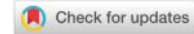


STRATEGIC MANAGEMENT OF LOGISTICS

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Abstract: In today's turbulent business environment, effective and efficient logistics management optimizes resource allocation and improves customer satisfaction through timely and reliable service delivery. The integration of modern technologies, such as data analytics and automation, serves to improve logistics strategies, enabling organizations to respond quickly and in a timely manner to market demands. This paper will explore the various dimensions of strategic logistics management, with a special emphasis on examining its essential role in driving operational excellence and sustainable competitive advantage within various organizations. By understanding these elements, organizations can better navigate the complexity of today's supply chain challenges. This paper uses a methodology based on the analysis of secondary sources, including professional literature, books and scientific articles in the field of strategic logistics management. The approach was focused on a review and synthesis of theoretical concepts and best practices in logistics management. A descriptive method was used to identify key components of strategic logistics management. The methodological approach enables a comprehensive understanding of strategic logistics management through the analysis of existing theoretical frameworks and practical examples, providing readers with an insight into key aspects and challenges in this area. Research objectives in the field of strategic management of logistics include: Analysis of existing logistics processes; Optimizing the supply chain, ie developing strategies to improve efficiency, reduce costs and increase the speed of delivery of products or services; Researching the possibility of applying modern technologies, such as information systems, to improve logistics operations; Determining ways to increase customer satisfaction through better organization and management of logistics activities; Identification and analysis of potential risks in the logistics chain and development of strategies to mitigate them. These goals enable organizations to manage their logistics operations more efficiently, adapt to market changes and improve their business performance. The paper will prove the hypotheses: that the application of a strategic approach in logistics processes leads to operational performance of the company; that the integrative application of modern information technologies in logistics processes increases the competitive advantage of organizations; that effective logistics risk management minimizes the likelihood of disruptions in the supply chain; that the implementation of lean logistics reduces costs and increases customer satisfaction.

Keywords: logistics, strategic management, supply chains, organization.

Field of social sciences: economy

1. INTRODUCTION

Management is a key function in the business world, because he is expected to ensure the successful management of resources and the achievement of the organization's goals. (Zekić, 2017). This author states that management is particularly important in logistics, which is increasingly recognized as an integrative management function in modern business. Logistics managers responsible for coordinating and managing a range of activities such as planning, organizing, leading, managing human resources and controlling, all with a goal ensuring efficient and effective business operations. In order to achieve successful logistics management activities, managers must focus on the application of various methods and tools, and monitor trends and innovations in the logistics sector. Quality management in the business world is a key factor in achievement competitive advantages and long-term success of the organization. Management enables the company to adapt to changing market conditions, providing strategic orientation and leading teams in achieving goals. Therefore, it is important to understand the importance of management in the business world and apply it to all business functions, including logistics. The business functions of a company in terms of logistics are key to successful supply management chains and providing quality services to customers. Logistics management includes various activities which take place in all stages of the supply chain, from procurement and production, through storage, transport and distribution, to waste management. The role of management in logistics is to direct, supervise and coordinates the various activities in the supply chain in order to achieve the greatest possible efficiency and profitability. The role of management in logistics also includes establishing strategies and goals for logistics system and their implementation and monitoring. This includes risk assessment, supplier selection, planning production, inventory management, warehouse and transportation management, and monitoring and reporting about

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performance. Logistics process management strategies and techniques have a significant impact on efficiency of the logistics system. The efficiency of logistics is measured based on the speed of delivery, delivery quality, reliability, flexibility and cost. There are different strategies that can be used applied in logistics, such as supply chain management, quality management and governance stocks (Milovanović et al, 2011).

Simply put, the main task of logistics is to ensure the availability of products of the right quality, in the right quantity, for the right customer, at the right time, in the right place and of the right quality. This definition perfectly reflects all the main activities of logistics (Stošić Mihajlović, 2022). Strategic logistics management is a key function in the management of modern enterprises, as it encompasses the planning, implementation and control of logistics processes with the aim of maximising efficiency and minimising costs. This approach aims to ensure that the right products are delivered to the right place, at the right time and with optimal resources (Christopher, 2016). In addition, strategic logistics management is a critical component in the broader field of supply chain management, which significantly affects organisational efficiency and competitiveness. As companies increasingly operate in the global market, the complexities of logistics, from transport and inventory management to warehousing and distribution, require a comprehensive approach that aligns logistics operations with overall business objectives.

Within the framework of this research in the field of strategic logistics management, the following hypotheses are put forward:

1. The application of a strategic approach to logistics processes can lead to improvements in operational performance.
2. The integration of modern information technologies into logistics processes increases the competitive advantage of the company.
3. Effective logistics risk management reduces the likelihood of disruptions in the supply chain.
4. The application of lean logistics leads to a reduction in costs and an increase in customer satisfaction.

These hypotheses provide a framework for research and analysis of key aspects of strategic logistics management, enabling a deeper understanding of their impact on business performance.

2. THE IMPORTANCE AND MAIN COMPONENTS OF STRATEGIC MANAGEMENT IN LOGISTICS

Strategic management in logistics is essential for organizations that want to optimize their supply chain operations and improve competitive advantage. This management discipline involves planning and executing logistics activities, integrating them with broader business strategies to achieve organizational goals. A systematic understanding of logistics through the lens of strategic management allows firms to identify critical success factors and potential inhibitors that can impact performance outcomes. Findings (Grant et al, 2018) suggest that there is a gap in the understanding and adoption of logistics and supply chain management principles at the strategic level, highlighting the importance of resolving these discrepancies in order to leverage logistics as a strategic asset. The importance of relationship marketing, especially in the context of reverse logistics, highlights the role of trust and commitment in driving successful logistics systems, as noted in (Berrone et al, 2005). Through effective strategic management, organizations can ensure that their logistics operations are efficient and aligned with their overall business goals.

Strategic logistics management encompasses several components that are essential for organizations that want to stand out in today's competitive environment:

Logistics strategy planning – includes market and customer analysis; defining key logistics system objectives, such as reducing costs, improving services, or improving environmental sustainability (Chopra & Meindl, 2019); identifying and evaluating opportunities in the supply chain.

Supply chain optimization – includes the integration of all phases of the supply chain (procurement, production, warehousing, and distribution); introducing technologies such as enterprise resource planning (ERP) systems and internet of things (IoT) to monitor and optimize processes (Rushton, Croucher, & Baker, 2021); analyzing and managing risks in the supply chain.

Resource management – includes the efficient use of transportation assets, warehouses, and human resources; implementing sustainable practices, such as reducing carbon emissions and switching to electric vehicles (Mangan & Lalwani, 2016).

Logistics networks – includes the design of the distribution network: warehouse locations, transportation routes, and distribution centers; determining optimal delivery routes using analytical tools (Stock & Lambert, 2001).

Performance monitoring and continuous improvement – includes setting key performance indicators

(KPIs), such as delivery time, delivery accuracy, unit cost, and inventory levels; continuously analyzing the performance of logistics processes and adjusting the strategy based on feedback (Russell & Taylor, 2019).

A critical element is logistics outsourcing, which has become popular as a strategy that allows companies to simplify their operations and focus on core competencies. Logistics outsourcing is growing as a popular strategy for many organizations in search of operational excellence despite fierce competition in the global market (Zayzan et al, 2011). Effective facilities management plays an indispensable role in improving logistics operations, especially in the context of warehousing.

The importance of Facility Management for logistics operations is highlighted by the necessity of investing in physical infrastructure and services that support efficiency. By prioritizing these components, organizations can significantly improve both logistics and operational performance, ultimately contributing to long-term business success (De Marco et al, 2014).

3. SUPPLY CHAIN INTEGRATION AND COORDINATION

An efficient supply chain relies heavily on integration and coordination between its various components, a necessity that is further emphasized in strategic logistics management. As businesses face increasing competition and rising consumer expectations, the integration of supply chain processes is becoming paramount. Companies are now joining forces in vertical alliances, creating strategic partnerships to electronically share critical logistics information, which enables more effective inter-organizational coordination. This collaborative approach is beneficial and essential for synchronizing activities along the supply chain to ensure timely and efficient delivery of goods to consumers. The shift from traditional procurement policies to supply chain management strategies reflects the growing recognition of the importance of the dynamics of supplier-customer relationships, where the goal is not just to fulfill tasks but to create value throughout the chain, thus improving overall performance (Vlachos, 2002; Scattola et al, 2025).

4. BENEFITS AND CHALLENGES IN STRATEGIC LOGISTICS MANAGEMENT

The most important benefits of strategic logistics management are:

- Increased profitability - through reduced operating costs.
- Improved service quality - through precise planning and optimization.
- Competitive advantage - through more efficient supply and distribution.
- Sustainable development - through environmental initiatives in the logistics chain.

Strategic logistics management faces a myriad of challenges that can significantly hinder operational efficiency and long-term growth. For example, in the context of positioning Dubai as a logistics hub, the region faces critical challenges that must be managed to maintain its competitive advantage, including infrastructure constraints and regulatory barriers (Sundarakani et al.). Addressing these challenges is key to ensuring resilient and agile logistics operations in an increasingly dynamic environment. Also, the phenomenon of globalization has fundamentally reshaped logistics strategies, forcing organizations to quickly adapt to an interconnected world. As markets expand beyond local borders, logistics outsourcing has emerged as a prevalent strategy, enabling firms to streamline operations and improve efficiency in the face of intense global competition (Zayzan et al, 2017). By using specialized logistics providers, companies can focus on core competencies while accessing advanced technologies and expertise that facilitate international trade. Globalization fosters complex supply chains, where product differentiation and the management of international supply chain linkages are paramount (Chambers et al, 2025). This intricate web of linkages requires sophisticated logistics management to ensure timely delivery and cost-effectiveness. As such, strategic logistics management must continuously evolve to respond to the dynamic challenges posed by globalization, using innovative practices and cross-border collaboration to achieve operational excellence and competitive advantage.

4.1 Creating logistic value

The creation of product value also takes place after the end of the production of the goods (Stošić Mihajlović, 2022:

- The value of the final product is greater than the sum of the values of the materials from which the product is made - Product values that are added to the use value in the product distribution phase are:
 - value of time and place (logistics jurisdiction),
 - value of owning a product (jurisdiction of marketing)

Use value and value of possession are the result of classic marketing instruments:

- a) product,
- b) price, and
- c) promotion.

Value of place (spatial) - turnover value obtained by going out to meet the consumer, to find the products in the required place, ready for sale and use. Logistics creates the value of the change of place.

- The value of time - in addition to the obtained place, consumers should receive the product in the shortest possible time,

- The transfer of the product into the hands of the consumer ends the creation of its value,

- The importance of moving the product in space and time: 1) availability of the product 2) marketing, ownership value product could not be provided

5. DISCUSSION OF FINDINGS

By analyzing the available literature and empirical studies, we can provide evidence that supports the aforementioned hypotheses in the field of strategic logistics management:

- The implementation of strategic management in logistics has a positive impact on the operational efficiency of the company (Christian et al, 2024). The study by Ristovska et al. (2018) shows that successful companies apply supply chain management and logistics to reduce costs, increase competitiveness and improve operational efficiency. Research by Omoush (2022) indicates the positive impact of logistics practices, such as procurement, warehousing, transportation and distribution, on the operational performance of transport companies (Christian et al, 2024).

- The integration of information technologies into logistics processes increases the competitive advantage of the company. A study on logistics companies in China shows that the application of information technologies significantly contributes to gaining competitive advantage (Lai et al, 2006).

- Research on logistics 4.0 emphasizes that the use of information technologies has a positive effect on the performance and competitiveness of logistics firms (Nour, 2022).

- Sustainable logistics practices contribute to a company's long-term profitability and reputation. Although specific studies that directly link sustainable logistics practices to profitability were not found in the available sources, there are studies that indicate that sustainable practices can contribute to cost reduction and improved company reputation.

- Effective logistics risk management reduces the likelihood of disruptions in the supply chain. Although specific studies directly linking risk management to reducing supply chain disruptions were not found in the available sources, there is research indicating that effective risk management can contribute to supply chain stability.

- The application of lean logistics leads to a reduction in costs and an increase in customer satisfaction. Although specific studies directly linking lean logistics with cost reduction and customer satisfaction enhancement were not found in available sources, lean principles are widely accepted as methods to improve efficiency and service quality.

These findings provide empirical support for the first two hypotheses, while for the other hypotheses there are indications to support them, but additional research is needed for full confirmation.

6. FUTURE TRENDS IN STRATEGIC LOGISTICS MANAGEMENT

As the logistics landscape continues to evolve, several future trends are emerging that will significantly reshape strategic management practices. One prominent trend is the increasing reliance on advanced technologies such as artificial intelligence (AI) that facilitate predictive analytics and automation, ultimately improving efficiency and decision-making processes. In addition, sustainability is becoming a key topic, forcing organizations to adopt green practices that minimize environmental impact, such as optimizing transportation routes and using alternative energy sources. The growth of global e-commerce requires greater flexibility and responsiveness in logistics strategies, which is encouraging companies to incorporate agile methodologies. The integration of real-time data sharing across supply chains will foster greater collaboration among stakeholders, enabling more transparent operations and improving overall customer satisfaction. By prioritizing reverse logistics, organizations can not only improve customer satisfaction, but also mitigate the costs associated with product returns and disposal, which are highlighted by the complex way of managing omnichannel environment. Implementing an omnichannel payment solution provides a single view of customer payments and the resulting data is essential for a single, accurate representation of each customer. This is key to providing a unique customer experience.

Together, these trends underscore a transformative shift towards a more innovative and sustainable approach to strategic logistics management.

7. CONCLUSIONS

Strategic logistics management is emerging as an essential component for optimizing operational efficiency and driving competitive advantage in a constantly evolving market. An effective strategic framework must encompass critical elements such as transportation, information systems, and stakeholder collaboration, which can significantly improve overall performance. The interplay of these strategies emphasizes a proactive approach to logistics management, ensuring that companies are well equipped to meet their customers' demands while adapting to market fluctuations. In shaping the future of logistics, firms must embrace these strategic dimensions to achieve sustainable growth and operational excellence.

REFERENCES

- Berrone Pascual Alberto, Husillos, F., Javier, L, Nora, Álvarez G. (2005). The explanatory power of trust and commitment and stakeholders' salience : their influence on the reverse logistics programs performance. <https://core.ac.uk/download/29427272.pdf>
- Chambers, W., Langley, Suchada V., Miller, Andrew D. Current issues affecting trade and trade policy: an annotated literature review". 2025, <https://core.ac.uk/download/pdf/7060122.pdf>
- Christopher, M. (2016). Logistics and Supply Chain Management. Pearson Education.
- Chopra, S., & Meindl, P. (2019). Supply Chain Management: Strategy, Planning, and Operation. Pearson.
- Christian, I. C., Ihuoma, C. I., Rennner, B. A., & Lawrence, T. O. (2024). Logistics Management and Operational Efficiency of Food and Beverage Firms in Port Harcourt. *International Journal of Scientific Research and Management*, 12(2), 45-58.
- Grant, David B., Mangan, D. John, Sweeney, Edward. "Strategic adoption of logistics and supply chain management". 'Emerald', 2018, <https://core.ac.uk/download/151162266.pdf>
- De Marco, Alberto, Mangano, Giulio. The Role of Maintenance and Facility Management in Logistics: A Literature Review. Emerald, 2014, <https://core.ac.uk/download/pdf/11432336.pdf>
- Lai, F., Zhao, X., & Wang, Q. (2008). The Impact of Information Technology on the Competitive Advantage of Logistics Firms in China. *Industrial Management & Data Systems* 108(9):123-140.
- Mangan, J., & Lalwani, C. (2016). Global Logistics and Supply Chain Management. Wiley.
- Milovanović, G., Barac, N., & Anđelković, A. (2011). Lprijogistika, menadžment lanca snabdevanja i konceptualne perspektive njihovih odnosa. *Economic Themes*, 49(3).
- Nou, E. (2022). Enhancing the Logistics 4.0 Firms through Information Technology. *Sustainability* 2022, 14(23), 15860; <https://doi.org/10.3390/su142315860>
- Omoush, Al K., Klaus, U., Palacios-Marques, D. (2022). The impact of intellectual capital on supply chain agility and collaborative knowledge creation in responding to unprecedented pandemic crises. *Technological Forecasting and Social Change* 178(2):
- Ristovska, N., Kozuharov, S., Petkovski, V. (2017). The Impact of Logistics Management Practices on Company's Performance. *International Journal of Academic Research in Accounting, Finance and Management Sciences*. Vol. 7, No.1, January 2017, pp. 245–252
- Rushton, A., Croucher, P., & Baker, P. (2021). The Handbook of Logistics and Distribution Management. Kogan Page.
- Russell, R. S., & Taylor, B. W. (2019). Operations and Supply Chain Management. Wiley.
- Scattola, Elena, Stocchetti, Andrea. "Supply chain management in industrial production. A retrospective view". 2025, <https://core.ac.uk/download/pdf/7031085.pdf>
- Stock, J. R., & Lambert, D. M. (2001). Strategic Logistics Management. McGraw-Hill.
- Stošić Mihajlović, Lj. (2022). Logistika. Akademija tehničko vaspitačkih strukovnih studija, Niš.
- Sundarakani, Balan. Transforming Dubai Logistics Corridor into a Global Logistics Hub. *Sociological Research Onlin*, 2017, <https://core.ac.uk/download/158248742.pdf>
- Vlachos, Ilias. E-logistics of agribusiness organisations. 2002, <https://core.ac.uk/download/17298835.pdf>
- Zayzan, Khairul Razmi. A Study On Influencing Factors And Performance Of Logistics Outsourcing Practices Among Electrical And Electronics Firms In Malaysia". 2011, <https://core.ac.uk/download/16410908.pdf>
- Zekić, Z. (2017). Logistika kao integrativna upravljačka funkcija – fokus suvremenog menadžmenta. *Oeconomica Jadertina*, 7. (2), 96-105

