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#### SOURCES OF COMPETITIVE ADVANTAGE FOR ENTERPRISES IN THE TFL INDUSTRY – CASE STUDY

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**Purpose**: The aim of the research was to assess and analyse the factors that are the sources of competitive advantage of the company in the TFL industry, which stands for Transport, Forwarding, Logistics.

**Design/methodology/approach**: The article analyses the company's own documents. Opinions in the analysed company were collected using a survey questionnaire. A number of analyses were carried out to create data compositions and decompositions. The subject of the analysis was a local logistics centre providing its distribution, storage and transport services both in the region and the whole country. It specializes in providing integrated logistics solutions and designing the best possible methods of distribution, storage and transport of the region's customers.

**Findings**: According to the study, the analysed centre ensures professional and efficient implementation of logistics processes. It provides services in the field of comprehensive handling of the order execution process, starting from the administration of products to the preparation of transport and subsequent distribution. The conducted research, however, indicated several weak points of the company, which are: high costs related to the exchange of information or untimely execution of orders. According to the authors of the study, in order to gain an advantage on the market, the analysed logistics centre should implement solutions that will eliminate the above-mentioned risk factors and improve them enough to become a source of competitiveness for the company.

**Originality/value**: The article presents the results of the composition of source and survey data concerning a company in the region of the TFL industry. The study attempts to indicate the determinants of the competitive advantage of a logistics company. Due to the analyses used, it is a very interesting overview of factors from the point of view of the functioning of a local logistics company.

**Keywords**: TFL, transport, forwarding, logistics, logistic centre, transport in the supply chain.

**Category of the paper**: Case study.

#### Introduction

Contemporary supply chain management is defined as a decision-making process related to the synchronization of physical, information, and financial demand and supply streams flowing between its participants in order to achieve a competitive advantage and create added value. It must be positive, i.e. beneficial, for all its links, customers and further stakeholders (Witkowski, 2010). Supply chain management concerns:

- joint planning, forecasting, replenishment of stocks and control and steering of related processes in the supply chain,
- composing the product and the network. It is making important decisions about products and services, the entity structure and the links between the links of the chain,
- creating products using information obtained from suppliers,
- creating a production network, which leads to the selection and definition of production tasks, production locations and maintaining stocks,
- optimizing the efficiency of supply chain processes that are related to the flow of products, information and money,
- ordering and integrating the product, load or partner location on a global scale,
- permanent analysis and control of business performance indicators and measures (Kawa, 2011).

Improving supply chains requires the development of three main dimensions of electronic economy, which are communication: internal - between employees of the company using the Internet and computer systems supporting teamwork, and external - with selected economic organizations thanks to the extranet network and the company with an unlimited number of existing and potential customers or partners using the generally available internet network (Witkowski, 2016).

To obtain the best results of supply chain management optimization, numerous methods are used (Szymonik, 2011), including: LM (Lean Management), AM (Agile Management), also called flexible, QR (Quick Response), almost immediate, ECR (Efficient Consumer Response) - efficient service in the customer's supply chains, TQM (Total Quality Management) - comprehensive quality management, Six Sigma - called "sigma", BPR (Business Based Reengineering) - business process redesign, JiT (Just in Time) - at the right moment, SCOR (Supply Chain Operation Reference-Model) - chain reference model, VMI (Vendor Managed Inventory) - inventory management by the supplier, CS (Consignment Stock) - inventory consignment, or CPFR (Collaborated Planning, Forecasting & Replenishment) - shared planning, forecasting and replenishment of stocks (Szymonik, 2013).

It is important here that today's modern supply chain management is mainly focused on meeting the needs and requirements of the customer. Here we see a situation of pro-client attention. These requirements are still higher, so the commitment must be greater. Leading to the greatest customer satisfaction should not start and end with knowing their needs, but should focus on service and quality. What is important is a broad and proven knowledge of the processes and conditions existing during the purchasing process and the entire sales funnel. Important in modern supply chain management is the decision-making process of various demand and supply streams. This stream flows between its participants in order to quickly and effectively achieve competitive advantages, and the creation of added value was a benefit for all its links. Customers and other stakeholders should also be considered (Witkowski, 2016).

Supply chain management is based on information that must be true, reliable and comprehensive, and provided in a timely manner. Fast, efficient flow is an elementary condition for the success of the quick response strategy. This means flexible, efficient and quick response. Synchronization of the activities of all cooperating chain links is the basis of intelligent supply chains - iSupplyChain (iSC) (Person, James, 2002). A company that carries out logistics deliveries must obtain solutions to the complex and difficult tasks that they face. Another challenge is the increasing emphasis on the flexibility of activities, which is not so easy with a pre-planned development strategy. In such a situation, the company can use the concept of an agile supply chain consisting in the use of modern IT solutions and the implementation of creative projects.

The analysis of the literature shows that the determinant of supply chain agility may be: very high specialization, mutual trust of partners, good and development-friendly organizational culture, appropriate cost management or resource exchange efficiency (Waściński, 2014).

### The role of transport in the logistics system and in the supply chain

In supply chain management, transport plays a fundamental role, it is a tool without which goods and services could not be moved between the sides of the chain. The implementation of transport services is directly related to the choice of means and modes of transport. Depending on the type and size of the load, as well as packaging and transport technology, transport services can be classified in different ways, e.g. full truckload, part load and groupage, or passenger and freight.

Transport services provided in the transport system by transport companies, logistics operators, carriers, etc. are a special type of service carried out on the market called the transport services market. The demand for transport services results, among others, from the manufacturing and production processes of various enterprises and from the need to supply these enterprises with appropriate resources. These services are also a consequence of diversification of the structure of space and production range, as well as the structure of the direction of transport, and changes in the supply of sales markets and product distribution.

All these processes and activities are related to the proper transport service for people receiving a given area of the transport network. Transport service is conditioned by the structure of transport tasks, which are mainly determined by: type and quantity of cargo, relation or relations of cargo movement, i.e. by a pair or pairs of the type "shipping point - cargo collection point" and the date or dates of delivery or deliveries (Witkowski, 2016).

Transport services provided in supply chains, as well as logistics services for enterprises, are usually based on standard technological solutions typical of the entire market. Companies operating in supply chains compete with each other primarily in terms of price and quality of service, which includes, among others, service delivery time and added elements, such as monitoring or simultaneous handling of information streams and financial settlements (Ambroziak, Gołębiowski et al., 2015).

The transport system is a purposeful system whose task is to move people and material goods in space. The processes implemented in the transport system either constitute essential elements of supply chains or are independent of them (when they are carried out for entities not participating in supply chains). In both cases they reflect physical links in the logistics network. As a result of the movement, the loads are given specific spatial-temporal characteristics (at a certain time, the location of material goods changes).

Therefore, one of the aspects of the functioning of supply chains are the processes of intentional human activity that changes the time-spatial characteristics of loads in the spheres of supply and in the spheres of distribution of a specific group of enterprises. For this reason, the purpose of supply chain research, described in the literature on the subject, is to properly define the processes taking place in them. The transport process can also be defined as successive and interconnected activities necessary to meet the transport need. This process includes the transport process and activities conditioning its implementation such as: preparation of cargo for transport, intermediate storage, delivery of cargo and all organizational activities. The transport process is therefore a narrower concept than the concept of a transport process. A transport process, e.g. in a given supply chain, may include one or several transport processes, depending on the number of modes of transport involved in its implementation. (Bentkowska-Senator, Kordel et al., 2011).

In terms of the definition of the supply chain and its role in the effective movement of cargo, it should be noted that elements such as infrastructure, means of transport, human resources, information flow, work organization rules and transport technologies determine the appropriate implementation of the processes of moving cargo from the points of origin to the points of receipt. According to the above, one of the elements conditioning the performance of transport tasks in the supply chain are means of transport. In the aspect of transport technology, means of transport are all vehicles and devices used to move goods or (and) people - both over long and short distances. These means fulfil the basic transport function of moving, although the distance range of their operation varies. In this aspect, the following are distinguished: means of transport, i.e. cars and lorries, and means of reloading, i.e. machines and loading devices.

The basis of this division is the scope of operation. In general, the operating range of means of transport is defined in kilometres, and of reloading means - in metres. The features and properties of means of transport depend on various factors, the most important of which are the type of transport mode and the type of transport performed. However, the primary factors are always the conditions resulting from the object of movement (i.e. people and things), i.e. the requirements of passengers and the characteristics and properties of things (Całczyński, Sochańska, 2018).

It should be noted that the movement of material goods in the supply chain is conditioned by the potential of the transport system, including: transport network infrastructure, means of transport that are located in transport bases in a given area, transshipment points (logistics centres, distribution centres, warehouse facilities, transshipment terminals etc.) that are located in a given area and the organization of the transport system elements, describing their cooperation in the implementation of transport tasks.

The organization of the operation of the transport system should ensure minimization of the costs of transport tasks, and at the same time take into account the capabilities of transport service providers and the need to meet customer requirements. If transport tasks in the supply chain are performed by more than one transport company, then one of them can take over the function of the organizer of the whole operation - the function of a forwarder for a specific group of cargo (or companies). This function can also be performed by a separate company, which is then called a forwarding company or a logistics operator. (Simonik, 2013).

Mapping the organization of transport in supply chains and other areas of logistics networks captures the relationships between the elements of the supply chain (which are the points of sending and receiving loads) and the volume of transport tasks resulting from the needs of supply or distribution. Therefore, the organization of transport in supply chains is a way of implementing transport services for elements of these chains, with specific infrastructural equipment of supply chains and the transport potential of transport companies and logistics operators. This means that the implementation of transport tasks is possible with established technical, economic, organizational and human resources. (Bogdanowicz, 2012).

To sum up: the transport service of supply chains may have a different organization resulting from the specificity of the transported loads. In practice, there are many single, interpenetrating supply chains in the supply network, in which - from the point of view of achieving the goal - management takes place within the entire supply network. Supply chains overlap and create a complicated network of related entities, which are recipients, co-operators, suppliers and competitors to each other.

### **Empirical research methodology**

The activity of the analysed company includes the provision of transport, forwarding and logistics services (TFL industry) and acting as a logistics centre. It specializes in providing comprehensive integrated logistics solutions, as well as in designing the most optimal ways and means of distribution, storage and transport of a diverse range of customers in the region. The logistics centre thus ensures professional and efficient implementation of the abovementioned processes. The company's logistics is supported by a technologically advanced transport and shipment management system, and the company uses a modern, diverse fleet of vehicles. However, due to the applicable regulations (General Data Protection Regulation), the company did not consent to the public use of its name.

The company's customers are mainly retail chains and international producers of food products. The company stands out in the TFL industry in that it is one of the largest employers and thus employs about 2500 people in Poland. It has over 9600 square meters of warehouse space. It has vehicles that run on national and international roads. The warehouse infrastructure is developed at a high level, as evidenced by, for example, a controlled temperature zone, modern internal transport, a high-storage system, 24-hour security, systems protecting products against rodents and insects. In warehouses, goods are unloaded and accepted with simultaneous quantitative and qualitative control.

The strategic vision adopted by the company provides for development in the area of transport and forwarding, warehousing and additional services in market segments that are characterized by higher advancement and complexity of logistics services, higher quality requirements, as well as higher profitability or entry barriers. The company's goal is to achieve the position of an integrated logistics operator, which will be one of the strongest entities in the logistics industry in Poland.

The aim of the research presented in the article was to assess and analyse the factors constituting the sources of competitive advantage of the TFL industry company.

A research method is a way of solving a given research problem with the use of an appropriate research technique, using appropriate techniques and tools. in scientific research we do not use random methods, but deliberately selected and planned methods. In a scientific study, we therefore consciously choose them due to the subject and purpose of the research, as well as the available resources.

The article uses a research technique: the so-called analysis of the content of the collected materials and a survey, and the tools used were an observation tool and a survey questionnaire. The source analysis of the materials provided by the company was also used and the obtained data was synthesized.

### **Selected research findings**

The analysis of the company's source documents proved that when looking for factors of competitive advantage, the company undertakes various activities, including expansion of warehouse space, stable growth, development of services for new market sectors and new contracts. It also plans to implement further innovations, as well as enter new markets, which include DIY (Do It Yourself), fresh and e-commerce, as well as provide its customers with friendly service and reliable solutions. The vision of the logistics centre is comprised in the following sentence: "We deliver the future". The company aims at gaining a competitive advantage and achieving a leading position on the market. It indicates the following factors as determinants of success:

- customer orientation and satisfaction,
- reliability and honesty,
- professionalism,
- entrepreneurship,
- development and improvement,
- credibility,
- acting with passion.

Research shows that in order for the company to achieve the position of an integrated logistics operator, which will be one of the strongest entities in the industry in the region, it is necessary to pay attention to safety and reliability. As well as acting responsibly and efficiently, providing customers with safe and secure deliveries is paramount. The logistics centre additionally looks for innovative solutions and introduces innovative possibilities in order to meet the needs of contractors. Special teams of employees, in connection with the set goal, deal with the service of individual contractors, thus ensuring the correct implementation of each order, administering the products in detail and preparing transport for further distribution. As part of the cooperation, they deal not only with domestic but also international distribution, including customs clearance and premiums. Such logistic service is supported by a professional system for managing transport and shipments. Such an attitude of employees will make it easier to achieve the goal of gaining a competitive advantage and becoming a leader in the TFL industry in the future.

In its activities, the researched company points to the key determinants of success:

- human capital employees who are the most valuable resource, because their commitment and teamwork are of key importance to the company,
- quality, because the company strives to constantly improve the level of services to guarantee complete customer satisfaction,
- profit, because it guarantees the functioning and future development and stable position of the company.

The conducted research shows that the essence of the centre's logistics is such management that customers are fully satisfied with the cooperation. The main areas in the analysed company concern procurement, distribution, transport and marketing, or effective information management. The scope of services includes deliveries to: shops, wholesalers, retail chains, individual customers, service stations and central warehouses. The company's goal is therefore to provide its customers with optimal solutions in the field of distribution, taking into account the organization of the warehousing process. The customers of the analysed centre are primarily producers of various articles, who focus solely on the production process of high-quality assortment, while the distribution and storage process is left to specialists in this area.

Another aspect of the analysis concerned tasks in the area of strategic goals implementation in the enterprise, which was observed to be related to the planning process. The enterprise uses two types of planning:

- general developed on the basis of strategic plans,
- operational related to practical and detailed actions in order to achieve the assumed goals.

One of the basic methods used in the enterprise is forward planning. The date of commencement of all operations of a given order is agreed with the recipient. Thanks to the precise calculation of the time needed to perform individual activities, a schedule of operational activities can be constructed. The deadline for the provision of the service is subject to acceptance by the customer.

In everyday practice, it also happens that the company uses the so-called back-planning. It consists mainly in calculating the time allocated for subsequent activities, with the difference that the final date of service completion is taken into account and on its basis the time of starting work on the process is calculated. As a result, a plan is developed to secure the implementation of the assumed project/order. In preparing the plan, the company takes into account all the variables related to the market environment - competition, workforce, sources and methods of supply, etc.

The company also analysed the used supply chain method – Quick Response (QR). This method assumes quick replenishment by the supplier of the customer's inventory, through simple access of the supplier to the data directly from the customer's point of sale. This method is often used in the clothing industry, too. This system was developed in the late 1980s and early 1990s. The factors that influenced the creation of the QR system were the combination of the two most important functions of the company at that time: marketing and logistics, and the inspiration with the Japanese concept of Just-In-Time. The method brought positive experiences and significant effects for enterprises – mainly in production. In the 1990s, attempts were made to transfer the previously gained experience to the physical distribution sector. As a result, the delivery cycle became more and more important in the competition. It took place directly between enterprises in the production sphere, as well as in other areas of the enterprise's operation. Changes in customer behaviour were also noted. This was especially

true of markets that were heavily influenced by random events and fashion. This applies, among others, to the clothing and food industries.

The QR concept assumes:

- shorter and denser time-planning;
- all-time availability of stock information;
- unified, integrated logistics networks that depend on fast-arrival transportation, strategic cross-docking, and well-functioning goods receiving and distribution systems;
- partnerships between producers and retailers, including cooperation and information exchange;
- redesign of manufacturing operations and processes to reduce batch sizes and changeover times, increase sensitivity and flexibility, and to align major production schedules with forecasts and current customer orders;
- commitment to total quality management.

The advantage of such a system is the transfer of information directly from the place of actual demand directly to the logistics system of the supplier. While responsiveness is associated with high fixed costs, the incremental costs of improving service remain relatively low. As a result of the transfer of information, appropriate logistical decisions are made immediately, order preparation within the system is accelerated, which significantly shortens the total time of order completion. The consequence of this is lower inventory levels (Loska, 1998).

The last element of the study was the analysis of transport operations related to the movement of people or things included in the transport process.

In the common definition, the transport process forms an integral part of the passage of goods in the logistics chain. It directly affects the timeliness of delivery. Because of this, it is also important for the quality of a given product. In addition, it does not directly, but indirectly, affect the satisfaction of potential customers. It also translates into a position against the competition.

Transport operations include:

- organizational activities related to the planning of transport routes and the preparation of transport documents;
- executive activities transport, i.e. everything related to the transport process. These are such elements of the process as loading of goods, transport, unloading. These are activities directly involving the means of transport;
- commercial activities relating to financial matters, which means that they are directly related to the transport charges of goods and people.

The next stage of the study included a survey among employees and customers of the logistics centre.

Twenty-five people took part in the employee opinion survey. They were people aged 18 to 46 and older. The largest group of respondents are men whose seniority ranges from one to five years. Mostly they were physical workers. The respondents rated the functioning of the supply chain at 7 and 8 on a scale of 1 to 10. The most important issues in the supply chain that require improvement are the high costs of information exchange. On the other hand, the most important customer service factors are problems with timeliness, but the frequency of their occurrence, according to the respondents, is low. According to the respondents, the company should improve its marketing and expand the scope of its operation. It was also indicated that only selected elements of supply chain management methods are used in the logistics centre, which may affect the deterioration of the quality of the company's operation.

Similarly, 25 people participated in the customer opinion survey, with the largest number of men aged over 46 in this survey. Most of the respondents do not use the services offered by competing enterprises. The performance of transport services in the supply chain was rated 9 on a scale of 10. The problem that has been noted and related to transport services in the supply chain within the company, is mainly the uncertainty of the delivery date, and the basic advantage is the affordable prices of services.

Diagnosed problems can be easily eliminated by implementing appropriate logistics solutions so that the company can continue to develop and become a leader on the TFL market.

## **Summary and main conclusions**

According to the study, the analysed centre ensures professional and efficient implementation of logistics processes. It provides services in the field of comprehensive handling of the order execution process, starting from the administration of products to the preparation of transport and subsequent distribution.

Transport is one of the most important and technically, economically and organizationally complex sectors of the national economy. It can be said that the national economy, which is developing under the influence of transport, poses more and more tasks to it. Without the development of transport, there could be no further increase in production and the dynamics of the social division of labour. These facts show the reciprocal nature of the relationship between transport and its environment. On the other hand, the transport service of supply chains may have a different organization resulting from the specificity of the transported loads. However, in practice, there are many single, interpenetrating supply chains in the supply network, in which - from the point of view of achieving the goal - management takes place within the entire supply network. The qualitative assessment of transport includes components, components or factors affecting the handling of deliveries. Quantitative indicators of the assessment include, among others, the number of shipments, tonne-kilometres already made or

real working time and delivered freight weight. These indicators are a set of analytical tools for measuring and evaluating logistics processes and systems. Their most important task is to reliably reflect the state that is taking place.

The conducted research, however, indicated several weak points of the company, which are: high costs related to the exchange of information or untimely execution of orders. In order to gain an advantage on the market, the analysed logistics centre, according to the authors, should implement solutions that will eliminate the above-mentioned risk factors and improve them enough to become a source of competitiveness for the company.

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