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STRATEGIC ROLE OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT CONCEPTS IN IMPROVING BUSINESS AND MARKET PERFORMANCE

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Abstract: The purpose of this paper is to propose a conceptual framework which integrates logistics and supply chain management terms and concepts and study their relationship with organizational performance. In the suggested framework, logistics related concepts are clustered in two complementary categories: capability and process based logistics concepts and technology and sustainability based logistics concepts which are proposed to affect business and market performance through logistics and supply chain management as a strategic organizational function. Methodologically, the research is based on quantitative surveys empirically grounded study. The data collection will be performed by using questionnaire administered to managers and professionals that are engaged in logistics and supply chain management activities in organizations in Republic of Serbia. Although empirical results are not presented in this paper, the research-methodology paper provides precise outline for further empirical analysis. Theoretical contribution of this study is that it provides integrated and systematic literature review and a framework of logistics and supply chain management dimensions that should be further tested empirically. Once empirically examined, the relationships between dimensions from the proposed framework can be further analyzed on different performance dimensions and in different research settings.

Keywords: Logistics, supply chain management, strategic management, framework.

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1. INTRODUCTION

Organizations operate in turbulent environments characterized by changing markets, evolving technologies, and ever increasing demands and expectations from stakeholders (Bešić et al., 2021). Moreover, they are expected to continuously improve their performance to remain competitive. Understanding how to discover and nurture capabilities that help organizations gain sustainable competitive advantages and ultimately perform well has become a topic of considerable attention in strategic management literature. Today, business and market success does not only depend on price or quality of products or services offered but, to a large extent, on how well companies organize their work and manage relationships (Boyer et al., 2021). As competition becomes fiercer and uncertainty continues to rise, aligning operational tasks with business strategy increasingly appears as a prerequisite for achieving desirable performance levels.

Supply chain management (SCM) and logistics have traditionally been seen as operational activities focused on cost savings. However, these functions are now being seen as potential drivers of competitive advantage and enterprise performance. Recent research suggests (Mishra et al., 2023) supply chain management, logistics capabilities, supply chain integration and coordination efforts can play a role in creating value for the firm. Effectively managing material flows, information sharing and synchronization across firms can improve an organization's efficiency as well as its responsiveness (Agrawal et al., 2024). Integrating logistics and supply chain issues into the strategic decision making process can allow companies to improve business performance, improve their positions in the marketplace and better manage uncertainty.

In dealing with these changes and transformations, new concepts have arisen in supply chain management and logistics, including digitalization in supply chain management, green supply chain management (GSCM), supply chain collaboration, supply chain agility, supply chain risk management, lean logistics and many others. Studies have recently focused on Industry 5.0 (Zhou et al., 2024) and also highlighted elements such as humans centric (Bakator et al., 2024), ethics, balance between technology and advanced digitalization in supply chain management. Previous research has examined these concepts individually, but little has been studied on how these concepts collectively impact the firm's strategy. Although some research (Hsu et al., 2024) has focused on providing information about practices derived from these concepts, these studies are fragmented. Studies have identified practices on how agility and lean can be incorporated into daily operations (Alejandro-Chable et al., 2024) but failed to provide an overview of how combining these practices could create strategy. Therefore, there is a need to take a holistic view of logistics and supply chain management in terms of strategy.

Progress has been made in understanding logistics and supply chain management issues from strategic, operational, and technology oriented perspectives (França et al., 2017). Several research gaps remain. Research in the field has increased over the years, many studies focus on single logistics concepts rather than recognizing the interrelationships among logistics concepts and their collective impact on business performance. Second, much empirical research tends to focus on one dimension of performance, while ignoring the business versus market performance dichotomy. Research that simultaneously considers these factors in the context of Industry 5.0, especially in manufacturing oriented and transitioning economies, remains limited.

2. BACKGROUND

The following section provides a theoretical foundation for the study by examining key concepts from strategic management, logistics, and supply chain management that underpin the proposed research framework. Particular attention is given to the role of logistics and supply chain management as strategic resources and their relationship with business and market performance.

2.1. Logistics and supply chain management as strategic resoursces

Seen through the lens of strategic management, logistics and supply chain management can be thought of as being organizational resources that help build the elements needed for sustainable competitive advantage (Singh, 2022). Logistics capabilities not only refer to traditional functions and tasks, but also the physical resources such as distribution systems, management systems, organizational routines and external partnerships used to fulfill those tasks (Rossini et al., 2023). Resourcefully developed and adeptly managed logistics can add efficiency, dependability, and agility to each activity in the value chain (Ali et al., 2023). For that reason, logistics and supply chain management have strong parallels with the resource based and capability perspectives of the firm.

Uncertainty, complexity, and competition define today's business environment. In order to cope with uncertainty and unexpected events, companies need to not only monitor their internal value chain activities, but also coordinate with suppliers, distributors, third party logistics providers, and customers (Irfan et al., 2022). The capabilities to coordinate materials, information, and organizational links with supply chain partners are developed over time and through experience. They cannot be easily copied. As a result, logistics and supply chain management should be considered strategic resources that affect performance outcomes.

2.2. Strategic logistics and supply chain management concepts

For analytical clarity, strategic logistics and supply chain management concepts are grouped into two complementary categories. The first group focuses on capability and processoriented concepts that primarily shape internal coordination and operational execution, while the second group encompasses technology and sustainability based concepts that support strategic adaptation, resilience, and long term value creation.

2.2.1. Capability and process oriented logistics concepts

Capability and process oriented logistics concepts are concepts that focus on aspects of logistics processes within the firm as well as interorganizationally. These concepts include logistics capability, lean logistics, agility, and collaboration (Huang et al., 2023). Logistics capability is defined by a firm's ability to plan, execute, and control its logistics operations to achieve its goals(Huang et al., 2020). Lean logistics is the ability to eliminate waste and more effectively utilize resources throughout the logistics process (Llanos-Solorzano et al., 2025). Agility refers to how quickly a company can meet shifts in demand and supply and respond to uncertainty (Nurjaman & Wibowo, 2020). Collaboration is concerned with shared decision making within a supply chain relationship.

They differ from other concepts because they focus on characteristics within the organization that allow it to perform logistics activities in a reliable, flexible, and efficient

manner. Strategically, these concepts affect performance because they determine how well a company plans for, organizes, and manages logistics activities within the firm and with other firms. Better alignment of logistics activities with market needs and lower costs can be realized if firms possess logistic capabilities and practice lean and agile logistics (Lu et al., 2021). Improved information sharing and coordination with supply chain partners can lead to less uncertainty (Santos et al., 2022). Many of these concepts take time to develop and are built on relationships within and between firms, they are examples of resources that are difficult to imitate. Capability and process based logistics concepts help to explain differences in business and market performance.

2.2.2. Technology and sustainability based logistics concepts

Concepts in logistics that are based on technology cover trends like digitalization (Deral et al., 2024), Industry 4.0 (Culot et al., 2020), Industry 5.0 (Trstenjak et al., 2022) and technology adoption in logistics processes in general. There is big shift towards sustainability (Winter & Knemeyer, 2013). As a result, we witness new conpcets in logistcs based around it. They are known as green logistics (Al-Minhas et al., 2020) concepts and cover trends like environmental sustainability and eco friendly practices (Harsanto et al., 2023). Logistics risk management concepts cover uncertainty and ambiguity with the intent to protect supply chain performance from disruptions (Mangla et al., 2015). Industry 5.0 logistics concepts place a special focus on trends like human centered supply chain management and technology ethics (Andres et al., 2024). Strategic management concepts affect business performance which can result in improved market performance.

These concepts can enable firms to make more strategic decisions in a timely manner. Through increased visibility of the logistics function, strategic decisions can be made on the frontend of supply chain disruptions. Sustainable logistics allows firms to meet demands set by regulations as well as consumer expectations. Firms can operate more efficiently and gain a competitive advantage. Logistics risk management allows firms to operate with less uncertainty. The less uncertainty a firm must deal with, the better it can perform.

2.3. Business and market performance as strategic outcomes

Organizational performance is frequently considered to comprise business performance (Kafetzopoulos et al., 2023), generally understood as internal efficiency measures, and market performance (Liao, 2025) the organization's outcomes within its external environment. Business performance is defined by factors such as productivity, profitability, effectiveness and organizational quality, all closely related to the concept of efficiency (Artha & Satriadhi, 2023). It may thus be used as a measure of how successful an organization has been in converting strategic decisions into efficient results. Market performance is associated with market share, sales growth, customer acquisition and customer satisfaction(Wang et al., 2025). Although often used interchangeably with business performance, market performance represents the degree to which business performance is translated into customer value and satisfaction with the organization among its other stakeholders. Separating market performance from business performance enables a clearer analysis of organizational performance, as organizations can experience gains in one and not necessarily the other. For these reasons, researchers have used both dimensions when measuring outcomes of supply chain management and logistics concepts.

3. CONCEPTUAL FRAMEWORK AND RESEARCH FOCUSES

Framework presented below includes the core theoretical arguments from above while articulating them into a visual depiction of our research focus. Logistics and supply chain management serves as the strategic lens through which two groups of organizational capabilities and practices relate to each other to impact performance. This study does not consider logistics and supply chain mangement practices as independent sources of performance improvement. Instead, they are examined within the strategic context of logistics and supply chain management. Performance gains are assumed to arise from coordinated and strategically aligned decisions.

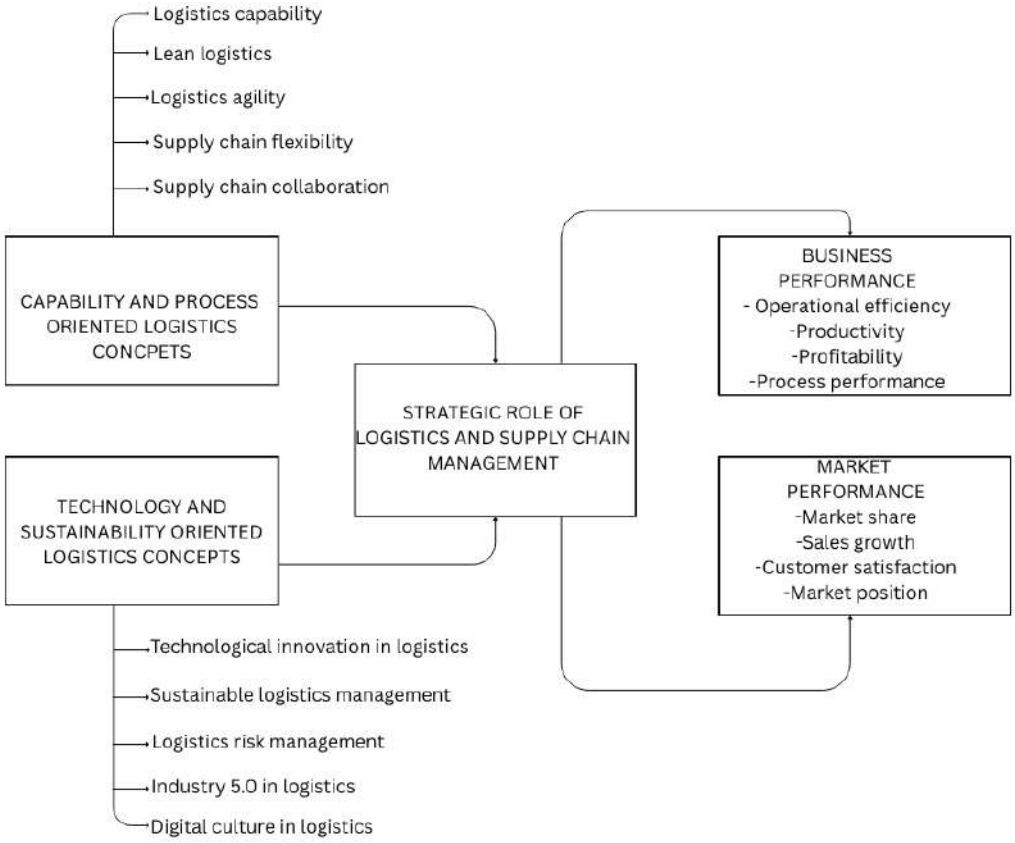


Figure 1. Conceptual framework of logistics and supply chain management and organizational performance

Figure 1 further indicates that the original logistics and supply chain management concepts are assigned to two theoretically distinct groups. The first group consists of logistics concepts that are either capability or process oriented. These variables typically represent internal mechanisms through which organization's abilities determine how logistical processes are designed, coordinated and executed. The second group contains technology and sustainability related logistics concepts. The concepts within this group reflect decision criteria that support organizations' abilities to respond to technological advances, environmental demands and uncertainty. Conceptually, the two groups of variables map the operational and strategic manifestations of logistics and supply chain management.

Within the proposed framework, organizational performance is conceptualized through two outcome dimensions: business performance and market performance. Business performance refers to internal outcomes such as operational efficiency, productivity,

profitability, and process performance. Market performance, by contrast, reflects external outcomes related to market share, sales growth, customer satisfaction, and overall market position. Although closely related, these dimensions capture different aspects of organizational success.

The framework assumes that the combined influence of the two groups of logistics and supply chain management concepts affects both performance dimensions through the strategic role of logistics and supply chain management. Accordingly, the research focus of this study is to examine how the integrated application of logistics and supply chain management concepts contributes to improved business and market performance, thereby providing a foundation for subsequent empirical analysis.

4. METHODOLOGICAL OUTLINE OF THE EMPIRICAL STUDY

The empirical study adopts a quantitative research design and is based on a survey approach. Data were collected using a structured questionnaire developed to capture key logistics and supply chain management concepts and their relationship with organizational performance. The questionnaire includes a total of ten independent varuables related to logistics and supply chain management, as well as two dependent dimensions reflecting business performance and market performance. All variables were operationalized through multi item measurement scales, allowing for a comprehensive assessment of the underlying dimensions. The survey instrument was designed to align with the conceptual framework proposed in this study and to ensure consistency between the theoretical foundations and the empirical structure of the research. This methodological approach enables the systematic examination of relationships among the proposed variables while providing a robust basis for subsequent empirical analysis.

The target population of the empirical study consists of managers and professionals involved in logistics and supply chain management activities within organizations. The survey was administered in a real business environment, specifically among organizations operating in the Republic of Serbia. This context ensures that respondents possessed practical knowledge of logistics processes and performance outcomes within a defined national setting. Data collection has already been completed, resulting in a dataset suitable for examining the relationships proposed in the conceptual framework. The empirical analysis focuses on the organizational level rather than on individual perceptions in isolation. Detailed statistical analyses and empirical results are beyond the scope of this paper and will be addressed in subsequent studies.

This methodological outline is intentionally concise. It is designed to provide sufficient transparency regarding the empirical design while maintaining the conceptual focus of the paper. A more detailed presentation of the research procedures and analytical techniques is reserved for subsequent studies that build upon the framework developed in this work.

5. FUTURE RESEARCH DIRECTIONS

It is expected that the framework suggested in this paper can be used as a platform for future research. First, since various concepts related to logistics and supply chain management are combined under one framework in this study, future studies may refer to this framework and empirically test various relationships that are assumed in this study. In addition, it will be meaningful to test which relationships are more important depending on the performance dimension considered. For example, since business performance and market performance are different dimensions in this study, it will be interesting to identify if capabilities and practices

related to logistics have different effects on organizational performance (business performance) and market performance (external performance of the organization).

This study may be extended in future research in several ways. First, our proposed framework can be expanded by including additional viewpoints. For example, mediating and moderating variables that explain how logistics and supply chain management affect performance could be explored. Examining how performance relationships change over time under different levels of environmental uncertainty can also be studied using longitudinal studies. Testing this framework in various national and industry settings is another way this study can be expanded.

6. CONCLUSION

The purpose of this paper is to construct a framework that helps define the role of logistics and supply chain management strategically in order to achieve organizational goals. The proposed framework helps address this fragmented view by providing elements of different logistics related capabilities, processes, and strategic orientations together. The framework proposes coordination and alignment as key explanatory variables that define how logistics and supply chain management drives business performance and market performance. This paper highlights the important role logistics and supply chain management play in bridging the gap between implementation and strategy.

Even though this paper introduces a formalized conceptual and methodological basis, it does suffer from some limitations. One clear limitation is that it offers no statistical evidence due to its focus on framework building and research design rather than testing. However, this is simultaneously one of the greatest strengths of this paper. With introduction of a clear and concise articulation of conceptual logic and empirical intent, this paper creates a solid and unbiased foundation upon which future empirical testing can build. Continuing to test, modify, and expand upon the framework provided in this paper, future research will allow this line of inquiry to continue moving forward in a cumulative fashion. Therefore, this paper should be seen not only as a single conceptual contribution, but also as a stepping stone for future research regarding the strategic importance of logistics and supply chain management.

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