

## Research Article

# THE THEORETIC ALANALYSIS FOR IMPROVING YOUR SUPPLY CHAIN MANAGEMENT AND LOGISTIC MANAGEMENT

\*ENKHBOLD Ganbold

Master student at University of Internal affairs, Mongolia.

Received 16<sup>th</sup> January 2024; Accepted 17<sup>th</sup> February 2024; Published online 25<sup>th</sup> March 2024

### ABSTRACT

The aims of this study is explain that the supply chain embodies the strategic orchestration of processes to curtail waste, trim expenses, and optimize resource utilization, encompassing the harmonization of operations, reduction of inventory, mitigation of transportation costs, and augmentation of overall productivity. By fostering streamlined operations and seamless coordination among stakeholders, efficient supply chain management ensures the timely and cost-effective delivery of goods and services to customers. Our study delved into the intricate mechanisms of efficient supply chain management, revealing its pivotal role in ensuring the timely and cost-effective delivery of goods and services to customers. By strategically orchestrating processes, minimizing waste, and optimizing resources, supply chain management streamlines operations to meet customer demands efficiently. This comprehensive approach not only enhances productivity but also contributes to sustainable business practices, ultimately benefiting both businesses and consumers alike.

**Keywords:** supply chain, management, organization, supply chain management.

### INTRODUCTION

Supply chain refers to the interconnected network of organizations, individuals, resources, activities, and technologies involved in the production, distribution, and delivery of goods and services to customers. It encompasses various stages, from the procurement of raw materials to the manufacturing of products, storage, transportation, and ultimately reaching consumers. Effective supply chain management ensures the smooth flow of materials, information, and finances across these stages, optimizing efficiency, reducing costs, and enhancing customer satisfaction.

Supply and demand represent the foundational economic principle that governs the pricing and availability of goods and services in the market. Supply refers to the quantity of a product or service that producers are willing and able to offer for sale at a given price, influenced by factors such as production costs, technology, and resource availability. Demand, on the other hand, signifies the desire and ability of consumers to purchase goods and services at various price levels. The interaction between supply and demand determines market equilibrium, where the quantity supplied equals the quantity demanded, establishing the market price for the product or service. Understanding supply and demand dynamics is essential for businesses to make informed decisions regarding pricing, production levels, and resource allocation.

### THEORETICAL FRAMEWORK OF SUPPLY CHAINMANAGEMENT

Supply and demand represent the foundational economic principle that governs the pricing and availability of goods and services in the market. Supply refers to the quantity of a product or service that producers are willing and able to offer for sale at a given price, influenced by factors such as production costs, technology, and resource availability.

**Demand**, on the other hand, signifies the desire and ability of consumers to purchase goods and services at various price levels. The interaction between supply and demand determines market equilibrium, where the quantity supplied equals the quantity demanded, establishing the market price for the product or service. Understanding supply and demand dynamics is essential for businesses to make informed decisions regarding pricing, production levels, and resource allocation.

**Supply chain** refers to the interconnected network of organizations, individuals, resources, activities, and technologies involved in the production, distribution, and delivery of goods and services to customers. It encompasses various stages, from the procurement of raw materials to the manufacturing of products, storage, transportation, and ultimately reaching consumers. Effective supply chain management ensures the smooth flow of materials, information, and finances across these stages, optimizing efficiency, reducing costs, and enhancing customer satisfaction.

Supply management refers to the strategic approach of overseeing and optimizing the flow of goods, services, information, and finances from suppliers to customers. It involves a set of processes aimed at ensuring that the right products or services are available at the right time, in the right quantity, and at the right cost.

There are many scholars who have contributed to the theoretical framework of **Supply Chain Management** include as below:

**Michael Porter:** While primarily known for his work on competitive strategy, Michael Porter's concept of "Value Chain Analysis" laid the groundwork for understanding the interdependencies and value creation opportunities within a firm's supply chain. The concept was introduced in his book "Competitive Advantage: Creating and Sustaining Superior Performance," first published in 1985.

**Don Bowersox and David Closs:** Renowned for their contributions to logistics and supply chain management theory, Don Bowersox and David Closs have significantly influenced the understanding of supply chain dynamics and strategies. Their works, such as "Logistical Management" (first edition published in 1986) and "Logistics:

Integrated Supply Chain Management" (first edition published in 1996), have been influential in shaping the field.

**Hau Lee:** Hau Lee is recognized for his research on supply chain management, particularly the concept of the "Triple-A Supply Chain," which emphasizes agility, adaptability, and alignment as crucial factors for supply chain success. His work has greatly influenced the strategic thinking and operational practices within the field of Supply Chain Management. While specific publication years may vary, Lee's influential work on the Triple-A Supply Chain concept has been ongoing since the 1990s.

There are many scholars who have contributed to the theoretical framework of **Logistic Management** include as below:

Christopher M. Dabrowski (1991), Logistics management is that part of supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements.

Martin Christopher (2011), Logistics management is the process of strategically managing the procurement, movement, and storage of materials, parts, and finished inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfillment of orders.

Supply Chain Management represents a strategic approach to orchestrating the flow of goods, services, and information across interconnected networks of suppliers, manufacturers, distributors, and customers, aimed at enhancing efficiency, responsiveness, and value creation throughout the entire supply chain. Conversely, Logistic Management focuses on the internal processes of a single organization, emphasizing the optimization of transportation, warehousing, inventory management, and order fulfillment to ensure the smooth and cost-effective flow of goods within the company's operations.

## COMPARISONS OF THEORITICAL FRAMEWORK

In our study, we did comparison highlights the differences in scope, focus, objectives, and integration levels between Logistic Management and Supply Chain Management, illustrating how the latter extends beyond internal operations to encompass the entire supply chain network, emphasizing collaboration, strategic alignment and value creation across organizational activities.

In our study, we conducted a thorough comparison that sheds light on the nuanced distinctions between Logistic Management and Supply Chain Management. We delineated how Logistic Management primarily concentrates on optimizing internal operations within a single organization, focusing on tasks such as transportation, warehousing, and inventory management. In contrast, Supply Chain Management transcends these boundaries, encompassing the entirety of the supply chain network, from raw material suppliers to end customers.

The scope, focus, objectives, and integration levels of both disciplines, we underscored how Supply Chain Management extends its purview beyond mere logistics to embrace strategic collaboration and alignment across diverse organizational activities. This broader perspective emphasizes the importance of fostering synergies and value creation throughout the entire supply chain ecosystem.

We collected as allow as Asian countries play a crucial role in global supply chains, each contributing unique strengths and challenges to the broader landscape of supply chain and logistic management.

Supply chain and logistic management practices in Asian countries vary widely due to differences in infrastructure, economic development, government regulations, and cultural factors. However, several Asian countries have emerged as key players in global supply chains due to their strategic geographic location, large labor pools, and growing economies. Here's an overview of supply chain and logistic management in some prominent Asian countries:

**China:** As the world's largest manufacturing hub, China boasts a highly developed logistics infrastructure, including extensive road, rail, and port networks. The country's supply chain management has evolved rapidly to meet the demands of global trade, with many multinational companies establishing manufacturing and distribution centers in China. Chinese companies are also investing heavily in technology and automation to improve supply chain efficiency and reduce costs.

**Vietnam:** With its rising manufacturing sector and strategic location within Southeast Asia, Vietnam has emerged as an attractive destination for supply chain investment. The country offers competitive labor costs, a growing network of ports and logistics facilities, and favorable trade agreements. Vietnamese companies are increasingly adopting modern supply chain practices to enhance efficiency and competitiveness in global markets.

**Japan:** Known for its advanced technology and efficiency, Japan has a sophisticated logistics network that supports its manufacturing and export-oriented economy. Japanese companies place a strong emphasis on lean manufacturing and Just-in-Time (JIT) inventory management, which has become a model for supply chain optimization worldwide. Japan's logistics sector is characterized by high levels of automation, reliability, and quality control.

**South Korea:** South Korea has emerged as a major player in global supply chains, particularly in industries such as electronics, automotive, and shipbuilding. The country's logistics infrastructure is well-developed, with modern ports, airports, and highways facilitating the movement of goods both domestically and internationally. South Korean companies are known for their focus on innovation and technology adoption in supply chain management.

**Singapore:** Serving as a key logistics hub in Southeast Asia, Singapore boasts world-class infrastructure and efficient customs processes, making it an attractive location for companies looking to establish regional distribution centers. The country's strategic location at the crossroads of major shipping routes has contributed to its status as a leading logistics and supply chain management hub in Asia.

**India:** India's supply chain and logistic management sector is rapidly evolving, driven by the country's growing economy and increasing trade volumes. While India faces challenges such as inadequate infrastructure, complex regulatory frameworks, and logistical inefficiencies, there are significant opportunities for improvement and growth. The government has initiated various reforms and investments to modernize logistics infrastructure and streamline supply chain processes.

Supply chain and logistics management practices in European countries are characterized by advanced infrastructure, efficient transportation networks, and a strong focus on sustainability and innovation as below:

**Germany:** Known for its engineering prowess and manufacturing excellence, Germany has a highly sophisticated logistics and supply

chain management sector. The country boasts an extensive network of highways, railways, and waterways, as well as modern logistics facilities and distribution centers. German companies are at the forefront of adopting advanced technologies such as automation, robotics, and digitalization to optimize supply chain processes.

**Netherlands:** The Netherlands is renowned for its strategic location as a gateway to Europe, with the Port of Rotterdam being one of the largest and busiest ports in the world. The country has a well-developed logistics infrastructure, including efficient transportation networks and state-of-the-art logistics parks. Dutch companies are known for their expertise in logistics and supply chain innovation, with a focus on sustainability and environmentally friendly practices.

**United Kingdom:** Despite uncertainties surrounding Brexit, the United Kingdom remains a key player in European supply chain and logistics management. The country has advanced transportation infrastructure, including major ports such as Felixstowe and Southampton, as well as extensive road and rail networks. UK-based companies leverage cutting-edge technology and best practices to ensure efficient and reliable supply chain operations.

**France:** France has a diverse and dynamic logistics sector, supported by its central location in Europe and well-developed transportation infrastructure. The country's logistics network includes major ports such as Marseille and Le Havre, as well as extensive rail and road networks. French companies prioritize sustainability and environmental responsibility in their supply chain strategies, with a focus on reducing carbon emissions and promoting green logistics practices.

**Sweden:** Sweden is recognized for its commitment to sustainability and innovation in supply chain and logistics management. The country has a well-developed transportation infrastructure, including modern ports, airports, and efficient rail and road networks. Swedish companies prioritize environmental sustainability and social responsibility in their supply chain practices, driving the adoption of green logistics initiatives and circular economy principles.

**Switzerland:** Switzerland is known for its efficiency, reliability, and precision in logistics and supply chain management. The country benefits from its central location in Europe, stable political environment, and strong regulatory framework. Swiss companies excel in areas such as precision engineering, pharmaceuticals, and luxury goods, requiring sophisticated supply chain solutions to meet their unique needs.

In our study, Asian and European countries exhibit diverse and sophisticated supply chain and logistic management practices, reflecting their unique economic, geographic, and cultural contexts. While Asian countries such as China and Japan are known for their manufacturing prowess and emphasis on technological innovation, European nations like Germany and the Netherlands excel in efficiency, sustainability, and advanced logistics infrastructure. Despite differences, both regions share a common commitment to optimizing supply chain operations, fostering collaboration, and driving innovation to meet the evolving demands of global trade and commerce.

**Table 1. Logistic Management and Supply Chain Management**

No	Aspect	Logistic Management	Supply Chain Management
1	Definition	Focuses on the movement, storage, and flow of goods and information within a single organization's operations.	Encompasses the strategic coordination and integration of various activities involved in sourcing, procurement, production, logistics, and distribution

2	Scope	Primarily concerned with internal operations and activities such as transportation, warehousing, inventory management, and order fulfillment within a company.	across multiple organizations to optimize the entire supply chain network.
3	Objective	Aims to ensure the efficient and effective movement of goods from the point of origin to the point of consumption, minimizing costs and maximizing service levels within the organization.	Broadly encompasses not only internal operations but also extends to external relationships with suppliers, manufacturers, distributors, and customers, emphasizing collaboration and coordination across the entire supply chain network.
4	Focus	Primarily focuses on operational activities such as transportation scheduling, inventory management, warehousing optimization, and order processing.	Aims to optimize the flow of goods, information, and finances across the entire supply chain network, from raw material sourcing to final product delivery, to enhance overall supply chain performance, responsiveness, and customer satisfaction.
5	Integration and Collaboration	Typically involves coordination and integration within the confines of the organization's boundaries, with limited collaboration with external partners.	Takes a strategic perspective, focusing on aligning supply chain processes with organizational goals, identifying opportunities for improvement, managing supplier relationships, mitigating risks, and enhancing overall supply chain agility and resilience.
			Emphasizes collaboration and integration across multiple entities within the supply chain network, including suppliers, manufacturers, distributors, and customers, to optimize the flow of materials, information, and value-added services.

## CONCLUSION

In our study, we explored the intricate mechanisms of efficient supply chain management, highlighting its crucial role in facilitating the timely and cost-effective delivery of goods and services to customers. Through strategic orchestration of processes and optimization of resources, supply chain management not only enhances productivity but also promotes sustainable business practices, fostering mutual benefits for businesses and consumers alike. Supply chain management encompasses the strategic coordination and integration of various activities, including sourcing, procurement, production, logistics, and distribution, across multiple organizations to optimize the entire supply chain network, enhancing overall efficiency and responsiveness.

The supply chain and logistic management practices observed in both Asian and European countries reflect the intricacies of their respective economic, geographic, and cultural landscapes. Logistic management focuses on the movement, storage, and flow of goods and information within a single organization's operations, ensuring seamless coordination and efficient resource utilization.

Asian nations like China and Japan, with their strong emphasis on manufacturing and technological innovation, showcase dynamic and rapidly evolving supply chain ecosystems. Conversely, European countries such as Germany and the Netherlands demonstrate excellence in efficiency, sustainability, and the development of advanced logistics infrastructure, owing to their historical and geographical advantages.

Despite these variances, both regions share a common dedication to enhancing supply chain operations to meet the evolving demands of global commerce. This commitment is manifested through initiatives aimed at optimizing processes, fostering collaboration among stakeholders, and driving innovation across industries. By leveraging their unique strengths and addressing challenges collaboratively, Asian and European countries are poised to continue playing pivotal roles in shaping the future of global supply chain management.

## REFERENCES

1. Choudhary, N. A., Singh, S., Schoenherr, T., & Ramkumar, M. (2022). Risk assessment in supply chains: A state-of-the-art review of methodologies and their applications. *Annals of Operations Research*, 1–43.
2. Knight, L., Tate, W., Carnovale, S., Di Mauro, C., Bals, L., Caniato, F., . . . & Wagner, S. M. (2022). Future business and the role of purchasing and supply management: opportunities for 'business-not-as-usual'
3. PSM research. *Journal of Purchasing and Supply Management*, 28(1), 100753.
4. Melnyk, S. A., Schoenherr, T., Speier-Pero, C., Peters, C., Chang, J. F., & Friday, D. (2022). New challenges in supply chain management: cybersecurity across the supply chain. *International Journal of Production Research*, 60(1), 162–183.
5. Schoenherr, T., Mena, C., & Choi, T. (2019). Measuring and managing risks in supply chains. CAPS Research Report, Tempe, AZ.
6. Organization for Security and Co-operation in Europe (OSCE). (2021). Combating trafficking in human beings and labor exploitation in supply chains. Guidance for OSCE Procurement. Vienna, Austria.
7. Organization for Security and Co-operation in Europe (OSCE). (2021). Combating trafficking in human beings and labor exploitation in supply chains. Guidance for OSCE Procurement. Vienna, Austria.
8. Schoenherr, T., Mena, C., & Choi, T. (2019). Measuring and managing risks in supply chains. CAPS Research
9. Report, Tempe, AZ. 32 Schoenherr, T., Mena, C., & Choi, T. (2019). Measuring and managing risks in supply chains. CAPS Research
10. Report, Tempe, AZ. 33 McKinsey & Company. (2020). The next normal in construction: How disruption is reshaping the world's
11. largest ecosystem. McKinsey White Paper. 34 World Bank. (2020). Industry Engagement Water Sector Market Analysis Report. Industry Engagement
12. Program, April. 35 Organization for Security and Co-operation in Europe (OSCE). (2021). Combating trafficking in human
13. beings and labor exploitation in supply chains. Guidance for OSCE Procurement. Vienna, Austria.

\*\*\*\*\*