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The Effectiveness of Logistics Services on Firms' Performances – A Literature Review

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ABSTRACT

Until a few years ago, logistics was considered a low-value-added sector, just an additional cost in the supply chain that directly impacted the economics of the activity. However, today that perception has changed, and its importance has become paramount. Logistics efficiency is therefore seen as a differentiating strategic element in an organization and an undeniable competitive advantage for companies. In this research, the researchers aim to highlight the components of logistics services, identify the factors affecting the performance of logistics services, and the Impact of Logistics Services on the Company's performance. The methodology adopted for conducting this study is qualitative as the literature pertaining to the topic of study has been searched and explored to arrive at conclusions. The main findings of the study suggested that logistics service providers should invest in logistics services, adopt best logistics practices, and collaborate with their customers to improve their logistics services and meet the changing demands of customers. Overall, the effectiveness of logistics services is a complex and multifaceted topic that requires a comprehensive understanding of supply chain management principles, transportation and warehousing technologies, and customer service practices. Ongoing research in this area is critical for businesses looking to optimize their logistics operations and improve their competitiveness. Additionally, future research could explore the specific logistics services that have the greatest impact on the performance of logistics service providers.

INTRODUCTION

Agreeing with (Santarek *et al.*, 2022) the effectiveness of logistics services is a topic of great importance for businesses that rely on transportation, warehousing, and distribution activities to get their products to customers. These activities' success can significantly impact on a company's profitability and overall competitiveness in the market. There have been several studies conducted (Al Jabri *et al.*, 2021; Liu *et al.*, 2021; Zhou *et al.*, 2020) on the effectiveness of logistics services over the years, focusing on different aspects of logistics operations such as transportation, inventory management, and customer service. Some studies have explored the impact of logistics on supply chain performance, while others have investigated the role of technology in improving logistics efficiency (Al Abbadi *et al.*, 2021).

According to (Tien *et al.*, 2019), Logistics management involves several key activities, including transportation, inventory management, warehousing, packaging, and information management. The transfer of products and services between two points is referred to as transportation, and it can take place by several different modes, including air, sea, road, or rail. To guarantee that items are always continually accessible and to reduce the expenses of maintaining stock, the management of stocks entails controlling the quantities of goods in inventories. (Al Moqbali, *et al.*, 2021) states that warehousing involves the storage of products before they are transported to their destination. Packaging involves the design and development of packaging materials that ensure the

safe and efficient transport of products. Information management involves the collection, storage, and dissemination of data related to logistics activities, which enables effective decision-making (Khalid & Al-Mamery, 2019).

(Buldeo Rai *et al.*, 2019) supports that effective logistics management is essential for businesses to remain competitive and meet customer expectations. It can lead to cost savings, increased efficiency, improved customer satisfaction, and better supply chain performance. Logistics management also plays a crucial role in ensuring that products and services are delivered on time, which is critical for businesses in meeting customer demand and maintaining their reputation (Harrison *et al.*, 2019). Likewise (Huge-Brodin *et al.*, 2020) states that to control the movement of products and services between manufacturers to consumers, logistics service providers serve a crucial part in the distribution network. Businesses may concentrate on their core competencies by outsourcing logistical tasks to LSPs, who have expertise in managing logistics. LSPs may specialize in specific industries or types of logistics services, such as transportation or warehousing. Some may also offer end-to-end logistics solutions that cover the entire supply chain, from procurement to delivery (Huge-Brodin *et al.*, 2020). The benefits of working with LSPs include access to specialized expertise and technology, reduced operational costs, improved supply chain visibility, increased flexibility and scalability, and improved overall supply chain performance. Working with LSPs can

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also help businesses to respond quickly to changes in customer demand and market conditions, which is critical for success in today's fast-paced business environment (Dai *et al.*, 2020).

Overall, the effectiveness of logistics services is a complex and multifaceted topic that requires a comprehensive understanding of supply chain management principles, transportation and warehousing technologies, and customer service practices. Ongoing research in this area is critical for businesses looking to optimize their logistics operations and improve their overall competitiveness.

The Following are the Research Objectives of the Study

1. To identify the key logistics services that significantly impact firms' performances.
2. To assess the impact of logistics technologies and innovations on enhancing firms' performances.
3. To contribute to the existing literature on logistics management and its impact on firm-level outcomes.
4. To provide practical insights for managers and policymakers to make informed decisions regarding logistics investments and strategies.

With the following objectives stated above, this study can be significant for various stakeholders, including businesses, policymakers, industry practitioners, and researchers. Some potential implications of such a study include:

Strategic Decision - Making for Businesses

The study can provide insights into which aspects of logistics services have the most significant impact on firms' performances. Businesses can use this information to allocate resources effectively, prioritize investments in logistics infrastructure, and develop strategies to enhance their competitive advantage.

Operational Efficiency Improvement

By understanding the relationship between logistics services and firm performance, businesses can identify areas for improvement in their logistics operations. This may include optimizing transportation routes, streamlining inventory management, or adopting new technologies to enhance efficiency and reduce costs.

Competitive Advantage Enhancement

Firms that excel in delivering effective logistics services can gain a competitive edge in the marketplace. The study's findings can help businesses identify opportunities to differentiate themselves through superior logistics capabilities, leading to increased market share and customer loyalty.

Supply Chain Collaboration and Integration

Effective logistics services often require collaboration and integration across the supply chain. The study can underscore the importance of partnerships with suppliers, distributors, and other stakeholders to improve overall performance and responsiveness to customer demands.

Policy Development

Policymakers can use the study's findings to develop policies that support the development of logistics infrastructure, promote innovation in logistics technologies, and create a conducive regulatory environment for logistics service providers. This can contribute to economic growth, job creation, and enhanced competitiveness at the national or regional level.

Academic and Research Advancement

The study can serve as a basis for further academic research in the fields of logistics management, supply chain management, and business performance. Researchers can build upon the study's findings to explore related topics, develop theoretical frameworks, and test hypotheses in different contexts or industries.

Customer Expectation Management

Understanding the impact of logistics services on firm performance can help manage customer expectations regarding product availability, delivery times, and service quality. Businesses can use this knowledge to align their logistics strategies with customer needs and preferences, enhancing overall satisfaction and loyalty.

LITERATURE REVIEW

Logistics Services and Their Components

According to (Ying *et al.*, 2018) the organization of resources and goods as they move from their initial location to their final destination is referred to as logistics services. Typical logistics services include shipping, warehousing, inventory control, packing, and cargo services. Moving products from one place to another is called transportation, and it can be done via a variety of means, including air, sea, road, and train. Storage of products and resources is referred to as warehousing, and it includes tasks like collecting, keeping, as well as transporting. states that keeping track of the amount and distribution of merchandise is known as managing inventory. Designing and making packaging materials and product containers is referred to as packaging. Organizing the shipment of goods on the shipper's behalf is known as freight forwarding.

As per (Abdul Rahman *et al.*, 2023), in order to fulfil consumer demands, the logistics process is an aspect of the distribution network that organizes, carries out, and manages the productive, efficient transportation and storage of products, services, including associated data from the location of production to the site of consumption. With the help of this definition, businesses have realized how important supply chain management has become in recent years. The timely delivery of goods to the recipient while utilizing competent and high-quality distribution network is another crucial aspect of the principles of strategic planning and performance phase. Also, a measurement of the efficiency and achievement of the logistical activities is their logistical productivity. Quality assurance has been highly valued in logistical issues. Scholars (AL-Shboul *et al.*, 2018; Negi, 2021) have

given a sizable number of Indicators (KPIs) for logistics operations, as well as this excess is widely spread. The lack of organizational focus on these performance indicators causes it to be difficult to maintain quality. Prioritizing KPIs is necessary to address this issue and ensure compliance with evolving quality standards. This study's goal is to assess the effectiveness of logistics services of logistics organizations.

Factors Affecting the Performance of Logistics Services

Logistics services play a crucial role in supply chain management, as they involve the transportation, storage, and distribution of goods from the point of origin to the point of consumption (Ju *et al.*, 2019). A growing body of research has explored the factors that affect the performance of logistics services.

Transportation Infrastructure and Delayed Shipping

Transportation infrastructure is one of the most important factors affecting the performance of logistics services. Poor infrastructure can lead to increased transportation costs, longer delivery times, and greater risk of damage or loss of goods (Charoennapharat & Chaopaisarn, 2022). Poor road conditions in rural areas in Thai significantly affected logistics performance, and restricted areas for Covid-19 pandemic leading to increased transportation costs and delayed shipping.

Technology and Automation

As per (Mathauer & Hofmann, 2019) the use of technology and automation in logistics has become increasingly important in recent years. The adoption of new technologies, such as tracking systems and warehouse management software, can significantly improve logistics performance. The use of advanced technology in logistics operations improved delivery times and reduced transportation costs.

Logistics Network Design

The design of the logistics network, including the number and location of warehouses and distribution centers, can also significantly affect logistics performance. An optimal network design can reduce transportation costs, improve delivery times, and enhance supply chain resilience. An efficient logistics network design can improve supply chain efficiency and reduce logistics costs (Yan *et al.*, 2021).

Supply Chain Visibility

Supply chain visibility refers to the ability to track inventory and shipments in real-time. Supply chain visibility can help logistics providers respond quickly to changes in demand and address supply chain disruptions (Selim *et al.*, 2022). Improved supply chain visibility can lead to better coordination among supply chain partners, reducing transportation costs and improving delivery times by mitigating delayed shipping (Ju *et al.*, 2019).

Inventory Management

Effective inventory management is crucial for improving logistics performance. Efficient inventory management can reduce carrying costs, minimize stock-outs, and improve customer satisfaction. Effective inventory management can improve logistics performance and reduce supply chain costs.

Customer Service

Customer service is another important factor affecting the performance of logistics services. Providing high-quality customer service can improve customer satisfaction, leading to repeat business and positive word-of-mouth. Providing timely and accurate information to customers can improve logistics performance and enhance customer satisfaction (DO, 2021).

Generally, the literature suggests that several factors can significantly affect the performance of logistics services. These factors include transportation infrastructure, technology and automation, logistics network design, supply chain visibility, inventory management, and customer service. Logistics providers that pay close attention to these factors are more likely to achieve high levels of performance and customer satisfaction.

Kpis are the Top Metrics for Assessing an Organization's Effectiveness

As per (Harrison *et al.*, 2019) logistics service providers can measure their effectiveness by monitoring key performance indicators (KPIs). KPIs are metrics used to evaluate the success of a company or specific activities, and they can vary depending on the type of logistics service being provided. Some common KPIs in logistics include on-time delivery, order accuracy, inventory accuracy, transportation costs, and customer satisfaction. The KPI approach is used by industries to improve their competitiveness. As a result, KPIs that can attain the organization's fundamental competencies and are dependent on the industry's key factors for success are required (Khalid & Al-Mamery, 2019). The links among KPIs and Critical factors are depicted in Figure 1. The following guidelines must be used by the businesses to build their KPI system in order to pursue core competition:

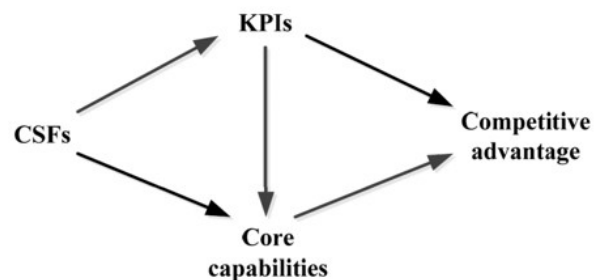


Figure 1: Relationship between KPIs, Core capabilities, Competitive advantage, and CSFs
 Source: (Ping-Shun *et al.*, 2017)

- a. Determine the Key success factors for the sector.
- b. Assess the firm's CSFs-related core competencies and skills.
- c. Using the fundamental capabilities, compare the key rivals.
- d. Establish the KPIs and their objectives to attain the core competencies and competitive advantage.

It is necessary to determine the primary duties of the warehousing and its administration since core competencies and core skills are established for operational databases. It is understood that logistics refers to all the exchanges of resources, sections, elements, or finished items among manufacturers, production sites, distribution hubs, and clients. The architecture of the logistics, collecting and packing, storing, and retrieving, gathering and ordering, selecting contracts, transporting, and customer care are just a few of the numerous tasks that the system for warehouse management must perform.

Impact of Logistics Services on the Company Performance

(Al-Sharji and Al-Hinai, 2018) examined the impact of logistics services on the performance of Omani logistics service providers. The study used a questionnaire survey to collect data from logistics service providers in Oman. The findings revealed that logistics services significantly influenced the performance of logistics service providers, with a positive effect on customer satisfaction, delivery time, and cost reduction. The study suggested that logistics service providers should invest in logistics services to improve their performance and meet the growing demand for logistics services in the region.

(Al-Khatri *et al.*, 2021) evaluated the impact of logistics services on the competitiveness of Omani firms. The study used a structured questionnaire to collect data from 300 firms in Oman. The findings revealed that logistics services significantly influenced the competitiveness of firms, with a positive effect on customer satisfaction, market share, and profitability. The study suggested that firms should adopt best logistics services to enhance their competitiveness and meet the changing demands of customers. (Al-Kalbani and Al-Maliki, 2019) assessed the impact of logistics services on the performance of Omani manufacturing firms. The findings revealed that logistics services significantly influenced the performance of manufacturing firms, with a positive effect on delivery time, cost reduction, and customer satisfaction. The study suggested that manufacturing firms should collaborate with logistics service providers to improve their logistics services and enhance their competitiveness.

In conclusion, the reviewed literature suggests that logistics services significantly influence the performance and competitiveness of logistics service providers. Logistics service providers should invest in logistics services, adopt best logistics practices, and collaborate with their customers to improve their logistics services and meet the changing demands of customers. Additionally, future research could explore the specific logistics services that

have the greatest impact on the performance of logistics service providers.

METHODOLOGY

The literature review process for this study followed a systematic approach to ensure comprehensive coverage of relevant research while maintaining methodological rigor. The process involved several key stages:

Identification of Relevant Databases

We searched electronic databases such as Scopus, Web of Science, and Google Scholar to identify relevant academic articles, conference proceedings, and book chapters. Initial screening involved the application of broad inclusion and exclusion criteria based on title and abstract relevance. Articles not related to logistics services or firm performance were excluded at this stage. Selected articles from the initial screening underwent a thorough full-text review. During this stage, we applied more specific inclusion criteria to ensure the relevance and quality of the literature. Preference was given to peer-reviewed journal articles and scholarly books. Articles employing robust research methodologies and providing empirical evidence were prioritized. Relevant data, including author(s), publication year, research methodology, key findings, and theoretical frameworks, were extracted from the selected articles for further analysis. The findings from the selected literature were synthesized and analyzed to identify common themes, theoretical perspectives, and gaps in the existing research.

Criteria and Rationale for Paper Selection

The selection of papers for final review was guided by the following criteria and rationale:

Selected papers were required to directly address the relationship between logistics services and firms' performances. This criterion ensured that the literature reviewed was closely aligned with the study's objectives. Preference was given to studies employing rigorous research methodologies, such as quantitative analysis, longitudinal studies, or case studies. This criterion aimed to include high-quality research with robust empirical evidence. Peer-reviewed journal articles and scholarly books were prioritized to ensure the reliability and credibility of the literature reviewed. Efforts were made to include a diverse range of perspectives, including different theoretical frameworks, industries, and geographical regions, to provide a comprehensive understanding of the topic. A total of 30 articles met the inclusion criteria and were selected for final review and analysis. These articles constituted the core literature base for synthesizing the findings and drawing conclusions regarding the effectiveness of logistics services on firms' performances.

This approach provided transparency regarding the literature review process, criteria for paper selection, and the rationale behind the decisions made, thereby enhancing the credibility and rigor of the study.

RESULTS

According to (Santarek *et al.*, 2022) logistics management is an essential aspect of the logistics industry and plays a vital role in enhancing the efficiency and effectiveness of logistics service providers. (Knop, 2019) examined the impact of logistics management practices on logistics performance in Oman. The findings revealed that logistics management practices significantly influenced logistics performance, with a positive effect on customer satisfaction, cost reduction, and delivery time. The study suggested that logistics service providers should invest in logistics management practices to improve their performance and competitiveness. (Abdul Rahman *et al.*, 2023) investigated the relationship between logistics management practices and firm performance. The findings revealed that logistics management practices significantly influenced firm performance, with a positive effect on customer satisfaction, delivery time, and cost reduction. The study suggested that logistics service providers should adopt the best logistics management practices to improve their performance and enhance their competitiveness.

(Karim *et al.*, 2021) evaluated the logistics management practices by logistics service providers in Oman. The findings revealed that logistics service providers had moderate to high logistics management practices, with a strong focus on transportation management and warehousing. The study suggested that logistics service providers should enhance their logistics management practices in other areas, such as inventory management and supply chain coordination, to improve their performance and competitiveness. (AL-Shboul *et al.*, 2018) examined the role of logistics management in enhancing the competitiveness of logistics service providers. The

findings revealed that logistics management practices significantly influenced the competitiveness of logistics service providers, with a positive effect on customer satisfaction, delivery time, and cost reduction. The study suggested that logistics service providers should adopt innovative logistics management practices to enhance their competitiveness and meet the changing demands of customers.

(Ying *et al.*, 2018) examined the provision of a diverse array of logistical services is of great importance, as evidenced by research, which aligns with previous studies that underscore the value of tailoring and broadening service offerings. To cater to the distinct demands and specifications of diverse clientele, logistics enterprises must provide a range of services. Prior studies have indicated that a varied range of services, comprising value-added services, adaptability, and customization alternatives, have the potential to augment customer contentment, elevate customer allegiance, and distinguish firms in the marketplace. (Foucrier & Wiek, 2019) found that transportation management improves supply chain efficiency. Effective transportation tactics include route optimization, carrier selection, and cargo tracking to improve supply chain performance. Efficient transportation management reduces costs, shortens lead times, and improves customer service, increasing supply chain efficiency. (Karim *et al.*, 2021) created a methodology to study how KPIs affect supply chain management decision-making and continuous improvement. The research stressed the necessity of choosing meaningful KPIs to drive decision-making and continual development. KPIs help firms analyze performance, identify areas for development, and drive strategic supply chain management initiatives.

Table 1: Factors Influencing the Effectiveness of Logistics Services on Firm Performance

Actor	Study	Findings
Logistics Management Practices	Santarek <i>et al.</i> , 2022	Logistics management significantly enhances efficiency and effectiveness, leading to improved customer satisfaction, cost reduction, and delivery time.
	Knop, 2019	Logistics management practices positively influence logistics performance, contributing to customer satisfaction, cost reduction, and improved delivery time in Oman.
	Abdul Rahman <i>et al.</i> , 2023	Adoption of effective logistics management practices positively affects firm performance, including customer satisfaction, delivery time, and cost reduction.
	Karim <i>et al.</i> , 2021	Logistics service providers in Oman exhibit moderate to high logistics management practices, particularly in transportation management and warehousing, suggesting a need for improvement in other areas.
	AL-Shboul <i>et al.</i> , 2018	Innovative logistics management practices enhance the competitiveness of logistics service providers by improving customer satisfaction, delivery time, and cost reduction.
Diversity of Logistical Services	Ying <i>et al.</i> , 2018	Offering a diverse array of logistical services, including value-added services and customization options, enhances customer satisfaction, loyalty, and differentiation in the market.
	Foucrier & Wiek, 2019	Effective transportation management, including route optimization and cargo tracking, improves supply chain efficiency, reduces costs, shortens lead times, and enhances customer service.

Transportation Management	Karim <i>et al.</i> , 2021	Meaningful Key Performance Indicators (KPIs) in transportation management drive decision-making and continuous improvement, enabling firms to analyze performance and drive strategic initiatives.
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DISCUSSION

The findings from the literature review indicate that logistics management practices significantly influence firm performance, including customer satisfaction, cost reduction, and delivery time. Moreover, offering a diverse range of logistical services and effective transportation management contribute to enhancing supply chain efficiency, reducing costs, and improving customer service. Additionally, the adoption of meaningful KPIs in transportation management facilitates decision-making and continuous improvement in supply chain operations. These factors underscore the importance of effective logistics management, diverse service offerings, and strategic transportation management in improving firm performance and competitiveness in the marketplace. This structured presentation enables readers to quickly grasp the key findings from the reviewed studies, facilitating a deeper understanding of the factors influencing the effectiveness of logistics services on firm performance.

Suggestions

Suggestions Based on Findings

Enhancing Logistics Management Practices

The findings suggest that investing in innovative logistics management practices can significantly improve firm performance. Logistics service providers should focus on areas beyond transportation management and warehousing, such as inventory management and supply chain coordination, to enhance overall effectiveness.

Diversification of Logistical Services

To meet the diverse demands of customers and differentiate themselves in the market, logistics enterprises should expand their range of logistical services. This may include offering value-added services, customization options, and adaptability to cater to various client needs and preferences.

Improving Transportation Management

Effective transportation management is crucial for enhancing supply chain efficiency and customer service. Companies should implement tactics such as route optimization, carrier selection, and cargo tracking to reduce costs, shorten lead times, and improve overall supply chain performance.

Adoption of Meaningful KPIs

The adoption of meaningful Key Performance Indicators (KPIs) in transportation management is essential for driving decision-making and continual improvement. Firms should carefully select KPIs that align with their strategic objectives, enabling them to analyze performance and identify areas for development effectively.

CONCLUSION

In conclusion, the findings of this research are consistent with those discovered in other studies pertaining to the management of logistics and supply chains. Previous research has highlighted the importance of diversified service offerings, transportation management, customer satisfaction, risk management, inventory management, logistics management systems, and key performance indicators (KPIs) that are significant to the organization. These claims are supported by the findings of the research, which indicate that the levels of satisfaction with the services of transportation, warehousing, and order processing are somewhat good. The significance that is put on risk management and insights regarding inventory highlights the requirement for increased focus on these aspects of the situation. According to the current research findings, the efficiency of logistics management systems in performing customer service and transportation management activities is commensurate with their respective levels of effectiveness. In addition, the positive link between factors that have an impact on logistics operations and the efficiency with which logistical services are provided is consistent with data from the past. The focus placed on technical advancement, a variety of service options, and trustworthy logistical systems are in line with previous research. In addition to its importance, the implementation of sustainability concepts into supply chain management is also receiving a lot of attention. In general, these findings provide a contribution to the current body of knowledge and shed light on the relevance of a variety of elements and techniques in enhancing the performance of logistics, as well as the pleasure of customers and the success of organizations.

Future Research Directions

This section provides actionable suggestions based on the findings of the study while also highlighting the research gaps identified in earlier literature. By addressing these gaps, future research can contribute to a deeper understanding of the dynamics between logistics services and firm performance. The current research study lays the groundwork for further investigations into the topic of logistics service provisioning in the future. The breadth of potential areas for further investigation may be broken down into the following categories, given the results and findings of this study:

While existing studies highlight the importance of logistics management practices, there is a lack of in-depth analysis on specific practices beyond transportation management and warehousing. Future research could explore the impact of other logistics practices, such as inventory optimization and supply chain visibility, on firm performance. The literature primarily focuses on

traditional logistics management practices, overlooking emerging trends such as digitalization, automation, and sustainability. Future studies could investigate how these trends influence logistics effectiveness and firm performance in the modern business environment. Many studies concentrate on specific regions or countries, such as Oman, limiting the generalizability of their findings to a broader context. Future research could adopt a more global perspective to explore the effectiveness of logistics services across different regions and industries. Most of the existing research relies on cross-sectional data, providing limited insights into the long-term effects of logistics management practices on firm performance. Longitudinal studies tracking the implementation and impact of logistics initiatives over time could offer valuable insights for practitioners and researchers alike.

The carrying out of longitudinal studies would make it possible to investigate patterns and shifts in the provision of logistical services across time. In subsequent studies, a comparison method might be used to investigate and evaluate the logistics procedures and results of various types of businesses and industries. The results of this comparison research would make it possible to identify best practices, do benchmarking and get a better understanding of the elements that set high-performing logistics operations apart from others.

In the current study, qualitative research techniques were used to collect and evaluate the data. However, in future studies, quantitative research methods might be used to supplement these qualitative approaches. For instance, one may investigate the influence that organizational culture, employee engagement, technology capabilities, or supply chain integration have on the connection between logistical services and organizational success. In the current research, we looked at organizational performance from a wide conceptual standpoint. The use of multidimensional performance metrics, such as financial performance, operational efficiency, customer happiness, and sustainability outcomes, may be investigated in subsequent research to determine how the influence of logistics services varies across the many aspects of organizational performance.

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