered by TSL companies and select the most favourable offer in relation to the price, time and quality.

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DETERMINANTY OCENY OPERATORÓW LOGISTYCZNYCH W STOSUNKU DO CENY

Artykuł przedstawia cenę, jako podstawową determinantę wyboru dostawcy usług logistycznych. Operator logistyczny dostarcza podstawowe usługi logistyczne oraz dodatkowe podwyższające jej wartość. Klient indywidualny znajdujący się na końcu łańcucha logistycznego decyduje o wyborze operatora logistycznego. Analiza strategii cen pozwala na realizację usług logistycznych na wysokim poziomie przy zastosowaniu konkurencyjnych cen i najkrótszym czasie realizacji.

Słowa kluczowe: operator logistyczny, elementy logistyczne, cena, konkurencja.