

# ***How the Service Industry Transfers Through Supply Chains: Globalization Strategies and Implementation***

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**Abstract:** This paper explores the transfer of supply chains in the service sector and their significance in the context of globalization. As traditional manufacturing declines, the role of the service sector has become increasingly vital in both high-income and developing economies, especially given its growing share in global GDP. The article begins by analyzing the core characteristics of service trade, such as intangibility and heterogeneity, along with its unique trade patterns in the global market. Subsequently, using a case study approach, the paper discusses in detail the application of supply chain management in the service industry, highlighting how digital transformation and global networks enable services to operate across borders and regions, enhancing delivery efficiency and customer satisfaction. Taking Accenture as an example, it demonstrates how strategic integration and technology implementation can optimize the global service supply chain. Lastly, the paper identifies current research limitations and offers future research directions, emphasizing the potential value of cross-cultural management and environmental sustainability in service supply chain management. The findings reveal that the effective management of service supply chains is crucial for maintaining competitiveness in a globalized market. Service providers must adapt to digital innovations and leverage global partnerships to ensure service consistency and adaptability across various markets. The conclusion highlights the necessity of integrating environmental sustainability and cross-cultural management into supply chain practices to foster corporate social responsibility and improve global service delivery. This study offers a foundation for future research directions, emphasizing the potential value of these integrations in enhancing the overall efficiency and impact of service supply chains.

**Keywords:** Service Supply Chain Management, Global Trade, Digital Transformation, Cross-border Operation

## **1. Introduction**

In the global economy, the importance and role of the service sector have become focal points, especially in light of the declining share of traditional manufacturing as a growth engine in high-income countries, emerging economies, and low-income developing countries. The service sector now accounts for approximately 70% of GDP in high-income economies and is rapidly growing in emerging and low-income countries. Moreover, the development of the service sector has not stalled with the process of globalization, and some of its subsectors have seen productivity growth equal to or greater than that of manufacturing and other industries [1].

Liu et al. emphasized the emerging importance of Service Supply Chain Management (SSCM) against the backdrop of the global economy's shift towards service orientation, highlighting the importance of incorporating behavioral factors into SSCM research [2]. This shift, known as "servitization," illustrates how manufacturing companies are expanding their products to include value-added services, underscoring the increasing significance of the service sector across various research domains. Additionally, Singh et al. noted that to maintain their positions in their respective industries, service providers must handle dissatisfied consumer behaviors, particularly complaints and negative word-of-mouth, which are nightmares for service providers [3]. It is necessary to address these issues adequately to avoid any damage to the image of the service providers.

Thus, transferring services through the supply chain requires creating a seamless and efficient network that covers all aspects of service flow and delivery, from the initial service provider to the final consumer. This integration can significantly enhance the efficiency and effectiveness of service delivery, offering many benefits such as improved communication, reduced costs, and increased customer satisfaction.

This study employs a mixed-methods approach, combining literature review and case study analysis, to differentiate between tradable and non-tradable services within the industry. It also characterizes the features of service products conducive to supply chain trade and illustrates through business strategies and models how services are traded or transferred through supply chains. The aim is to help service sector enterprises enhance operational efficiency and global service quality through supply chain initiatives. This research provides a critical perspective on the global dynamics of the service industry supply chain, offering practical implications for enhancing international trade and supply chain efficiency in the service sector.

## **2. Trade Overview of the Service Sector**

### **2.1. Characteristics of Service Trade**

Previous research has discussed the distinctions and traits between services and traditional goods trade, including characteristics such as intangibility, indivisibility, and heterogeneity. Although few services embody all these features, most possess at least one of them. Moreover, many goods incorporate intangible elements (services), and many services include some tangible components, blurring the lines between goods and services. Therefore, services can be roughly differentiated from goods by four core attributes that define their uniqueness in trade and market dynamics: intangibility, heterogeneity, inseparability, and perishability [4].

Intangibility underscores the non-material nature of services, which, due to the lack of sensory evaluation, presents challenges in assessing service quality before purchase. Heterogeneity highlights the variability in service delivery, caused by human involvement, leading to inconsistent customer experiences. Inseparability emphasizes that production and consumption occur simultaneously, requiring the consumer's presence during the service delivery. Perishability indicates that services cannot be stored for future use, posing unique challenges in managing supply and demand. These characteristics necessitate a distinctive approach in trade, management, and strategic planning within the service sector, prioritizing quality assurance, customer satisfaction, and effective relationship management to address the inherent complexities presented by these attributes [5].

### **2.2. Classification of Service Trade**

Remote training, as mentioned in the study by Breinlich and Criscuolo, is one method of service trade, for example, a software programmer from France attending training courses in London, UK, or a British engineer involved in an oil drilling project in Saudi Arabia; they purchase services via the internet from service providers [6]. Moreover, efficient internet connections facilitate the

development of international trade. Technologies like 5G, big data, artificial intelligence, and cloud computing are ushering in a new era of data and information. A significant amount of economic activity, trade, and foreign direct investment relies heavily on modern information and communication technology (ICT) sources [7]. This provides convenience for service trades in some industries, such as fixed and mobile broadband subscriptions; and cross-border consulting services. These services can be globally traded through networks and information technology. Hence, service trade can be divided into three main categories: mobile provider and fixed consumer, such as labor outsourcing; fixed provider and mobile consumer, such as patients who must visit hospitals with necessary facilities; and mobile provider and mobile consumer, such as traditional banking, insurance, and consulting services [8]. The first and third categories of services, due to their mobile providers, can be traded, whereas the second category, due to its fixed providers, relies more on localization and is less tradable.

### **3. The Role and Impact of Supply Chains in the Service Industry**

#### **3.1. The Role of Supply Chains in the Service Industry**

##### **3.1.1. The Role and Challenges of Supply Chain Management in the Service Industry**

Similar to manufacturing, the service industry requires extensive integration and coordination across a network of suppliers, partners, and customers. The service supply chain must encompass all entities involved in delivering services to end-users, also emphasizing the management of supplier-customer relationships and information flows to ensure service delivery meets customer expectations [9]. Moreover, Christopher highlights the importance of integrating and managing supply chains to gain a competitive advantage [9]. This means that providers in the service industry must ensure that each activity, from initial customer interaction to service delivery and post-service support, adds value to the customer experience. Creating competitive advantages requires reducing costs and enhancing services through efficient logistics and supply chain management.

However, customer service and satisfaction are crucial in the service industry. Managing customer expectations involves not only ensuring timely service provision but also maintaining high quality standards. Due to the intangible nature of services, assuring quality and consistency is more challenging than with tangible goods [9]. Effective logistics in the service industry involve demand forecasting and capacity management. Unlike tangible products, services cannot be stored for future use, so accurately forecasting demand and adjusting capacity accordingly is critical. This includes managing labor scheduling, resource allocation, and service delivery channels to meet demand without compromising service quality. Additionally, the dynamic nature of customer preferences and the competitive environment in the service industry require a flexible and responsive supply chain. Services must be adaptable, and capable of quickly altering service products, delivery methods, and customer engagement strategies based on market trends [9].

##### **3.1.2. How Supply Chains Enable Service Industries to Operate Across Borders and Regions**

As previously discussed, supply chains excel in enhancing operational efficiency and fostering customer relationships in the service industry. According to Cichosz et al. [10], the study primarily focuses on the digital transformation (DT) of the logistics service industry, particularly how Logistics Service Providers (LSPs) adapt to and leverage digital innovations to enhance their value propositions, improve operational efficiency, and better serve their customers [10]. LSPs have introduced platform business models for customers and operators; digital platforms facilitate cross-border and cross-regional operations by providing infrastructure for remote service delivery, collaboration, and integration with global customers and partners, enabling seamless information exchange and resource

allocation. Furthermore, the application of advanced technologies such as efficient data analysis tools, cloud computing, and artificial intelligence allows service providers to offer high-quality, customized services globally. Additionally, by establishing strong partnerships with local collaborators, service enterprises can better understand and adapt to the specific needs and challenges of different markets. Finally, enterprises utilize emerging digital tools for cross-border training, skill development, and the use of remote work and international teams to fully leverage global talent resources, thereby enhancing service quality and achieving international business expansion.

For general service industry enterprises, adopting digital platforms to promote global cooperation and communication, utilizing advanced technologies such as cloud computing and big data to enhance service efficiency and precision, establishing cross-cultural partnerships to adapt to diverse market demands, and fully utilizing global talent resources to enhance team capabilities are strategies that not only help companies effectively cross national and regional boundaries to deliver more personalized and efficient services but also strengthen their competitive position in the international market. Through such approaches, service industry enterprises can achieve flexible multinational operations, better respond to the dynamic changes of global markets, and provide more valuable solutions to customers.

### **3.2. Motivations for Service Industry Transformation through Supply Chains**

As discussed in section 3.1, the core drivers of supply chain management in the service industry revolve around a high degree of customer-centricity, focusing on the integration and coordination across a network of suppliers, partners, and customers to ensure services meet or exceed customer expectations. According to Christopher, the service industry emphasizes adding value at every stage of service delivery, from initial customer interaction to implementation and post-service support [9]. Through efficient supply chain management, cost reductions and service enhancements are achieved to gain a competitive advantage. Additionally, the intangibility of services and the volatility of demand pose challenges in maintaining high quality standards, accurately forecasting demand, flexibly managing capacity, and rapidly adapting to market changes. These factors drive the development of the service industry towards more flexibility, responsiveness, and customer-centricity to maintain its competitiveness and market responsiveness.

It is evident that ensuring global integration and coordination of customer demands is crucial in the management of global service industry supply chains. By establishing service delivery centers in different countries and regions, global supply chains can effectively manage cross-cultural and geographical customer relations and provide customized and localized service solutions, thereby meeting or exceeding customer expectations [11]. Moreover, to maintain the consistency of international service quality, the global service industry standardizes service delivery processes and systematically trains service personnel to ensure equivalent levels of service across different countries and regions. This strategy not only enhances the international reputation of businesses but also strengthens customer trust and loyalty, aligning with the goal of the service industry to add value at every stage of service through efficient supply chain management. Furthermore, the global service industry optimizes global resource allocation, such as performing specific service functions in lower-cost regions, to reduce costs and enhance the availability and quality of services [12]. In addition, the global layout of service supply chains enhances enterprises' adaptability to global market changes, enabling them to rapidly respond to shifts in international customer demands, market trends, and fluctuations in global economic conditions. This reflects the volatility of service industry demands and the challenge of flexibly managing capacity to quickly adapt to market changes [13]. Lastly, to improve the efficiency and transparency of global service supply chains, service enterprises increasingly adopt international technology standards and platforms, such as cloud computing services and global customer relationship management systems, to facilitate information flow and

support global operations. The adoption of these technologies not only meets the service industry's need to add value at every stage from initial customer interaction to service implementation and post-service support but also addresses the challenges posed by the intangibility of services [14].

## **4. Case Study on Accenture's Global Service Supply Chain Management**

### **4.1. Corporate Background**

Accenture is a leading global professional services company that offers a broad range of services and solutions in strategy, consulting, digital, technology, and operations. The company employs approximately 742,000 people worldwide and has offices and operations in 49 countries and over 200 cities [15]. To manage these globally dispersed complex services, Accenture relies on a meticulously designed global supply chain that not only supports its business operations but also ensures that clients receive consistent service quality across the world.

Accenture's business scope includes providing extensive management consulting services that assist clients in enhancing business performance through technological innovations and optimizing business processes. Its services range from the implementation of Enterprise Resource Planning (ERP) systems to Customer Relationship Management (CRM) software, as well as the development of cloud computing solutions and applications of artificial intelligence. Accenture highlights its status as "the world's largest independent technology service provider," especially playing a pivotal role in the transformation from SAP and Oracle applications to digital services and cloud solutions [15].

### **4.2. Strategy and Implementation**

Accenture is structured into five organizations: Accenture Strategy, Accenture Consulting, Accenture Digital, Accenture Technology, and Accenture Operations. These five divisions work in a coordinated fashion to manage jointly and propose solutions for their clients [16]. According to Accenture [17], in 2023, the company continued to make significant investments in innovation, with a substantial portion allocated to acquiring capabilities to enhance its service offerings in high-growth areas [17]. This includes a strategic focus on services for digital transformation such as cloud migration and artificial intelligence, and leveraging a global delivery network to support efficient and effective service delivery worldwide. This network allows for seamless integration of services across different markets, thus enhancing their capability to manage supply chains globally. Additionally, the report emphasizes the need for operational improvements to enhance competitiveness and reduce costs. This is indirectly related to supply chain management, as operational efficiency often involves streamlining supply chain processes to provide sustainable stakeholder value and set new performance standards. Besides these, Accenture also integrates sustainability into its operations, which includes achieving net-zero emissions by 2025, transitioning to 100% renewable electricity throughout its operations, and ensuring the absence of modern slavery practices.

### **4.3. Outcomes and Challenges**

Through these strategies, Accenture has significantly enhanced its operational efficiency, as evidenced by its financial performance and continuous market expansion [17]. Although the document outlines strict compliance and disclosure obligations, particularly concerning government contracts. While this aspect is not directly related to the supply chain, it affects the way Accenture manages its contracts and operations, including supply chain activities, especially under regulatory scrutiny. Despite progress, Accenture continues to face ongoing challenges, such as embedding sustainability deeply into all aspects of operations without impacting service delivery efficiency.



#### 4.4. Summery

Accenture's approach to supply chain management integrates strategic acquisitions, advanced technology integration, and a firm commitment to sustainability. The design of these elements not only aims to enhance operational efficiency but also ensures that its business operations are resilient and adaptable to changing market conditions. This strategy lays a solid foundation for Accenture's future growth and aligns with broader corporate social responsibility goals. However, it also involves challenges, such as ensuring high-quality service delivery under a sustainability strategy and potential political risks.

### 5. Specific Methods of Service Industry Transformation through Supply Chains

In the context of a globalized economy, the transformation of supply chains in the service industry is becoming increasingly important. This transformation not only involves the global delivery of services but also includes the use of advanced technologies and strategic partnerships to optimize these services. Firstly, digital transformation is key in the transformation of service industry supply chains. As discussed in Part 3, logistics service providers improve service efficiency and quality by introducing platform business models and utilizing advanced technologies such as cloud computing, big data, and artificial intelligence. These technologies support remote service delivery and cross-cultural collaboration, enabling services to transcend national and regional boundaries. For example, remote education and online consulting services can be provided to global users through online platforms, significantly enhancing service accessibility and adaptability. Secondly, establishing global partnerships is also a crucial aspect of service supply chain transformation. By forming partnerships with service providers in different countries and regions, it is possible to maintain consistency in service quality while localizing services. As shown in the case of Accenture in Part 4, the company ensures uniform and high-quality services globally through global network support and collaboration with international teams. Additionally, standardization of service provision and systematic training are key to achieving efficient supply chain transformation. By establishing uniform service delivery processes and comprehensively training service personnel, services of the same standard can be provided in different countries and regions, enhancing the international reputation of the brand and customer loyalty. Finally, supply chain optimization also involves resource allocation and cost control. Companies can reduce operational costs by deploying specific service functions in lower-cost regions, while improving operational transparency and efficiency through technological standards and global customer relationship management systems.

### 6. Conclusion

This paper has explored the strategies and global practices of service industry transformation through supply chains, identifying digital transformation and global partnerships as crucial for enhancing the quality and efficiency of service delivery. The widespread adoption of technologies such as cloud computing, big data, and artificial intelligence provides new opportunities for the service industry to break through traditional geographical and cultural limitations, while the establishment of global partnerships helps companies maintain service consistency and offer targeted localized solutions.

However, the limitation of this study lies in its reliance primarily on existing literature and case studies, which lack broad industry coverage. Future research should further explore the specific challenges in supply chain management across different service industries, assess the practical application of various advanced technologies, and consider the impact of cross-cultural management on service design and customer satisfaction. Additionally, exploring how environmental sustainability can be better integrated into service supply chain management will provide valuable perspectives for the practice of corporate social responsibility.

## References

- [1] Owusu, S., Szirmai, A., & Foster-McGregor, N. (2021). *The Rise of the Service Sector in the Global Economy*. In L. Alcorta, N. Foster-McGregor, B. Verspagen, & A. Szirmai (Eds.), *New Perspectives on Structural Change: Causes and Consequences of Structural Change in the Global Economy*. Oxford University Press. <https://doi.org/10.1093/oso/9780198850113.003.0013>
- [2] Liu, W., Wang, D., Long, S., Shen, X., & Shi, V. (2019). *Service supply chain management: a behavioural operations perspective*. *Modern Supply Chain Research and Applications*, 1(1), 28-53. <https://doi.org/10.1108/MSRA-01-2019-0003>
- [3] Singh, P., Arora, L., & Choudhry, A. (2022). *Consumer Behavior in the Service Industry: An Integrative Literature Review and Research Agenda*. *Sustainability* 2023, 15(1), 1-30. <https://doi.org/10.3390/su15010250>
- [4] Pla-Barber, J., & Ghauri, P. N. (2012). *Internationalization of service industry firms: understanding distinctive characteristics*. *The Service Industries Journal*, 32(7), 1007-1010. <https://doi.org/10.1080/02642069.2012.662498>
- [5] Moeller, S. (2010). *Characteristics of services – a new approach uncovers their value*. *Journal of Services Marketing*, 24(5), 359-368. <https://doi.org/10.1108/08876041011060468>
- [6] Breinlich, H., & Criscuolo, C. (2011). *International trade in services: A portrait of importers and exporters*. *Journal of International Economics*, 84(2), 188-206. <https://doi.org/10.1016/j.jinteco.2011.03.006>
- [7] Jiang, M., & Jia, P. (2022). *Does the level of digitalized service drive the global export of digital service trade? Evidence from global perspective*. *Telematics and Informatics*, 72, Article 101853. <https://doi.org/10.1016/j.tele.2022.101853>
- [8] Chand, S. (n.d.). *International Trade in Services: Meaning, Characteristics and Restrictions*. Your Article Library. <https://www.yourarticlelibrary.com/company/service-management/international-trade-in-services-meaning-characteristics-and-restrictions/34242>
- [9] Christopher, M. (2016). *Logistics and Supply Chain Management: Logistics & Supply Chain Management*. Pearson UK.
- [10] Cichosz, M., Wallenburg, C. M., & Knemeyer, A. M. (2020). *Digital transformation at logistics service providers: barriers, success factors and leading practices*. *The International Journal of Logistics Management*, 31(2), 209-238. <https://doi.org/10.1108/IJLM-08-2019-0229>
- [11] Hofmann, E. (2013). *Supply Chain Management: Strategy, Planning and Operation*, S. Copra, P. Meindl, 5th ed, ISBN: 978-0273765226. *Journal of Purchasing & Supply Management*, 19(3), 212-213. <https://doi.org/10.1016/j.pursup.2013.07.003>
- [12] Keller, K. L., & Brexendorf, T. O. (2019). *Strategic Brand Management Process*. In F. Esch (Ed.), *Handbuch Markenführung*. Springer Gabler, Wiesbaden. [https://doi.org/10.1007/978-3-658-13342-9\\_8](https://doi.org/10.1007/978-3-658-13342-9_8)
- [13] Ghemawat, P. (2007). *Redefining Global Strategy: Crossing Borders in A World Where Differences Still Matter*. Harvard Business Press.
- [14] Porter, M. E., & Heppelmann, J. E. (2014, November). *How Smart, Connected Products Are Transforming Competition*. *Harvard Business Review*. <https://hbr.org/2014/11/how-smart-connected-products-are-transforming-competition>
- [15] Accenture. (n.d.). *360° value is at the heart of our business*. <https://www.accenture.com/au-en/about/company-index>
- [16] Alva, H., Prasad K, K., & Bhat, S. (2018). *Accenture – Understanding Sustainable Business Strategies*. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 2(1), 54-63. <http://dx.doi.org/10.5281/zenodo.1254137>
- [17] Accenture. (2023). *Driving reinvention, delivering 360° value: Annual Report*. <https://www.accenture.com/content/dam/accenture/final/capabilities/corporate-functions/marketing-and-communications/marketing---communications/document/Accenture-Fiscal-2023-Annual-Report.pdf#zoom=50>