FACTORS AFFECTING LOGISTICS SERVICE QUALITY IN INTERNATIONAL TRADE: A SYSTEMATIC LITERATURE REVIEW

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Abstract. *Logistics service quality (LSQ) plays a vital role in supporting the efficiency and competitiveness of international trade. Although numerous studies have examined this issue, comprehensive syntheses of the factors affecting logistics service quality in international trade remain limited. This study aims to identify and synthesize the key factors through a Systematic Literature Review (SLR) approach. Articles from leading databases such as Emerald, IEEE Xplore, SpringerLink, ScienceDirect, Google Scholar, and Taylor & Francis, published between 2021 and 2025, were analyzed based on rigorous inclusion criteria. The results identified five main categories: capabilities (36%), operational performance (31%), regulations (18%), customer relationships (8%), and costs (7%). These findings provide a conceptual foundation and strategic insights for the sustainable improvement of logistics service quality.*

Keywords: *International Trade, Logistics Service Quality, Systematic Literature Review*

1. INTRODUCTION

International trade logistics plays a crucial role in the expansion of global trade by facilitating the exchange of goods, services, and capital (Qin et al., 2022). Logistics effectiveness encompassing transportation, warehousing, distribution, and supply chain management serves as a fundamental pillar of international trade (Zhao et al., 2023). The logistics service quality has a direct impact on operational performance, which in turn determines the reputation of an organization as well as its ability to gain an edge in the increasingly competitive global market. The ability of service providers to meet consumer expectations regarding delivery timeliness, accuracy, recording, protection, and interaction is reflected in the Quality of Logistics Services (M. Nguyen & Vo, 2024).

Given the complexity of international trade characterized by the involvement of multiple stakeholders and cross-border regulations a measurable and advanced LSQ approach is essential to ensure both efficiency and regulatory compliance (W. Wang et al., 2024). Beyond influencing customer satisfaction, LSQ also affects global supply chain efficiency and the smooth flow of trade (J. Zhang & Song, 2021). Despite advancements in technology and infrastructure investment, service disparities among providers persist, impacting customer satisfaction, trust, and national competitiveness. These conditions underscore the need for an in-depth examination of the key determinants of LSQ quality within the context of international trade.

A report by the (WorldBank, 2023) indicates that many developing countries still score below the global average on the Logistics Performance Index (LPI), with logistics service quality identified as one of the weakest indicators. Indonesia, for example, received a score of 2.9 for the “quality of logistics services” dimension, lagging behind Malaysia (3.4) and Thailand (3.5). This reflects persistent structural and managerial challenges that hinder improvements in logistics service quality in support of trade. In practice, such inefficiencies result in high logistics costs, delivery delays, and low customer satisfaction.

A review of prior research highlights several perspectives. (Olyanga et al., 2022) emphasized the importance of timely delivery and shipment tracking for export

competitiveness in the East African Community (EAC), while (Chen et al., 2025) found that artificial intelligence enhances international trade productivity in China. (Xuan et al., 2023) demonstrated that regulations and infrastructure significantly affect logistics service quality in Vietnam. (H. Zhang et al., 2023) developed the Logarithmic TODIM and GRA methods to evaluate service quality in cross-border e-commerce, and (Bekbolotova et al., 2025) applied DM-LFM to identify the dimensions of export service quality within the Eurasian Economic Union (EAEU), particularly in the agri-food sector.

Although numerous studies have been conducted, most remain limited to specific geographical and sectoral contexts, employing diverse yet often fragmented methodologies. The lack of systematic synthesis across studies has resulted in a gap in understanding the determinants of LSQ in international trade. This gap has become increasingly significant in light of global transformations such as technological innovation, regulatory shifts, supply chain disruptions, and the COVID-19 pandemic. Therefore, a comprehensive systematic review is essential to identify the key factors affecting LSQ. In an increasingly digital and deregulated trade environment, logistics service providers require evidence-based insights to enhance competitiveness, while policymakers need a structured understanding to design responsive regulatory strategies and infrastructure development plans.

Given this context, the purpose of this study is to identify and synthesize the key factors affecting LSQ in international trade through a Systematic Literature Review (SLR) approach. This method is employed to examine, evaluate, and organize findings from previous studies in a structured manner (Maniah et al., 2022), with article selection based on predefined criteria (Abbasi et al., 2024). The approach results in a comprehensive mapping of logistics service quality dimensions, providing a relevant conceptual foundation that supports evidence-based policy development and future research directions.

Section 2 of this article presents the literature review, while Section 3 explains the research methodology. The factors affecting logistics service quality in international trade are examined in Section 4. 61 articles from Emerald, IEEE Xplore, SpringerLink, ScienceDirect, Google Scholar, and Taylor & Francis were analyzed to get the results. In Section 5, the article's conclusion is provided.

2. LITERATURE REVIEW

2.1 Definition of Key Concept

2.1.1 Logistics Service Quality

In the global logistics realm, Logistics Service Quality (LSQ) refers to the capability of a logistics service provider to meet or exceed customer expectations regarding timeliness, uniformity, complete documentation, and speed of response (Riliandini et al., 2021).

2.1.2 International Trade

International trade entails the exchange of goods and services across national borders, governed by intricate regulations, standards, and customs processes. In this context, logistics functions as a key element to ensure smooth distribution of goods (Song & Lee, 2022).

2.2 The Relationship Between Logistics Service Quality and International Trade

In the complex system that links Logistics Service Quality (LSQ) to global trade, there are many components that move simultaneously. LSQ plays a vital role in strengthening the effectiveness and efficiency of international trade activities (Nguyen & Luu, 2024). High-quality logistics services strengthen international competitiveness by reducing operational costs, increasing customer satisfaction, and improving reliability (Mishrif et al., 2024). Improving service quality directly supports trade efficiency by shortening lead times, optimizing inventory, and enhancing delivery performance. (Yan et al., 2022). To assess logistics capabilities across countries, the Logistics Performance Index (LPI) is

commonly used (Jonasíková et al., 2025).

2.3 Theoretical Framework

This review employs several key theories as its foundation:

a. Regulation: Regulation theory explains that government policies and international regulations influence logistics operations. Harmonized regulations can reduce shipping costs and delivery times, thereby improving logistics service quality (Rucha, 2022)

b. Customer Relationship: Customer Relationship Management (CRM) theory emphasizes the importance of establishing strong relationships between service providers and customers. The success of logistics operations largely depends on effective communication and feedback mechanisms with customers, enabling logistics companies to better tailor their services to meet customer demands (Bupu et al., 2023).

c. Capability: Resource Based View theory emphasizes that unique operational capabilities provide companies with a competitive advantage. Firms that excel in logistics capabilities, such as efficient SCM and the adoption of advanced technologies, can significantly enhance service responsiveness and efficiency, both of which are critical for improving the quality of logistics services (M. Nguyen & Vo, 2024).

d. Service Quality Theory (SERVQUAL): Identified five main aspects including physicality, consistency, speed of response, certainty, and personal attention. In the logistics context, this framework was adapted to include aspects such as delivery timeliness, shipment tracking, error-free documentation, and effective communication (Hu et al., 2022).

e. Cost: Cost theory highlights the importance of cost management for competitiveness. High logistics costs can reduce service quality. Effective cost management is essential to improve logistics service quality without sacrificing profitability (Hu et al., 2022).

2.4 Review of Previous Studies

Previous studies had examined the factors that influenced the logistics services quality in international trade. This review summarized the objectives, methodologies, and key findings of relevant studies as the foundation of this research.

The article "Export Logistics Infrastructure and Export Competitiveness in the East African Community" by (Olyanga et al., 2022) This research utilized a Structural Gravity Model with Poisson Pseudo-Maximum Likelihood (PPML) estimation to evaluate the impact of export logistics on the export competitiveness of East African Community (EAC) countries. The results indicated that factors such as timeliness and tracking had a notable positive effect on competitiveness, while aspects like shipment organization, infrastructure, and the quality of customs procedures did not show significant influence. Based on these findings, the study suggested enhancing timeliness and tracking performance, while also acknowledging the limitations of the variables used and the region's economic complexity.

Furthermore, the article "Analyzing Relevant Regulations and the Logistics Services in Vietnam" by (Xuan et al., 2023) This study explored how regulations and logistics efficiency affect Vietnam's logistics service quality in international trade. Using fixed and random effects models, the study found that the logistics performance index and infrastructure quality were key factors in improving service efficiency. Adequate infrastructure accelerated goods delivery, while participation in FTAs had a positive but statistically insignificant effect on exports. The study concluded that improving logistics quality required strengthening infrastructure and enhancing collaboration between the government and international partners.

On the other hand, the article "INN-LogTODIM-GRA Framework for Service Quality Evaluation of International Logistics Enterprises From the Perspective of Cross-Border E-Commerce Supply Chain" by (H. Zhang et al., 2023) developed an evaluation framework for international LSQ in cross-border e-commerce (CBEC). The study integrated Logarithmic TODIM, Grey Relational Analysis (GRA), and Interval Neutrosophic Sets (INSs) to address uncertainty in multi-attribute decision-making. Four

main attributes were identified: reliability, economy, security, and responsiveness, with reliability and cost-efficiency being the most influential factors in determining customer satisfaction. The study recommended prioritizing improvements in reliability and efficiency to support the growth of CBEC.

Meanwhile, the article "The Impact of Artificial Intelligence on the Sustainability of International Trade Enterprises" by (Chen et al., 2025) This study looked at the effects of AI adoption on the long-term viability of Chinese international trade businesses. With the use of two-way fixed effects mode and unbalanced panel data from 3,853 enterprises from 2010 to 2023, the findings indicated that AI implementation significantly improved productivity, supply chain efficiency, and average employee wages, as well as social and environmental outcomes. Despite some limited negative effects, AI was also found to strengthen logistics efficiency and business process optimization, making it a strategic tool in promoting corporate sustainability.

Last, the article "How Does Regional Economic Integration Impact Trade in Small Economies?" by (Bekbolotova et al., 2025) evaluated the effects of regional economic integration through the membership of Armenia and Kyrgyzstan in the Eurasian Economic Union (EAEU), focusing on export, import, and the agri-food sector. Using a Dynamic Multilevel Model with Latent Factor (DM-LFM) on data from 16 countries, the findings showed that Armenia experienced an increase in aggregate exports due to market access and tariff reductions, whereas Kyrgyzstan saw a decline in agri-food imports caused by internal barriers and standard mismatches. Logistics factors such as access to the Russian market and preferential tariffs supported exports, but infrastructure and customs challenges remained significant, particularly for Kyrgyzstan. The study concluded that regional integration benefited Armenia, while Kyrgyzstan continued to face structural constraints.

3. RESEARCH METHODS

This research utilized the Systematic Literature Review (SLR) method, which offers a structured and transparent procedure for systematically identifying, assessing, and synthesizing relevant scholarly works (Sahoo et al., 2024). This method was applied to thoroughly examine the literature concerning the factors affecting logistics service quality in international trade (Akil & Ungan, 2022).

The research followed four main stages, from Stage 1 to Stage 4, as adapted from (Bodduluri et al., 2024).

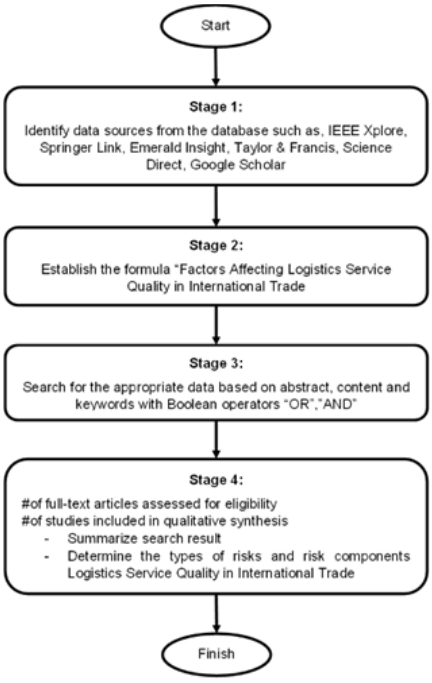

Figure 1. Steps in the Systematic Literature Review

As illustrated in Figure 1, the review process began with the selection of databases: Emerald, IEEE Xplore, SpringerLink, ScienceDirect, Google Scholar, and Taylor & Francis. The majority of the sources consisted of international journals and conference proceedings published between 2021 and 2025. The details of the search results are presented in Table 1. In light of the developed research questions, the search was conducted using Boolean combinations of "AND" and "OR" with the following keywords: "factors affecting logistics service quality" AND "international trade" OR "international logistics" OR "export" OR "import." Relevant articles were selected for further analysis, while irrelevant ones were excluded. The selected articles were then systematically reviewed, summarized, and evaluated.

The selected articles were subsequently examined to extract a concise summary of their key content.

a. Stage 1: Identified database sources based on previously determined search criteria. At this stage, a total of 6,244 articles were identified.
b. Stage 2: Selected relevant articles from the initial pool based on titles matching the research topic, resulting in 468 articles.
c. Stage 3: Filtered articles based on abstract and keyword relevance, resulting in 131 articles.
d. Stage 4: In the final phase, articles that failed to satisfy the inclusion criteria were excluded, yielding a total of 61 eligible studies. The annual distribution of these publications (from 2021 to 2024) is summarized in Table 2.

Table 1. Number of Publications Based on Database Sources

No	Source Database	Stage 1 (#articles)	Stage 2 (title)	Stage 3 (abstract and keywords)	Stage 4 (selected for final review)
1	IEEE Xplore	97	22	8	5
2	SpringerLink	664	58	19	8
3	Emerald Insight	887	71	27	11
4	Taylor & Francis	1605	105	20	12
5	Science Direct	1841	123	38	14
6	Google Scholar	1150	89	19	11
Total		**6244**	**468**	**131**	**61**

(Source: Author's analysis, 2025)

Based on Table 1, the systematic literature review process resulted in 61 articles that were further examined by the researchers. The articles were retrieved from various databases: IEEE Xplore (5), SpringerLink (8), Emerald Insight (11), Taylor & Francis (12), ScienceDirect (14), and Google Scholar (11). In the last phase of selection, the researchers summarized the relevant findings and proposed solutions from each study.

4. RESULTS AND DISCUSSION

This section presents the article selection results from the systematic literature review. A total of 61 articles relevant to factors affecting logistics service quality in international trade were identified and classified into the main category of state-of-the-art determinants. Based on this classification, an annual distribution analysis was conducted, followed by a discussion of key factors affecting logistics service quality in international trade.

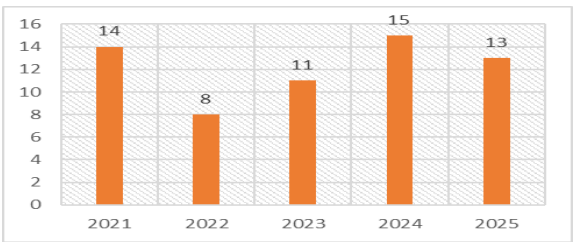

Figure 2. Number of Studies by Year

4.2 State-of-the-art Analysis of Logistics Service Quality in International Trade

Table 1 (Section 2) indicates that 61 relevant articles on factors affecting LSQ in international trade were identified. The analysis results reflect the state-of-the-art of these articles.

Table 2. Results of Analysis for Each Article

Article Topic	Author(s)	Conclusion
Comprehensive analysis of risk factors impacting emergency supply chain effectiveness	(Chukwuka et al., 2023)	Wars and the absence of legislative regulations disrupted the effectiveness of emergency supply chains.
Trade and services' contribution to improving the performance of agri-food value chains globally	(Santeramo et al., 2024)	Trade policies could enhance overall performance.
Policy recommendations based on logistics performance index evaluations in Turkey and Kazakhstan	(İnaç et al., 2024)	Improvements in the LPI scores of Turkeys and Kazakhstan heavily depended on customs procedures.
Analysis LSQ and customer satisfaction affecting cross border repurchase behavior	(Hui et al., 2025)	Customer satisfaction was increased by cross-border purchasing experiences, refund policies, and shipping services.
Internal and external strategies' effects on the food and beverage sectors' sustainable supply chain management	(Sari et al., 2021)	Decision making capabilities, technology implementation, risk management, and process innovation were required.
Identification of critical risks in fresh products supply chains using the N-KSNA model in China	(Y. Wang et al., 2022)	Storage and sorting were key factors in the logistics of fresh products in China.
Review of trade regulations and their effects on logistics performance in Vietnam	(Xuan et al., 2023)	Vietnam's export performance benefited from free trade agreements.
Evaluation of logistics service quality dimensions through qualitative analysis	(Arabelen & Kaya, 2021)	Customer relationships could enhance customer satisfaction and loyalty.
Hybrid electric truck adoption to enhance communication between shippers and logistics providers	(Jobrant et al., 2025)	LSPs and shippers had to work closely together to embrace HBEV in logistics by standardizing and adapting to one another.
Development of a management model for cross-border e-commerce international logistics supply chains	(Li & Yanase, 2025)	The growth of international e-commerce was aided by procurement efforts.
Assessment of country-level production-environment relationships and their impact on international trade	(Li & Yanase, 2025)	Welfare and ecological outcomes were determined based on cross-country differences in the environmental impact of production.
An examination of the variables affecting last-mile delivery customers' satisfaction with parcel locker services	(Lai et al., 2022)	Timeliness was the strongest predictor of customer satisfaction.
Analysis of factors affecting the effectiveness of Vietnam's organic supply chain exports of fruits, vegetables	(H. Nguyen et al., 2021)	The ability to meet demand influenced the export performance of organic products in Vietnam.
Examining the digitalization of logistics and the level of service provided by Indonesia's national shipping firms	(Ricardianto et al., 2023)	Logistics digitalization and electronic shipment booking were applied in the import process
Investigation of institutionalization effects on international logistics performance	(Coşkun & Erturgut, 2025)	Formalization, agility, and cultural strength enhanced logistics performance.
Examination of logistics infrastructure and technological innovation advancing China's global trade position	(Zhao et al., 2023)	Logistics infrastructure and technological innovation drove progress in global value positioning.

Article Topic	Author(s)	Conclusion
Enhancing resilience of pharmaceutical supply chains through control tower technology and stress testing	(Hong et al., 2025)	Digital technology and control systems strengthened the resilience of pharmaceutical supply chains.
A framework for assessing logistics companies using analytics on sustainable service quality	(Gupta et al., 2022)	Competence and collaboration were emphasized in sustainable logistics services.
Assessment of the service capabilities of marine logistics companies using IoT and big data	(Zhu & Du, 2023)	Big data and IoT were used to evaluate logistics service capabilities.
Evaluation of customer and supplier perspectives on waterway lock service quality in the Yangtze Delta	(W. Yang et al., n.d.)	Improvements in facilities, safety, and staff skills could enhance customer satisfaction.
Analysis of the perceived importance of port value among public port users in Ecuador	(Pedraza Rodríguez et al., 2024)	Building customer satisfaction, trust, commitment, and loyalty was essential in service delivery.
Investigation of key factors driving IoT adoption in port logistics using intertype and interdomain perspectives	(Rajak et al., 2024)	Technological readiness was crucial for IoT adoption at ports.
Logistics infrastructure's effect on East African nations' export competitiveness	(Olyanga et al., 2022)	Timely delivery and tracking capability affected export performance in EAC countries.
Comparing the quality of traditional and e-services: measurements, dimensions, and models	(Ighomereho et al., 2022)	There was a shift from traditional service quality to electronic service delivery
Infrastructure's impact on trade competitiveness and business logistics performance in green logistics	(Yingfei et al., 2022)	The performance of logistics and green infrastructure improved international trade
Influence of regional economic integration on export performance in small economies like Armenia and Kyrgyzstan	(Bekboloto va et al., 2025)	EAEU membership enhanced export performance in Armenia and Kyrgyzstan.
Determining the asset-related and financial elements influencing LSQ for cross-border e-commerce	(Jiang et al., 2021)	The financial condition and assets of companies influenced LSQ for cross-border e-commerce
Analysis of operational efficiency impacts on countries' export logistics performance (G-8 countries)	(Turna, 2024)	Operational logistics efficiency influenced export performance
Assessment of green logistics' effects on service quality in Vietnam's regional trade	(Tran, 2024)	Delivery performance significantly affected user satisfaction.
Development of a service quality evaluation framework for cross-border e-commerce logistics using Logdtim-GRA	(H. Zhang et al., 2023)	IoT implementation in international e-commerce
Investigation of innovative and dynamic capabilities enhancing logistics service quality during COVID-19	(Dovbischuk, 2022)	Innovative capabilities significantly enhanced logistics service quality and firm performance.
Exploration of sustainable integration strategies into supply chains: a research agenda	(X. Yang et al., 2024)	Policies and regulatory frameworks promoted sustainable supply chain practices.
Study of international trade's impact on logistics-related carbon emissions	(Shen et al., 2022)	Technology transfer significantly influenced emission efficiency in China.
Analysis of key roles of LSQ in improving customer satisfaction in the online fresh produce market	(Q. Yang et al., 2024)	Perceived value, expectations, and emotional responses increased customer satisfaction in fresh product online.

Article Topic	Author(s)	Conclusion
Effects of the COVID-19 pandemic and public health spending on international supply chains' performance	(Qin et al., 2022)	Manufacturing value added and logistics performance positively impacted supply chains.
Performance evaluation of last-mile delivery services by crowdsourced couriers through user comment analysis	(Çelik et al., 2025)	Crowdsourced courier service performance in Turkey was analyzed through text mining.
Investigation of LSQ and consumer behavior in Thai cross border e-commerce	(Chotisarn & Phuthong, 2025)	The quality of personal communication and information significantly affected customer satisfaction.
Identification of critical factors influencing success in logistics zones	(Aboul Atta & El Lebody, 2023)	Regulations determined the success of logistics zone development, including investment facilities and trade access.
Development of a framework for modeling supply chain visibility with manufacturing and business considerations	(Sunmola & Apeji, 2024)	Internal connectivity and information sharing significantly improved supply chain visibility.
The Role of Tariff and Non-Tariff Constraints in U.S.–Brazil Rivalry Over Soybean Exports to China	(Wilson & Bullock, 2024)	Eliminating quality discounts and imposing import tariffs could enhance U.S. competitiveness.
Evaluation of physical distribution service quality in FMCG companies to measure logistics service provider performance	(Yuliawati et al., 2023)	Meeting customer demand in a timely manner, with the right quantity and quality.
Strategic marketing approaches for promoting sustainable agri-food systems in the context of Peru's international trade shows	(Puma Flores & Rosa Díaz, 2024)	Prioritizing sustainable marketing through certification and environmental commitment.
An examination of logistics excellence and transportation infrastructure as a source of competitive advantage in global trade	(Park, 2020)	In international trade, the caliber of logistical services and transportation infrastructure provided a competitive edge.
Decision making for facility location in resilient supply chains considering disruption risks	(Sundarakani et al., 2021)	Global supply chain facility location decisions considered uncertainty, cost, and risk.
Ensuring efficient transportation through IoT, cloud, and blockchain to optimize processes and reduce waste	(Matos & Oliveira, 2023)	IoT, cloud, and blockchain technologies ensured efficient goods monitoring.
Study of shorter supply chains in the commercial sector and the role of government regulations	(Nagy et al., 2025)	Government involvement was required to restructure logistics.
Assessing the relationship between customer satisfaction, loyalty, and LSQ during the COVID-19 pandemic using Kansei engineering	(Restuputri et al., 2021)	Customer satisfaction and loyalty were found to be significantly influenced by the LSQ during the COVID-19 pandemic.
An examination of how customer happiness in air freight logistics is impacted by infrastructure, cargo handling performance, service quality	(Pokhrel, 2024)	Customer satisfaction was positively impacted by service quality, which helped Indonesia's import volumes increase.
Evaluation of export facilitation infrastructure impacts on Africa's trade	(Kareem, 2025)	Infrastructure supported export performance in Africa.
Assessment of logistics performance gaps between EU and CEM countries on international trade	(Andrzej, 2024)	LPI disparities affected trade in European Union countries.
Examining how artificial intelligence affects the long-term viability of global trade businesses	(Chen et al., 2025)	AI significantly enhanced corporate sustainability performance.

Article Topic	Author(s)	Conclusion
An evaluation of circular economy strategies for advancing sustainability in logistics operations	(Ji-Hyland et al., 2025)	Reverse logistics and remanufacturing were proven to improve sustainable logistics performance.
Analysis of platform economy and environmental regulations on express delivery efficiency in China	(Liu et al., 2022)	Platform economy and environmental regulations impacted industrial efficiency in China.
Examination of US-China trade war effects on China's export performance using difference-in-differences approach	(T. Yang et al., 2025)	The U.S - China trade war significantly reduced China's exports to the U.S. due to increased tariffs.
Exploration of integrating sustainability into supply chains: development of a research agenda	(X. Yang et al., 2024)	Environmental performance, service quality, and competitive advantage integrated sustainable practices.
Analyzing the Impact of Logistics Performance on International Trade in South Korea's Industrial Sector	(Song & Lee, 2022)	LPI components influenced international trade by highlighting improvements in logistics services.
Study of trade restrictions and their effects on firm behavior in India's textile industry post-MFA	(Khan, 2023)	The removal of textile quotas affected India's export performance.
Identifying the factors that facilitate provider of logistics service integration into Morocco's logistics clusters	(El Moussaoui, 2024)	Reducing operational expenses can operate as a crucial enabler for the introduction provider of logistics service
Exploration of sustainable logistics practices landscape through bibliometric analysis	(Abdelaziz & Munawaroh, 2024)	AI, Big Data, and Blockchain improved logistics service quality.
Artificial intelligence's use in logistics service businesses' transportation demand planning	(Nowacki & Wierdzbic, 2024)	The application of AI optimized transportation demand planning.
Evaluation of the global food supply chain's design complexity and quality alignment	(Olivares Tenorio et al., 2021)	Adjustments in quality attributes had a strong impact on internationalization strategies.

(Source: Author's analysis, 2025)

A summary of the article topics, authors, and important conclusions distilled from the evaluated literature is given in Table 2. The analysis results indicate a consistency of findings across various studies, which serves as a key element in research based on SLR.

Table 3: Results of Factors Affecting Based on Previous Studies

Factors Affecting	Author(s)	Total	Percentage (%)
Capability	(Olivares Tenorio et al., 2021) (Nowacki & Wierdzbic, 2024) (Abdelaziz & Munawaroh, 2024) (X. Yang et al., 2024) (Sari et al., 2021) (Kareem, 2025) (Restuputri et al., 2021) (Matos & Oliveira, 2023) (Jobrant et al., 2025) (Sundarakani et al., 2020) (Shen et al., 2022) (Dovbischuk, 2022) (H. Zhang et al., 2023) (Ricardianto et al., 2023) (Coşkun & Erturgut, 2025) (Zhao et al., 2023) (Hong et al., 2025) (Gupta et al., 2022) (Zhu & Du, 2023) (Yingfei et al., 2022) (Ighomereho et al., 2022) (Rajak et al., 2024)	22	36%
Operational Performance	(Song & Lee, 2022) (Santeramo et al., 2024) (İnaç et al., 2024) (Andrzej, 2024) (Pokhrel, 2024) (Y. Wang et al., 2022) (Park, 2020) (Puma Flores & Rosa Díaz, 2024) (Yuliawati et al., 2023) (Li & Yanase, 2025) (Sunmola & Apeji, 2024) (Lai et al., 2022) (H. Nguyen et al., 2021)	19	31%

Factors Affecting	Author(s)	Total	Percentage (%)
	(Çelik et al., 2025) (Qin et al., 2022) (Tran, 2024) (Turna, 2024) (Olyanga et al., 2022) (W. Yang et al., n.d.)		
Regulation	(Chukwuka et al., 2023) (Khan, 2023) (T. Yang et al., 2025) (Liu et al., 2022) (Nagy et al., 2025) (Wilson & Bullock, 2024) (Xuan et al., 2023) (Aboul Atta & El Lebody, 2023)(X. Yang et al., 2024) (Bekbolotova et al., 2025) (Li & Yanase, 2025)	11	18%
Customer Relationship	(Chotisarn & Phuthong, 2025) (Q. Yang et al., 2024) (Pedraza Rodríguez et al., 2024) (Hui et al., 2025) (Arabelen & Kaya, 2021)	5	8%
Cost	(El Moussaoui, 2024) (Ji-Hyland et al., 2025) (Chen et al., 2025) (Jiang et al., 2020)	4	7%
Total		**61**	**100%**

(Source: Author's analysis, 2025)

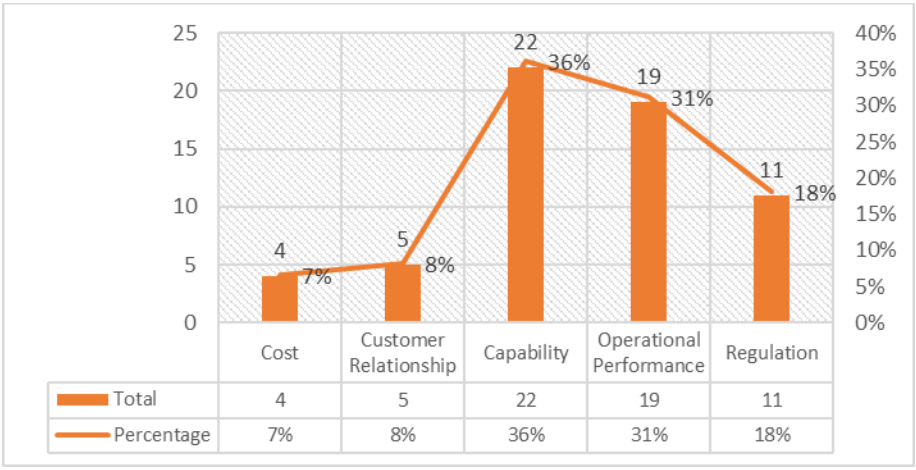

Figure 3. Trends Factors Affecting Logistics Service Quality in International Trade

Based on a systematic literature review of 61 articles from various international databases, Table 3 identifies five factors affecting logistics service quality in international trade: capabilities (36%), operational performance (31%), regulations (18%), customer relationships (8%), and cost (7%). The variation in the contribution of each factor reflects differences in their strategic significance, measurable impact, and frequency of discussion within the scholarly literature.

Capabilities emerge as the most dominant factor, accounting for the highest weight (36%), as they represent the strategic foundation required by logistics service providers to respond to the dynamics of the global market. This dimension encompasses human resource competence, information technology readiness, the adequacy of physical and digital infrastructure, and the organization's ability to adapt to environmental changes. This finding aligns with the Resource-Based View (RBV) theory, which emphasizes that sustainable competitive advantage stems from internal capabilities that are difficult to replicate (Dovbischuk, 2022; M. Nguyen & Vo, 2024). The literature also notes that logistics firms excelling in technology, resources, and management are better positioned to deliver services that are faster, more accurate, and reliable (Zhao et al., 2023). Given its comprehensive and long-term nature, capability not only serves as a core pillar but also acts as an enabler for other contributing factors.

Operational performance, with a weight of 31%, ranks second and focuses on the effectiveness of service execution. Measures like delivery accuracy and speed, efficient inventory control, and tracking in real time have a big impact on cost effectiveness and satisfaction of the customer (Çelik et al., 2025; Song & Lee, 2022). However, operational performance is essentially the outcome of the systems and capabilities built within a firm.

Therefore, although it has a direct and substantial impact on customer perception, it is more implementation-driven and cannot replace the role of capabilities as the root determinant of service excellence.

Regulation factors hold a moderate weight of 18% and play a crucial role in cross-border logistics operations. Policy harmonization, customs efficiency, and legal stability are key components in ensuring smooth international logistics flows (Khan, 2023; Xuan et al., 2023). Nevertheless, as these elements are external and largely subject to public policy and intergovernmental dynamics, their influence is less directly controllable by logistics providers. Inconsistencies in regulatory frameworks, particularly in developing countries with suboptimal infrastructure, remain a significant barrier. Thus, the impact of regulations tends to be situational and often falls outside the direct managerial scope.

Customer relationships, although accounting for only 8%, still play an important role in enhancing the LSQ. A provider's success in building effective communication, responsive services, and customer trust can significantly improve LSQ (Arabelen & Kaya, 2021; Hui et al., 2025). However, its contribution is often complementary and subjective, especially when customer interaction is limited. Moreover, customer satisfaction often reflects the performance of internal systems rather than direct interpersonal interaction.

Lastly, cost has the lowest weight (7%) as it is frequently considered a by-product of operational efficiency and effective capability strategies. Cost reduction alone cannot serve as a primary strategy without a robust and capable system. Companies that focus solely on cutting costs without innovation risk compromising service quality. Consequently, while cost-efficiency remains important in logistics competition, the literature emphasizes the strategic value of value creation through technological adoption—such as AI and big data—to reduce waste without sacrificing service quality (Chen et al., 2025; Ji-Hyland et al., 2025).

Overall, these findings underscore the need for a holistic approach to improving logistics service quality. Collaboration among stakeholders is essential to drive structural reforms, facilitate technology adoption, and strengthen organizational capabilities. In doing so, logistics systems can serve as a key driver in supporting more efficient, sustainable, and competitive international trade.

CONCLUSION

The identification of factors affecting logistics service quality in international trade through a Systematic Literature Review provides a valuable foundation for the development of strategies and policies to enhance global logistics performance. The increasing complexity of international trade demands that logistics service providers continuously innovate and improve their service quality.

Capabilities and operational performance emerge as the dominant internal factors that directly impact the effectiveness of cross-border logistics services. Capabilities encompass human resource readiness, implementation of information technology, and the availability of reliable logistics infrastructure. Operational performance plays a critical role in ensuring delivery accuracy, timeliness, and service responsiveness. On the other hand, regulation factors, as external enablers, shape a conducive logistics ecosystem through legal certainty and standardized procedures. Although their contribution is relatively smaller, customer relationships and cost efficiency continue to play supportive roles in fostering customer satisfaction and long-term loyalty.

The disparity in factor proportions indicates that efforts to improve logistics service quality should not be fragmented. A holistic and integrated approach is essential to optimize the synergy among these factors. The findings of this study offer an evidence-based foundation for logistics companies and policymakers in formulating adaptive service improvement strategies that respond to global dynamics. Moving forward, collaboration among the private sector, government, and relevant stakeholders will be crucial in driving innovation, operational efficiency, and sustainable competitiveness in international logistics.

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