CHALLENGES AND RISKS OF LOGISTICS PROCESSES IN SMALL ENTERPRISES AND OPPORTUNITIES FOR IMPROVEMENT IN A COMPETITIVE ENVIRONMENT

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INTRODUCTION

In the dynamic and constantly changing context of modern business, competitive advantage is crucial in ensuring a company's ability to adapt to the business environment, strengthen its market position, as well as maintain and ensure long-term profitability. Researchers (Wu, Bi, Siddiqui, and Tang, 2023) emphasize that competitive struggle, which is characterized by increasingly complex conditions, obliges companies not only to improve their products or services, but also to improve internal processes, including logistics, which occupies one of the most important places.

Logistics is one of the fastest growing sectors of the global economy, playing a key role in all areas of activity. These functions are essential for coordinating the time and place of supply and demand, ensuring that goods or services reach consumers at the right time and in the right place. The growing complexity of economic processes means that logistics contributes to the creation of product market value and the satisfaction of customer needs. Customers have high expectations for delivery speed, efficiency, and reliability, which is why innovations are increasingly being implemented in logistics solutions. Technological progress and research results enable us to aim at a greater economic, financial, and environmental efficiency, which in turn creates the conditions for improving the results of managing logistics companies and strengthening their competitive advantage in the market.

Improvement of logistics processes is one of the main measures that allows companies to achieve competitive advantages both by reducing costs and by creating added value for customers. The author Popov (2014) observes that logistics companies that transport goods by road operate in particularly fierce competitive conditions, which is why a significant number of such companies is unable to remain competitive and go bankrupt. Popov believes that to ensure the continuity of their operations and remain competitive in the market, the companies must continuously analyze their performance using the most sophisticated performance evaluation methodologies.

Riazanova and Žilinskienė (2019) note that in the era of globalization, companies not only have new opportunities, but also face new challenges, as expanding markets are accompanied by growing order flows. Therefore, the authors are convinced that to operate effectively in a global environment, businesses need to make the right decisions regarding expansion alternatives, increasing customer satisfaction, etc.

Most small and medium enterprises, engaged in international transportation, do not pay sufficient attention to the analysis of their performance, search for alternative markets and routes, and do not have analysts who monitor and analyze the constantly changing transportation trends and set long-term strategic goals for the company. By not paying attention to these problems, companies are unable to find additional resources or to reallocate existing ones, thus becoming uncompetitive, unable to adapt quickly to changing trends, and unable to optimize transportation routes, forcing them to cease

operations. These problems highlight the need for a deeper analysis of the possibilities for improving logistics processes in the operations of small and medium enterprises.

During this period, the field of logistics has undergone significant development, including both an increase in the scale of operations and diversification of processes, while the introduction of new technologies has paved the way for significantly more efficient planning, coordination, and control of logistics processes. The introduction of the latest information technologies, automation, and artificial intelligence technologies has made it possible to manage logistics processes strategically, focusing on long-term competitive advantage: this includes optimized resource allocation, creation of sustainable supply models, advanced data analytics, as well as advanced coordination and control measures. For this reason, it is important to analyze how Lithuanian companies can improve their logistics processes to increase their competitiveness. The aspect of novelty of the study lies in the fact that most research focus primarily on the logistics management of large international corporations, while the improvement of logistics processes in small and medium enterprises has been less analyzed. Therefore, research in this area would reveal new insights into the opportunities for small enterprises in a competitive environment and would contribute to the development of practical solutions to strengthen their sustainability and competitiveness.

Problematic issues raised:

What risks do small enterprises face in logistics processes?

What opportunities do small enterprises have to improve their logistics processes in a competitive environment?

The aim of the study is to analyze the risks associated with logistics processes faced by small enterprises and to identify opportunities for improvement in a competitive environment.

Tasks for the study:

1. To reveal the essence of logistics processes and their importance in enterprise activities.
2. Based on scientific literature analysis, to provide a reasoned justification for the impact of the improvement of logistics processes on the competitive advantage and operational efficiency of companies.
3. To identify and evaluate the possibilities for improving logistics processes in the competitive environment of small companies to increase their operational efficiency and competitiveness.

The study analyzes the risks and improvement opportunities of small business logistics processes in the competitive environment using a mixed study method – quantitative and qualitative. The mixed method not only enables us to take advantage of the strengths of both methodologies, but also to mitigate their weaknesses, which increases the reliability of the study. A mixed study method allows for a comprehensive answer to the study questions, as quantitative data provides width to the study, while qualitative data provides depth (Dawadi, Shrestha, and Giri, 2021). According to Creswell

(2009), researchers use mixed methods to broaden their understanding, clarify or supplement the results of another method. The study methodology is based on a mixed methods approach, using the following study methods and appropriate data analysis tools:

1. An anonymous written customer survey to collect data on the experiences, expectations, and opinions of small enterprise customers regarding the challenges and opportunities for improvement in logistics processes.
2. Semi-structured interviews with five employees of a small logistics company. When selecting participants for semi-structured interviews, selection criteria such as at least two years of work experience and higher education are reasonably applied to ensure data quality, study reliability, and theoretical depth. Analysis of logistics processes can only include experienced employees who can provide insights into the challenges of the processes or opportunities for improvement.

Key findings of the study.

The results of the qualitative study revealed that small logistics enterprises operate in an intensely competitive environment and therefore face various operational challenges, changing customer expectations, and rising quality standards. These circumstances necessitate the continuous analysis of internal company processes to select appropriate solutions for improvement.

The results of the quantitative study confirmed the main problems faced by customers – the most common challenges are related to delays in delivery and inaccurate order tracking. Respondents emphasized that to address these challenges, it is necessary to introduce advanced technologies and automated process management solutions that would help improve coordination of activities, reduce the occurrence of mistakes, and thus increase customer service quality and customer loyalty.

1. THE ROLE OF LOGISTICS PROCESSES AND THEIR IMPACT ON THE OPERATIONS OF SMALL ENTERPRISES IN A COMPETITIVE ENVIRONMENT

1.1 Logistics processes and factors affecting them

The modern logistics is a multifaceted field of activity that combines different areas such as information exchange, transportation, stock management, warehousing, product handling, and packaging. This approach has been shaped by factors such as increasing globalization and changes in the organization of business, where the attitude towards logistics is increasingly identified with "systematic approach and integrated logistics concepts" (Meidutė, 2012, p. 5), with logistics being perceived not as a separate area of activity, but as a complex of services that satisfies customer needs at minimum cost. The main task of logistics in a company is to direct the activities of different logistics specialists in one direction to achieve the best customer service and the highest possible profit (Meidutė, 2012, Palšaitis, 2010).

Christopher (2007) defines the logistics process as the planning and implementation of strategies related to the company's objectives to ensure the most optimal flow of resources, finances, and information throughout the entire process, starting from the product development stage, information collection, analysis, and transfer, and ending with the distribution of finished products to end users. Vasiliauskas (2013) perceives the logistics process as the main and auxiliary operations related to cargo, which are performed in a specific sequence (see Fig. 1).

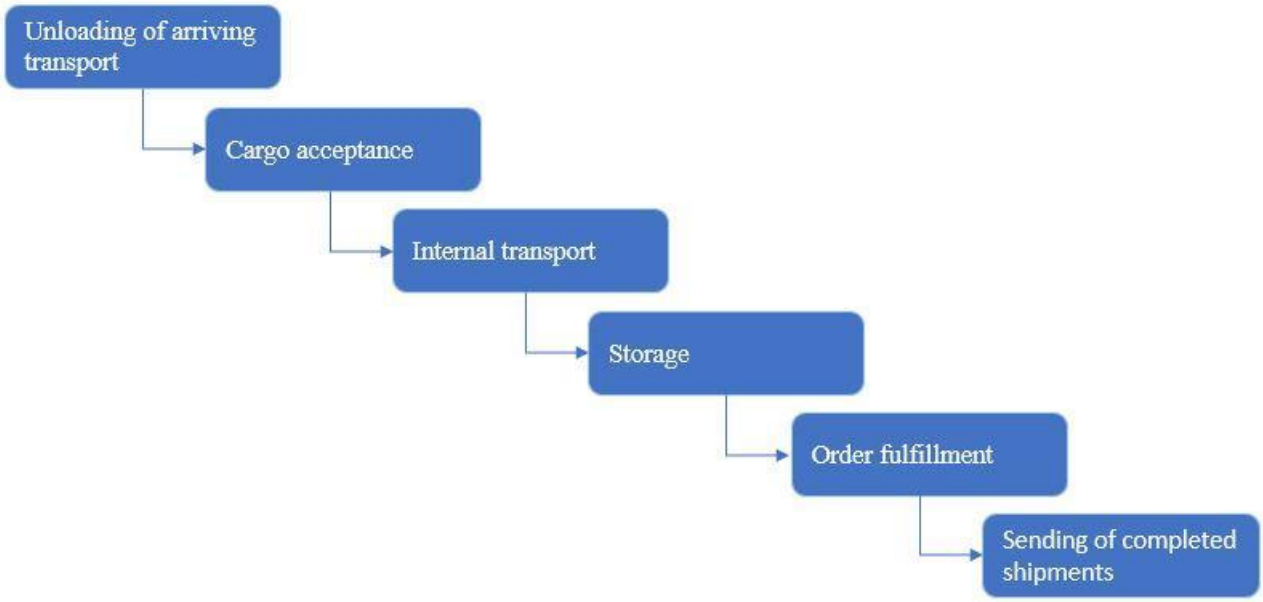

Figure 1. Sequence of logistics processes

Source: compiled by the authors based on Vasiliauskas (2013)

Due to the abundance of processes, researchers have attempted to systematize them. For example,

renowned Harvard Business School professor M. Porter (1985) distinguished two groups of logistics processes in his value chain model: primary and support processes. Primary processes are directly responsible for the value-added function during the provision of services or goods, while support processes support the primary ones (Fuchs, 2022). Zasadzien and Žarnovsky (2018) specify that primary processes involve the integration of supply, production, and distribution chains into a single system. These processes change the temporal, spatial, quantitative, and qualitative characteristics of goods and information. These include activities such as warehousing operations, cargo transshipment, and materials management. Support logistics processes aim to shape, coordinate, and optimize logistics systems, and are therefore focused on planning and decision-making. Yun and Yigitcanlar (2017) explain that core logistics processes include supply logistics, operations management, distribution logistics, marketing and sales, as well as service. Supporting processes include infrastructure, human resources, technology, and procurement.

Pfohl (2022) takes a similar approach to the grouping of logistics processes, as he also distinguishes between primary and supporting processes, but he specifies that these are goods flow processes, and in addition to these, he distinguishes information flow processes. Thus, Pfohl (2022) distinguishes two main groups of processes: processes related to the flow of goods and processes related to the flow of information, while in the first group he distinguishes between primary processes (e.g., transportation, warehousing) and supporting processes (e.g., sorting, packaging).

Analysis of scientific literature revealed that researchers of logistics processes distinguish between different logistics processes and their number (see Table 1).

Table 1. Logistics processes

Logistics processes	Albrecht, Baier, Gimpel et al. (2024)	Pfohl, 2022	Richnak, 2022	Parkhomets, Pochynok, Uniiat, Matviy, Sybyrka & Kasian, 2021	Koszorek & Huk, 2020
Warehousing	+	+	+	+	+
Transportation	+	+	+	+	+
Sorting	+	+	-	-	-
Packaging	+	+	-	+	+
Order processing	-	+	-	-	-
Supply	-	-	+	+	-
Production	-	-	-	-	-
Customer feedback	-	-	-	+	-
Inventory management	-	-	+	-	+

Source: compiled by the authors based on Albrecht, Baier, Gimpel et al. (2024)

Based on the logistics processes presented, it can be noted that all authors highlight warehousing and transportation as essential elements of logistics activities, which are the main functions of the supply chain.

Sorting and packaging are not highlighted in all sources. Richnak (2022) et al. do not mention

sorting as an independent element of logistics, and packaging is not mentioned in only one of the five sources. This may indicate that these processes are often considered auxiliary or integrated into other processes.

Some processes, such as order processing, procurement, inventory management, or customer feedback, are only discussed in some sources, and manufacturing is generally not considered a logistics process.

Logistics processes should cover many aspects of manufacturing, including time, cost, and quality. When a company successfully coordinates these logistics operations, it can monitor the process through manufacturing, consumption, storage, and disposal. According to Slaski (2017), the stages in the logistics process attempt to find the best solution for manufacturing and distributing goods, considering how the market uses these products. When carrying out this process, the company must always consider the location of the product and analyze various factors related to it. This includes production costs, staff, time and costs required for consolidation, and storage options. When implementing this process, the company should also consider factors that affect production quality and efficient transportation between centers.

Management of logistics process in a company encompasses all information and material flows throughout the organization. This includes everything from the movement of a product or service to be provided, to the management of incoming raw materials, production, storage of finished goods, delivery to the customer, and warranty service (Barysienė et al., 2015). In the modern business environment, company managers must pay close attention to logistics activities, which are best reflected in adequate customer service that attracts new customers and retains existing ones, thus directly affecting the company's competitive advantage in the market (Fileva, 2016).

Customer service is one of the key aspects of offering services to a customer and it essentially enables a company to differentiate its offers from those of its competitors. Based on scientific literature, it is quite difficult to determine which activities belong to customer service (Rouqet et al., 2017; Otsetova, 2017). Otsetova (2017) provided several definitions of customer service that illustrate the scope of the term, without choosing any of these specific visions:

1. Customer service is the quality of the performance of distribution system.
2. Delivery service reflects different aspects of order fulfillment process, along with sales promotion.
3. Customer service is the adaptation of some offers to specific needs.
4. Customer service is a direct link between sales activities and delivery process, which begins with order and ends with delivery, but in some cases continues into post-purchase phase of product use.

Logistics company managers need to be familiar with the most important elements of customer service and the main customer service groups (Mickevičiūtė, 2018). Customer service components are specific activities involved in the implementation of a physical distribution product. Their scope of activity is monitored differently in each aspect of work, but there is a strong additional marketing logistics aspect to these tasks. The task of each activity, as a component of customer service, is to contribute to the provision of a full range of services with a synergistic effect by efficiently performing certain activities (Otsetova, 2017).

Analysis of the concept of logistics revealed that logistics processes perform many functions that are important for business, which is why logistics plays a significant role in the activities of modern business organizations. Vidrova, Ceniga, and Šukalova (2019) highlight several aspects in which logistics processes are important for business. Effective management of logistics processes enables companies to gain competitive advantages by creating an efficient system that ensures better satisfaction of consumer needs than competitors. For example, companies with a well-organized logistics system can offer their customers faster, more accurate, and more consistent order fulfillment and delivery. This directly contributes to greater customer satisfaction and loyalty. Morkūnas, Rudienė, and Nalivaikaitė (2018) agree with this view and point out that a proper implementation of logistics processes is important for improving customer service. The researchers add that better customer service has a positive effect on the company's reputation, optimizes processes, and reduces the costs of implementing logistics processes and individual operations.

The importance of logistics processes in modern business can be analyzed through the prism of the mission and vision of business logistics, emphasizing its contribution to value creation and sustainable development. Ristovska, Kozuharov, and Petkovski (2017) argue that the vision of business logistics is to pursue sustainable development by coordinating logistics processes in such a way that the result is achieved with minimal coordination requirements, maximum synergy, and minimal costs. In addition, this vision emphasizes the need to take into account environmental and consumer requirements, thus highlighting the role of logistics not only in economic but also in social and ecological terms.

According to Riazanova and Žilinskienė (2019), logistics processes are influenced by seven components (see Table 2).

Table 2. Factors affecting logistics processes

Factors	***Description***
Political and legal environment	establishes the legal environment for business activities and includes legislation that influences business decisions and their implementation.
Economic environment	seeks stability and economic growth, strengthening the labor market, and promoting business.

Demographic environment	This is human capital (employees).
Cultural environment	Traditions and behavior by region.
Technological environment	Scientific and technical innovations and their practical application. Changes affect not only machines and equipment, but also working methods.
Competitive environment	In highly competitive, saturated markets, opportunities are sought to sell services in markets that are not so saturated with logistics services. This includes responding to consumer needs and changes.
Ecological environment	Implementation of the set-out conditions of ecological requirements for obtaining additional funding.

Source: compiled by the authors based on Riazanova and Žilinskiene (2019)

Similar factors, that affect logistics processes, are also mentioned by Vasiliauskas (2013), however the author also highlights the geographical environment. The author argues that all processes are influenced by entities interested in the functioning of the system, namely: government institutions, consumers, society, other interested parties, suppliers, financial institutions, and competitors. In addition to the influence of these entities, logistics processes may also be affected by global factors such as political decisions, economic changes in the country, socio-cultural aspects, geographical barriers, as well as technical and scientific innovations. Geographical factors such as terrain, distances, climate conditions influence the management of logistics processes, the planning of freight flow management and infrastructure, and affect traffic safety, quality, time, and price indicators. Economic factors reflect the overall economic situation of countries – a country's production volume (GDP), international trade balance, unemployment rate, and inflation. Logistics processes are also influenced by competitive factors that stimulate economic growth and the emergence of new technologies. Scientific and technical factors encourage companies to apply progressive service methods in order to attract new freight flows. Social and cultural factors influence logistics processes and have an impact due to certain characteristics of society, such as traditions and cultural values, subcultures, and prevailing temporary fashions. Political factors influence domestic and foreign economic and financial decisions that affect logistics processes.

Therefore, it can be concluded that logistics processes play a key role in a company's operations, as they ensure the smooth flow of material resources, information, and services in the supply chain. Effective management of logistics processes not only reduces operating costs and time but also increases customer satisfaction and competitive advantage in the market. Properly organized activities such as warehousing, transportation, sorting, packaging, and inventory management enable a company to respond quickly to market changes, ensure supply reliability, and improve internal business processes.

1.2 Challenges and risks of logistics processes for small enterprises in a competitive environment

Logistics sector, like other areas of business, faces certain challenges arising from economic, social, political, geographical, and climate change factors. These challenges can affect the quality of logistics services and a company's ability to adapt to external changes. Authors Kodym, Kubač, and Kavka (2020) identify the following factors that pose risks to logistics processes:

1. Economic and financial challenges, competition, dependence on economic decisions.
2. Technological and IT factors – technological integration problems, cyber-attacks, data security issues.
3. Social factors – unemployment, inadequate organizational structure and process management, stress, shortage of qualified staff.
4. Political factors – problems related to legal aspects and decisions.
5. Environmental factors – risks related to pollution and high consumption.

Economic fluctuations cause instability in demand, fuel price increases, or supply disruptions, while social factors such as labor shortage or skills mismatches affect operational efficiency. Political decisions and geopolitical conflicts can restrict logistics routes. Technological factors also create a significant range of risks: rapid technological change, digitization processes, and the growth of cyber threats are forcing companies to continuously invest in IT systems and security solutions. Meanwhile, environmental aspects related to stricter environmental requirements and pollution reduction targets are encouraging logistics companies to review their business strategies and invest in more sustainable solutions.

Gedam, Krishna, Jain, Sahu and Dubey (2013) distinguish three levels of risk in the logistics process (see Figure 2).

Figure 2. Sequence of logistics processes

Source: compiled by the authors based on Gedam, Krishna, Jain, Sahu and Dubey (2013)

Considering the whole range of risks, it becomes clear that risk management in the logistics sector is an essential strategic management function that helps to ensure business continuity, reduce uncertainty, and maintain competitive advantage in the dynamic environment. One of the main sources of this advantage is increasingly intensive competition, which not only creates challenges but

also encourages companies to continuously innovate their processes and adapt effectively to the rapidly changing market conditions.

Although competition between companies has always existed, business competition has recently become increasingly complex (Nawaya and Rahmat, 2019). Dvorsky, Kliestik, Cepel, and Strnad (2020) add that with rapid technological change and market globalization, competitive pressure in various markets is also growing significantly. Intense business competition requires companies to have a competitive advantage, otherwise they will not be able to survive in the market for long (Sugiono, Masykuroh, Sungkawati, Setyadjit, Dahliani, Yustina, Yogopriyatno, and Hermawati, 2023). Thus, the competitive environment enables companies to discover their competitive advantage, which is related to the concept of competitiveness.

Competitiveness in the logistics sector is one of the most important factors that determines a company's survival and success in the market. It is not just the ability to provide services at a lower price – today, competitiveness is understood as the ability to create exceptional value for customers, respond quickly to changes, manage resources efficiently, and adapt to an increasingly complex environment. This is particularly important in the field of logistics services, where there is a wide variety of different service providers, constantly changing technologies and customer expectations. According to Hitt, Ireland, and Hoskisson (2015), competitiveness today is no longer just a question of price—it is the ability to integrate technological, human, and organizational resources in such a way that the customer feels they are receiving higher value than from other service providers. For this reason, more logistics companies carry out detailed competitiveness analyses to identify their strengths and weaknesses in both the internal and external environments.

The analysis of factors that determine competitiveness is based on concepts proposed by various researchers. Wheelen and Hunger (2012) emphasize that competitive advantage is the result of both external market analysis and internal assessment of a company's resources and capabilities (see Figure 3). They interact with each other and influence a company's ability to stand out in the market, attract customers, and ensure long-term stability.

Figure 3. Factors that determine competitiveness

Source: compiled by the authors based on Wheelen and Hunger (2012)

Based on Figure 3, it can be concluded that the competitiveness of small enterprises is a multifaceted phenomenon and is based on internal resources and capabilities, particularly those related to people, management, innovation, and technology, as well as the dynamics of the external environment, which requires constant adaptation and market monitoring. Small enterprises that are able to strategically exploit their strengths, effectively manage their internal resources, and respond quickly to external changes, have the opportunity not only to survive but also to become competitive.

According to researchers, when planning logistics processes, it is particularly important to determine what competitive position the company wants to occupy in the market. Rushton, Croucher, and Baker (2022) argue that companies can only compete as either a service leader or a cost leader (see Figure 4).

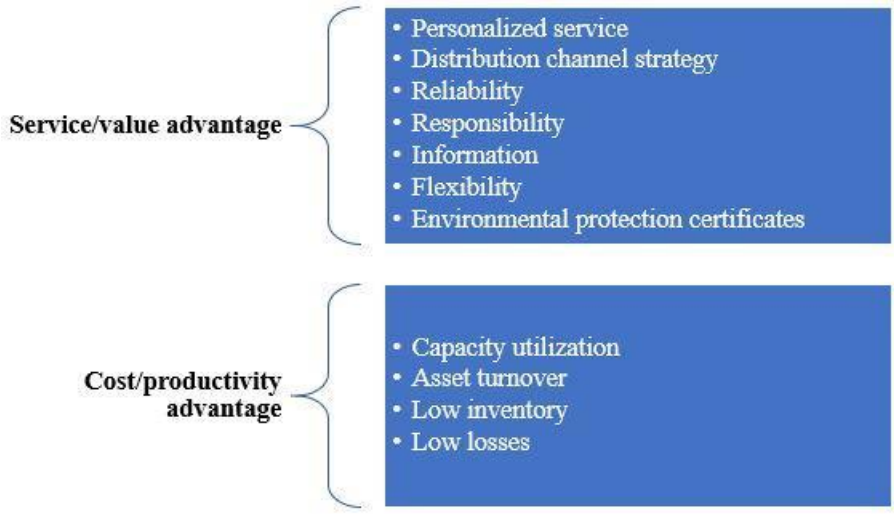

Figure 4. Directions of competitive advantage

Source: Compiled by the authors based on Rushton, Croucher, and Baker (2022)

Figure 4 shows two main areas of competitive advantage in logistics. Service value advantage emphasizes qualitative factors that determine customer satisfaction and loyalty, as well as the company's ability to adapt to consumer needs and ensure high service quality.

The cost/productivity advantage focuses on operational efficiency and cost reduction. These factors determine the ability to provide services at competitive prices.

Both types of advantage interact with each other and enable logistics companies to create sustainable value and remain competitive in the rapidly changing market environment.

The competitive environment has a significant impact on the activities of small logistics companies, as these companies often operate with limited financial, technological, and human resources (Zasadzien and Žarnovsky, 2018). Intense competition encourages continuous improvement of operational processes, enhancement of service quality, and the search for more effective solutions to meet customer needs (Pfohl, 2022). Unlike large market players, small companies have fewer opportunities to take advantage of economies of scale or invest in advanced technologies, so their ability to adapt becomes a critical factor for survival (Koszorek, Huk, 2020). To maintain a competitive advantage, such companies must focus on niche services, individual customer service, flexibility, and the implementation of innovative solutions (Parkhomets et al., 2021). Competition not only poses challenges but also becomes a strong factor that encourages small logistics enterprises to strive for continuous improvement and operational efficiency (Richnak, 2022).

It can be concluded that small logistics enterprises face interrelated risks in a competitive environment, which arise due to economic, political, social, technological, environmental, and geographical factors. These risks have a direct impact on both processes and the long-term stability of a company. Due to limited resources, small enterprises are less resistant to external shocks, so they need active and systematic risk management. Properly identified and managed risks become not only a protective mechanism against negative consequences, but also a strategic advantage that enables companies to operate more effectively in a competitive environment and strengthen their position in the market.

1.3 Opportunities for improving logistics processes in a competitive environment

Improvement of logistics processes is a process aimed at improving supply chain operations to reduce costs, increase efficiency, and ensure a high level of customer service. Improvement involves various strategies, methods, and technologies that enable us to better manage flows of logistics processes (Christopher, 2016). Properly planned objectives allow for targeted planning of actions and the application of appropriate measures in practice (see Table 3).

Table 3. Objectives for improving logistics processes

Objective	*Description*	*Practical solutions*
Cost reduction	Reduced transportation, warehousing, and inventory storage costs.	Route optimization, JIT inventory management, 3PL services.
Efficiency improvement	Faster movement of goods and shorter delivery terms.	Automation, use of WMS and TMS systems, AI analysis.
Customer service improvement	Accurate and fast deliveries, fewer errors.	SLA indicators, KPI monitoring, Last Mile Delivery solutions.
Supply chain flexibility	Ability to quickly adapt to market changes.	Flexible supply chains, diversified suppliers.
Sustainability	Eco-friendly logistics solutions, lower environmental impact.	Green logistics, alternative fuels, optimized packaging.

Source: compiled by the authors based on Christopher (2016)

The objectives presented in the table not only reflect the theoretical goals of logistics process management but also specify the possibilities of their practical application. Each objective is linked to specific practical solutions, such as route optimization, automation, performance monitoring, supplier diversification, and green logistics measures, the application of which contributes to the efficient use of resources, service quality, and the achievement of environmental goals. This forms the basis for systematic performance evaluation, enables targeted improvement measures to be planned, and contributes to the long-term competitiveness of a small enterprise.

According to Rut and Wengel (2019), management of logistics processes in companies is associated with the constant search for opportunities for improvement. Zasadzien and Žarnovsky (2018) strengthen the statement that the improvement of logistics processes should be one of the main areas of a company's activities. Morkūnas, Rudienė, and Nalivaikaitė (2018) extend the idea that as logistics management becomes more complex, companies should gain more experience and use advanced technologies to improve logistics processes. Improvement of logistics processes creates conditions for higher quality customer service, which in turn has a positive impact on the company's reputation, allows for the rationalization of operational processes, and reduces the costs of operations. Both strengthening the image of a small enterprise and cost reduction are important factors that contribute to increasing the company's competitive advantage in a constantly changing market environment. In addition, in today's environment, the timeliness, safety, and completeness of goods delivery are of particular importance (Molenda, 2019), so it is important to coordinate logistics processes in such a way as to ensure that these requirements are met.

Demirova (2023) emphasizes the impact of improving logistics processes by integrating new technologies on the competitiveness of companies. According to the researcher, the role of new technologies in logistics processes and the integration of virtual components should be a priority for all organizations, as the digitization of processes will be a key factor in competitiveness not only now but also in the future. Companies will be forced to improve the digitization of their processes, as this

will establish itself in a market, improve management, and synchronize all operations. Customer trust should not be underestimated, it is essential for any organization, as a short supply chain is a huge advantage for any company. This would only be possible by digitizing all key logistics processes: inbound logistics, production logistics, outbound logistics, marketing and sales, and service. New technologies and the expansion of logistics activities with virtual components can make business processes transparent to company managers who have to make important management decisions. These virtual products combine extended functional openness to external interaction and flexibility and enable the creation of various industrial solutions, which is a new stage in the development of enterprise management systems (Demirova, 2023).

Caro and Sadr (2019) add that modern logistics requires the use of modern information technologies, such as automated logistics information systems, considering the specific needs of a company and the use of hardware and software modules. Demirova (2023) highlights that the integration of such systems helps to achieve a synergistic effect – when information and processes are effectively linked both between different departments of a company and between management levels. Zasadzien and Žarnovsky (2018) proposed a process for improving logistics processes (see Fig. 5).

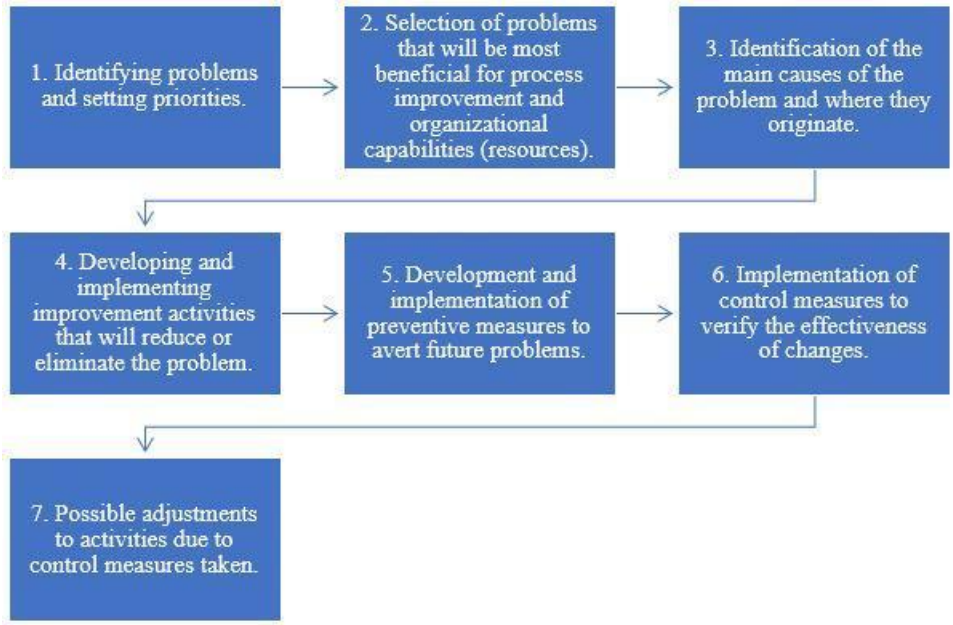

Figure 5. Improvement of logistics processes

Source: compiled by the authors based on Zasadzien and Žarnovsky (2018)

The figure presented reflects a consistent analysis of the problems in logistics processes and the process of developing and implementing solutions. An effective problem-solving process requires not only a response to emerging situations, but also a systematic approach that ensures operational stability and quality improvement. The focus is on consistency between cause analysis, solution planning, implementation, and feedback mechanisms.

Summarizing the possibilities for improving logistics processes, it can be said that systematic attention to the evaluation and consistent improvement of these processes is one of the fundamental factors determining the strengthening of a company's competitive advantage in the modern business environment. The improvement process is based on the identification and analysis of fundamental problems, the application of effective solutions, the development of preventive measures, and the monitoring and control of results. The application of modern information technologies and the digitization of logistics processes are becoming key tools for integrating business chains and increasing their efficiency. Technological innovations not only streamline operational flows, but also make processes more flexible, synchronize operations, and thus increase the ability of small enterprises to adapt to market changes and strengthen their competitive position.

2. RESEARCH METHODOLOGY

Since small enterprises need to be flexible and able to respond quickly to customer expectations to remain competitive, it is appropriate to conduct a study aimed at analyzing the risks of logistics processes and identifying opportunities for improvement in the competitive environment of small enterprises.

The object of the study is a small logistics company, which aims to identify logistics processes and emerging risks.

The study methods and techniques. The study used a mixed research method, which allows us to take advantage of both quantitative and qualitative research and reduce the shortcomings of these methods, thus ensuring greater reliability of the study. The mixed research method enables us to answer the research questions in detail, as quantitative data provides breadth to the research, while qualitative data provides depth (Dawadi, Shrestha, and Giri, 2021). The mixed method allows for the comparison of quantitative and qualitative data, thus increasing the validity of the conclusions and enables us to quantitatively measure efficiency and qualitatively understand the internal and external factors that determine effectiveness or hinder processes (e.g., customer expectations) (Creswell and Clark, 2007). **A semi-structured interview** was chosen for the qualitative study because it enables us to prepare for the interview and keeps it focused, but at the same time provides considerable flexibility, as it allows the researcher to ask additional questions during the study (Ruslin et al., 2022). **A questionnaire survey** is one of the most effective quantitative research methods, allowing for the structured collection of the opinion, experience and assessments of respondents. This method is suitable for identifying problems, risks, or customer satisfaction level in a competitive environment (Bihu, 2022).

The study instruments, selection methods, and sampling:

1. A semi-structured interview method was chosen for the qualitative study because it allows for a combination of pre-planned questions with the possibility to delve deeper into the respondents' answers in a flexible manner. This method is considered the most appropriate for a detailed disclosure of the attitudes of employees of a small logistics company towards logistics process management and the associated risks in a competitive environment. Interviews enable the researcher to maintain control through pre-prepared questions, but at the same time provide flexibility for the research participants to express their thoughts, experiences, and suggestions in more detail (Saunders, Lewis, Thornhill, 2023). Semi-structured interviews are particularly suitable for qualitative research, where the aim is not only to identify problems but also to understand their causes and context. The participants in the study were selected using targeted sampling, as the aim was to obtain information from

individuals with sufficient professional experience who are directly involved in logistics process management. Purposeful sampling allows only those employees who are directly involved in logistics processes and have significant experience in the issues being analyzed to be selected (Patton, 2015). Five employees of a small logistics company who have been working for the company for more than two years were selected for the qualitative research. This work experience criterion was chosen to ensure that participants already have sufficient practical context and experience to assess process management more objectively and identify risks. The choice of a small sample is based on the logic of qualitative research – the aim of the study is not to summarize statistical results for the entire population, but to gain an in-depth understanding of the phenomenon under study in a specific context. The semi-structured interview questions cover the importance and benefits of the company's logistics processes, the company's competitiveness and position in the market, as well as opportunities for improving logistics processes.

2. A questionnaire survey was chosen for the quantitative study. Questionnaires enable a larger number of participants to be reached in a short period of time. This makes it possible to obtain more representative data and draw more meaningful conclusions (Ranganathan, Caduff, 2023). The questionnaire format is appropriate for the purposes of this study, as it aims to measure customer experience and satisfaction with the services provided by a small logistics company, obtain statistically significant responses, and identify the most common trends. Convenience sampling was chosen because it allows for the effective selection of participants who are most suitable for the study and meet the set research objectives (Buckler and Moore, 2023), since the aim was to interview only real customers of the company who could draw on their personal experience. Convenience sampling means that the respondents are the people who are most easily accessible to the researcher, and the sampling continues until the required sample size is reached (Cohen, Manion, and Morrison, 2017). The questions were answered by 126 customers of a small logistics company who used the company's services in 2024. This number of responses is considered sufficient for analyzing the customer experience of the selected company and applying the conclusions to improve the quality of the organization's activities. Although convenience sampling may limit the generalization of results to a wider market, the chosen strategy is appropriate for the context of the study, as it allows for relevant insights to be obtained from the target consumer group. The study was conducted in April–May of this year. The questionnaire consisted of two parts: demographic and main. The demographic part aimed to identify the main characteristics of the companies represented by the customers – the nature of their activities, the duration of their activities, the number of employees, and the geographical area. In the main part, respondents were asked closed

questions with multiple-choice answers about the logistics services they order and their frequency, the criteria for choosing a logistics service provider, the challenges they face in logistics processes, and the possibilities for improving these processes.

Data analysis methods. The data collected during quantitative research is processed using statistical analysis methods to ensure the reliability and objectivity of the results. Meanwhile, qualitative research data is interpreted using the principles of logical-inductive analysis, which allows for the structured identification of patterns and the substantiation of insights gained.

The study limitations and ethics. The study analyzed the experience of one logistics company, so the results cannot be generalized to the entire logistics sector, and the proposed measures for improving logistics processes reflect the context of a specific case, but there is insufficient basis to claim that they are characteristic of all small logistics companies. Taking this into account, it would be useful in the future to conduct a deeper analysis of the entire logistics sector in Lithuania, which would allow the most common and effective measures for improving logistics services, characteristic of most logistics companies in the country, to be identified.

In both quantitative and qualitative research, ethics is an essential part of the research process, ensuring the reliability of the research and the protection of participants' rights. In both cases, it is important to obtain the voluntary consent of participants, guarantee their anonymity, and ensure the confidentiality of data (Bryman, 2016). Qualitative research additionally emphasizes respect for the participant's opinion, emotional safety, and the researcher's responsibility in interpreting the information obtained (Orb, Eisenhauer, Wynaden, 2001). In quantitative research, it is particularly important to ensure the objectivity of questionnaires and the transparency of statistical results, avoiding bias. Adherence to ethical principles in both types of research allows for honest, reliable, and socially responsible results.

3. ANALYSIS OF THE STUDY RESULTS

3.1 Analysis and evaluation of interviews with employees of small logistics companies

Qualitative research using semi-structured interviews is a suitable method for analyzing the logistics processes of a small logistics company and the possibilities for their improvement in a competitive environment. This type of interview allows for a deeper understanding of the experiences and attitudes of selected employees. The flexibility of semi-structured interviews enables the researcher to respond to answers, ask additional questions, and thus expand the scope of the study based on the individual experiences of the interviewees (Kvale, Brinkmann, 2009). Thus, it is possible to identify specific gaps in logistics processes, risks, and real opportunities for change that can contribute to strengthening a company's competitive advantages. The qualitative method of semi-structured interviews enables not only to reveal the actual situation, but also to develop purposeful improvement measures.

Logistics processes are important for small enterprises because they directly determine the efficiency of goods supply, customer service quality, and cost control. Fluent logistics solutions help strengthen customer trust and loyalty, which is especially important when competing with other companies. It is important to clarify the logistics processes in each company (see Table 4) in order to identify opportunities for improvement.

Table 4. Logistics processes in a small enterprise

Category	***Subcategory***	***Supporting statements***
Logistics processes	Freight transportation services	*Respondent 1:* "Transportation is a key process for us, because it directly determines how quickly and safely goods reach customers." *Respondent 2:* "First of all, of course, there is freight transportation—both international and local <...>" *Respondent 4:* "First of all, it is international freight transport <...>. Focus on the freight transport process is important because it ensures fast and reliable delivery of goods to customers." *Respondent 5:* "Our experience allows us to draw up delivery plans and transport requirements <...>"
	Storage	*Respondent 1:* "We have warehouses <...>. For customers, this means that their goods are stored safely, neatly, and in compliance with all requirements." *Respondent 2*: "Then we have warehousing <...>. This provides flexibility and ensures that customers' goods are stored in appropriate conditions." *Respondent 4:* "We have warehouses <...> where we can receive and store various cargoes."
	Cargo consolidation	*Respondent 1:* "<...> consolidated cargoes, including ADR and excise goods. This helps us to efficiently handle different types of cargo." *Respondent 2:* "<...> our warehouses allow us to efficiently consolidate cargo, including dangerous and excise goods."

		Respondent 4: "We provide cargo consolidation services <...>. This is particularly useful for customers with smaller shipments, as we can offer more economical transport solutions by combining smaller shipments." *Respondent 5:* "Our experience allows us to take over the execution of shipping, receiving, and other mandatory procedures <...>"
	Customs procedures	*Respondent 1:* "Since some of the shipments go to third countries, it is necessary to take care of all declarations, taxes, and customs representation. For the customer, this means peace of mind." *Respondent 2:* "We handle all matters with customs <...>. For customers, this means fewer headaches and faster movement of goods across borders." *Respondent 4:* "We provide customs brokerage services. We handle all necessary customs procedures <...>. This ensures the smooth movement of goods between countries and reduces potential delays or problems at the border, giving customers peace of mind and confidence that their shipments will be delivered without additional hassle." *Respondent 5:* "Our experience allows us to take over the execution of customs and other mandatory procedures <...>"
	Order management	*Respondent 1*: "Our automated system not only allows us to process orders quickly, but also allows customers to see where their shipment is and at what stage it is in real time." *Respondent 3:* "The order management process supports our core business, but it is also very important <...> it allows us to properly meet customer needs." *Respondent 5:* "Our experience allows us to provide customers with qualified recommendations on requirements <...>".

Source: compiled by the authors based on the research data

Semi-structured interview data revealed that logistics processes are closely related to a company's core services and contribute significantly to their efficient, accurate, and reliable implementation, thus ensuring a high level of customer satisfaction. All participants in the qualitative study highlighted the freight transport process as one of the essential components of logistics activities, which determines the efficiency, safety, and reliability of goods delivery. Respondents noted that this process covers both international and local transport and is an important basis for the provision of competitive services. Most respondents emphasized the importance of warehousing and freight consolidation processes, which enable the efficient handling of various types of freight and provide customers with cost-effective solutions.

In summary, several informants emphasized the importance of order management process. This supportive but strategically significant process ensures effective satisfaction of customer needs, fast order processing, and real-time shipment tracking, contributing to the improvement of a company's service quality and competitiveness. It can be concluded that all key logistics processes, from freight transportation to order management, are closely related and contribute significantly to improving service quality, increasing operational efficiency, and strengthening a company's competitive position in the market. These responses confirm the main freight transportation and warehousing logistics

processes identified in the scientific part (Vidrova, Ceniga, Šukalova, 2019) and only strengthen the highlighted aspects that logistics processes are important for business. Effective management of logistics processes enables companies to gain competitive advantages by creating an efficient system that ensures better satisfaction of consumer needs than competitors.

In business environment, logistics processes are one of the most important factors directly affecting the competitiveness of companies, especially small businesses, which often face limited resources and technological constraints (Christopher, 2016). One of the key challenges is to ensure operational flexibility and efficiency in the changing environment of demand and geopolitical conditions. The competitive environment forces companies not only to improve their internal logistics processes, but also to ensure their interaction with external partners in the supply chain (see Table 5).

Table 5. Factors and challenges that determine competition

Category	***Subcategory***	***Supporting statements***
Competitive factors	Geographical location	*Respondent 1:* "Lithuania is in a very convenient geographical location. It is like a bridge between Western Europe and the East." *Respondent 2:* "<...> the country is in a very strategically convenient location." *Respondent 3:* "A convenient geographical location that attracts both local and foreign companies." *Respondent 4:* "Lithuania is in a very convenient location. It is like a transit country between East and West <...>"
	Easily accessible market	*Respondent 2:* "<...> the conditions for entering the market are not very complicated." *Respondent 3:* "<...> technology facilitates entry into the market <...>." *Respondent 4:* "<...> starting a business is not that complicated. <...> the market is becoming 'open to everyone'." *Respondent 5:* "<...> the threshold for entry is extremely low."
	Technological progress	*Respondent 1*: "<...> technology is developing rapidly, and there are more and more opportunities to optimize operations." *Respondent 3*: "<...> technology facilitates market entry <...>." *Respondent 4*: "<...> invest in quality or technology."
	International competition in the open European Union market	*Respondent 2:* "We are part of the EU, where there are open borders and common business standards." *Respondent 4:* "The logistics sector has long been monitored by larger foreign players <...>. Quite a few carriers in Lithuania operate internationally." *Respondent 5:* "<...> significantly worsens conditions for Lithuanian residents, but does not apply to foreign economic entities."
Competitive advantage	Flexibility and adaptability	*Respondent 1*: "We are flexible enough – we can quickly adapt to changes <...>" *Respondent 2:* "Our advantage is flexibility and the ability to quickly adapt to customer needs <...>" *Respondent 4*: "<...> we try our best to respond to changes and adapt to the market."

	Quality of services	*Respondent 1*: "The quality and speed of our services allow us to compete successfully with larger companies." *Respondent 2*: "We are focused on creating value for our customers and strive to contribute to the smooth functioning of the supply chain." *Respondent 4*: "We strive to offer customized solutions tailored to a specific partner <...>."
	Clients and recommendations	*Respondent 1:* "<...> we treat each customer individually. Customers appreciate this." *Respondent 3:* "Recommendations often work, and satisfied customers simply recommend us to their partners." *Respondent 4:* "Customers already trust us. <...>"
	Qualified employees	*Respondent 2*: "<...> all experienced professionals." *Respondent 5*: "<...> improving employee skills and providing appropriate motivation."

Source: compiled by the authors based on research data

According to the survey data, all interview participants agree that competition in the Lithuanian logistics sector is particularly intense. Respondents note that this situation is mainly determined by the country's favorable geographical location—Lithuania is often referred to as a "bridge between Western Europe and the East" (respondent 1). Respondents 2 and 4 pointed out that this geographical advantage is exploited not only by national companies but also by companies from other European Union countries, which are actively entering the local market by taking advantage of the free movement of goods and services within the EU. Such involvement of international players further intensifies competitive pressure. It is also emphasized that, due to relatively low barriers to entry in the logistics sector, new market players are constantly emerging.

Based on the respondents' insights into a company's competitive advantages, it can be assumed that a company is able to maintain a strong position in the market due to its ability to adapt flexibly to the changing customer needs and market conditions, which are affected by various risks. Consistently ensured service quality and fast delivery of goods increase customer loyalty and foster long-term relationships. The research data confirm the factors analyzed in the theoretical part, namely that customer service, as one of the most important aspects of service, helps a company to differentiate its supply in a competitive market and ensure sustainability of its operations.

The results of the study show that the main logistics processes in a company are effective and contribute to the creation of competitive advantage, still there are areas for improvement, which, if strengthened, could further increase a company's efficiency and adaptability to the changing market environment (see Table 6).

Table 6. Opportunities for improving logistics processes

Category	***Subcategory***	***Supporting statements***

Opportunities for improvement by increasing the competitiveness of the company	Technology	*Respondent 2*: "<...> it would be worth investing in more advanced technologies." *Respondent 5:* "<...> We still use AI as a substitute for search, but it is already beginning to exceed this lowest technological level, and we are employing AI for data processing <...>."
	Expansion of the range of services	*Respondent 1*: "<...> perhaps offer additional services related to distribution or even returns management." *Respondent 2*: "<...> offer additional consulting to customers on how to optimize their supply chains."
	Employees	*Respondent 2:* "In addition, continuous employee training would help us stay ahead and adapt more quickly to market changes." *Respondent 3: "*<...> employee training."
	Market analysis	*Respondent 1:* "Constant market analysis. It is important to keep track of what services are needed, because demand is constantly changing." *Respondent 3:* "<...> searching for new markets."
	Digitization and automation	*Respondent 1:* "<...> one direction is further automation. We could invest more in smarter management systems that would further speed up order processing." *Respondent 3:* "Investments in automation <...>." *Respondent 5:* "<...> digitization and AI recruitment have a significant impact on logistics processes."

Source: compiled by the authors based on research data

Based on semi-structured interview data, opportunities for increasing the competitiveness of companies are closely related to technological progress, service development potential, strengthening of human resources and monitoring of market dynamics. All participants in the study acknowledge that further investment in the automation of operations as well as introduction and improvement of advanced technologies are essential to ensuring the competitiveness of a company. Automation of logistics processes is identified as one of the most important means for increasing productivity, which enables us to process orders faster, to reduce the occurrence of human mistakes, and to increase the reliability of services. Automated systems speed up order processing, reduce the need for manual labor, and lower the likelihood of errors and operating costs (Christopher, 2016). Artificial intelligence (AI)-based systems can significantly improve the quality of decision-making, enable timely responses to changing market conditions, and help predict potential supply chain disruptions. As one of the survey participants (respondent 5) noted, the application of artificial intelligence (AI) in business operations remains limited. AI solutions are not yet widely integrated into daily operations, and their potential to increase the efficiency of logistics processes, improve forecasts, and strengthen customer service is still limited. This highlights the need to invest in technological solutions and the development of employees' digital skills. It is particularly important to emphasize the benefits of automation and AI in customer service. Digitization solutions enable faster and more accurate delivery of information to customers, effective real-time order tracking, quick response to

inquiries, as well as faster identification and resolution of issues. This improves customer experience, increases customer satisfaction with services, and boosts loyalty to the company. In the long run, this creates a competitive advantage, as a company can respond quickly and accurately to market needs and offer higher quality services.

The data of the study participants reveal that the expansion of the range of services provided is particularly important in a competitive environment. Informants emphasize that the development of additional services, such as logistics consulting, goods distribution, or returns management solutions, would create the conditions for responding more flexibly to changing customer needs, increasing the value of the services provided, and strengthening a company's competitive attractiveness in the market. The expansion of the range of services can be seen as a strategically important measure aimed at long-term company growth and strengthening customer loyalty. The research data also highlights the need for continuous market monitoring – according to the respondents, the dynamic supply and demand of logistics services and the ever-growing expectations of customers require systematic analysis of the business environment and strategic adaptation to changing conditions.

Summarizing the data of the semi-structured interview, it can be said that the structure of the surveyed company's activities includes the following main processes (see Figure 6):

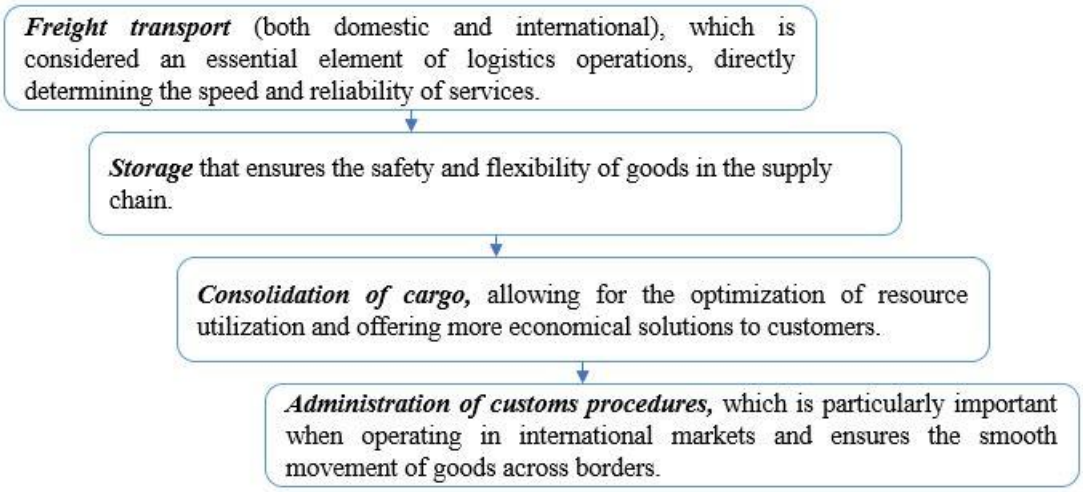

Figure 6. The main logistics processes

Source: compiled by the authors based on research data

In addition, order management is highlighted as a supporting but strategically important process that helps coordinate logistics chain, ensures a smooth flow of information, and increases customer satisfaction.

The results of the study revealed that a small enterprise can maintain a strong position in the highly competitive Lithuanian logistics market. This position is determined by several key factors:

➔ ability to adapt flexibly to changing customer needs and market conditions;

➔ specialization in a specific geographical region, providing a company with specific knowledge and a competitive advantage;

➔ consistent focus on service quality, as well as fast and reliable delivery;

➔ long-term relationships with customers and customer recommendations as an indicator of a company's value;

➔ professional, competent, and continuously improving employees.

In addition, the research data revealed that a small enterprise applies a service differentiation strategy by offering customized, value-added, and complex logistics solutions that enable it to stand out from its competitors. Effective management of logistics processes enables a company to ensure high service quality, thereby increasing customer loyalty and satisfaction.

To strengthen its competitiveness, a company should focus on three areas (see Figure 7).

Figure 7. Competitiveness trends

Source: compiled by the authors based on research data

These trends would enable a company not only to manage internal processes more effectively, but also to remain competitive in the dynamic market environment. The identified trends of competitive advantage only confirm the trends identified in the scientific part and substantiate the statements of Parkhomets et al. (2021) that to maintain a competitive advantage, small enterprises must focus on niche services, individual customer service, flexibility, and the implementation of innovative solutions.

3.2 Assessment of the insights of customers of a small logistics enterprise

Quantitative research – a questionnaire survey of customers of a small logistics enterprise was conducted to obtain direct feedback on service quality and to analyze logistics processes and competitive advantage. Customer feedback enables the company to assess how its logistics processes work – whether services are provided on time, reliably, and in line with customer expectations. This helps to identify weak links in the supply chain. Systematic evaluation of customer insights enables us to better understand their changing needs, which is important in a competitive environment and helps the company to adapt its services to specific segments, increasing customer satisfaction and loyalty. Customer focus is considered one of the most important factors of competitive advantage in

improving logistics processes, implementing innovations, or developing services. 126 customers who used the company's services in 2024 were surveyed. It is important to identify the size of customers' company, the nature of their activities, the number of employees, and the geographical area of operation (see Table 7).

Table 7. Characteristics of customer companies

Criterion	*People*	*Percentage*
Nature of activities		
Services	**56**	**44,44 %**
Manufacturing	14	11,11 %
Trade	**49**	**38,89 %**
Other	7	5,56 %
Duration of the company's activities		
Up to 1 year	9	7,14 %
1–5 years	**39**	**30,95 %**
6–10 years	**51**	**40,48 %**
More than 10 years	27	21,43 %
Company size by number of employees		
Up to 10 employees	17	13,49 %
11–50 employees	**83**	**65,87 %**
51–250 employees	21	16, 67 %
More than 250 employees	5	3,97 %
Geographical area of the company's operations		
Lithuania	9	7,14 %
Baltic States (Lithuania, Latvia, Estonia)	8	6,35 %
Europe	**47**	**37,30 %**
Asia	**62**	**49,21 %**

Source: compiled by the authors based on research data

These parameters enable us to better understand the target market and the adaptation of logistics solutions to the needs of different customers. As shown in Table 7, companies in trade and services sector most often use the services provided by a small logistics enterprise, as this allows them to allocate financial resources efficiently, avoiding the need to invest in their own freight transport fleet or warehouses. These services are most often chosen by medium enterprises (11-50 employees) that have been established in the market for 6-10 years.

Taking these factors into account, the study sought to identify the services and how often companies of this type use outsourced logistics services (see Figure 8).

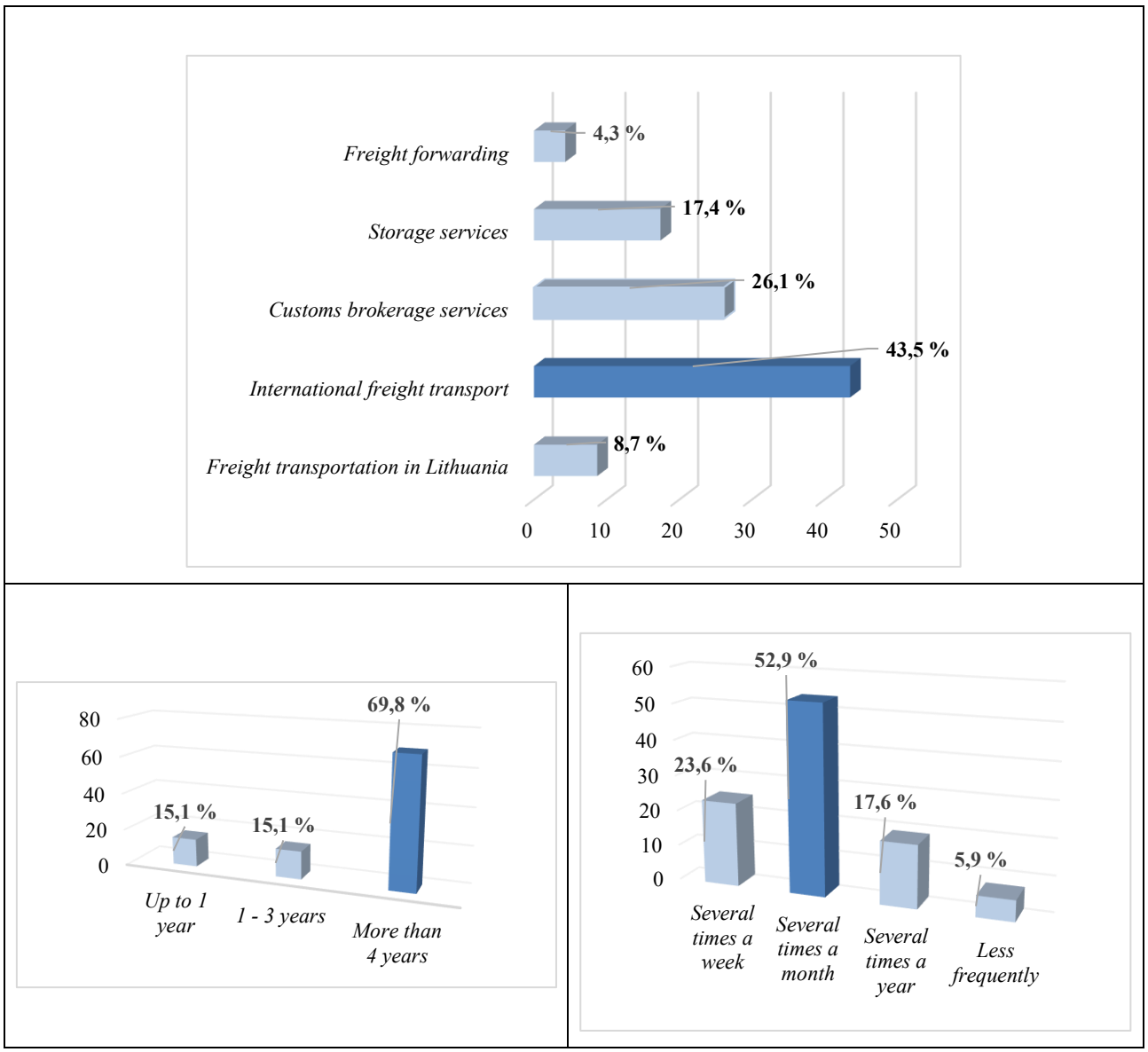

Figure 8. Outsourced logistics services and their frequency

Source: compiled by the authors based on the research data

According to the survey results, most customers contact the company to arrange for the transportation of goods or products on international routes. Customers who do not have internal logistics capabilities or who seek to reduce operating costs often choose external partners who can ensure reliable and fast movement of goods. These data correlate with the results of semi-structured interviews, which also emphasize that the main logistics process of a company is freight transportation, which constitutes a significant part of its activities and forms the main demand for the services provided. According to Pfohl (2022), transportation is one of the key elements of the logistics system, ensuring the movement of goods in the supply chain from the supplier to the end user. Effective management of transportation processes allows for shorter delivery times, optimized routes, and the use of vehicles according to their capacity and technical characteristics, thereby reducing unit costs. In addition, effective management of transportation processes contributes to higher customer

satisfaction with services, ensuring not only that delivery deadlines are met, but also that the quality of deliveries is guaranteed.

According to the survey data, it can also be stated that more than half of the customers use the services of small logistics companies regularly – several times a month, and one-fifth of customers do so more often – several times a week. Almost 70% of customers are identified as loyal customers of the company, as they have been using its services for more than 4 years. Such long-term and consistent cooperation indicates a high level of customer satisfaction and trust in the company. Regular service orders over a longer period allow customer loyalty to be assessed as one of the most important factors strengthening the company's competitive advantage and ensuring operational stability. Morkūnas, Rudienė, and Nalivaikaitė (2018) add that better customer service has a positive effect on the company's reputation, optimizes processes, and reduces costs of implementing logistical processes and individual operations.

The data from the survey (see Fig. 9) reveal that when choosing a logistics service provider, respondents attach the greatest importance to service quality (26.2%), reliability and company reputation (25.4%), and service price (21.4%). These results suggest that customers prioritize not only financial aspects, but also service value components that ensure long-term cooperation and stability. Service quality and reliability are often associated with the ability to meet commitments, reduce operational disruptions, and ensure the accuracy of goods delivery, which is particularly important in a competitive market where even the slightest delays can have a negative impact on customers' operations. Service quality and reliability in the logistics sector are often considered key competitive advantages that determine customer satisfaction and loyalty (Christopher, 2016).

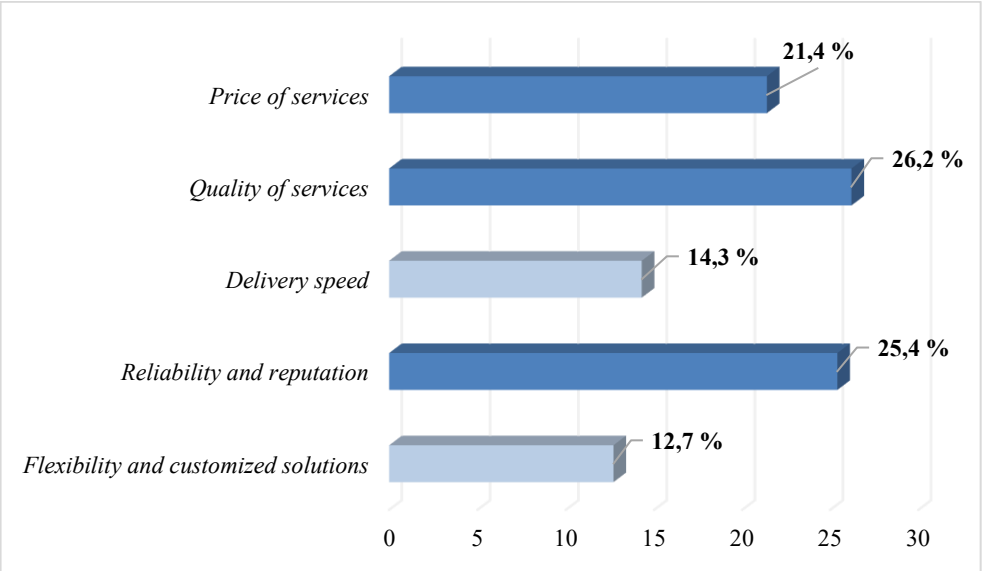

Figure 9. Criteria for selecting a service provider

Source: compiled by the authors based on research data

The price of services, although significant, is seen as an important but not dominant factor, as in most cases customers value the price-quality ratio.

According to Hitt, Ireland, and Hoskisson (2015), competitiveness today is no longer just a question of price—it is the ability to integrate technological, human, and organizational resources in such a way that the customers feel they receive higher value than from other service providers. As Rushton, Croucher, and Baker (2022) point out, customers are increasingly inclined to choose suppliers who can offer not only economically sound but also reliable services that meet their needs, which demonstrates the importance of long-term value when choosing a partner in the logistics chain.

Riazanova and Žilinskienė (2019) note that in the era of globalization, companies not only have new opportunities, but also face new challenges, as expanding markets are accompanied by growing order flows. Therefore, the authors are convinced that to operate effectively in a global environment, businesses need to make the right decisions regarding expansion alternatives, increasing customer satisfaction, etc. The challenges are also highlighted by the company's customers (see Figure 10).

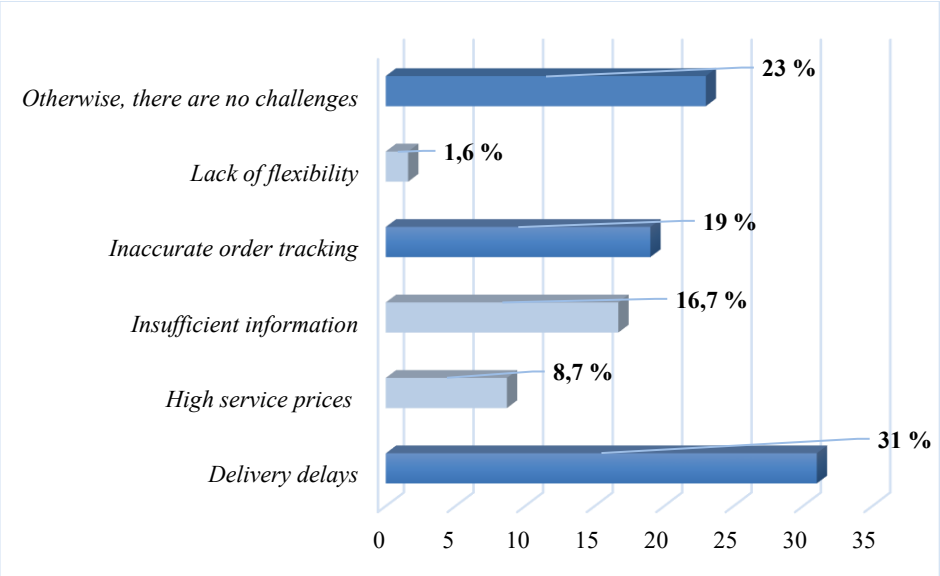

Figure 10. Challenges of logistics processes in small enterprises

Source: compiled by the authors based on research data

Analysis of the survey data showed that the main challenge faced by logistics service users is delays in the delivery of goods, which was indicated by 31% of respondents. In addition, about one-fifth of the customers surveyed noted that they encounter inaccurate order tracking, which may indicate insufficient application of information technology in the processes of order management. Nevertheless, almost a quarter of customers (23%) say that they do not experience any significant challenges in the provision of logistics services, or that the nature of these challenges is not clearly defined.

Morkūnas, Rudienė, and Nalivaikaitė (2018) extend the idea that improving logistics processes create the conditions for higher customer service quality, which in turn has a positive impact on the

company's reputation, allows for the rationalization of operational processes, and reduces the costs of operations.

The questionnaire survey sought to identify the improvement opportunities suggested by customers (see Figure 11).

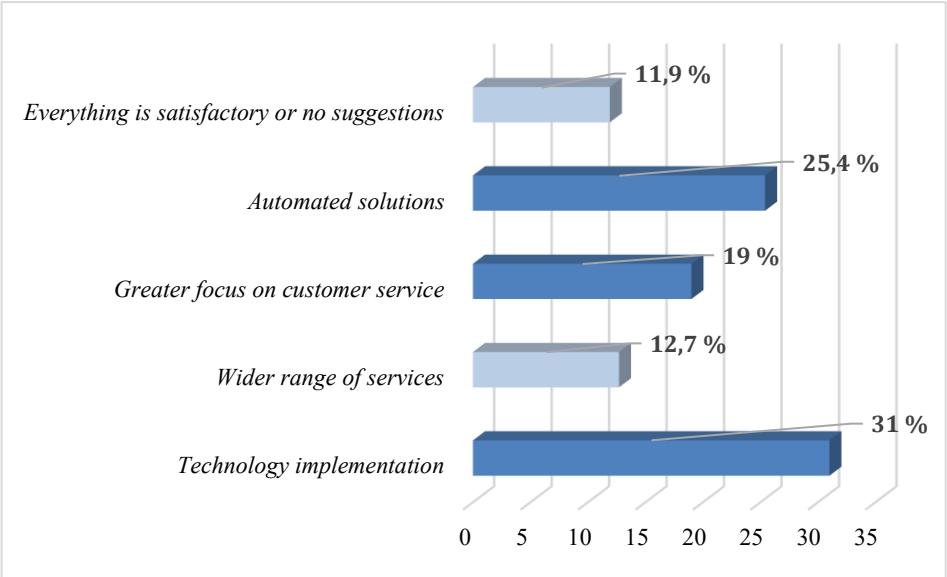

Figure 11. Opportunities for improving logistics processes in small enterprises

Source: compiled by the authors based on research data

Respondents' answers reveal that the main opportunities for improving logistics processes are related to the implementation of advanced technologies (31%), automated solutions (25.4%), and greater focus on customer service (19%). Automation improves logistics processes, reduces the risk of human error, and speeds up order processing, which is particularly important in the competitive market environment where efficiency and accuracy determine customer satisfaction and loyalty (Caro and Sadr, 2019). The implementation of technologies, including smart order tracking systems and data analysis tools, makes it possible to better forecast demand, improve routes, and make data-driven decisions, thereby increasing operational efficiency (Demirova, 2023). According to the researcher, the role of new technologies in logistics processes and the integration of virtual components should be a priority for all organizations, as the digitization of processes will be a key competitive factor not only now but also in the future.

These research results correlate with the insights expressed by the participants in the qualitative study. The participants interviewed in the semi-structured interviews also emphasized the importance of automation and the implementation of advanced technologies to improve logistics processes, reduce disruptions, and improve service quality. In addition, they emphasized the importance of understanding customer needs and providing individualized service as one of the key factors in creating a competitive advantage. This confirms that, in the opinion of both customers and employees,

sustainable company growth is directly related to the implementation of innovations and customer focus.

Summarizing the results of the questionnaire survey, it can be stated that the study helped to fully reveal the profiles of customers of small logistics companies, their service consumption habits, challenges they face, and expectations for service improvement. First, the characteristics of customer companies were identified—most of them are medium enterprises in trade and service sectors, operating in the market for 6–10 years, with 11 to 50 employees, and operating internationally. These indicators suggest that these are mature organizations that choose external logistics partners to focus on their core activities and increase operational efficiency.

The survey data reveals that customers most often order international freight transport services, which is consistent with the opinion expressed during the semi-structured interviews that the main logistics process of a small enterprise is to provide transportation services. The challenges identified during the study and opportunities for improvement (see Figure 12).

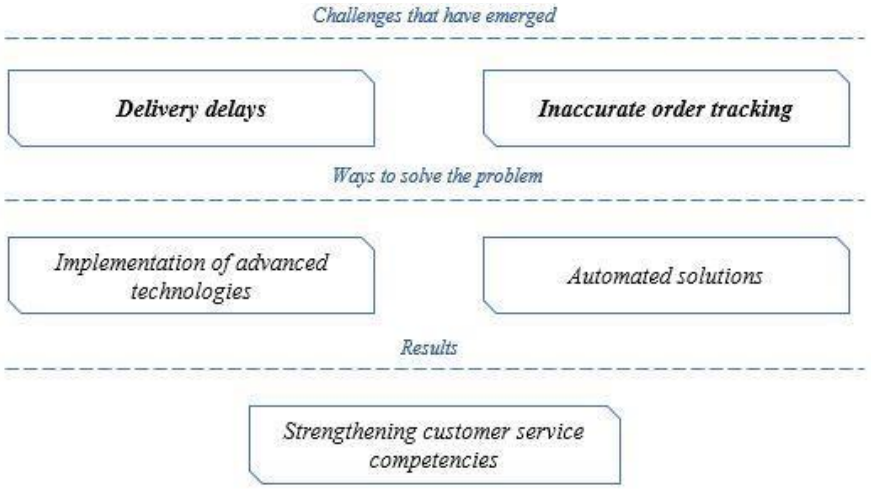

Figure 12. Challenges and opportunities for improvement in the logistics processes of small enterprises

Source: compiled by the authors based on research data

Delivery delays are most often caused by external disruptions, inaccurately planned routes, or limited internal resources. To address these challenges, the survey participants suggest implementing advanced technological solutions, such as real-time transport monitoring systems and AI tools. Inaccurate order tracking is often associated with non-automated processes or poor system integration. To address this issue, respondents highlight the importance of implementing automated solutions, such as integration of order management, warehouse, or business management systems. Better customer service has a positive impact on a company's reputation, optimizes processes, and reduces the costs of logistics processes and individual operations.

Improvement of logistics processes is one of the main tools that enable companies to achieve competitive advantages both by reducing costs and by creating added value for customers. Author Popov (2014) observes that logistics companies that transport goods by road operate under particularly fierce competitive conditions, which is why a significant number of such companies are unable to remain competitive and go bankrupt. Popov believes that to ensure the continuity of their operations and remain competitive in the market, the companies must continuously analyze their performance using the most advanced performance evaluation methodologies.

4. SCIENTIFIC DISCUSSION

International scientific literature extensively examines the links between logistics and corporate competitiveness, drawing attention to the importance of logistics processes in shaping competitive advantage. The results of this study confirm the essential role of logistics processes in the modern business environment. The data obtained reveals that logistics is not just a technical or auxiliary activity, but a strategic factor in the competitiveness of companies, ensuring the uninterrupted flow of goods, services, and information and the consistent creation of value for customers. This is consistent with previous studies, which identify logistics as one of the most important factors determining the ability of companies to adapt to market dynamics (Christopher, 2023; Rushton et al., 2022).

Nevertheless, this issue is analyzed only fragmentarily in Lithuanian scientific literature. Considering that the logistics sector has undergone significant technological and organizational changes, and the introduction of modern technologies has created the conditions for much more effective process management. This implies the need to conduct research to determine how Lithuanian companies could improve their logistics processes to strengthen their competitive advantage. The analysis of the results revealed that effective management of logistics processes directly affects cost reduction, service quality improvement, and customer satisfaction. This conclusion coincides with the role of supply chain reliability and rapid response to market changes emphasized in scientific literature (Christopher, 2016). It is particularly important that companies that can coordinate processes properly can not only implement a cost reduction strategy but also strengthen differentiation by providing higher quality services.

The competitiveness of small enterprises is a complex phenomenon that depends on internal resources and capabilities closely related to human capital, management decisions, innovation, and the application of technology. However, the dynamics of the external environment are no less important, forcing small enterprises to constantly adapt and monitor market changes. The problem arises because most small enterprises operate with limited financial, technological, and human resources, so their ability to strategically leverage their strengths and respond quickly to challenges becomes crucial to their survival in the market (Zasadzien and Žarnovsky, 2018). This situation is particularly relevant for small logistics companies, which, due to intense competition, must seek effective ways to improve their processes to maintain and strengthen their competitive advantage. The study provides valuable insights for these companies, as it helps to identify critical areas of their operations and possible solutions for improvement.

To achieve the aim of the study – to analyze the risks of logistics processes faced by small enterprises and to identify opportunities for improvement in a competitive environment – a mixed research method was applied.

Qualitative research based on semi-structured interviews with company employees provided an opportunity to analyze internal processes in detail, assess organizational and operational management aspects that determine risks, and highlight practical opportunities for process improvement. The selection of respondents based on their work experience ensured a deeper and more reliable interpretation of the research results.

A quantitative study conducted in the form of an anonymous customer survey provided the basis for the systematic collection and processing of data on customer experiences, expectations, and opinions related to logistics processes. This analysis made it possible to identify the main problems visible from the outside – from the consumers' perspective – and to form a representative picture of the situation.

Thus, the mixed research approach made it possible to integrate the reliability of quantitative analysis and the depth of qualitative research, allowing for a comprehensive understanding of the challenges faced by small logistics companies and providing a basis for strategic recommendations to strengthen competitiveness. The study revealed that delivery delays are most often caused by external disruptions, inefficient route planning, or limited resources. This shows that traditional logistics management methods are no longer sufficient in dynamic market conditions. Previous studies show that technology integration is becoming a key factor in optimizing routes and ensuring more efficient resource management (Christopher, 2016). The results of the study reinforce previous research, showing that technological innovations (such as artificial intelligence solutions) reduce internal operational disruptions and at the same time increase process flexibility.

Another challenge identified is inaccurate order tracking due to non-automated processes or weak system integration. This problem is widely discussed in logistics management studies, which emphasize that the implementation of automated order management, warehouse, and business management systems is a prerequisite for more accurate and faster process control (Rut and Wengel, 2019; Morkūnas et al., 2018). The results confirm this statement and show that the implementation of technology directly determines the quality of customer service, strengthens reputation, and reduces costs.

Future research directions in this area are particularly promising, as logistics processes and their role in the competitiveness of small enterprises are constantly changing due to technological advances and a dynamic market environment.

Firstly, logistics processes directly affect a company's competitiveness. Small enterprises often operate with limited resources, so it is necessary to constantly analyze customer expectations and improve logistics processes.

Second, technological innovations and digitalization are constantly changing the field of logistics. Artificial intelligence solutions, automated warehouses, advanced tracking tools, and

forecasting models provide opportunities to improve operational efficiency, reduce the likelihood of errors, and enhance customer satisfaction. Future research would help identify which technologies are most suitable for small enterprises and how to effectively integrate them into daily operations.

Third, market dynamics pose constant risks and challenges. Small enterprises can be particularly vulnerable to sudden price fluctuations, competitor actions, or geopolitical changes. Future research would help identify sources of risk and develop measures to mitigate their negative impact on operations.

Fourth, changing customer expectations requires constant monitoring of how demand is met by logistics services. Research helps to assess how companies can improve service quality, shorten delivery times, and expand their range of services, thereby strengthening customer loyalty and competitive positions.

The research is useful for small enterprises because it provides data for decision-making.

In summary, the results of this study not only confirm the strategic importance of logistics processes but also highlight specific problem areas and possible solutions. From a practical point of view, companies seeking to strengthen their competitive position need to invest in process automation, digitization, and advanced technologies. From an academic point of view, the results of the study complement the existing literature on the transformation of logistics processes in the era of digitalization and reveal the need for more empirical research to assess the potential of small and medium-sized enterprises to effectively adapt modern technologies.

CONCLUSIONS AND RECOMMENDATIONS

1. Logistics processes form the cornerstone of modern business operations, as they ensure the uninterrupted flow of goods, services, and information, the efficient use of resources, and the consistent creation of value for customers and the company itself. Effective management of these processes not only reduces operating costs, but also increases service quality, improves customer satisfaction, and ensures sustainable company growth. Properly coordinated logistics processes become a strategic tool that helps companies adapt to constantly changing market dynamics, implement cost leadership or differentiation strategies, and strengthen their competitive advantage in both local and international markets.
2. Summarizing the analysis of scientific literature, it can be stated that the improvement of logistics processes is a strategic factor that directly determines the growth of companies' competitiveness. Systematically optimized activities—from warehousing, transportation, sorting, and packaging to inventory management—not only increase operational efficiency but also ensure a quick and accurate response to market changes. Such process improvements ensure supply chain reliability, reduce operating costs, and increase customer value. In addition, the integration of modern information technology and digitalization solutions provides flexibility and synchronization to logistics processes. Technological innovations not only streamline operational flows, but also make processes more flexible, synchronize operations, and thus increase the ability of small enterprises to adapt to market changes and strengthen their competitive position.
3. The results of the study reveal that delivery delays are most often caused by external disruptions, inefficient route planning, or limited use of internal resources. To reduce the impact of these factors, it is recommended to implement advanced technological measures, such as real-time transport monitoring and artificial intelligence solutions, which allow for the optimization of route planning and improved resource management. Inaccurate order tracking is often caused by non-automated processes or poor integration between different systems. To address this issue, it is recommended to implement automated solutions, such as the integration of order management, warehouse, and business management systems, which ensure more accurate and faster process control. Better customer service has a positive impact on a company's reputation, optimizes processes, and reduces the costs of logistics processes and individual operations.

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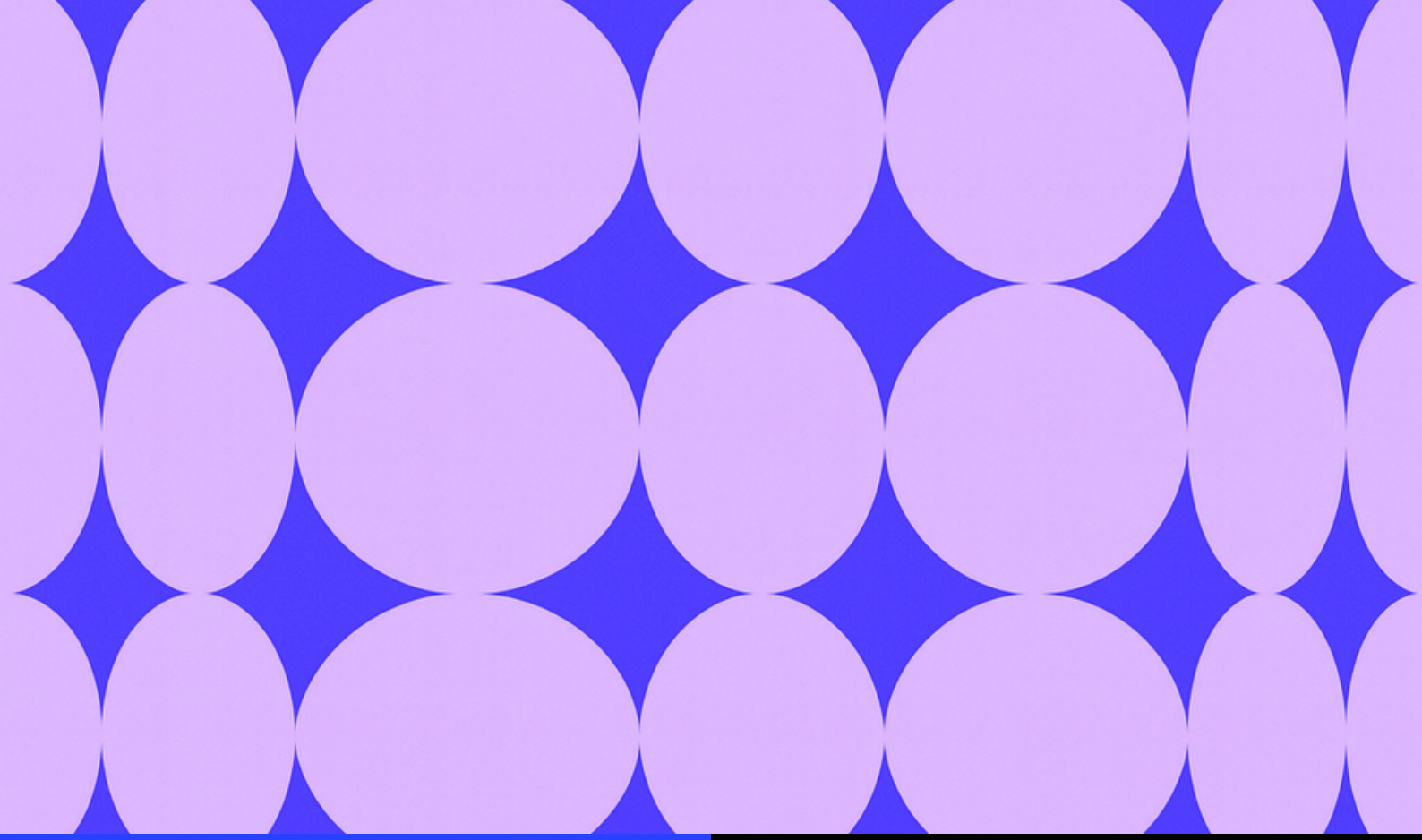

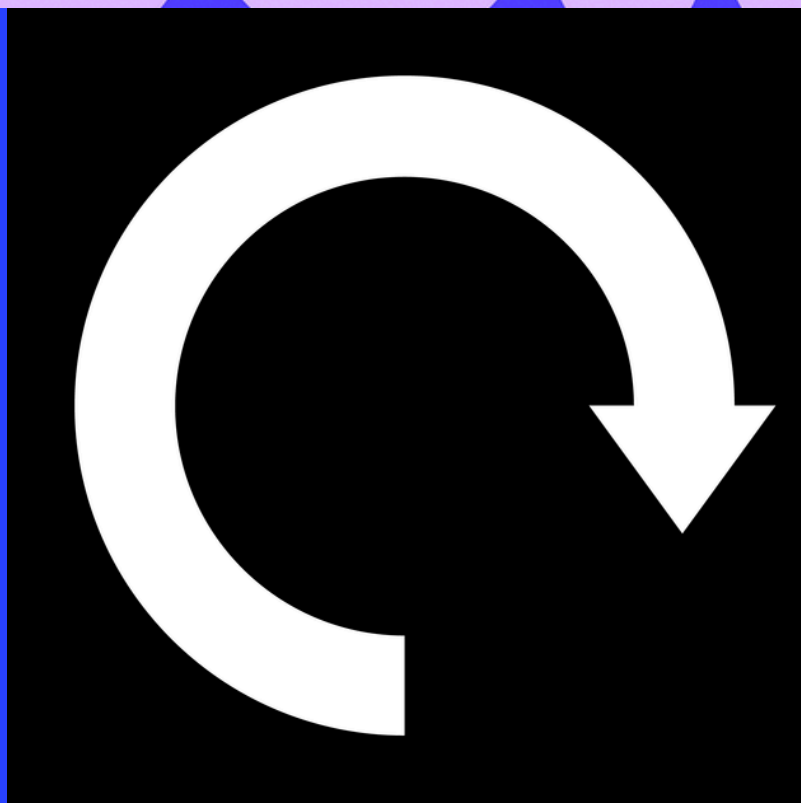

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