

Sustainability Supply Chain Management and Service Quality in Jordanian SMEs: Examining the Mediating Effect of Competitive Advantage within the SERVQUAL Framework

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Abstract: The purpose of this study is to examine the impact of competitive advantage on Sustainability Supply Chain Management (SSCM) and its role in enhancing service quality among small and medium enterprises (SMEs) in Jordan. Drawing on the Resource-Based View (RBV) theory, the study investigates how supply chain practices can generate sustainable competitive advantage for SMEs. A quantitative descriptive survey design was adopted, and primary data were obtained from 150 SME owners and managers through a structured questionnaire. The proposed hypotheses were tested, and structural relationships were assessed using Smart-PLS. The results reveal that competitive advantage functions as a mediating variable between Sustainability Supply Chain Management (SSCM) and service quality, enabling SMEs to strengthen their market position and improve service quality through operational efficiency. Theoretically, the study extends the application of RBV to the Jordanian SME sector, while the managerial and policy implications emphasize the importance of integrating supply chain and competitive strategies to achieve excellence in service quality.

Keywords: Competitive Advantage; supply chain Management; service quality; servqual model; SMEs; Jordan

INTRODUCTION

SMEs are the backbone of the local economy in Jordan; however, they face challenges in the supply chain of raw materials, such as inconsistency, weak distribution, and delayed deliveries. These issues reduce service quality and undermine their competitiveness (Alqudah et al., 2021). Building competitive advantage on the basis of sustainability is a key enabler for firms to enhance performance, seize market opportunities, and deliver added value to customers. This, in turn, enables SMEs to succeed by offering superior services and products (Abdul Aziz et al., 2024).

SSCM is a critical component of supply chain operations, responsible for planning, implementing, and controlling the efficient movement and storage of goods, services, and information from the point of origin to the point of consumption. Effective SSCM reduces costs, ensures timely delivery, and improves responsiveness to customers, particularly for textile SMEs in Jordan (Marjan et al., 2022). Prior studies have demonstrated the positive impact of supply chains on competitiveness and service quality across different industries and regions (Phan, 2025). However, few studies have specifically focused on Jordanian SMEs, especially in the textile sector. To address this gap, the present study empirically investigates the mediating role of competitive advantage between SSCM and service quality, providing insights to help SME managers and policymakers design strategies that maximize operational efficiency and enhance customer satisfaction. This study contributes to the literature by examining competitive advantage as a mediating factor and offers practical implications for textile SMEs in Jordan.

Literature Review

SSCM supporting SMEs' competitive advantage is a key determinant of service quality. Based on the Resource-Based View (RBV), competitive advantage occurs when firms have valuable, rare, inimitable, and non-substitutable resources (Karia, 2018; Alqudah, A., 2021). In the context of SMEs in Jordan, supply chain can be an internal resource that creates a sustainable competitive advantage by differentiating services, reacting faster to customer needs, and providing consistent services. As supply chain capabilities align with strategic objectives, SMEs can simplify operations, fortify market position, and improve customer satisfaction. Efficient supply chain management—covering procurement, inventory, production, transport, and distribution—facilitates integration between internal processes and external partners, ensuring responsiveness, operational efficiency, and loyalty (Ahimbisibwe, 2016; Phan, Dat, & Van Hai, 2025).

Competitive advantage in SMEs is conceptualized as the ability to generate value that rivals cannot replicate (Van Nguyen et al., 2024), achieved through price competitiveness, customer value quality, reliable supply, and innovation (Adelugba et al., 2024; Tsiu, 2024; Chabalala et al., 2024; Shaharudin et al., 2024). Both external drivers (market diversity, technology, demand) and internal factors (innovation, quality, cost, flexibility) shape competitiveness (Ahmad & Jais, 2024; Al Dhaheri et al., 2024). It can be assessed by growth indicators such as market share, sales, and profitability (Al Dhahring et al., 2024; Alqudah, A., 2021; Usman, 2024). Innovation, integration, and diversification strategies enable SMEs to sustain competitiveness under constraints (Kyomuhendo et al., 2023; Hasanah, 2022; Wijaya, 2020; Omudang et al., 2016; El Hafez & Al Rawashdeh, 2025). Service quality, meanwhile, remains a critical determinant of business performance, beyond financial indicators such as ROI or asset accumulation (Nyangoma et al., 2024; Faoziansyah, 2024). Supply chain functions—inventory control, coordination, and timely delivery—are not merely operational but strategic enablers of service excellence, ensuring responsiveness and reliability (Ijomah, 2024; Khan et al., 2024). Continuous improvement in supply chain fosters differentiation, customer satisfaction, and cost control, which underpin long-term competitiveness and sustainability in SMEs (Nugroho et al., 2024; Chang et al., 2024; Susanto, 2024).

The relationship between SSCM and service quality

According to Rashid and Others. (2024), Industry 4.0 provides a scalable concept for integrating cyber-physical systems in planning, production, supply chain and logistics. In this context, SSCM can be defined as a strategic competence which has a significant impact on the financial and operational performance of the company. This is particularly relevant for SMEs, where efficient supply chain processes, which may include supply chain planning, risk mitigation and supplier relations management, can make a significant contribution to the overall quality of service (Tri, 2024).

It was found that the main aspect of SSCM(SCM), supply chain management, has a strong positive impact on the SQ, which is further reflected in the provision of services and customer satisfaction. Dickens and others. (2024) underlines the idea that the implementation of structured SCM procedures can increase the level of coordination in the system, reduce inefficiencies and enable better responsiveness, which directly contributes to the quality of the final service.

This was the case in Tang and Chau (2024), which pointed out that in addition to improving financial performance, an efficient SCM also helps to improve operational efficiency by simplifying internal operations and improving the performance of the workforce. Better SSCM is therefore not only a technical adjustment, but a strategic necessity for SMEs in their quest to improve the quality of their services and maintain their long-term competitiveness. We therefore propose the following first hypothesis:

H1: SSCM positive impacts service quality.]

The relationship between SSCM and competitive advantage

Sodikin et al. (2023) claimed that efficient supply chain management, which includes SSCM as a key component of supply chain management, has a positive impact on the achievement of competitive advantage. This efficiency is influenced by certain proper supply chain factors such as product development, supply-relationship strategy plans, production and distribution plans, control plans, cost-efficiency of purchasing and the quality of the information flow along the supply chain. All these factors enable companies to respond effectively to market needs, reduce their operating costs and create a coherent value for the market. This association is confirmed by a large amount of research. Research by Abdul Aziz Ahmad (2025), Khan (2024), Abd Rahman (2025) and Korucuk, S., & Aytakin (2024) stresses that supply chain management, including supplier coordination, timely delivery and product quality, has a positive impact on long-term competitiveness.

Integration saves companies the trouble of internal and external optimization, thus increasing their responsiveness and market position. In the area of small and medium-sized enterprises, Korucuk (2024) and Malhotra (1924) stressed that even the introduction of systematic monitoring of SSCM issues would give a significant competitive advantage. By establishing efficient relationships with suppliers and customers, SMEs will create greater agility and shorter lead times, as well as increased service consistency, which is important for differentiation in a competitive market. In the same vein, Mafini, C., & Omoruyi (2013), Khanfar (2025) and Sojipun (2024) are also Sreejesh (2024) argues that integration in the supply chain and supply chainareas is a necessary practice for the development of strategic partnerships that will generate long-term value and competitiveness. From the above explanation, the following second hypothesis is proposed:

H2: SSCM has the impact of increasing competitive advantage

The relationship between competitive advantage on service quality

A competitive advantage is also an important factor contributing to the improvement of the

quality of service, particularly in a competitive undertaking. Firms with a high competitive edge are better placed to offer their customers high value through: differentiation of service offerings, rationalization of internal processes and responsiveness to market needs. These benefits, as reported by Rochmah (2024), Rodgers (2024) and Ezechi (2025), are attributed to key competences and their components in marketing strategy, product development and operational design, which can be directly translated into improvements.

A company that has enjoyed a sustained competitive advantage is better placed to match the consumer's expectations and to exceed them. It is facilitated by constant innovation in service practices, the personalisation of services and improved customer-relationship techniques. Finally, a competitive advantage may help companies to create more perceived value between themselves and their customers than their competitors, which improves the quality of service and customer satisfaction (Sreejesh, 2025; Ruangtip et al., 2024). We therefore propose the following assumption:

H3: The role competitive advantage on SQ.

4. The relationship between SSCM and service quality through competitive advantage

Successful use of SSCM by SMEs usually has the advantage of relative competition, which is characterized by lower costs, faster delivery speeds and efficiency in operations. This supply chain enables the company to deliver a higher level of service in a more direct way than its competitors (Olutimehin et al., 2024; Alqudah, A.Z., 2021). Prompt supply chain control, i.e. efficient inventory management, rapid acquisition and planned distribution, make it possible to provide the same or faster services than or better than customers expect.

The competitive power due to better supply chain performance allows the company to distinguish its services on the market, as Ghoneim (2025) states, and the competitive advantage can be closely associated with better economic performance and the related customer relationship, both of which contribute to service quality. It is important that SMEs use SSCM as a strategic tool to maintain this advantage, so that they can be competitive in service delivery and customer satisfaction. LM is therefore not only a functional need but also a connection to the eventual creation of a competitive advantage that will result in an enhanced quality of service. This facilitator role in a strategy for competitive advantage would reinforce the strategic significance of appropriate supply chain in expanding the service potential of SMEs through agile companies.. We therefore proposed the following hypothesis:

H4: SSCM has the effect of improving service quality through competitive advantage

Based on the literature review outlined above, a research framework can be developed as illustrated in Figure 1.

Methods

The proposed study is a quantitative one, relying on a questionnaire as a data collection method. Quantitative research is defined as the collection and analysis of numerical data. It is useful to deduce trends and means and to develop hypotheses, investigate causality and extend results to populations. The research population was 2192 in the textile SME sector in Jordan.

Participants and Sampling Method

A total of 150 SMEs from the fabric sector in Jordan, participated in the study, and the sampling procedure was based on multiplying 10 by the number of survey indicators (recommended for determining adequate sample size; Hair et al., 2019) for a total of 15 indicators. The study took place

from January to June 2025 and included employees from 11 climate production areas.. Out of 150 distributed questionnaires, 136 were returned (response rate: 90.68%), and 130 were valid for analysis (86.68%). The sampling method applied was point-of-sale (Isaac, 2023; Alqudah, A.Z., 2021), with inclusion criteria requiring SMEs to have operated for more than two years and to employ at least five workers. The data reflect unique characteristics of SMEs, combining traditional traits, local economic influence, and modernization trends. For analysis, Partial Least Squares Structural Equation Modelling (PLS-SEM) was applied due to its predictive capacity and reliance on latent variable scores (Kamukama et al., 2013; Ghasem et al., 2020).

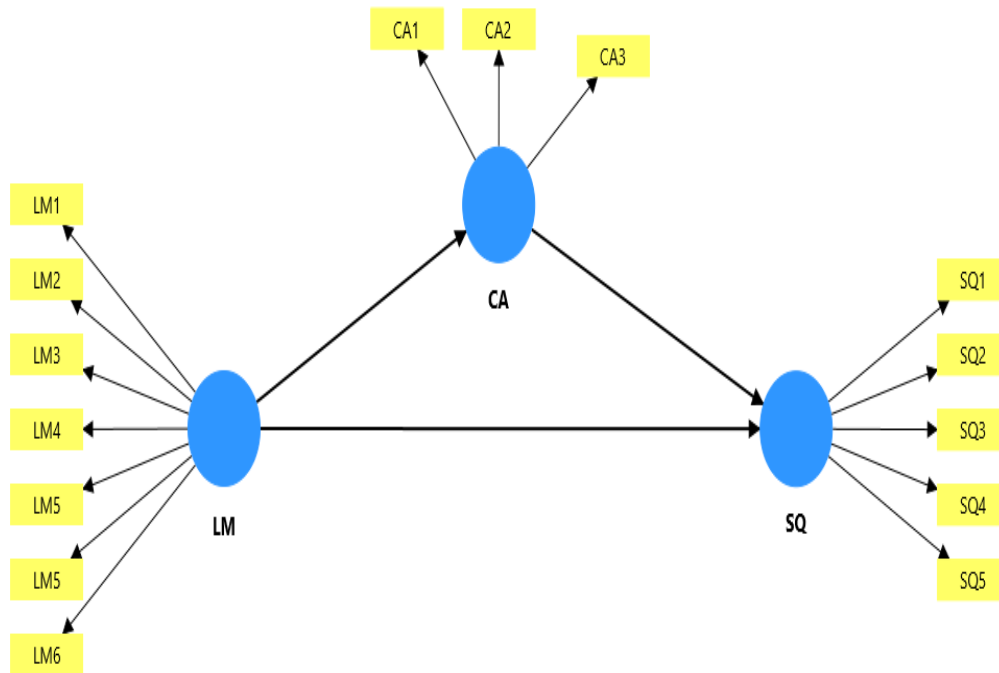


Figure 1. Empirical research model

Measures and Covariates

SSCM was measured using the scale of Morgan & Nasir (2020), while competitive advantage was assessed with a 3-item construct developed by Kamukama (2013), both based on a 5-point Likert scale. Service quality was measured using the 5-point scale proposed by Maltz et al. (2003). Data were filtered with IBM SPSS 24 and analysed using SmartPLS 4 (Ringle et al., 2022). The operationalization of variables is presented in Table 1.

Results and Discussions

Research findings were produced by a two-way research approach of modelling consistency (CR), convergence (CV) and structural models (i.e. path coefficients, cause size and effect size) used (Hair et al., 2021; Ringle et al., 2022). The measurement model is assessed with reflection indicators based on convergent and discriminant validity of the latent construct indicators and the composite reliability of the Cronbach alpha of the indicator block (Hair et al., 2021).

Table 1. Operational variables

No.	Variable	Operational Definition	Measurement Indicators
1	supply chain Management	A set of integrated supply chain activities conducted by SMEs to ensure efficiency and responsiveness across the supply chain.	1. Strategic Supplier Partnership 2. Level of Information Sharing 3. Quality of Information Sharing 4. Customer Relationship Management 5. Internal Lean Practices 6. Postponement (Suspension) 7. Total Quality Management
2	Competitive Advantage	The organization's ability to achieve superior performance, differentiation, and long-term market positioning.	1. Differentiation 2. Cost Leadership 3. Market Outreach Level
3	Service Quality	The extent to which SMEs consistently meet or exceed customer expectations through reliable and value-driven services.	1. Financial Performance 2. Customer Satisfaction 3. Process Efficiency 4. Human Resource Development 5. Future Market Responsiveness

Source: Taken from an article written by Morgan and Nasir (2020); Kamukama (2013); (Maltz et al. (2003).

Test for Validity and Reliability

The SSCMvariable was initially measured with seven indicators, but only four were retained due to loadings above 0.70 (0.773–0.824). Competitive advantage was measured with three valid indicators (0.748–0.843), while service quality retained three indicators (0.788–0.858) after two were removed. As shown in Table 2, the measurement model demonstrates satisfactory internal consistency, convergent validity, and positive correlations among constructs (Hair et al., 2021).

Results of the evaluation of the Measurement Model

Discriminant validity was confirmed through construct correlations (0.798–0.966; 0.821; 0.802). The HTMT method, which compares heterotrait–monotrait ratios in PLS analysis, is recommended for assessing discriminant validity (Hair et al., 2019; Booncharoen, 2024). An HTMT value below 0.90 (or ≤ 0.91) indicates satisfactory validity, while higher values suggest conceptual overlap (Hair et al., 2021). Results show all constructs (CA, SQ, LMC) achieved HTMT < 0.91 , with 97.6% bootstrap confidence intervals below 1, confirming they are conceptually and empirically distinct.

Table 2. Result of model constructs

Variable	Measurement Item	Indicator Description	Outer Loading	Item Reliability	Cronbach's Alpha	Composite Reliability	AVE
LM	LM1	Strategic Supplier Partnerships	0.812				
	LM3	Quality of Information Sharing	0.773				
	LM4	Customer Relationship Management	0.824				
	LM7	Total Quality Management	0.798		0.816	0.817	0.643
CA	CA1	Differentiation	0.804				
	CA2	Cost Leadership	0.843				
	CA3	Outreach Level	0.748		0.717	0.721	0.639
SQ	SQ1	Finance	0.858				
	SQ2	Market/Customer	0.788				
	SQ5	Future	0.811		0.757	0.763	0.673

Structural Coefficient Modeling Path Assessment

The findings show that SSCM explains 75.21% of the variance in competitive advantage (CA) ($R^2 = 0.753$), while CA and SSCM together explain 65.41% of service quality (SQ), leaving 34.61% influenced by other factors (Table 4). The structural model indicates SSCM has the strongest effect on CA ($\beta = 0.666$, $p = 0.000$), followed by its effect on SQ ($\beta = 0.439$, $p = 0.008$), and CA's effect on SQ ($\beta =$

0.281, $p = 0.042$) (Table 3). These results confirm all hypothesized paths are statistically significant ($p < 0.05$). Hypothesis 1 is supported, showing CA significantly enhances SQ ($t = 2.047$, $p = 0.042$), while Hypothesis 2 confirms SSCM strongly contributes to CA ($t = 2.706$, $p = 0.008$) (Table 5). Overall, competitive advantage plays a key role in improving service quality, and SSCM is essential in strengthening SMEs' growth.

Hypothesis 3: SSCM significantly improves SQ and is accepted with $y = 0.666$, $t = 11.228$ and $p = 0.000$. This hypothesis has the greatest influence compared to the others. This means that the role of SSCM is very large in improving SQ.

Table 3. Discriminant validity of constructs

Variable CA SQ LM

Discriminant Validity: Fornell-Larcker Criterion

CA	0.798		
SQ	0.572	0.821	
LM	0.666	0.625	0.802
Hererotrait-Monotrait Criterion			
CA SQ	0.772		
LM	0.857	0.778	

Source: Processed data, 2024

Table 4. R-square - overview

Variable	R-square	Adjusted R-square
Competitive Advantage (CA)	0.753	0.748
Service quality (SQ)	0.655	0.647

Source: Processed data, 2024

Table 5. Path coefficients -mean, STDEV, tvalue, p-value

Variable	Original	Sample(0)	Sample Mean (M)	Tstatistic	P value
Standard Deviation			(STDEV)	(IO/STDEV)	
				)	
CA->SQ	0.281	0.291	0.138	2.047	0.042
LM -> CA	0.666	0.676	0.058	11.228	0.000
LM -> SQ	0.439	0.411	0.163	2.706	0.008

Source: Processed data, 2025

Table 6. Spesific indirect effect -mean, STDEV, tvalue, p-value

Variable	Original Standard Deviation	Sample(0)	SampleMean (M)	Tstatistic (IO/STDEV)	p value
LM->CA->SQ	0.18	0.202	0.099	1.906	0.058

Source: Processed data, 2025

Hypothesis 4 tested whether SSCM improves service quality (SQ) through competitive advantage as a mediator. Results showed the indirect effect was not significant ($\beta = 0.187$, $t = 1.906$, $p = 0.058$), indicating that while supply chain directly enhances SQ, competitive advantage does not add explanatory power. Prior studies also confirm a strong direct link between supply chain and SQ (Al Haddad et al., 2025; Al Mu'ani et al., 2024; Sugiono et al., 2023; Thomas et al., 2022), highlighting supply chains a strategic driver of service excellence (Singh & Gautam, 2024; Gamini & Rajapaksa, 2020). Jordan SME fabric sector, supply chain fosters efficiency, responsiveness, and adaptation to fashion trends while maintaining cost leadership (Al Mu'ani et al., 2024; Sugiono et al., 2023). However, the mediating role of competitive advantage remains weak, consistent with findings of only partial mediation (Ighomereho et al., 2022; Luan et al., 2023). Overall, service quality improvements stem mainly from supply chain itself, underscoring the need for SME managers to prioritize supply chain coordination, inventory control, and timely delivery as core strategies for competitiveness.

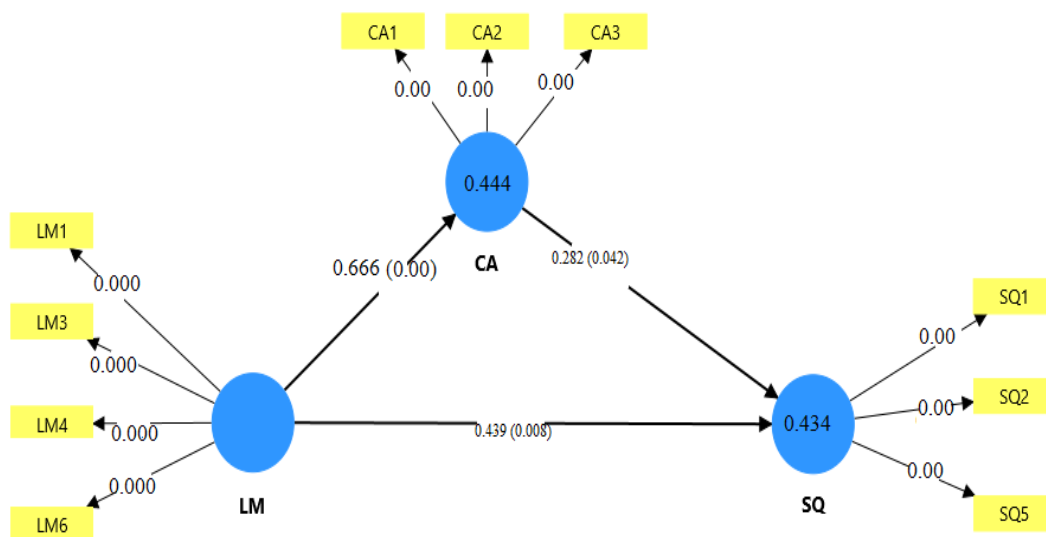


Figure 2. Measurement model evaluation results

Conclusion

This study examines the mediating role of competitive advantage in the relationship between SSCM and service quality among SMEs in Jordan. Results show that effective supply chain practices significantly enhance both competitive advantage and service quality, with mediation effects explaining 74.8% and 64.7% of variance. Competitive advantage also has a direct, strong influence on service quality.

Theoretically, the study supports the Resource-Based View (RBV), stressing that distinctive internal capabilities—such as efficient logistics—sustain competitive advantage. Practically, SMEs can strengthen competitiveness through better supplier selection, raw material management, and streamlined distribution, while product innovation and customer-focused services remain essential.

In the context of Industry 4.0, SMEs are encouraged to adopt digitalization strategies, including e-commerce, digital marketing, and sustainable practices. Limitations include the focus on textile SMEs, restricting generalizability, and the fast-changing impact of digital technologies. Future research should explore wider digitalization across Jordanian SMEs, emphasizing technological adaptation and digital skills for long-term sustainability, competitiveness, and service quality..

Reference

- Abualrejal, H. M. E., Shtawi, H. O., Hassan, M. G., Alqudah, A. Z., & Alamrani, A. A. (2021, April). Assistive technology and its impact on educational achievement for visually disabled students at SKPK Princess Elizabeth. In *International Conference on Emerging Technologies and Intelligent Systems* (pp. 873-883). Cham: Springer International Publishing.
- Adeniyi, B. C., & Adelugba, I. A. (2024). Knowledge management adoption and enhancement of competitive advantages of micro, small and medium enterprises in South-West, Nigeria. *Nigerian Journal of Management Studies*, 25(2), 35–49.
- Ahimbisibwe, A., Omudang S., Tusiime, W., & Tumuhairwe, R. (2016). Information technology capability, adoption, supply chainservice quality and the performance of third party supply chainproviders. (*Journal/Source Unknown*)
- Ahmad, M. A.-A., & Jais, J. (2024). The mediating effect of service quality on the relationship between supply chainresources and sustainable competitive advantage in Iraqi Kurdistan hotels. *Cogent Business & Management*, 11(1), 2360597. <https://doi.org/10.1080/23311975.2024.2360597>
- Ahmad, M. A.-A., & Jais, J. (2025). The mediating effect of service quality on the relationship between supply chainresources and sustainable competitive advantage in Iraqi Kurdistan hotels. *Cogent Business & Management*, 11(1), 2360597. <https://doi.org/10.1080/23311975.2024.2360597>
- Al Dhaheri, M. H., Ahmad, S. Z., & Papastathopoulos, A. (2024). Do environmental turbulence, dynamic capabilities, and artificial intelligence force SMEs to be innovative? *Journal of Innovation & Knowledge*, 9(3), 100528. <https://doi.org/10.1016/j.jik.2024.100528>
- Al Haddad, S., Sharabati, A. A. A., Nasereddin, A. Y., El Hafez, A., & Al Rawashdeh, R. (2025). The impact of supply chaincompetences on organizational performance in SMEs moderated by competitive advantages in social media campaigns. *Sustainability*, 17(13), 5944. <https://doi.org/10.3390/su17135944>
- Al Mu'ani, L., Al Momani, M. M., Amayreh, A., Aladwan, S. I., & Al Rahmi, W. M. (2024). The effect of supply chainand policy service quality on trust, satisfaction, and loyalty among Q commerce users in Jordan. *Uncertain Supply Chain Management*, 12(3), 1417–1432. <https://doi.org/10.5267/j.uscm.2024.4.009>
- Ali, A. A. A., Abualrejal, H. M. E., Mohamed Udin, Z. B., Shtawi, H. O., & Alqudah, A. Z. (2021, June). The role of supply chain integration on project management success in Jordanian engineering companies. In *International conference on emerging technologies and intelligent systems* (pp. 646-657). Cham: Springer International Publishing.
- Alqudah, A., Abualrejal, H. M., & Elias, E. (2021, December). Hospital supply chain management and quality of services within hospitals: A preliminary review. In *International Conference of Reliable Information and Communication Technology* (pp. 775-784). Cham: Springer International Publishing.
- Chabalala, K., Boyana, S., Kolisi, L., Thango, B., & Lerato, M. (2024). Digital technologies and channels for competitive advantage in SMEs: A systematic review. *SSRN*. <https://doi.org/10.2139/ssrn.4977280>
- Ezechi, O. N., Famoti, O., Ewim, C. P. M., Eloho, O., Muiyiwa-Ajayi, T. P., Igwe, A. N., & Ibeh, A. I. (2025). Service quality improvement in the banking sector: A data analytics perspective. *International Journal of Advanced Multidisciplinary Research and Studies*, 5(1), 958–971.
- Faoziansyah, G., Rohayati, Y., & Iqbal, M. (2024). Uncovering true participant needs in SMEs training to enhance training service quality. *International Journal of Innovation in Enterprise System*, 8(1), 12–21.

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- Gamini, S. P., & Rajapaksa, R. (2020). Strategic supply chainmanagement for SMEs: A pathway for enhanced service delivery. *Asian Journal of Management Sciences*, 8(2), 45–59.
- Ghasemy, M., Teeroovengadum, V., Becker, J. M., & Ringle, C. M. (2020). This fast lane modeling technique: A tutorial on PLS-SEM using SmartPLS. *International Journal of Contemporary Hospitality Management*, 32(1), 331–356. <https://doi.org/10.1108/IJCHM-04-2019-0377>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning. <https://doi.org/10.1002/9781119409137>
- Hart, P. F., & Rodgers, W. (2024). Competition, competitiveness, and competitive advantage in higher education institutions: A systematic literature review. *Studies in Higher Education*, 49(11), 2153–2177.
- Ighomereho, S. O., Ojo, A. A., Omoyele, S. O., & Olabode, S. O. (2022). From service quality to e-service quality: Measurement, dimensions and model. *arXiv preprint*. <https://doi.org/10.48550/arXiv.2205.00055>
- Isaac, S. (2023). *Applied research methods in business and management sciences*. Springer. <https://doi.org/10.1007/978-3-031-15347-5>
- Kamukama, N. (2013). Intellectual capital: Company's invisible source of competitive advantage. *Competitiveness Review*, 23(3), 260–283. <https://doi.org/10.1108/10595421311319856>
- Karia, N. (2018). Knowledge resources, technology resources and competitive advantage of supply chainservice providers. *Knowledge Management Research & Practice*, 16(4), 451–463.
- Kedi, W. E., Ejimuda, C., Idemudia, C., & Ijomah, T. I. (2024). AI chatbot integration in SME marketing platforms: Improving customer interaction and service efficiency. *International Journal of Management & Entrepreneurship Research*, 6(7), 2332–2341.
- Khan, K. A., Ma, F., Akbar, M. A., Islam, M. S., Ali, M., & Noor, S. (2024). Reverse supply chainpractices: A dilemma to gain competitive advantage in manufacturing industries of Pakistan with organization performance as a mediator. *Sustainability*, 16(8), 3223.
- Khan, S. A. R., Sheikh, A. A., Hassan, N. M., & Yu, Z. (2024). Modeling the intricate association between sustainable service quality and supply chain performance: Moderating role of blockchain technology and environmental uncertainty. *Sustainability*, 16(11), 4808.
- Khawka, Z. M. H., Abd Rahman, A., Sidek, S. B., Ahmed, S. A. B., Al-Hadeethi, R. H. F., & Al-Dabbagh, T. (2025). Effect of lean supply chain on competitive advantage: A systematic literature review. *Cogent Business & Management*, 11(1), 2370445.
- Korucuk, S., & Aytekin, A. (2024). Assessing the problems encountered by companies using e- supply chainvia a Polytopic fuzzy methodology: A case of Giresun province. *Spectrum of Engineering and Management Sciences*, 2(1), 36–45.
- Liora, F., & Susanto, P. (2025). Analyzing the implementation of Internet of Things to enhance service quality at Bobocabin The Tavia, Bogor. *Gema Wiralodra*, 16(1), 122–132.
- Lo, Y. C., Lu, C., Chang, Y. P., & Wu, S. F. (2024). Examining the influence of organizational commitment on service quality through the lens of job involvement as a mediator and emotional labor and organizational climate as moderators. *Heliyon*, 10(2).
- Lu, H., & Shahrudin, M. S. (2024). Role of digital transformation for sustainable competitive advantage of SMEs: A systematic literature review. *Cogent Business & Management*, 11(1), 2419489.
- Luan, X. L., Wang, W., & Yu, Y. (2023). Examining the effect of supply chainservice quality components on customer satisfaction and reuse intention. *PLOS ONE*, 18(6), e0286382. <https://doi.org/10.1371/journal.pone.0286382>
- Mafini, C., & Omoruyi, O. (2013). supply chainbenefits and challenges: The case of SMEs in a South African local municipality. *The Southern African Journal of Entrepreneurship and Small Business Management*, 6(1), 145–167.
- Malhotra, G., & Kharub, M. (2025). Elevating supply chainperformance: Harnessing the power of artificial intelligence in e-commerce. *The International Journal of supply chainManagement*, 36(1), 290–321.
- Maltz, A. C., Shenhar, A. J., & Reilly, R. R. (2003). Beyond the balanced scorecard: Refining the search for organizational success measures. *Long Range Planning*, 36(2), 187–204. [https://doi.org/10.1016/S0024-6301\(03\)00003-4](https://doi.org/10.1016/S0024-6301(03)00003-4)
- Marjan, Y., Hasanah, U., Muliatie, Y. E., & Usman, I. (2022). Logistic capability and total quality management practice on SME's performance. *Journal of Distribution Science*, 20(7), 97–105.

- Nafei, W. A., Ghoneim, M. A., Mujtaba, B. G., & Khanfar, N. M. (2025). Digitalization as a socioeconomic challenge: Assessing the mediating role of digital service quality on digitalization's impact on sustainable competitive advantage. *SocioEconomic Challenges*, 9(1).
- Nugroho, Y. A., Iskandar, J., Novitasari, D., & Asbari, M. (2024). Transforming manufacturing service quality through enhanced innovation capabilities. *Indonesian Journal of Management and Economic Research (IJOMER)*, 1(2), 30–41.
- Nyangoma, D., Adaga, E. M., Sam-Bulya, N. J., & Achumie, G. O. (2024). Operational excellence in SMEs: A conceptual framework for optimizing supply chain and service delivery systems. *Journal of Frontiers in Multidisciplinary Research*, 5(1), 149–156.
- Ochuba, N. A., Olutimehin, D. O., Odunaiya, O. G., & Soyomb, O. T. (2024). A comprehensive review of strategic management practices in satellite telecommunications, highlighting the role of data analytics in driving operational efficiency and competitive advantage. *World Journal of Advanced Engineering Technology and Sciences*, 11(2), 201–211.
- Phan, B., Long, R., Heng, L., & Breng, T. (2025). Logistic service quality innovation: Unlocking competitive advantage in supply chain management. *Journal of Economics, Business, and Commerce*, 2(1), 245–261.
- Phan, K. T., Dat, N. H. T., & Van Hai, H. (2025). A Bibliometric Analysis of the Relationship Between Green supply chain Management Practices and Firm Performance. *Global Business & Finance Review*, 30(4), 1.
- Rashid, D. A., & Rasheed, D. R. (2024). supply chain service quality and product satisfaction in e-commerce. *SAGE Open*, 14(1), 21582440231224250. <https://doi.org/10.1177/21582440231224250>
- Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. (2022). PLS-SEM: Indeed a silver bullet. *SmartPLS GmbH*. <https://www.smartpls.com/documentation>
- Rochmah, N. S., Hendrayati, H., & Hurriyati, R. (2024, June). The influence of competitive advantage and service quality towards customer satisfaction of Ranca Upas tourism in Bandung City. In *8th Global Conference on Business, Management, and Entrepreneurship (GCBME 2023)* (pp. 788–793). Atlantis Press.
- Ruangtip, P., Rueboon, W., Jornkokgoud, K., & Faysal, M. (2024). The role of trust in mediating the effect of blockchain and e-payment on supply chain 4.0 and supply chain capabilities in Thailand. *Global Business & Finance Review (GBFR)*, 29(7), 168–182.
- Sann, R., Pimpohnsakun, P., & Booncharoen, P. (2024). Exploring the impact of supply chain service quality on customer satisfaction, trust and loyalty in bus transport. *International Journal of Quality and Service Sciences*, 16(4), 519–541.
- Sodikin, M., & Susilowati, S. (2024). Competitive advantage development model with supply chain competence. *Journal of Digital Marketing and Halal Industry*, 6(1), 123–136.
- Sojipun, W., Aziz, Z. A., & Zain, R. M. (2024). A purpose conceptual framework to examine the correlation of supply chain service quality, supply chain performance & competitive advantage of supply chain service providers in Thailand. *Journal of Technology and Operations Management*, 19(1), 11–23.
- Sreejesh, S. (2024). Integrated banking channel service quality (IBCSQ): Role of IBCSQ for building consumers' relationship quality and brand equity. *Journal of Retailing and Consumer Services*, 76, 103616. <https://doi.org/10.1016/j.jretconser.2024.103616>
- Sugiono, A., Rahmat, N., & Naway, A. (2023). Supply chain policy and supply chain capability's influence on supply chain integration and competitive advantage in SMEs. *Uncertain Supply Chain Management*, 11(3), 1013–1025. <https://doi.org/10.5267/j.uscm.2023.3.010>
- Tang, Y. M., Chau, K. Y., Kuo, W. T., & Liu, X. X. (2024). IoT-based information system on cold-chain supply chain service quality (ICCLSQ) management in supply chain 4.0. *Information Systems Frontiers*, 26(2), 689–708.
- Thomas, G. (2022). *How to do your research project: A guide for students* (5th ed.). SAGE Publications. <https://doi.org/10.4135/9781529783093>
- Tolossa, A. T., Singh, M., & Gautam, R. K. (2024). Unveiling the nexus: The crucial role of competitive advantage in bridging entrepreneurial marketing practices and sustainable firm performance in small and medium enterprises. *Journal of Innovation and Entrepreneurship*, 13(1), 43.
- Tri, N. C. (2024). The impact of industry 4.0 adoption barriers on supply chain capacity and operational efficiency: empirical evidence in Vietnamese Transport supply chain Industry. *Global Business & Finance Review (GBFR)*, 29(7), 126–139.

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Service Quality in Jordanian SMEs: Examining the
Mediating Effect of Competitive Advantage within
the SERVQUAL Framework

Tsiu, S. V., Ngoben, M., Mathabela, L., & Thango, B. (2025). Applications and competitive advantages of data mining and business intelligence in SMEs performance: A systematic review. *Businesses*, 5(2), 22.

Tukamuhabwa, B., Mutebi, H., & Kyomuhendo, R. (2023). Competitive advantage in SMEs: Effect of supply chain management practices, supply chain capabilities and supply chain integration in a developing country. *Journal of Business and Socio-Economic Development*, 3(4), 353–371.

Uvet, H., Dickens, J., Anderson, J., Glassburner, A., & Boone, C. A. (2024). A hybrid e-supply chain service quality approach: Modeling the evolution of B2C e-commerce. *The International Journal of supply chain Management*, 35(4), 1303–1331.

Van Nguyen, N., & Ngoc, T. T. B. (2024). Service quality as a catalyst for competitive advantage and business performance in hotel industry: An empirical analysis by PLS-SEM algorithm. *International Journal of Analysis and Applications*, 22, 141–141.

Wijaya, P. Y., & Suasih, N. N. R. (2020). The effect of knowledge management on competitive advantage and business performance: A study of silver craft SMEs. *Entrepreneurial Business and Economics Review*, 8(4), 105–121