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EVALUATION OF DISTRIBUTION CHANNELS IN A SELECTED MEAT PROCESSING COMPANY

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Abstract: The aim of the article was to analyse distribution logistics on the example of a selected meat processing plant, as well as to assess existing distribution channels according to the criteria determining the usability, efficiency and nature of the channel. Based on the research and analysis (analytical and point method), the distribution channels operating in this company were characterised and evaluated. Based on the results, one can determine which of the existing channels is the best and present the directions for their further development.

Keywords: logistics, channel, distribution, evaluation, analysis.

1. Introduction

Distribution (next to production) is one of the most important links in the logistics chain, as it is designed to make the product available in a place and time corresponding to the needs and expectations of buyers (Gołembska, 2010). The purpose of distribution is to reach as many potential recipients and buyers as possible, as well as to realise the planned sales volume and maintain the assumed profitability of the enterprise (Szymczyk and Kadłubek, 2019; Liu, et al., 2019). The main tasks of distribution logistics include organising customer networks in the form of partner stores and defining the terms of cooperation with them (size, dates and type of deliveries and delivery method), how to organise deliveries to customers and providing effective customer service that positively affects the relationship between partners and shapes future cooperation (Kadłubek, 2012).

Depending on the type of enterprise (industrial, service and commercial) and the goods they produce, the distribution network may be more or less developed, and hence more or less complicated, making the logistics distribution functions implemented by enterprises very diverse (Gołembska, 2010).

2. Distribution system

Enterprises increasingly pay attention to the total distribution costs, which in some cases range from 30% to 40% of the total cost of the product (Dohn, et al., 2012). According to Kotler (2005), total distribution costs consist of: transport costs, inventory financing, warehousing, as well as customer service and distribution administration.

The most important strategic decisions of production companies include the selection of appropriate distribution channels that can significantly increase the company's profits (Mao, et al., 2019). Currently, two types of distribution channels are most common: direct and indirect channels (Nowicka-Skowron, 2001). Direct channels are distinguished by the lack of intermediaries, and the manufacturer himself deals with the dissemination and sale of goods (Kot and Marczyk, 2010). The advantage of this type of distribution is control over prices, quality of services and fast flow of information between the customer and the producer (Cyplik, et al., 2008). However, the disadvantages include high costs of maintaining the distribution channel. Intermediate channels occur when one or several intermediaries between the producer and the customer (Spyra, 2007). The advantage of this distribution is the increased sales range, while the disadvantages include the lack of control over prices and quality of services, as well as a long payment period for products (Skowronek and Sarjusz-Wolski, 2003).

The key to success in companies is rapid response to changes on the consumer market and satisfying the needs of clients (Kowalaska, 2013). A fast-growing distribution channel in Poland is the modern channel, which consists of retail chains. The most important advantages include reducing distribution costs, facilitating expansion into new unsupported markets and gaining benefits related to specialisation and homogeneous operations on a large scale. However, the main disadvantages include partial or total loss of control over prices and quality of services, extended payment periods and the risk of incurring costs due to unreliability of the intermediary (Yi, et al., 2019).

This article evaluates existing distribution channels according to criteria determining the usability, efficiency and character of the channel. On the basis of the research and analysis carried out, five distribution channels existing in the company were characterised and evaluated. Based on the results, it was determined which of the existing channels is the best, and the directions for further changes were indicated.

3. Characteristics of enterprise

The Polish meat processing market is highly competitive due to the presence of numerous domestic and foreign producers. Analysis of characteristics and evaluation of distribution channels were carried out on a meat processing plant located in the Śląskie Voivodeship. This is a plant with an area of approx. 4,000 m² and a production capacity of approx. 30 tonnes per day. The company employs 100 people and produces nearly 150 kinds of cold cuts, hams and smoked meats. The plant also sells products that it does not only buy from other companies and sells as commercial goods (e.g. geese, duck, turkey, chicken offal).

The company is involved in the processing of pork and beef, the demolition of half-carcases and pig quarter quarters, as well as the sale of meat and sausage products. Many products have been manufactured from the beginning of the plant's existence; however, to meet the expectations of customers, the sales offer is constantly being expanded upon and altered to the consumer's needs. In particular, the company is proud of the "Master Jan" palette. The recipes of these products are based on the traditional and original recipe, which has a large impact on the taste.

The main purpose of the company is to meet consumer needs through high quality products. The company received the QAFP certificate for products from the "Master Jana" line – it is a system that ensures high quality and the reliability of products. What's more, the company has implemented the HACAP system, which identifies potential threats from the point of view of food health requirements and determines corrective actions.

4. Material and methodology

The efficiency and effectiveness of distribution channels were assessed using the analytical and point method, which enabled the analysis and evaluation of selected factors that can be identified. The most important step in this method is the selection of appropriate criteria and the allocation of appropriate weights to them. The selection of criteria and weights was made after consultation with the company's management. Depending on the importance of the factors, the appropriate weight was assigned to them. For analysis, 8 criteria were adopted, and the total sum of weights is 1.00. The smallest weight value was 0.05 (minor factors), and the highest 0.20 (very important factors). Table 1 presents the selected criteria with weights.

No.	Criterion	Scales				
1	Bandwidth of the distribution channel	0,20				
2	The size and structure of orders	0,20				
3	Promotional effectiveness	0,15				
4	Transport costs	0,15				
5	Financial Liquidity	0,15				
6	Labour costs	0,50				
7	Territorial range	0,50				
8	Information flow	0,50				
	Sum	1,00				

Table 1. *Criteria for assessing the effectiveness of distribution channels*

The next step in the analytical and point method is to give points for individual criteria. These were rated on a scale of 1 to 5, where "1" means the weakest channel, "2" - medium, "3" - good, "4" - very good, "5" - the best channel.

There were 5 distribution channels in this company.

Channel I – so-called modern channel. It supplies the Kaufland commercial network, and the product is delivered to three logistic centres: Gliwice, Piotrków Trybunalski and Bydgoszcz. Sales in this channel are high, and orders sometimes reach several tonnes.

Channel II - so-called traditional. The goods are delivered to Polish wholesalers. This is the channel with the highest sales.

Channel III – so-called collective nutrition. It includes the catering trade, i.e. canteens, nurseries, kindergartens, schools, hospitals, restaurants.

Channel IV – so-called direct channel that applies to stores in Poland. These stores create a good image of the company, and direct contact with the consumer allows you to quickly respond to the expectations of buyers.

Channel V – so-called direct channel that applies to stores in the Czech Republic (foreign). Orders are small, but thanks to this, the company is known abroad, which in the future may affect the development of the company on the foreign market.

The channel's capacity is crucial for the company, which significantly affects the profits. On the sales volume in this case, the price and the quality of the products. Consumers have more and more knowledge and awareness about healthy eating, but this does not translate into their earnings, and it also increases the requirements. As a result, producers must produce high-quality goods, but at an acceptable price for the consumer. Figure 1 shows the sales volume of the product broken down into individual channels.

The size of the order is the largest single order that was made in the company by the participant of the distribution channel. It was found that the largest flow of goods was carried out in the so-called modern channel, and the smallest – the so-called collective nutrition channel.

Table 2 presents the assessment of distribution channels.

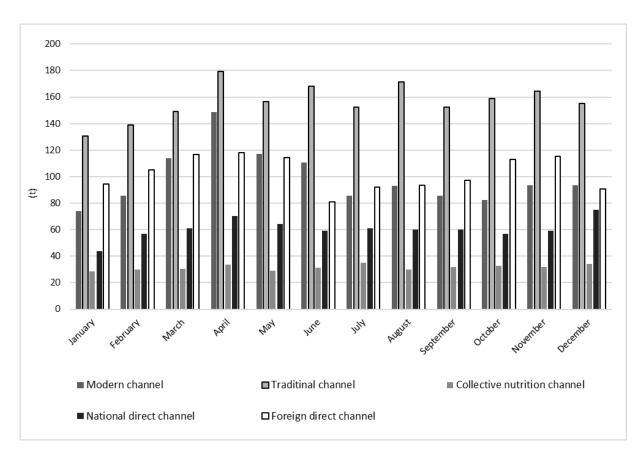


Figure 1. Graph showing the sales trend of goods in channels.

Table 2. *Evaluation of distribution channels.*

			Modern		Traditiona I channel		Collective nutrition channel		National direct channel		Foreign direct channel	
No.	Criterion	Scales	Points	Rating	Points	Rating	Points	Rating	Points	Rating	Points	Rating
1	Bandwidth of the distribution channel	0.20	4	0.8	5	1.00	1	0.20	2	0.40	3	0.60
2	Size and structure of orders	0.20	5	1	4	0.80	1	0.20	2	0.40	3	0.60
3	Promotional effectiveness	0.15	4	0.60	5	0.75	2	0.30	3	0.45	3	0.45
4	Transport costs	0.15	4	0.75	3	0.60	2	0.30	5	0.45	5	0.45
5	Financial Liquidity	0.15	4	0.6	3	0.45	4	0.75	5	0.75	5	0.75
6	Labour costs	0.05	3	0.15	4	0.20	5	0.25	5	0.25	5	0.25
7	Territorial range	0.05	5	0.25	4	0.20	1	0.05	2	0.10	3	0.15
8	Information flow	0.05	4	0.20	3	0.15	5	0.25	5	0.25	5	0.25
Sum	Sum		4.35		4.15		2.30		3.05		3.50	

The company's financial liquidity is the timely payment of invoices issued by the company. It is not important whether the customer makes the payment immediately after receiving the document or on the last day of payment deadline. The fulfilment of the contract is of key

importance. The best criterion is met by the so-called direct and so-called collective nutrition channels. Profits are transferred to the company every day. There are also no major problems in the modern channel. The longest delays with payment occurred in the traditional channel, which consists of numerous links - small warehouses.

The territorial range is of key importance for the development and sales volume in the enterprise. The company is known throughout Poland, and each channel covers a different region of the country. From the modern channel, products were delivered to three logistic centres, in which they are divided and packed into smaller orders, and subsequent ones are sent to all Kaufland chain stores in Poland. The participants of the traditional channel were wholesalers appearing in large cities throughout Poland. There are ten stores in the national direct channel, located in: Bielsko-Biała, Cieszyn, Czerwionka-Leszczynie, Chorzów, Rybnik, Katowice, Żory and Ustroń. The foreign direct channel covers the Czech state, mainly Zaolzie. The company on the foreign market has several stores, among others, in Karviná and Český Těšín. The smallest range has a collective feeding channel and covers only the areas of Cieszyn Silesia.

The promotional effectiveness is influenced by many factors, including the attractiveness of the advertising message and the promotion of the product. Promotions are aimed at increasing the number of contractors, extending the territorial coverage and encouraging a positive image of the company among consumers. Each distribution channel is characterised by other promotional methods to reach as many participants as possible. In the modern channel, the promotions were effective only during their lifetime, as the competition is large and offers a similar assortment with similar prices. In the traditional channel, promotional campaigns were carried out by adding an additional free quantity of products to the order. In the group catering channel, customers receive various types of company gadgets, including aprons, chef's hats and T-shirts. In direct channels, the main promotional campaigns include meat tasting, as well as a reduction in the prices of newly introduced products.

Transport costs are costs incurred by the plant to deliver products to the customer. These costs depend on the type of transport, the carrier and the length of the route. Choosing the right mode of transport has a large impact on the company's profitability. The company has its own transport, which provides orders for direct and collective feeds. It is very well organised, and the costs incurred by the company are low. The company also uses transport services, through which it delivers to the modern and traditional channel. Due to the large number of warehouses and their dispersion, transport costs in this channel are the largest.

Labour costs depend on the number of employees servicing a given distribution channel. Differences in costs occur at the stage of bulk packaging of goods. The largest cost was generated by the modern channel, as it has high packaging requirements, which is very labour-intensive and, therefore, cost-intensive. Products packed in cartons with dimensions of 391x251x213, the number of items in the carton and the weight is specified. Slightly cheaper was the traditional channel, as the products are packed in large cartons with dimensions of

594x1589x1589, and the range can be combined in cartons. The lowest costs were generated by direct channels and mass nutrition, because the goods are delivered in baskets.

The flow of information is the relationship between the consumer and the producer. An enterprise can build a competitive advantage only by satisfying the needs and expectations of customers. The weakest contact with the customer was in the traditional channel. Conversations are conducted by a sales specialist, called a trader. Information from customers goes to the production director with a long delay. Slightly better contact with the contractor was seen in the modern channel, which is usually via e-mail. This method is cheap and fast. The company has the best contact with consumers in direct channels and mass nutrition. Thanks to the quick response of the company to customer expectations, services and products are constantly improved.

5. Summary

An important role in the company is played by distribution channels that ensure a smooth and rapid flow of goods to as many consumers as possible. In the analysed company, the most effective channel of distribution was the modern channel, which received 4.35 points in the overall assessment, and the traditional channel was ranked second (with a sum of 4.15 points). The least effective channel of distribution was the channel of collective nutrition, with the number of points amounting to 2.30.

The following criteria influenced the high rating of the modern channel: the volume of orders, bandwidth, transport costs, financial liquidity and promotional effectiveness. It should be noted that the stores have a diverse assortment, and thus customers save time on shopping. The lowest rated channel turned out to be collective nutrition, which is in the initial stage of development. The potential of this channel is very high, as the goods delivered to hotels and restaurants are consumed by people from all over the world, which increases their awareness of the company.

Distribution logistics is an important element of the logistics chain that represents the company on the market, which should be focused on ensuring high quality products, timely deliveries and offering favourable sales conditions. Research has shown that existing distribution channels in an enterprise are diverse due to their effectiveness, promotion efficiency and timeliness of payments. It is recommended to create a new distribution channel with the commercial network, e.g. Biedronka, Lidl, Tesco or Auchan, and having a QAFP certificate by the company may allow for the establishment of contacts with new contractors. It is also recommended to extend the foreign direct channel to the Slovak territory, due to its close location with the plant.

References

- 1. Cyplik, P., Glowacka, D., Fertsch, M. (2005). *Logistyka przedsiębiorstw produkcyjnych*. Poznań: Wyższa Szkoła Logistyki Poznań.
- 2. Dohn, K., Matusek, M., Odlanicka-Poczobutt, M. (2012). Ocena efektywności kanałów dystrybucji w wybranym przedsiębiorstwie produkcyjnym część I. *Logistyka*, 4, 99-106.
- 3. Gołembska, E. (2010). Kompendium wiedzy o logistyce. Warszawa: PWN.
- 4. Kadłubek, M. (2012). Podsystem logistyki dystrybucji w przedsiębiorstwie. *Logistyka, 5,* 476-481.
- 5. Kot, S., Marczyk, B. (2010) Transport Optimization in Mobile Fodder Distribution. *ALS. Advanced Logistic Systems. Theory and Practice*, 4.
- 6. Kotler, P. (2005). Marketing. Warszawa: Rebis.
- 7. Kowalka, K. (2013). Nowoczesny kanał dystrybucji. Współczesne standardy i strategie rozwoju. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego. 23*, 81-90.
- 8. Liu, L., Wang, H., Xing, S. (2019). Optimization of distribution planning for agricultural products in logistics based on degree of maturity. *Computers and Electronics in Agriculture 160*, 1-7.
- 9. Mao, Z., Liu, W., Feng, B. (2019). Opaque distribution channels for service providers with asymmetric capacities: Posted-price mechanisms. *International Journal of Production Economics*, 215, 112-120.
- 10. Nowicka-Skowron, M. (2001). Efektywność systemów logistycznych. Warszawa: PWE.
- 11. Skowronek, C., Sarjusz-Wolski, Z. (2003). *Logistyka w przedsiębiorstwie*. Warszawa: PWE.
- 12. Spyra, Z. (2007). Kanały dystrybucji. Kształtowanie relacji. Warszawa: CeDeWu.
- 13. Szymczyk, K., Kadłubek, M. (2019). Challenges in general cargo distribution strategy in urban logistics-comparative analysis of the biggest logistics operators in EU. *Transportation Research Procedia*, *39*, 525-533.
- 14. Twaróg, J. (2003). Mierniki i wskaźniki logistyczne. Poznań: Biblioteka Logistyka.
- 15. Yi, Z., Li, F., Ma, L. (2019). The impact of distribution channels on trial-version provision with a positive network effect. *Omega*, 85, 115-133.