

ADVANTAGES AND DISADVANTAGES OF OUTSOURCING IN E-BUSINESS LOGISTICS

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Purpose: The paper discusses the application of outsourcing in logistics in companies operating online. Companies operating in the global market are constantly seeking new solutions that will enable them to gain and maintain a competitive advantage. One of the solutions used to increase the efficiency of an organisation is outsourcing. The main objective is to identify the advantages and disadvantages of outsourcing in the online market. The application of outsourcing tools in business activities, such as using external companies for the distribution of goods, influences the increase in the competitiveness of companies in the online market through the rapid delivery of products. The use of external logistics operators increases the capacity of companies and helps them strengthen their competitive position in the market.

Design/methodology/approach: The objective of the paper was achieved through the theoretical and empirical analysis of the research presented. The paper presents the results of research into online sales behaviour and identifies the advantages and disadvantages of outsourcing. The optimal solution to satisfy customer needs is the use of outsourcing, which is characterised by the high quality of services offered by external entities supporting the operation of companies.

Findings: Nowadays, an organisation's success factor is increasingly the ability to manage relationships with customers and suppliers, which refers to both the level of customer service and cooperation with contractors. Many companies, including those operating online, are considering using special logistics outsourcing, the aim of which is to reduce costs and limit unnecessary investments. For example, using courier companies is a good practice of modern companies. This means they do not need to have their own transport, which often generates considerable costs.

Research limitations/implications: The topic discussed in the paper is very important in the modern context due to the significant development of online sales. To meet public expectations, cooperation with suppliers is a must. Companies, by signing contracts with external operators, can ensure the quick delivery of shipments without the need to have their own transport. During the research, certain limitations were observed in accessing information, both domestic and international, which could have facilitated a more thorough analysis. Another limitation is finding a larger group of respondents willing to participate in the research. Despite these limitations, the author plans to continue research in this area.

Practical implications: Outsourcing is currently used in most industries, regardless of their specifics, which gives this tool a universal character. Companies deciding to use outsourcing should be aware that its implementation requires the execution of many complex actions and

detailed analyses, often preceded by significant changes in the organisation's operations. Nowadays, cooperation with contractors is one of the most important factors determining the success of an organisation.

Social implications: The paper raises public awareness regarding the use of outsourcing in logistics. The described issues enable the audience to seek new solutions in the activities of various industries. Despite the widespread use of outsourcing, many relationships based on this type of cooperation do not end in success.

Originality/value: The added value of the article is to increase the efficiency of companies through the introduction of outsourcing. The issues presented make it possible to increase competitive advantage in a dynamic market. Many companies are considering the use of special logistics outsourcing to reduce costs and unnecessary investments.

Keywords: e-business, outsourcing, logistics processes, business management.

Category of the paper: Research paper.

1. Introduction – The Concept of Outsourcing in Logistics

The logistics market, consisting of customers, logistics companies, and external service providers, must collaborate to achieve mutual benefits (Guan et al., 2020). Optimising all logistics processes, both external and internal, enables companies to succeed (Sarrazin et al., 2018). In logistics service supply chains, technology and management present a challenge; therefore, it is essential to apply the principles of multi-level outsourcing chains and subcontracting. However, special attention must be paid to controlling these activities (Nilsson et al., 2017). Competitive outsourcing involves choosing between services and the ability to deliver key components (Lin, Chen, 2015). In other words, outsourcing is the transfer of responsibility for carrying out specific processes or services to an external company, with the primary goal of cost reduction (Sobińska, 2009). According to respondents to the Outsourcing 2019-2025 – Changes and Trends (www.grantthornton.pl/publikacja/outsourcing-2019-2025-zmiany-i-trend) report, the most common reasons for introducing outsourcing are (Figure 1):

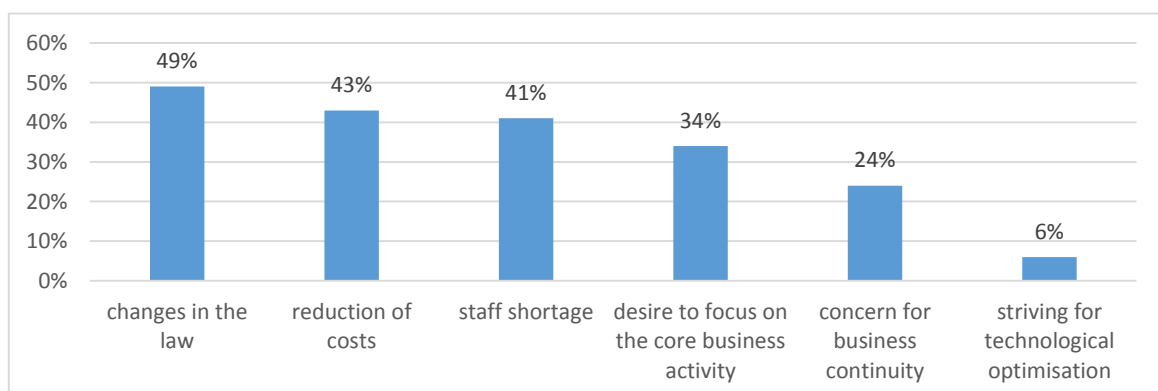


Figure 1. Reasons for using outsourcing services.

Source: compiled from Grant Thornton data based on CAWI survey; multiple choice questions.

Outsourcing in logistics refers to services that are performed by third parties, enabling the outsourcer to focus on its core business (Bai, 2010). Outsourcing presents an opportunity for entrepreneurs, ensuring cost reductions and access to expertise to meet the demands of an uncertain domestic and global market. Logistics services help to improve customer satisfaction (Wang et al., 2019). The logistics outsourcing activities of different companies are considered as a kind of long-term strategy that benefits both parties: (Schwarz, 2014; Fadile et al., 2018)

- the company's ability to use outsourcing to achieve its business objectives and/or execute its strategies;
- the company's ability to focus on its core business;
- the organisation's ability to continuously use and manage resources (internal and external) and then adjust the financing of activities to strengthen the position of the strategy in order to gain a competitive advantage;
- corporate risk reduction relates to the fact that the company invests more in its core activities than less important auxiliary activities and transfers those less important functions and activities to an external party;
- responsiveness to business needs;
- the company's ability to utilise knowledge and economies of scale in terms of human and technological resources;
- the effectiveness of outsourcing agreements and to what extent they help the company avoid major capital expenditure;
- the organisation's ability to increase its value by increasing profits, reducing costs and/or accelerating the flow of capital;
- achievement of expected savings;
- business practice creativity refers to the company's ability to offer new services and to improve and develop new internal procedures.

There are three basic models of outsourcing in business operations (Sobinska, 2009). "Outsourcing and building partnerships in supply chains have become the primary means of building competitive advantage. In the area of logistics, outsourcing has led to the emergence of an enterprise market referred to as 3PL (third-party logistics)" (Rydzkowski, Trzuskawska-Grzezińska, 2008). Outsourced logistics risk management is defined as the action of an external company to perform tasks in collaboration with 3PL and 4PL customers (Huang et al., 2019). Regardless of the speed of multi-client-3PL coordination, achieving success requires collaboration within the industry (Wilhelm, Sydow, 2018). A broader concept related to outsourcing is offshoring, which involves relocating the business process outside of the country where the company operates (Rybiński, 2007).

Full outsourcing involves the transfer of a selected auxiliary process to a single key service provider. The main advantages of this type of cooperation are the relatively low cost of assessing the supplier and the significant reduction in personnel. The disadvantages can be the low and declining innovation of the supported processes and the risk of a deterioration in the quality of the services provided by the supplier. The organisation's visible and time-driven dependence on the outsourcer is also a significant risk.

Multisourcing is outsourcing based on cooperation with several service providers. Operating with several peer outsourcers enables the optimisation of service processes and creates a competitive environment between suppliers, which contributes to improving service quality and delivering new solutions. The disadvantage lies in the difficulty of managing cooperation with multiple suppliers over a longer period of time (Stank et al., 2017).

Insourcing is the separation of an entity from the structure of the contracting organisation to handle a particular process. Such cooperation is also often the result of mergers and acquisitions, where a merger of entities results in the creation of an entirely new entity responsible for handling the process, which ultimately provides services to the market. Such an outsourcing concept ensures that the outsourcer has the right level of knowledge, although at the same time it does not increase the innovation of the proposed solutions, and the added value of outsourcing, due to the fact that the support of the process is handled by the same employees who were previously responsible for it in the context of the company's employment.

Nowadays, it is required to use appropriate tools to secure all kinds of information transferred from a company to external parties (Pollak et al., 2021). Building an appropriate infrastructure in this regard is a necessity within a company (Fedorko, Bacik, Gavurova, 2018). The choice of outsourcing model will determine both the internal powers of the contracting organisation and the ability of others to provide services (Gopalakrishnan, Shanthi, Zhang, 2019). "Obstacles include loss of control, transparency, efficiency and reliability, which prevents external logistics companies from attracting potential customers" (Bai, 2010). Increasingly complex supply chains and the growing e-commerce market are forcing companies to change their approach to managing various logistics processes. Research on the implementation of logistics processes indicates the occurrence of five most common barriers (Cichosz, Wallenburg, Knemeyer, 2020):

- complexity of logistics processes;
- lack of resources (especially lack of qualified personnel);
- difficulties in the choice of technology;
- resistance to change;
- and data protection challenges.

One of the more common solutions used to increase the efficiency of distribution processes and thus the level of competitiveness in the traditional market is the use of outsourcing, which brings important potential benefits, including cost reduction, quality improvement, the ability

to focus on core competencies and access to new technologies. The relationship between the outsourcer, the insourcer and the final customer requires an integrated management approach. The rules of the e-commerce market create ideal conditions for such an approach to managing this type of relationship. This integration should encompass the compilation of the partners' structures, the flow of information between them, and business risks (Wilhelm et al., 2016). The flow of information between the company, the courier company, and the customer determines the validity of outsourcing in the supply chain, determining the effectiveness and efficiency of the flow of shipments. The courier market is part of logistics outsourcing, which belongs to service outsourcing. Considering the relationship between e-commerce companies and courier companies, it takes the form of a B2B model. A prerequisite for its operation is the maintenance of commercial relationships between the economic operators. As part of the tasks of this type of cooperation, a network of suppliers and recipients is created, which enables the smooth progress of transactions (Szpringer, 2005). Courier companies take responsibility for delivery, shipping costs, timeliness and lack of damage to goods. Electronic customer service means a large fragmentation of recipients and, consequently, a fragmentation of shipments, both in terms of package size and the number of delivery points. This, in turn, requires e-stores to deliver to multiple locations, which is ensured by courier companies. The complexity and multiplicity of routes requires courier companies to plan their journeys in order to optimise delivery costs and timeliness. This task may be difficult due to the lack of information about the recipient's availability to collect the parcel at a certain time.

2. Analysis of Consumer Behavior in the Online Market

Online sales have been growing for years. Customers recognise the advantages of using this type of shopping, so companies that want to be competitive in the market should also operate online. According to the E-commerce in Poland report (www.gemius.pl), in 2022 the percentage of Internet users who declared shopping online was 77%. In 2023, it was already 79% of buyers. The vast majority, around 70%, make purchases on Polish websites, while around 30% use foreign websites.

The opportunities for online shopping are a result of the increasing access of Polish and European households to the Internet (Figure 2).

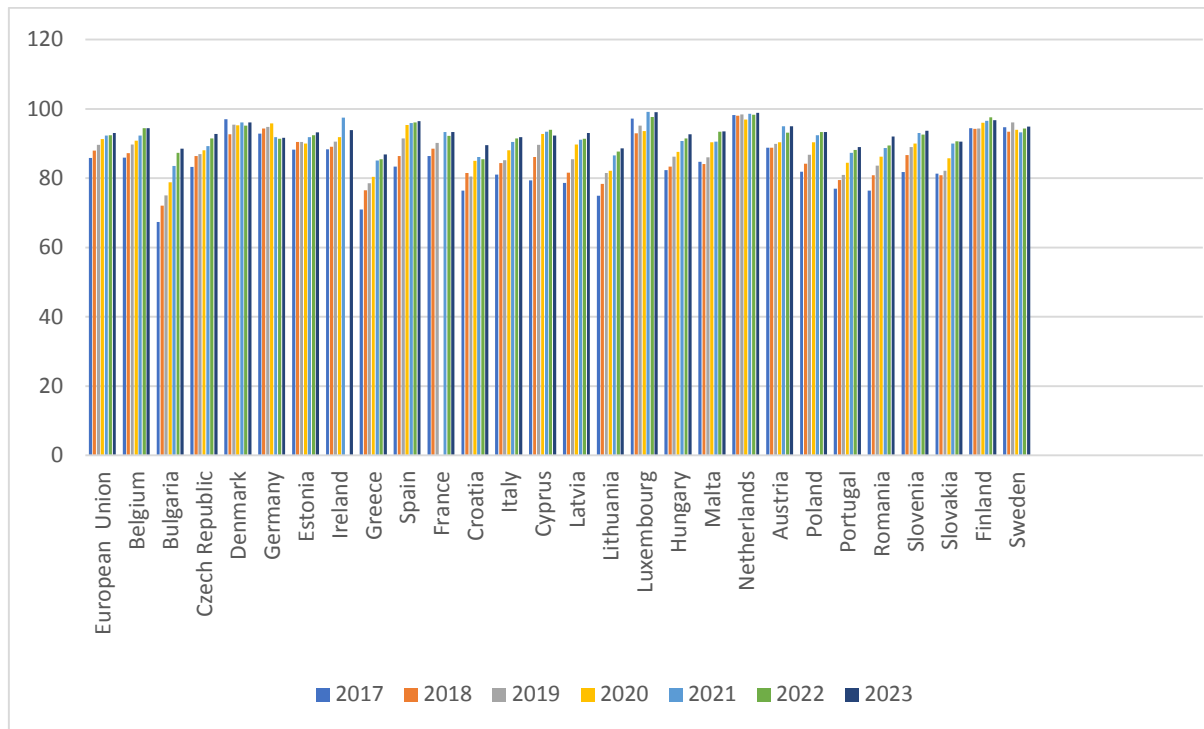


Figure 2. Internet access in households in European Union countries.

Source: Own elaboration based on https://ec.europa.eu/eurostat/databrowser/view/isoc_ci_in_h/default/table?lang=en

Based on the data presented in Figure 2, it can be concluded that Poland is achieving a high level of development among EU countries in terms of household Internet access.

Research (www.ec.europa.eu) shows that in 2019, the most frequent online shoppers were the Dutch (91%), Danes (90%), Germans (87%), Swedes (86%), and Irish (81%). On the other hand, the least frequent shoppers were Bulgarians (42%), Romanians (45%), and Italians (49%). Poles are in this respect at the average EU level. The situation changes year-on-year and was as follows in 2020 (Figure 3):

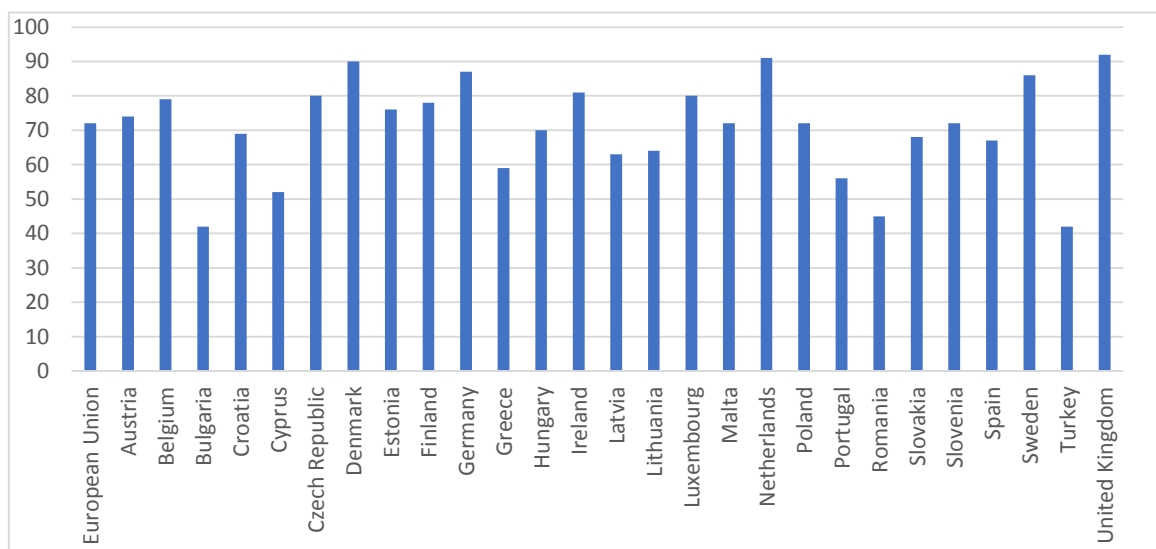


Figure 3. Percentage of online shoppers in the European Union in 2020.

Source: Own elaboration based on www.ec.europa.eu

The aim of the annual E-commerce survey in Poland was to find out attitudes, habits and motivations related to online shopping. Online shopping requires equipment that enables this activity. According to the survey, the following devices are most frequently used by respondents: (www.ewp.pl)

- smartphones 75%;
- laptops 73%;
- desktop computers 41%;
- tablets 19%;
- e-book readers 4%.

In 2023, a study examined, among other things, the purchasing behaviour of e-consumers, the factors that encourage Internet users to shop online, and the problems encountered by users. The report was prepared by Gemius in cooperation with PBI and IAB Polska. The study shows that the most important factors motivating people to shop online are: 24/7 availability 75%, lack of necessity to travel to a shop 74%, and more attractive prices than in traditional shops 67%. In contrast, the most frequently cited factors among Europeans were independence, convenience and time saving.

Among the most essential elements involved in the e-commerce process are deliveries. There are more and more opportunities to use modern tools in this area. Therefore, every consumer will find a delivery option that suits them – from home delivery and courier services, to a range of pick-up options at dedicated points and lockers. The most frequently selected delivery methods are shown below (Figure 4).

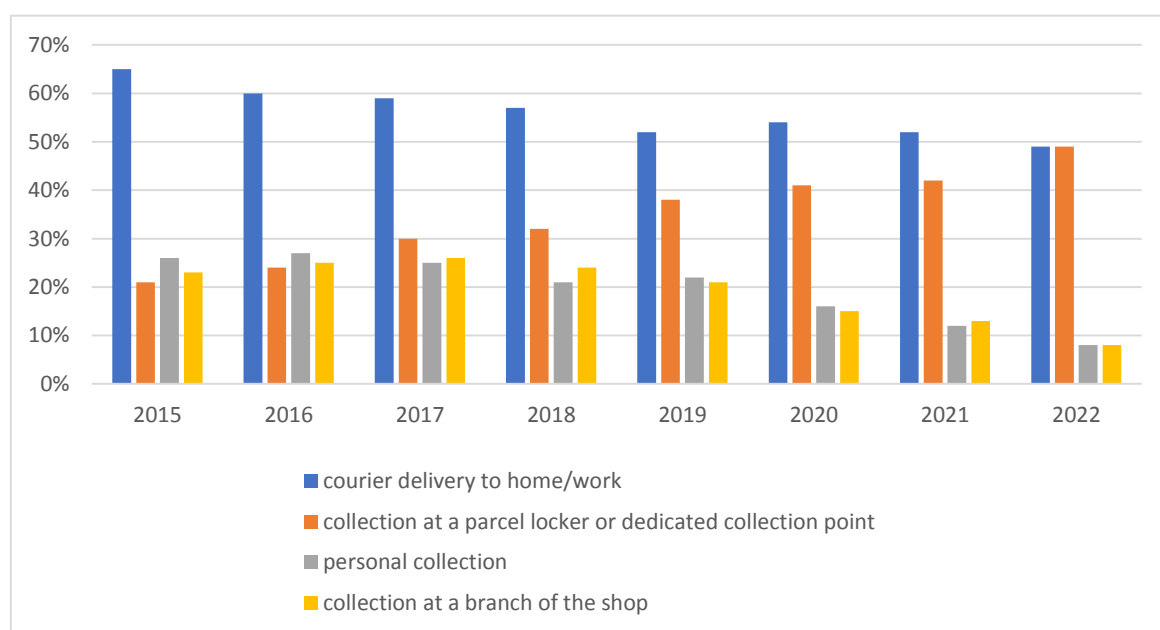


Figure 4. Most frequently used delivery methods when shopping online between 2015 and 2022.

Sources: Own elaboration based on: Dekada polskiego e-commerce. E-izba 2023 report. www.eizba.pl/wp-content/uploads/2023/02/Raport_e-Izby_Dekada_polskiego-e-commerce_2023.pdf; Mobile Institute data from 2015; report series "M-shopper. Polacy na zakupach mobilnych", 2015-2016, Mobile Institute for Allegro; report series "M-commerce. Kupuję mobilnie" and "Omni-commerce. Kupuję wygodnie", 2015-2022, Mobile Institute for Izba Gospodarki Elektronicznej.

After making a purchase, respondents report that the most commonly chosen delivery methods are ("Ecommerce in Poland 2022" report):

- parcel lockers, especially InPost 81%;
- courier delivery to home/work 43%;
- delivery to a partner point 17%.

The choice of delivery method depends on many factors that are important to today's consumers. Parcel lockers are the most commonly chosen method due to the lack of time constraints for parcel collection. The number of parcel lockers located in many places in each city encourages the use of this form of parcel collection. Of course, everything depends on the product ordered – after all, non-standard size products cannot be ordered to a parcel locker. Those ordering parcels by courier must reckon with certain inconveniences, although this method is also relatively popular. Courier services are becoming increasingly tailored to the needs of both small and large e-shops. At the same time, small e-shops, wanting to cooperate with a courier company, must declare a minimum number of shipments sent within a given period, the price of which is usually higher than that offered to large entities. The choice of delivery method often depends on the delivery time and cost.

The main determinants of development were increased consumer confidence in online shopping and the growing demand for convenient and attractively priced shopping methods.

3. Advantages and Disadvantages of Outsourcing in E-Business

The ability to use various solutions enables companies to develop more effectively. The growing number of activities requires modern entrepreneurs to make the most advantageous management decisions. Outsourcing certain activities to external companies makes it possible to improve the company's operations and meet the ever-increasing demands of customers. The motivation to shop online is linked to outsourcing companies that deliver the company's products to the end customer. The benefits of such solutions are mutual and increase the competitiveness of the company in the market as well as the range of activities of courier companies.

According to the latest reports (www.focusonbusiness.eu/pl/raporty/outsourcing-ratunkiem-na-trudne-czasy; www.grandviewresearch.com), the global business process outsourcing market was valued at USD 280.64 billion in 2023 and is expected to grow by at least 9.4% from 2023 to 2030. The outsourcing market in Poland has grown by 15% in recent years. Outsourcing of HR and payroll services as well as finance and accounting are of greatest interest.

Outsourcing made it possible for many companies to survive difficult times of adverse economic and geopolitical phenomena, such as: the economic crisis associated with the Covid-19 pandemic, soaring inflation, difficulties in acquiring and retaining qualified personnel, development of IT systems, applications and infrastructure, etc.

According to market trends, forecasts for the growth of outsourcing services in the world in the years 2023-2030 are as follows (Figure 5):

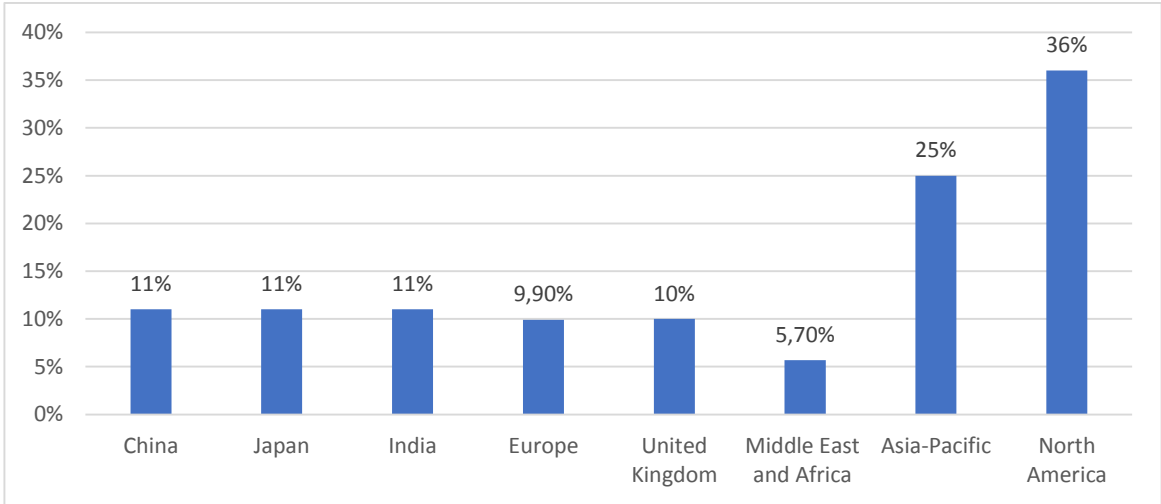


Figure 5. Global business process outsourcing market trends 2023-2030.

Source: www.grandviewresearch.com

The opportunities that companies achieve through outsourcing have become increasingly apparent in recent years. According to a survey conducted by Grant Thornton, respondents noted the following changes in the outsourcing market (Figure 6):

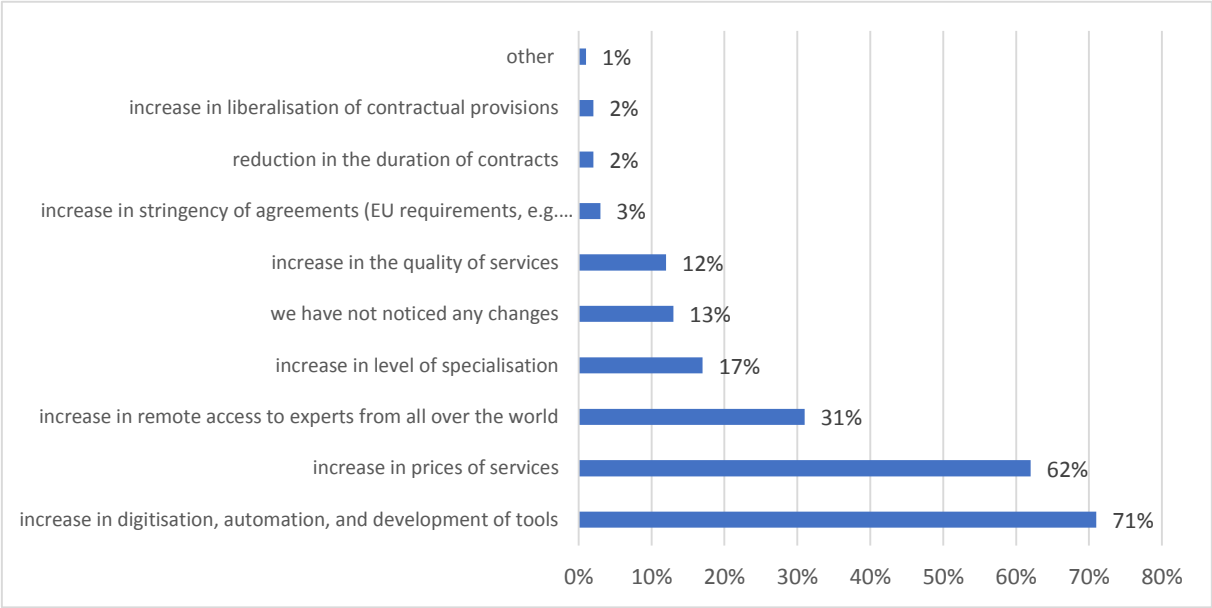


Figure 6. Structure of respondents' answers regarding changes in the outsourcing services market.

Source: compiled from Grant Thornton data based on CAWI survey; multiple choice questions.

Outsourcing services provided by specialists in the respective fields enable quicker and more efficient provision of services with the application of the latest expertise and technology. In logistics companies, outsourcing can be used, among other things, in the processes of warehousing, order handling, product shipment to customers, customer service, handling returns, complaints and replacements. The biggest advantages and disadvantages of using outsourcing in logistics include (Table 1):

Table 1.

Advantages and Disadvantages of Outsourcing in Logistics Companies

Advantages of Outsourcing in Logistics	Disadvantages of Outsourcing in Logistics
Optimisation of expenses	Employees' fear of lay-offs
Increased company focus on its core activities	Loss of control over the implementation of company processes
Access to modern technologies and expert knowledge	Risk of making a wrong decision when choosing a supplier or choosing a partner with a lack of competence
Increasing the competitiveness of the company through higher quality of services	Dependence on an external company
Reduction in labour costs and associated liabilities.	Possible problems with internal coordination and communication
Outsourcing of functions that are difficult to carry out or impossible to control	Risk of sharing confidential information with an external body
Risk and responsibility sharing	Risk of lowering the quality of services
Possibility of not having to operate own storage facilities	Risk of increased logistics costs
Improving deliveries, their timeliness and the number of order	Risk of unclear boundaries of responsibility and consequent loss of credibility or customer trust
Improving customer service quality	Coordination and communication problems

Source: Own elaboration based on: Wright, M., Forster, G., Beale, J., Improving iSC performance through outsourcing – Considerations for using third-party service providers to increase innovation, capacity and efficiency, *Vaccine* Vol. 35, Issue 17, 2017, p. 2195-2197; Tang, Ch., Wang, Y., Transportation outsourcing problems considering feasible probabilities under stochastic demands, *Computers & Operations Research* Vol. 126, 2021, 105109; Baeza, E., Montt, C., Quezada, L., Methodological Proposal to Evaluate the Alternative of Outsourcing the Transportation Fleet of a Company, *Procedia Manufacturing* 39 (2019) 1545–1551; Gryaznova, M., Kurganov, V., Vasiliev, V., Dorofeev, A., Road Transport Outsourcing for a Metallurgical Company and Its Alternatives, *Transportation Research Procedia* 54 (2021) 290–299; Mageto, J., Current and Future Trends of Information Technology and Sustainability in Logistics Outsourcing, *Sustainability* 2022, 14, 7641; Lou, Y., Feng, L., He, S., He, Z., Zhao, X, Logistics service outsourcing choices in a retailer-led supply chain. *Transp. Res. Part E Logist. Transp. Rev.* 2020, 141, 101944; Shi, J., Park, Y., Sugie, R., Fukuzawa, M., Long-Term Partnerships in Japanese Firms' Logistics Outsourcing: From a Sustainable Perspective, *Sustainability* 2022, 14, 6376; Hwang, T., Kim, S.T., Balancing in-house and outsourced logistics services: Effects on supply chain agility and firm performance. *Serv. Bus.* 2019, 13, 531–556; Sarabi, E. P., Darestani, S. A. (2021), Developing a decision support system for logistics service provider selection employing fuzzy MULTI-MOORA & BWM in mining equipment manufacturing. *Applied Soft Computing*, 98, 106849; Singh, S. P., Adhikari, A., Majumdar, A., Bisi, A. (2022), Does service quality influence operational and financial performance of third party logistics service providers? A mixed multi criteria decision making-text mining-based investigation. *Transportation Research Part E: Logistics and Transportation Review*, 157, 102558; Pushpamali, N. N. C., Agdas, D., Rose, T. M., & Yigitcanlar, T. (2021), Stakeholder perception of reverse logistics practices on supply chain performance. *Business Strategy and the Environment*, 30(1), 60–70; Zarbakhshnia, N., Govindan, K., Kannan, D., & Goh, M. (2023), Outsourcing logistics operations in circular economy towards to sustainable development goals. *Business Strategy and the Environment*, 32(1), 134–162.

An important aspect of the use of outsourcing in logistics companies is the use of business support solutions. The key success factors for the use of outsourcing in the supply chain should be clearly defined in terms of criteria and objectives, supplier evaluation, and flexible contracts.

The advantages of outsourcing, i.e. the use of external companies to achieve one's own objectives, result in cost optimisation and the application of effective measures by specialised experts using modern technology. Through cooperation with other companies within the framework of an outsourcing agreement, the company can benefit from modern machinery and highly qualified experts. Examples of outsourcing solutions include using external warehouse space or cooperating with a transport company. In such cases, the company does not need additional warehouse space or its own transport. All these aspects are provided by an outsourcing company with a specific business profile. Another advantage of outsourcing is that it enables the company's employees to focus on activities related to the company's core business. The number of employees available to carry out core activities is limited, so outsourcing allows the company to focus on the most important activities. By outsourcing additional tasks to an external company, the company takes on less risk and responsibility in the delegated areas of the company's operation.

It is also important to analyse the disadvantages of using outsourcing in order to make the most advantageous decision enabling the best use of the available tools. Outsourcing agreements cover services related to the organisation's auxiliary activities, including research, logistics and distribution, new product development, human resource management, and market research. The company must decide on the best outsourcing company whose activities will ensure high quality of services and a high level of communication in the course of the activities. Control and trust in the outsourcing company are important to prevent the loss of control over the implementation of the company's processes. Information exchanged between entities must be properly protected and stored. The possibility of using the services of external entities is nowadays a standard practice for growing companies.

4. Conclusions

The challenges faced by modern companies are leading to the outsourcing of an increasing number of tasks to external companies. Outsourcing is becoming an important tool in the process of supporting the operation of companies and implementing change. The objective of the paper was achieved by pointing out the advantages and disadvantages of outsourcing in logistics. The dynamic growth in the development of online shops has led to an increase in the use of courier services for the efficient delivery of ordered products. Few companies choose to have their own transport, which is why contracts with courier companies are an indispensable tool for a company operating in a rapidly growing market. Outsourcing in logistics has become

a common practice used by both local and global companies. The main task of outsourcing is to reduce costs and investments in assets and to focus on core activities. The decision to outsource tasks by an entity operating in the online market requires a multi-aspect analysis. In general, the decision criteria do not differ significantly from those applicable in the traditional market. The main purpose of outsourcing is the reduction of costs. Therefore, the optimisation of logistics activities carried out in the online market is highly dependent on the ability to integrate the information systems of companies in the supply chain, including in particular those of e-shops and courier companies. All modern companies, in order to maintain a high level of competitiveness, use various innovative tools to support their activities in the market.

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