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Article

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The mediating effect of service quality on the relationship between logistics resources and sustainable competitive advantage in Iraqi Kurdistan hotels

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ABSTRACT

Logistics resources play a critical role in shaping service quality and maintaining organizational competitiveness. This study examines how service quality (SQ) and logistics resources (LR) affect the sustainable competitive advantage (SCA) of hotels in Kurdistan, Iraq. Importantly, this study addresses a limited body of research in the Middle East, contributing a unique viewpoint on the relationship between logistics resources and service quality dynamics in the region. A questionnaire was employed to gather data from 152 hotel managers in Kurdistan, Iraq. The results indicate that sustainable competitive advantage was influenced by both the direct and indirect effects of service quality. When considering the role of service quality as a mediator, it was identified that it had a partial mediation effect on the relationship between logistics resources and sustainable competitive advantage. The findings provide an opportunity for practitioners to gain clear knowledge on the mediating effect of service quality between logistics resources and sustainable competitive advantage in the hotel industry. It can assist hotel managers in the region in focusing on and developing their service levels, particularly empathy, tangibles, reliability, responsiveness, and sensory, to achieve a sustainable competitive advantage. Furthermore, the study will provide benefits for the relevant authorities to emphasize strategic policy.

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1. Introduction

Nowadays, logistic issues are very critical in many organizations. To gain a competitive advantage in a highly competitive market, organizations have made necessary efforts to implement new strategic approaches within their own establishments (Christopher, 2022; Takwi & Mavis, 2020). In other words, logistics is critical to organizations' pursuit of more effective management systems.

Logistics resources and capabilities are pivotal for logistics service providers (LSPs) aiming to successfully navigate the competitive market landscape. While the effective leveraging of logistics resources has been associated with the attainment of a competitive advantage through the fulfillment of client demands and delivery of value-added services (Pengman et al., 2022), a prominent gap exists in understanding the role of innovation in this context. Specifically, Dai et al. (2020) highlighted that innovation in logistic services is foundational for LSPs to remain competitive. Yet, as Karia (2022) observed, many LSPs, despite the growing emphasis on innovation, continue to operate with limited resources and a lack of service enhancement.

Grounded in the broader canvas of resource-based theory (RBT), our exploration suggests that intrinsic organizational strengths can be harnessed for sustainable competitive dominance. This theoretical framework provides a lens through which the relationship between logistics capabilities and competitive advantage can be examined.

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The service sector is the fastest-growing global economic growth driver, accounting for two-thirds of global trade and being the fastest-growing sector in terms of gross domestic product (GDP) (Taniyev et al., 2023). Similarly, the service sector in the Kurdistan Region is continuously growing, especially for the tourism industry. Tourism in the Kurdistan region of Iraq is ranked second after the oil sector in providing high revenues to the region's budget, as there are more than two million tourists visiting the country annually (Hassan et al., 2020). As a critical component of the tourism industry, the hotel service sector is pivotal in domestic income generation, contributing to an estimated 40–50% of government revenue (Ali et al., 2021; Al-Jaf et al., 2020; Khansa et al., 2022).

The selection of Kurdistan as the focal point for this study offers more than just a geographical perspective. As an autonomous entity within Iraq, akin to Quebec in Canada, Kurdistan's unique governance and its burgeoning tourism industry provide a rich tapestry for examining logistics services and competitive advantage dynamics (Hassan et al., 2020; Pengman et al., 2022). Through this lens, our study aims to bridge existing knowledge gaps, shedding light on the intricacies of LSPs' role in the hotel industry of Kurdistan and beyond.

2. Research gap

The domain of sustainable competitive advantage has witnessed substantial contributions in business research over recent years. However, the delineation between logistics resources and capabilities, especially within the hospitality domain, remains under-researched.

Numerous studies have explored competitive advantage in logistics management, predominantly from the perspective of logistics users (Karia, 2022). Notably, there exists a dearth of studies specifically targeting logistics service providers (Kök et al., 2020; Meathawiroon & Wanarat, 2022; Pengman et al., 2022; Phaxaisithidet & Banchuen, 2020). Initial explorations into logistics resources were initiated by Lyu et al. (2019), and while subsequent research followed (Karia, 2022; Nordin et al., 2022), the lens of service providers remains underutilized. This oversight neglects the valuable insights of LSPs, key stakeholders in hotel industry operations.

Moreover, extant literature exhibits an inclination towards tangible resources and capabilities as foundational elements of competitive advantage (Boonklum et al., 2020; Laurén, 2023; Supriyadi, 2020). This trajectory often minimizes the significance of intangible resource variables, such as knowledge and innovation resources. When scrutinizing the competitive dynamics of LSP firms, these facets remain inadequately explored. Additionally, conventional research paradigms for competitive advantage prioritize determinant factors, with scant attention paid to the mediating role of service quality (Kankam, 2022; Vijaya & Rahayu, 2021). For LSPs to efficaciously operate, a comprehensive understanding of the interconnections between resources, service quality, and sustainable competitive advantage is imperative.

The practical impact of the study emerges as, firstly, there is no similar previous research reported or published in the Kurdistan Region. Secondly, the study's findings should provide a clear understanding of the importance of logistics management for practitioners in the region.

In light of the gaps identified in existing research and the growing importance of logistics in the hotel sector, particularly in the Kurdistan region, this study aims to investigate the factors that contribute to gaining a competitive advantage for LSPs in the Kurdistan hotel industry. Specifically, the research examines the role of logistics resources and capabilities, with an emphasis on knowledge and innovation resources, as well as the mediating function of service quality in the relationship between these resources and sustainable competitive advantage.

3. Literature review

3.1. Logistics resources

The term logistics resources refer to both the personnel and materials that are currently available or required to meet the needs of a core operation and its associated ancillary functions. These resources include material and immaterial components (Cámara Rodrigo, 2023; Waters, 2021).

Sugiarno and Novita (2022) classified the organization's resources as either internal or external. The presence of a working model is essential for collecting the three types of business resources, namely input, asset, and talent, in a tangible and comprehensive manner in order to manage these resources logistically. These sources, also known as logistic sources, include input factors, assets, and competencies (Sugiarno & Novita, 2022).

In addition to capabilities, logistics assets and inputs can also be utilized during logistics operations. When input factors are utilized in a logistics activity, they become an asset or capability of logistics. Therefore, logistics assets and skills can be classified as logistics resources if they are considered collectively within a framework based on resources. Although there are many studies published on logistics capabilities, none have examined logistics assets and talents collectively under the title logistics resources. To this end, a list of logistics assets and capabilities has been identified using the academic literature, gathering logistic assets as knowledge and innovation resources (K&IR), human resources (HR), technological resources (TR), and operational resources (OR) (Boonklum et al., 2020; Evangelista et al., 2023; Hasan et al., 2021; Kök et al., 2020; Lyu et al., 2019; Nordin et al., 2022; Yusriadi, 2021).

Research studies often consider logistics resources collectively due to their interdependence, resource-based theory (RBT) perspective, practical relevance, and statistical limitations (Hossain et al., 2022; Karia, 2022; Özbağ & Arslan, 2020; Tukamuhabwa et al., 2021). This approach captures the holistic nature of logistics operations, aligning with real-world practices and managerial decision-making, and providing practical insights for enhancing capabilities and sustainable competitive advantage (Lambert & Stock, 1993, as cited in Tukamuhabwa et al., 2021).

3.2. Service quality

Service quality includes meeting customer needs and achieving technical excellence, where the objective quality is formed by the product features and the perceived quality by users (Hussain et al., 2021). It is a multidimensional concept that contrasts between predictable and apparent services. Mitropoulou and Tsoulfas (2021) evaluated the quality of service in the field of service operators using the SERVQUAL proposal and several specific items in the field of application. They concluded that a standard instrument for measuring service quality is necessary for the service environment and the supply chain in general. Parasuraman et al. (1985), as cited in Mitropoulou and Tsoulfas (2021), developed five basic dimensions: reliability, responsiveness, assurance, empathy, and tangible components.

Understanding consumer expectations is crucial for exceptional service (Hussain et al., 2021; Kukanja & Planinc, 2018). Managers are responsible for designing how to achieve a specific goal, which may involve establishing service objectives and creating opportunities to improve service quality standards. Managers who are oblivious to customer expectations may convey the perception that their service lacks quality (Al-Gasawneh et al., 2021). Thus, managers' perspectives must be incorporated into service quality research to improve service firms' performance and sustainability. This paper considers six dimensions to measure responsiveness: tangibles (Tan), reliability (Rel), responsiveness (Resp), assurance (Asur), empathy (Emp), and sensory (Sen) by Al-Jaf et al. (2020); Hassan et al. (2020); Papademetriou et al. (2022).

3.3. Sustainable competitive advantage

A sustainable competitive advantage is defined as a competitive edge that is difficult to replicate or eliminate. It can be sustained for a limited time and serves as the foundation for a company's long-term superior performance (Hossain et al., 2021).

According to Barney (1991); Barney (1995); and Barney and Clark (2007), as cited in Mahdi et al. (2019), dimensions of sustainable competitive advantage are valuable, rare, and inimitable. A sustainable competitive advantage implies that the hotel's resources and capabilities are not easily replicated by competitors. It provides long-term benefits and allows the hotel to consistently outperform rivals in terms of service quality (Al-Gasawneh et al., 2021; Arachchige et al., 2021; Hossain et al., 2021). This advantage creates barriers to entry for new competitors and reinforces customer loyalty, leading to sustained success in the industry.

3.4. The effect of logistics resources on service quality and sustainable competitive advantage

Limited research has investigated the connection between logistics resources and sustainable competitive advantage (SCA) within sectors such as hospitality and tourism. Sugiono et al. (2023) found that logistics capability positively influences SCA, which in turn affects organizational performance. Hossain et al. (2022) found that logistics resources, such as efficient transportation systems and inventory management, contribute to SCA in hotels. Tukamuhabwa et al. (2021) found that effective supply chain management, which includes logistics-related capabilities, improves hotel performance and SCA.

Similarly, limited studies are done on logistics management that have made attempts to study which abilities in logistics service are the drivers of service quality (Gupta et al., 2018; Gupta & Singh, 2020; Yu et al., 2017). Ahimbisibwe et al. (2016) reported a strong correlation between logistics service quality, third-party logistics provider presentation, information technology capacity, and acceptance of information technology. The results also showed that the effectiveness of third-party logistics providers is significantly predicted by IT acceptance and logistics service quality.

Additionally, Fernandes et al. (2018) conducted a study on the relationship between logistics service quality and capabilities, proposing three distinct categories of logistics service providers. Structural Equation Modelling (SEM) revealed that the evidence supporting the link between logistics capability and service quality was weak. In contrast, Yu et al. (2017) observed that both relationship flexibility and logistical flexibility possess distinct capabilities that notably enhance the manufacturer's logistics service quality. This enhancement subsequently results in increased commitment and satisfaction for the manufacturer in its relationships with key accounts. Thus, it is important for hotels to stay updated with the latest developments in knowledge, innovation, technology, and human resources to continuously improve service quality. Integrating technologies like mobile apps, AI, IoT, and contactless solutions, alongside investing in staff training and empowerment, can lead to the personalization of experiences, operational efficiency, and an enhanced competitive advantage in the hotel industry (Hasan et al., 2021; Muriithi et al., 2023). So, the following hypotheses are stated:

H1: Logistics resources have a positive impact on service quality.

H2: Logistics resources have a positive impact on sustainable competitive advantage.

3.5. The impact of service quality on sustainable competitive advantage

Excellent service quality creates top levels of completeness, which deliver mainly numerous activities in the market and lead to sustainable competitive benefits (Kankam, 2022). The relationship between service quality and SCA has been widely investigated by academia globally. Phaxisithidet and Banchuen (2020) concluded that LSPs must improve their service superiority levels to enhance sustainable competitive advantage.

Hassan et al. (2020) found managers for tourism businesses in Erbil perceived the effect of bettering mental imagery on the quality of tourism services. The findings of this study supported the evidence that aspects of tourism service quality significantly and favorably influence the development of mental imagery.

In the Jordanian insurance market, Sweis et al. (2018) investigated the relationship between SQ and SCA accomplishment. They found a statistically significant association between responsiveness, empathy, and sustainable competitive advantage, but none between tangibility, reliability, assurance, and SCA.

For hotel and spa managers in Greece, Bakirtzoglou et al. (2018) examined which aspects of SQ are most crucial to their ability to satisfy clients. The findings indicated that three SERVQUAL model variables—responsiveness, reliability, and tangibles—were the most effective predictors of managers' perceptions.

Likewise, Kukanja and Planinc (2018) studied the effect of managers' perceptions of quality on restaurant operational profitability. Interestingly, only three of the five quality dimensions of managers' perceptions (i.e. empathy, assurance, and tangibles) had a statistically significant impact on the overall quality of a restaurant. Other quality indicators were statistically insignificant.

Chen et al. (2016) focused on hot springs hotels in Taiwan and explored the effect of SQ on tourist satisfaction. They examined service quality dimensions from the hotel manager's perspective and highlighted how meeting tourists' service expectations can contribute to sustainable competitive advantage. So, the following hypothesis is stated:

H3: Service quality has a positive effect on sustainable competitive advantage.

3.6. The mediating influence of service quality on the relationship among logistics resources and sustainable competitive advantage

Service quality has gained significant attention as a mediator in various research contexts, emphasizing its pivotal role in strengthening and clarifying relationships between primary variables (Kankam, 2022; Phaxisithidet & Banchuen, 2020). This is particularly notable in logistics, where the intersection of service quality, resources, and competitive advantage is intricate.

From a managerial perspective, understanding the mediating impact of service quality on the relationship between logistics resources and sustainable competitive advantage is crucial. This helps managers conceptualize and strategize these relationships in practical scenarios. For instance, Meathawiroon and Wanarat (2022), although not directly exploring sustainable competitive advantage, probed into the mediating role of service capability, a facet closely aligned with service quality. Their research underscored the significance of supply chain integration and posited the enhanced role of service capability on performance outcomes. Their findings are mirrored in more recent investigations, which emphasize the transformative power of integrated service capabilities in determining the competitive advantage of businesses (Meathawiroon & Wanarat, 2022).

Phaxisithidet and Banchuen (2020) delved into the pivotal role of logistics service providers (LSPs) within supply chain management. Their insights revealed the potential of LSPs to augment service quality, a step that can uplift supply chain performance, further solidifying the foundation for sustainable competitive advantage. This notion is further corroborated by more recent studies suggesting that an elevation in service quality can invariably lead to a distinct competitive advantage in the fast-evolving marketplace (Chaniago & Mudjiardjo, 2021; Phaxisithidet & Banchuen, 2020; Vijaya & Rahayu, 2021).

Arshad and Su (2015) navigated the intricate relationship between service delivery innovation and service quality within an applied system. Their model intricately weaves service capacity, dynamic ability, and client support rehearsals, theorizing the mediating role of customer support. They proposed that customer support bridges the gap between service delivery advancements and service quality, facilitating the extraction of higher service quality from both limited and significant operant resources.

Drawing from the above literature and building on the theoretical justification from Memon et al. (2018), this research hypothesizes:

H4: Service quality mediates the effect between logistics resources and sustainable competitive advantage.

3.7. Resource-based theory

Resource-based theory (RBT) concentrates on the interconnectedness of a company's resources, including tangible and intangible assets. Companies are considered packages of resources that can influence performance (Ofori & Appiah-Nimo, 2022). RBT acknowledges the importance of sustainable competitive advantage (SCA) and recognizes that organizations within an industry are heterogeneous in their strategic resources (Ofori & Appiah-Nimo, 2022). Barney (1991); Peteraf (1993); and Wernerfelt (1984), as cited in Baia et al., (2020), have all made significant contributions to the development of resource-based theory (RBT). RBT, as proposed by Baia et al. (2020), outlines four key rules for assessing the economic implications of resources: value, rarity, inimitability, and organizational support. The heterogeneity of resources contributes to competitive advantage, as they are not entirely immutable for competing organizations.

The conceptual framework for this study may be constructed as depicted in Figure 1 based on the literature review (Cámara Rodrigo, 2023; Hasan et al., 2021; Kankam, 2022; Karia, 2018; Khan et al., 2019;

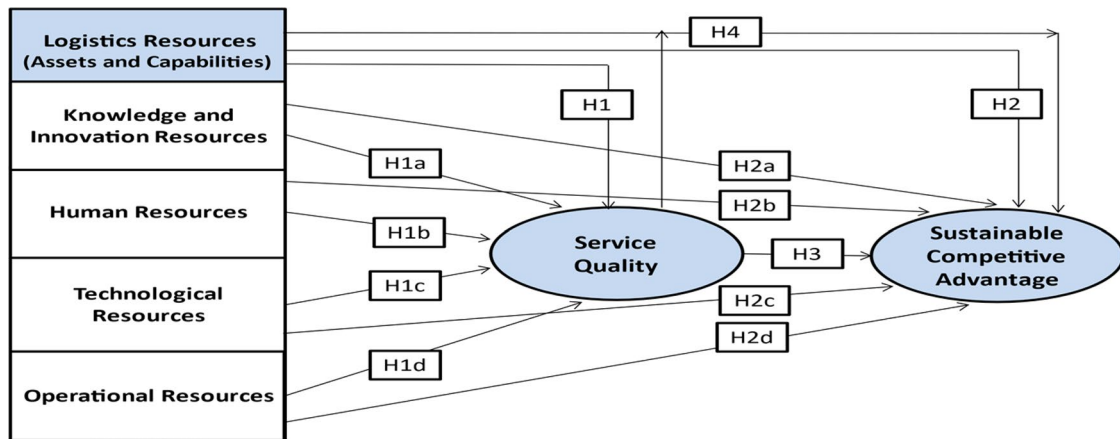


Figure 1. Conceptual framework.

Kusumadewi & Karyono, 2019; Laurén, 2023; Lyu et al., 2019; Nordin et al., 2022; Papademetriou et al., 2022; Sweis et al., 2018; Tukamuhabwa et al., 2021; Vijaya & Rahayu, 2021; Yusriadi, 2021).

4. Methodology

4.1. Research design and population

This study employed a quantitative technique, utilizing cross-sectional data collection to empirically evaluate the proposed model. Large hotels operating within the Kurdistan region of Iraq, specifically hotel managers were the focal point. These professionals are posited to possess robust knowledge concerning logistics resources, service quality perceptions, and sustainable competitive advantage within the hotel domain. In 2022, the region boasted 209 active hotels, offering a cumulative total of 23,341 rooms. As such, 209 questionnaires were disseminated to hotel managers across this geographical expanse.

4.2. Instrumentation

The self-administered questionnaire was meticulously designed to capture the nuances of the study. It was comprised of four distinct segments. The first segment is the logistics resources scale, with 23 items spanning K&IR, HR, TR, and OR categories, anchored in previous scholarly works (Ameen, 2022; Aziz, 2017; Boonklum et al., 2020; Evangelista et al., 2023; Hasan et al., 2021; Kankam, 2022; Karia, 2018; Kök et al., 2020; Lyu et al., 2019; Magova & Kessy, 2020; Mao et al., 2016; Meathawiroon & Wanarat, 2022; Nieves & Quintana, 2018; Nordin et al., 2022; Yusriadi, 2021). The second is the service quality scale, which contains 17 items gauging tangibles, reliability, responsiveness, assurance, empathy, and sensory aspects, informed by extant literature (Al-Gasawneh et al., 2021; Al-Jaf et al., 2020; Kankam, 2022; Louis, 2017; Mitropoulou & Tsoulfas, 2021; Njoroge, 2016; Papademetriou et al., 2022; Sweis et al., 2018; Wijetunge, 2016). The third segment, the sustainable competitive advantage scale, consists of 23 items categorically divided into value, rarity, inimitability, and organizational support components (Arachchige et al., 2021; Hossain et al., 2021; Kim et al., 2015; Kök et al., 2020; Mahdi et al., 2019; Njoroge, 2016; Supriyadi, 2020; Sweis et al., 2018; Syarifuddin, 2017). The final section captures the demographics of the respondents, detailing their professional and personal particulars.

4.3. Pilot study and pre-testing

Before the main study, a preliminary test was conducted to hone the survey instrument. This involved soliciting expert feedback from sectors spanning resource management, logistics, and tourism. The critiques and feedback ensured the refinement of statement articulation and question design, bolstering the survey's overall reliability and validity. As part of this pilot phase, a subset of 20 questionnaires was

distributed, yielding 17 responses. These initial findings were instrumental in refining the instrument. The Cronbach's alpha scores for the variables affirmed the instrument's reliability: while most latent variables manifested alpha values exceeding 0.7, operational resources, assurance, and sustainable competitive advantage recorded values surpassing 0.9 (George & Mallery, 2021).

4.4. Sampling technique

The study adopted a stratified random sampling modality to represent the diverse hotel landscape of the Kurdistan region, specifically focusing on the cities of Erbil, Duhok, and Sulaymaniyah. Within this stratified approach, the predominant focus was on managers of large hotels, given their pivotal role in the industry. The advantage of such stratification is its prowess in reducing intra-group variance, thereby enhancing statistical precision. To maintain representation integrity, proportional allocation was employed, mirroring the prevalence of each subgroup in the region. To ascertain the optimal sample size, both the G*Power analysis and the Krejcie and Morgan (1970) table were considered. These methods recommended sample sizes of 89 and 136, respectively. However, factoring in potential sampling anomalies and non-responses, a decision was made to target the comprehensive population of 209.

4.5. Data collection and analysis

Throughout the survey's deployment phase, 154 responses were received, translating to a 74% response rate. A thorough review of these submissions revealed two incomplete entries, leaving 152 valid responses (equating to a 73% usable rate) for subsequent analyses. For the analytical phase, the partial least squares (PLS) path modeling technique, a subset of structural equation modeling (SEM), was chosen. This approach was deemed apt for dissecting both measurement and structural models, utilizing the 152 validated questionnaires (Hair et al., 2019).

The study's target is to empirically investigate the factors that influence LSP hotels to maintain their competitive advantage in the hotel logistics industry of Iraqi Kurdistan. In order to achieve this, the following supporting objectives are perceived: (1) examining the relationship between the hotel's logistics resources (K&IR, HR, TR, and OR), service quality, and sustainable competitive advantage; (2) examining the effect of SQ and SCA in LSP; and (3) examining the mediating impacts of SQ on the relationship among logistics resources and the hotel's sustainable competitive advantage.

5. Findings

According to Hair et al. (2014), who suggested that a minimum sample size of 10–15 observations per latent variable is generally acceptable for PLS–SEM. Thus, with 10 latent variables, a sample size of 152 could be considered acceptable. The responses were classified into early and late responses, with 106 (69.74%) received within the first 6 weeks (30.26%) after. The independent sample t-test was used to identify non-response bias in the variables, and Levene's test for equality of variances yielded significance values above 0.05 (Goss-Sampson, 2019). The independent sample t-test revealed no significant differences between early and late response groups, indicating that the study did not suffer from non-response bias.

Biases arising from single-source data were methodically treated. To mitigate potential biases, hotel managers were assured of confidentiality and the study's educational intent. The expansion of scale items further aims at reducing single-source bias. Harman's single-factor test, a trusted technique for addressing such biases (Kock, 2020), was employed. The results demonstrated that neither a single factor nor a general factor predominated in the covariance of the measures. With only 35.409% of the variance attributed to a single factor, it was ascertained that biases from single-source data were effectively managed in this study.

5.1. Demographic results

The demographics of respondent managers, including gender, age, educational level, managerial experience, job position, and number of permanent employees are detailed in Table 1.

Table 1. Demographics of respondent managers.

Characteristics	Classification	Frequency	Percentage
Gender	Male	144	95
	Female	8	5
Age	Less than 24 years	8	5
	25 to 30 years	38	25
	31 to 40 years	56	37
	41 to 50 years	33	22
	More than 55 years	17	11
Educational background	Primary school	4	3
	Secondary school	13	9
	High school	25	16
	Bachelor	95	62
	Master	13	9
Work experience	PhD	2	1
	Less than a year	2	1
	1–3 years	22	14.5
	4–6 years	30	20
	More than six years	98	64.5
Your duty at the hotel	Hotel manager	96	63
	Assistant hotel manager	23	15
	Business owner	21	14
	Purchasing manager	2	1
	HR manager	4	3
	Operation manager	2	1
	Reception department manager	2	1
	Hotel relationship manager	1	1
	Rooms divisions manager	1	1
Working in this position	1 Year or Less	17	11
	2–3 Years	30	20
	4–5 Years	18	12
	5 Years and above	87	57

5.2. Measurement model

The objective step of this model is to assess the factor loadings (FL), ‘composite reliability’ (CR), ‘Cronbach’s alpha’ (CA), ‘average variance extracted’ (AVE), and discriminant validity. The absolute loading threshold for indicators should exceed 0.7 (Hair et al., 2020). As a result, signs with a loading larger than 0.70 are considered important. According to Hair et al. (2020), however, items with item loadings around 0.5 and 0.7 may be maintained if the variance recovered for latent variables is larger than 0.5. The output of the measurement model is displayed in Table 2.

Each latent variable’s AVE results are displayed in Table 2, and no latent variable has an AVE that is less than 0.5. The calculations shown in Table 2 led to the retention of item loadings between 0.5 and 0.7. Seven loadings were therefore disregarded because they were less than 0.50. These items were eliminated, and the items that remained that measured the specific construct loaded significantly more on that construct than on the other constructs, supporting the validity of that construct.

5.3. Discriminant validity

Discriminant validity denotes the degree of distinction between all items for a given construct and the constructs of other items. In spite of this, discriminant validity was evaluated using the Fornell and Larcker (1981) criterion cited by Hair et al. (2019). According to this method, as shown in Tables 2 and 3, each construct should have a higher square root of AVE correlation with itself than with other constructs. Hair et al. (2019) conducted a study, and furthermore, the heterotrait-monotrait ratio (HTMT) of correlations performed using a specificity criterion rate of 0.85 (HTMT0.85) shows that none of the correlations exceeded 0.85. Consequently, the eleven-construct model establishes discriminant validity, as shown in Table 4.

According to the data reported in Table 2, the discriminant validity is demonstrated by the fact that each construct squared correlation is lower than the AVE for the indicators used to measure the construct. This result indicates that one latent variable more efficiently explains the variation of its own indicators than those of other latent variables that met the standard of Fornell and Larcker (1981, as cited in Hair et al., 2019). The outcome shows that the AVE exceeds the correlations among model constructs.

Table 2. Results of the measurement model.

Constructs	Measurement items	Loading	CR ^a	CA	AVE ^b
K&IR	K&IR1	0.824	0.848	0.779	0.532
	K&IR2	0.832			
	K&IR3	0.746			
	K&IR4	0.536			
	K&IR5	0.668			
HR	HR1	0.575	0.856	0.793	0.546
	HR2	0.699			
	HR3	0.763			
	HR4	0.804			
	HR5	0.826			
TR	TR1	0.658	0.862	0.818	0.531
	TR2	0.661			
	TR3	0.794			
	TR4	0.614			
	TR5	0.689			
	TR6	0.771			
	TR7	0.61			
OR	OR1	0.77	0.872	0.826	0.54
	OR2	0.637			
	OR3	0.487			
	OR4	0.868			
	OR5	0.76			
	OR6	0.822			
Tan	Tan1	0.784	0.857	0.751	0.667
	Tan2	0.816			
	Tan3	0.849			
Rel	Rel1	0.653	0.775	0.589	0.539
	Rel2	0.674			
	Rel3	0.858			
Resp	Resp1	0.759	0.870	0.775	0.691
	Resp2	0.88			
	Resp3	0.851			
Asur	Asur1	0.839	0.874	0.785	0.699
	Asur2	0.868			
	Asur3	0.799			
Emp	Emp1	0.821	0.872	0.779	0.694
	Emp2	0.879			
	Emp3	0.796			
Sen	Sen1	0.898	0.875	0.716	0.778
	Sen2	0.867			
SCA	SCA1	0.713	0.925	0.914	0.513
	SCA2	0.667			
	SCA3	0.474			
	SCA4	0.203			
	SCA5	0.448			
	SCA6	0.386			
	SCA7	0.654			
	SCA8	0.735			
	SCA9	0.675			
	SCA10	0.652			
	SCA11	0.721			
	SCA12	0.671			
	SCA13	0.339			
	SCA14	0.531			
	SCA15	0.230			
	SCA16	0.520			
	SCA17	0.510			
	SCA18	0.546			
	SCA19	0.56			
	SCA20	0.61			
	SCA21	0.649			
	SCA22	0.691			
	SCA23	0.766			

Note: K&IR=Knowledge & Innovation Resources; HR=Human Resource; TR=Technological Resources; OR=Operational Resources; Tan=Tangibles; Rel=Reliability; Resp=Responsiveness; Asur=Assurance; Emp=Empathy; Sen=Sensory; SCA=Sustainable Competitive Advantage.

5.4. Structural model and hypotheses testing

According to Suleiman and Abdulkadir (2022), the suitability of the measurement model for evaluating the estimated path coefficients in relation to the anticipated model-to-study associations is established by the reliability assessments, as well as the convergent and discriminant validity, which

Table 3. Fornell-Larcker criterion.

	K&IR	HR	TR	OR	Tan	Rel	Resp	Asur	Emp	Sen	SCA
K&IR	0.730										
HR	0.581	0.739									
TR	0.546	0.648	0.689								
OR	0.675	0.639	0.687	0.779							
Tan	0.367	0.403	0.619	0.533	0.817						
Rel	0.395	0.439	0.529	0.593	0.542	0.833					
Resp	0.306	0.272	0.443	0.491	0.505	0.555	0.733				
Asur	0.410	0.323	0.459	0.560	0.496	0.644	0.716	0.831			
Emp	0.356	0.390	0.430	0.547	0.398	0.747	0.584	0.725	0.836		
Sen	0.310	0.356	0.569	0.500	0.617	0.491	0.391	0.417	0.381	0.882	
SCA	0.468	0.562	0.685	0.647	0.622	0.622	0.513	0.462	0.507	0.683	0.691

Table 4. Discriminant validity (HTMT criterion).

	K&IR	HR	TR	OR	Tan	Rel	Resp	Asur	Emp	Sen	SCA
K&IR											
HR	0.56										
TR	0.54	0.65									
OR	0.61	0.63	0.69								
Tan	0.34	0.37	0.59	0.51							
Rel	0.27	0.24	0.40	0.45	0.51						
Resp	0.38	0.31	0.44	0.53	0.50	0.70					
Asur	0.32	0.36	0.41	0.52	0.40	0.58	0.73				
Emp	0.36	0.42	0.49	0.56	0.53	0.53	0.65	0.74			
Sen	0.30	0.33	0.55	0.46	0.61	0.36	0.41	0.39	0.48		
SCA	0.48	0.57	0.66	0.60	0.58	0.48	0.43	0.44	0.56	0.65	

collectively affirm the overall quality of the measurement. The present study posits that the service quality dimensions are impacted by various logistics resources (K&IR, HR, TR, and OR) variables, as depicted in Figure 2. Furthermore, it is hypothesized that these variables will subsequently influence the sustainable competitive advantage of hotels.

In order to evaluate the structural model, it is imperative to ascertain the statistical significance of the standardized regression weights, represented by the t-value, for the research hypotheses at various levels of significance, namely 0.01, 0.05, and 0.001. Additionally, the coefficient of determination (standard error) for the endogenous variables must also be determined.

The final step involved testing the proposed hypothesis. The current investigation generated four hypotheses. The outcomes of these hypotheses are explained in detail in Table 5 and illustrated in Figures 3 and 4. The first hypothesis demonstrated that logistics resources have a statistically significant and positive impact ($B=0.682$; $T=16.367$; $P\text{-value} = 0.01$). The first hypothesis is therefore supported. The consequence of this finding is that changes in logistics resources account for 68.2% of the variance in service quality. Thus, a 68.2% increase in service quality is anticipated for every increase in logistics resources.

The second hypothesis suggested that logistics resources significantly and positively influence the SCA. The result of this research indicates that logistics resources have a significant and positive impact on SCA ($B=0.723$; $T=19.685$; $P\text{-value} = 0.01$). Therefore, this is the basis for accepting this hypothesis. This finding showed that a 72.3% increase in SCA is anticipated for every increase in logistics resources. That is to say, this finding proves that logistics resources are an essential contingency factor for the successful implementation of SCA.

The third hypothesis demonstrated that service quality has a statistically significant positive influence on SCA ($B=0.421$; $T=7.459$; $P\text{-value} = 0.01$). This provides the basis for accepting this hypothesis. This result indicates that a 42.1% increase in the SCA is anticipated for every increase in logistics resources. That is to say, this finding proves that service quality is a crucial factor that must be considered for the successful implementation of SCA.

The final hypothesis used in this research examined the mediating impact of LR on SCA via the role of SQ as a mediator. As depicted in Figure 3, logistic resources have a significant effect on sustainable competitive advantage ($c \beta=0.772$, $t=26.104$, $p\text{-value} = 0.000$), indicating that the mediator may engage some or all of this influence. Next, when the mediating construct of service quality is added to the model, the finding demonstrates a significant impact of logistic resources on service quality (a path: $\beta=0.684$, $t=15.814$, $P=0.000$) as well as service quality on SCA (b path: $\beta=0.787$, $t=29.257$, $p=0.000$), as

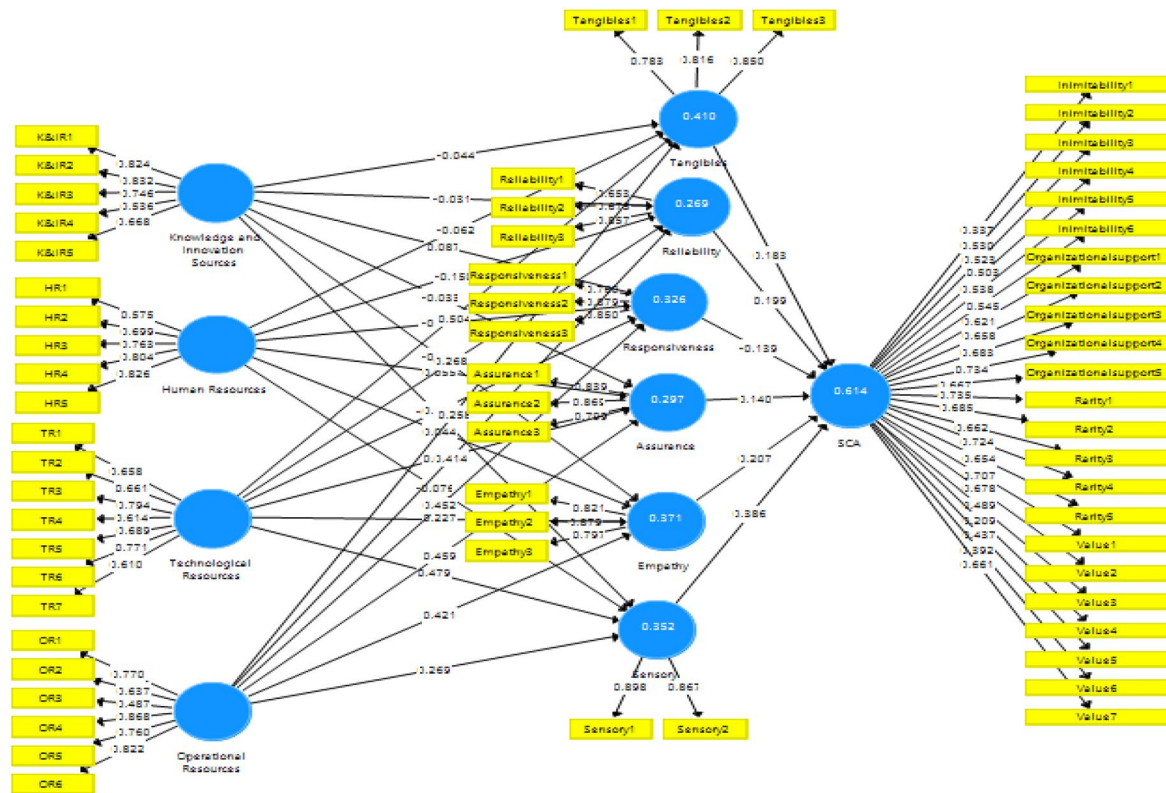


Figure 2. Final structural model.

depicted in Figure 4. The significance of path c becomes less significant ($B=0.538$, $t=11.696$, $p=0.000$). As a result, it is possible to conclude that SQ mediates the influence of LR on SCA.

Therefore, to determine whether a partial or full mediation exists, the strength of mediation was evaluated, and to measure the magnitude of the indirect impact, $VAF = (0.684 \times 0.787) / [(0.684 \times 0.787) + 0.772] = 0.41$, the VAF value was used. The VAF value of 0.411 implies that the indirect effect of service quality only explains 41.1% of the total impact of LR on SCA. With a VAF value of 41.1%, these mediation and strength relationships can be characterized as partial.

5.5. Assessment of the coefficient of determination (R^2)

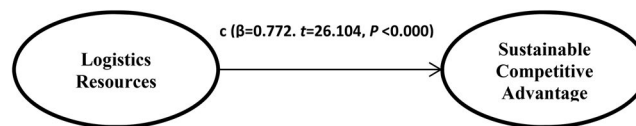
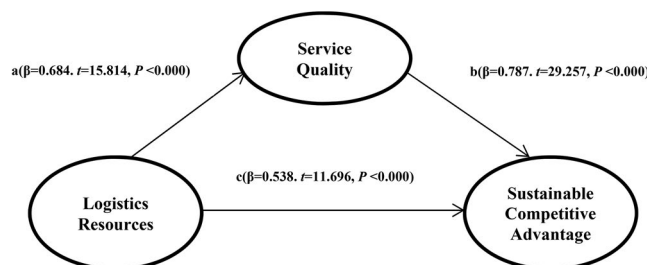
The R^2 value, which denotes the proportion of variation in the dependent variable explained by the independent variable, is a crucial determinant of model accuracy (Hair et al., 2022). In this study, service quality (SQ) had an R^2 value of 0.459, signifying that 45.9% of its variance is explained by logistics resources. Conversely, sustainable competitive advantage (SCA) showed an R^2 value of 0.693, indicating that logistics resources account for 69.3% of its variance. Using the benchmarks provided by Chin (1998, as cited in Hair et al., 2019), the SCA's R^2 surpasses the substantial threshold of 0.67, while the SQ's R^2 exceeds the moderate threshold of 0.33.

5.6 Assessment of prediction relevance (Q^2)

The predictive relevance (Q^2) of the structural model, denoting the model's capability to reproduce observed values, was assessed using the cross-validated redundancy approach as recommended by Hair et al. (2014). Q^2 values greater than zero indicate predictive relevance. Using an omission distance of 7, as defined by Chin (1998, as cited in Fauzi, 2022), the Q^2 analysis highlighted that the model adequately reconstructed observed values for both service quality ($Q^2=0.207$) and sustainable competitive advantage ($Q^2=0.220$), both of which are influenced by logistics resources at moderate levels of 21% and 22%, respectively. This exceeds the threshold set by Hair et al. (2021), confirming the model's predictive relevance.

Table 5. Assessment of the structural model.

Hypotheses	Relationships	Beta	SE	<i>t</i> —Values	<i>p</i> —Values	Decisions
H1	LR → SQ	0.682	0.042	16.367	0.000	Supported
H1a	K&IR → SQ	−0.028	0.093	0.299	0.765	Not Supported
H1a1	K&IR → Tan	−0.046	0.129	0.355	0.723	Not Supported
H1a2	K&IR → Rel	−0.045	0.122	0.369	0.712	Not Supported
H1a3	K&IR → Resp	0.069	0.096	0.722	0.470	Not Supported
H1a4	K&IR → Asur	−0.051	0.105	0.488	0.626	Not Supported
H1a5	K&IR → Emp	−0.054	0.126	0.424	0.672	Not Supported
H1a6	K&IR → Sen	−0.099	0.126	0.787	0.432	Not Supported
H1b	HR → SQ	0.276	0.095	2.439	0.015	Supported
H1b1	HR → Tan	0.097	0.09	3.636	0.000	Supported
H1b2	HR → Rel	0.103	0.013	3.860	0.000	Supported
H1b3	HR → Resp	0.107	0.015	3.893	0.002	Supported
H1b4	HR → Asur	0.097	0.022	3.634	0.000	Supported
H1b5	HR → Emp	0.110	0.013	3.801	0.000	Supported
H1b6	HR → Sen	0.108	0.024	3.073	0.002	Supported
H1c	TR → SQ	0.435	0.086	5.09	0.000	Supported
H1c1	TR → Tan	0.511	0.086	5.928	0.000	Supported
H1c2	TR → Rel	0.269	0.109	2.454	0.014	Supported
H1c3	TR → Resp	0.184	0.119	1.552	0.121	Not Supported
H1c4	TR → Asur	0.092	0.101	0.909	0.364	Not Supported
H1c5	TR → Emp	0.222	0.102	2.19	0.029	Supported
H1c6	TR → Sen	0.476	0.091	5.2	0.000	Supported
H1d	OR → SQ	0.292	0.086	3.381	0.001	Supported
H1d1	OR → Tan	0.252	0.098	2.558	0.011	Supported
H1d2	OR → Rel	0.434	0.1	4.347	0.000	Supported
H1d3	OR → Resp	0.477	0.102	4.658	0.000	Supported
H1d4	OR → Asur	0.486	0.105	4.649	0.000	Supported
H1d5	OR → Emp	0.453	0.107	4.252	0.000	Supported
H1d6	OR → Sen	0.291	0.107	2.721	0.007	Supported
H2	LR → SCA	0.723	0.037	19.685	0.000	Supported
H2a	K&IR → SCA	−0.027	0.1	0.265	0.791	Not Supported
H2b	HR → SCA	0.213	0.095	3.187	0.008	Supported
H2c	TR → SCA	0.426	0.085	5.019	0.000	Supported
H2d	OR → SCA	0.295	0.087	3.386	0.001	Supported
H3	SQ → SCA	0.421	0.056	7.459	0.000	Supported
H3a	Tan → SCA	0.188	0.069	2.736	0.006	Supported
H3b	Rel → SCA	0.178	0.075	2.366	0.018	Supported
H3c	Resp → SCA	−0.166	0.084	1.982	0.048	Supported
H3d	Asur → SCA	0.109	0.082	1.331	0.184	Not Supported
H3e	Emp → SCA	0.249	0.087	2.866	0.004	Supported
H3f	Sen → SCA	0.402	0.074	5.444	0.000	Supported

**Figure 3.** Direct effect between logistics resources and sustainable competitive advantage.**Figure 4.** Mediating model of service quality between logistics resources and sustainable competitive advantage.

5.7 Assessment of effect size (f^2)

The effect size (f^2) complements R^2 in evaluating structural models by observing R^2 changes upon omitting selected exogenous variables (Sarstedt et al., 2021). In this study, f^2 was calculated using the formula

Table 6. Effect size calculation for the model.

Latent variable	R ² included				R ² excluded	f ² Effect size
	SQ	SCA	SQ	SCA	SQ	SCA
K&IR	0.459	0.693	0.458	0.69	0.000 (NONE)	0.000 (NONE)
HR	0.459	0.693	0.42	0.66	0.07 (SMALL)	0.01 (NONE)
TR	0.459	0.693	0.43	0.653	0.053 (SMALL)	0.13 (SMALL)
OR	0.459	0.693	0.423	0.67	0.066 (SMALL)	0.074 (SMALL)

$f^2 = (R^2 \text{ included} - R^2 \text{ excluded}) / (1 - R^2 \text{ included})$. Based on Cohen (1988, as cited in Hair et al., 2019) thresholds, values of 0.02, 0.15, and 0.35 represent small, medium, and large effect sizes, respectively. As presented in Table 6, most variables showed a small effect size ($f^2 > 0.02$) on service quality, except for K&IR, which exhibited no impact. In contrast, for competitive advantage, all constructs barring K&IR and HR showed significant effect sizes in Table 6.

6. Discussion

The findings obtained in this research indicate that SQ in hotels working in the Kurdistan region of Iraq plays a partial mediation role in connecting LR and SCA. However, empirical data showed that SQ is not affected by K&IR since the path coefficient lacked statistical significance and has no direct impact on sustainable competitive advantage directly from hotel managers' perspectives. However, HR, TR, and OR affect SQ and SCA directly from the hotel managers' perspective, and this outcome is similar to the hypotheses stated for this investigation.

This study finding was used to conclude that any hotel operation that seeks to achieve a SCA by being more valuable, rare, unique, and organized necessitates logistics resources involving HR (trained and skilled employed) and both TR (management information systems) and OR (supplier relationships, warehouses, warehouse equipment, team formation, logistics coordination, and fast delivery) in all parties exhibiting efficient service quality. At the same time, hotels must develop SQ that focuses on tangibles, reliability, responsiveness, empathy, and sensory perceptions in order to have SCA.

The results of this research, however, demonstrate that there is no empirical data to support any actual links between knowledge and innovation resources and service quality or between assurance and sustainable competitive advantage. This conclusion must be reconsidered in light of additional data sets that will be collected in future research.

The target of this research has been accomplished through the analysis of data and discussion of the aforementioned findings.

The first hypothesis evaluated the direct relationship between LR and SQ. The results indicate that LR significantly influences SQ. This finding is consistent with previous studies by Yu et al. (2017), Gupta and Singh (2020), Phaxisithidet and Banchuen (2020), Yusriadi (2021), and Arachchige et al. (2021).

The second hypothesis, which states that logistics resources (LR) have a significant effect on sustainable competitive advantage (SCA), has been verified and reported. Firstly, the findings demonstrate that knowledge and innovation resources (K&IR) have an effect on SCA. These findings are consistent with previous results reported by Aziz (2017), Supriyadi (2020), Vijaya and Rahayu (2021), and Meathawiroon and Wanarat (2022). Hotels seek sustainability in order to obtain access to resources and knowledge in areas where they do not have a comparative competitive advantage (Cheraghalizadeh & Tümer, 2017). The results also demonstrated that HR influenced SCA. These findings are supported by competitive advantages (Boonklum et al., 2020; Karia, 2018; Mao et al., 2016; Supriyadi, 2020). Additionally, the study found that HR influences SCA, which is similar to the previous findings reported (Ameen, 2022).

The third hypothesis was also used to examine the impact of SQ on SCA, and the findings obtained correspond with the results of Sweis et al. (2018), Kukanja and Planinc (2018), Phaxisithidet and Banchuen (2020), Vijaya and Rahayu (2021), Chaniago and Mudjiardjo (2021), and Kankam (2022). The results show that the tangibles, reliability, responsiveness, empathy, and sensory dimensions of service quality have a statistically significant influence on managers' perceptions of SQ. According to managers' perceptions, tangibles (environmental elements) and staff quality (empathy, responsiveness, reliability, and sensory) appear to be of utmost importance in ensuring overall hotel quality.

The final proposed hypothesis stated in this research tested the mediating impact of SQ among LR and SCA, and the results revealed that SQ successfully mediated the effects of LR on SCA; other preceding research validated SQ's mediating role (Fernandes et al., 2018; Kankam, 2022; Kusumadewi & Karyono, 2019; Phaxaisithidet & Banchuen, 2020; Vijaya & Rahayu, 2021; Yusriadi, 2021). Therefore, hotels should improve SQ in the workplace to increase the impact of logistics resources on SCA.

Prior to this research, there had not been a similar investigation focusing on LR and SCA in the Kurdistan region of Iraq. In addition, the mediation effect of the SQ on the relationship between LR and SCA was investigated. It highlighted the significance of LR and SQ in influencing and enhancing hotels' SCA. Consequently, the findings of this research have practical ramifications for the Iraqi-listed hotels, stakeholders, managers, and policymakers.

In contrast, most studies have been conducted in developed nations, such as Soosay and Hyland (2004) in Australia and Singapore; Kimura (2005) in Japan; Sakchutchawan et al. (2011) in the U.S.; and da Mota Pedrosa et al. (2015) in the UK. Those studies found that knowledge and innovation have a positive effect on competitive advantage. However, this study found that knowledge and innovation have a negligible influence on SCA. The study suggests that, in the context of Iraq as a developing nation, factors such as knowledge and innovation may not have a significant impact on SCA. In the Kurdistan region of Iraq, the implementation level of logistics knowledge and innovation remains low and inconsistent. Thus, the implications of this study's findings for hotel managers in developing nations are practical. While formulating and implementing LR and SQ, policymakers in these nations, as well as in Iraq and Iraqi-listed hotels, can consider the findings of this study to increase SCA.

Furthermore, academics are relatively unfamiliar with LR, SCA, and SQ in the context of developing nations such as Iraq (Arachchige et al., 2021; Hassan et al., 2020; Kusumadewi & Karyono, 2019). Multiple researchers and studies have argued that more research is required on the LR, SCA, and SQ (Kankam, 2022; Phaxaisithidet & Banchuen, 2020; Vijaya & Rahayu, 2021).

Thus, the findings of this study regarding LR and effective SQ explain how implementing LR and utilizing effective SQ are crucial for increasing SCA in hotels in the region. The effective SQ positively mediated the relationship between LR and sustainable competitive advantage, as demonstrated by the results of this research. In addition, this study has practical implications for increasing SCA in hotels. Therefore, closing the gap in developing nations such as Iraq.

7. Implications

The previously mentioned findings have some implications for the SCA of LSP firms in hotels in the Kurdistan region of Iraq. These implications are discussed in three parts: theoretical implications, methodological implications, and practical implications.

7.1. Theoretical implications

Ensuring competitiveness requires LSPs in the hotel industry to focus on their logistics services. However, the literature on their sustainable competitive advantage remains underexplored. This research aims to enrich the discourse on service quality and sustainable competitive advantage within the hotel sector.

While the concept of sustainable competitive advantage has garnered attention since the 1980s, as highlighted by Kök et al. (2020), there has been a notable lack of focus on logistics service providers. This research seeks to fill this gap by delving into the factors that drive the competitiveness of LSP hotels, referencing the works of scholars such as Phaxaisithidet and Banchuen (2020) and Meathawiroon and Wanarat (2022).

Moreover, a survey of existing studies reveals a pronounced emphasis on resources and capabilities when discussing competitive advantage, often sidelining the role of knowledge and innovation resources. Authors such as Karia (2018), Khan et al. (2019), Baia et al. (2020), and Cámara Rodrigo (2023) have pursued this path. Recognizing this gap, the present study integrates these overlooked factors, shedding light on the role of innovation, as emphasized by Aziz (2017), Lambourdière et al. (2017), Kusumadewi and Karyono (2019), Vijaya and Rahayu (2021), and Meathawiroon and Wanarat (2022), in evaluating the sustainable competitive advantage of LSP hotels.

Building upon the resource-based theory (RBT), this research brings in the variables of knowledge and innovation resources, thereby refining the framework of competitive advantage. The incorporation of service quality as a mediator offers a nuanced understanding, advancing the application of resource-based theory within the logistics milieu.

Lastly, a unique aspect of this study is its exploration of the interrelationship between knowledge and innovation sources, service quality, and sustainable competitive advantage in the domain of LSP hotels. While the consensus from past studies indicates that knowledge and innovation can significantly bolster competitive advantage, the current findings suggest a muted impact in the context of LSP hotels. This observation becomes even more pronounced when juxtaposed with studies conducted in developed nations, such as those by Soosay and Hyland (2004) and Kimura (2005). Notably, in the Kurdistan region, the implementation of logistics knowledge and innovation is found to be in its infancy.

7.2. Methodological implications

The methodological significance of this study is evident in the creation of measurement items tailored to sustainable competitive advantage constructs in the hotel domain. These items, crafted after an extensive literature review, have undergone validation by experts well-versed in logistics disciplines. Such contributions not only advance the field but also provide a foundation for future researchers, enabling them to delve into sustainable competitive advantage across various sectors using the proposed measurements.

7.3. Practical implications

This study's empirical outcomes carry noteworthy practical implications, offering a wealth of insights for industry professionals and stakeholders. By elucidating the various elements influencing competitive advantage in logistics, it becomes clear that logistics service providers (LSPs) can refine their management strategies and make more informed decisions in logistics and supply chain management. Central to these findings is the realization of how imperative it is for managerial figures to allocate their resources in a manner that amplifies effectiveness.

Furthermore, this study accentuates the managers' perspective, focusing on strategies that yield superior services. This can be particularly potent when the strategies revolve around leveraging intangible assets—those that competitors might find challenging to replicate.

On another note, while this research observed that knowledge and innovation sources might not have a profound impact on service quality directly, the underlying significance of both domains as pillars of competitive advantage cannot be sidelined. Previous investigations in diverse countries underscore this. Thus, it's pivotal for logistics service providers to strive to bolster their performance in these areas. Approaches could encompass forging joint ventures with foreign hotel managers, rolling out innovation-centric policies, and venturing into acquiring advanced logistics technologies. In tandem with this, there's a pressing need for hotels to channel investments into employee training programs, ensuring their workforce is equipped to adeptly manage cutting-edge logistics technologies.

8. Conclusion and limitations

This research primarily endeavored to discern the mediating role of service quality in linking logistics resources (LR) to sustainable competitive advantage (SCA) within the hotel industry of the Kurdistan region of Iraq. The results gleaned from the study affirm that logistics resources, particularly human resources (HR), technological resources (TR), and organizational resources (OR), positively, and significantly influence SCA. Concurrently, these resources also significantly impact service quality. Service quality was found to act as a mediator between logistics resources and sustainable competitive advantage, bridging the two.

Nevertheless, the study unearthed that knowledge and innovation resources (K&IR) did not exhibit a discernible impact on service quality. Similarly, the relationship between assurance (Asur) and sustainable competitive advantage remained unsupported by the empirical data. While the present research sheds

light on these dynamics, it is imperative to approach these findings with a degree of circumspection. Future research endeavors should revisit these relationships with extended datasets, possibly providing a more nuanced understanding.

The findings underscore the need for the Kurdistan region's proactive governmental involvement and bolstered support. Given the potential of the tourism industry to significantly influence economic dynamics, enhancing service quality to foster sustainable competitive advantage becomes paramount. This necessitates a dual focus: on the resources driving quality and on the quality itself. Hence, the findings provide a clarion call for hoteliers and policymakers to prioritize service quality as a vital cog in the developmental machinery.

However, the current study is not without its limitations. The applicability of its findings is confined predominantly to the hotel sector in the Kurdistan region. While this provides a deep dive into this specific sector, it remains narrow in its broader applicability. The cross-sectional nature of this research, combined with the relatively limited sample size, poses challenges in generalizing the findings across diverse organizational structures or across time.

Future research endeavors might benefit from casting a wider net and incorporating other service sectors within the Kurdistan ambit, thus providing a more comprehensive perspective. Additionally, considering the hotel industry's inherent diversity, integrating control variables like hotel star ratings or size may provide richer insights. Another potentially enlightening avenue could be to delve into the service quality perception chasm, if any, between guests and managers and its implications for hotel SCA.

Overall, the study sheds light on how logistics resources, service quality, and sustainable competitive advantage interact in the Kurdistan hotel industry. Furthermore, it serves as a foundation, indicating the need for more detailed and specific research in this area. The study findings also add to the existing knowledge base and highlight potential avenues for future exploration and analysis in the field.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Appendix Questionnaire survey.

Questionnaire survey			
No	Study variables	Measurement items	Source
Logistics resources			
1. Knowledge and Innovation sources			
1	We follow all kinds of logistics related innovations.	K&IR1	Mao et al. (2016); Aziz (2017); Nieves and Quintana (2018); Singjai et al. (2018); Meathawiroon and Wanarat (2022); Kankam (2022); Evangelista et al. (2023)
2	We adapt the innovations related to logistics to our business.	K&IR2	
3	We are a business that applies firsts the logistics decisions.	K&IR3	
4	We have the ability to develop new logistics services (using recycled materials and meeting the wishes of customers).	K&IR4	
5	Logistics employees can solve the problems encountered in the shortest time.	K&IR5	
2. Human resources			
1	We have a sufficient number of employees to carry out logistics activities.	HR1	Mao et al. (2016); Nieves and Quintana (2018); Singjai, Winata, and Kummer (2018); Magova and Kessy (2020); Boonklum et al. (2020); Supriyadi (2020); Hasan et al. (2021); Nordin et al. (2022); Ameen (2022)
2	Our employees have the necessary qualifications and skills for logistics activities.	HR2	
3	There is a positive cycle among employers, employees, and customers.	HR3	
4	Our hotel provides compulsory training to upgrade performance of employees.	HR4	
5	The training plan of our hotel includes training needs, goals, and objectives.	HR5	
3. Technological resources			
1	We have the necessary technology (internet, smart room keys, etc.) for logistics.	TR1	Mao et al. (2016); Nieves and Quintana (2018); Hasan et al. (2021); Hossain et al. (2021); Nordin et al. (2022); Muriithi et al. (2023)
2	Automation programs (Fidelio, Opera, etc.) are used in our hotel.	TR2	
3	In our hotel, we use management information systems (ERP, warehouse management, transportation management, EDI, return management, etc.).	TR3	
4	We have enough computers for logistics.	TR4	

(Continued)

Appendix Table 1. Continued.

Questionnaire survey			
No	Study variables	Measurement items	Source
5	Computer software used for logistics in our hotel is up-to-date software.	TR5	Aziz (2017); Hasan et al. (2021); Kök et al. (2020); Nordin et al. (2022)
6	Our hotel keeps pace with the technological development in collecting information on logistical activities.	TR6	
7	All units in our hotel participate in the collection of information related to logistics activities.	TR7	
4. Operational resources			
1	We have enough storage space for logistical activities.	OR1	
2	There are all kinds of tools (transportation vehicles, cabinets, shelves, etc.) in our warehouses used in logistics activities.	OR2	
3	Deliveries are fast in our business.	OR3	Njoroge (2016); Wijetunge (2016); Louis (2017); Sweis et al. (2018); Al-Jaf et al. (2020); Al-Gasawneh et al. (2021); Mitropoulou and Tsoulfas (2021); Papademetriou et al. (2022); Kankam (2022)
4	Logistics activities are supported by team work in our business.	OR4	
5	We have the financial resources necessary for logistics activities.	OR5	
6	In our logistics activities, there is coordination (performing the operations such as supply, storage, transportation in harmony).	OR6	
Service quality			
1. Tangibles			
1	Our hotel has up-to-date facilities.	Tan1	Njoroge (2016); Wijetunge (2016); Louis (2017); Sweis et al. (2018); Al-Jaf et al. (2020); Al-Gasawneh et al. (2021); Mitropoulou and Tsoulfas (2021); Papademetriou et al. (2022); Kankam (2022)
2	Our hotel building and its decorations are very attractive.	Tan2	
3	Our hotel employees are well dressed and appear neat.	Tan3	
2. Reliability			
1	Our promises to our customers are honest and implemented in a timely manner.	Rel1	
2	Our hotel keeps its records accurately.	Rel2	
3	Our hotel provides its services at the time it promises to do so.	Rel3	
3. Responsiveness			Njoroge (2016); Wijetunge (2016); Louis (2017); Sweis et al. (2018); Al-Jaf et al. (2020); Al-Gasawneh et al. (2021); Mitropoulou and Tsoulfas (2021); Papademetriou et al. (2022); Kankam (2022)
1	Our hotel's does tell customers are informed of the exact dates of service provision.	Resp1	
2	Our hotel staffs are always willing to help customers.	Resp2	
3	Our hotel's employees respond to customer requests promptly.	Resp3	
4. Assurance			
1	We have high confidence in our hotel staff.	Asur1	
2	Our hotel employees know well their jobs to help customers.	Asur2	Njoroge (2016); Wijetunge (2016); Louis (2017); Sweis et al. (2018); Al-Jaf et al. (2020); Al-Gasawneh et al. (2021); Mitropoulou and Tsoulfas (2021); Papademetriou et al. (2022); Kankam (2022)
3	Our hotel gives adequate support to its employees for the purpose of raising their level of performance.	Asur3	
5. Empathy			
1	Our hotel staff is familiar with the requirements and needs of all customers.	Emp1	
2	Our hotel staff takes into account the interests of customers in the type of service.	Emp2	
3	Our hotel has operating hours convenient to all their customers.	Emp3	
6. Sensory			Njoroge (2016); Wijetunge (2016); Louis (2017); Sweis et al. (2018); Al-Jaf et al. (2020); Al-Gasawneh et al. (2021); Mitropoulou and Tsoulfas (2021); Papademetriou et al. (2022); Kankam (2022)
1	Our hotel serves quality food with a high degree of excellence in its presentation.	Sen1	
2	Our hotel's fresh food is served consistently and with an uncommon degree of visual appeal and delicacy.	Sen2	
Sustainable competitive advantage			

(Continued)

Appendix Table 1. Continued.

Questionnaire survey			
No	Study variables	Measurement items	Source
1. Value			Kim et al. (2015); Njoroge (2016); Syarifuddin (2017); Sweis et al. (2018); Mahdi et al. (2019); Kök et al. (2020); Supriyadi (2020); Arachchige et al. (2021); Hossain et al. (2021)
1	Our hotel services have a high level of performance.	SCA1	
2	Our hotel responds effectively to the ever-changing demands of our customers.	SCA2	
3	Our hotel is able to quickly handle customer complaints.	SCA3	
4	The profits of our hotel have increased for the years from 2017 to the end of 2019.	SCA4	
5	The revenues of our hotel are better compared to competing hotels.	SCA5	
6	The reputation and position of our hotel in the market has improved over the past three years.	SCA6	
7	Our hotel has better advantages over competing hotels over the past three years.	SCA7	
2. Rarity			
1	Our hotel services to customers are distinguished.	SCA1	
2	Our hotel has unique resources and capabilities that enable it to compete with competitors.	SCA2	
3	Our hotel staff has an outstanding skill to satisfy customers.	SCA3	
4	Our hotel uses rare techniques in customer service.	SCA4	
5	The nature of the services provided to customers is different from other hotels with the same level of stars.	SCA5	
3. Inimitability			
1	Our hotel has a historical nature.	SCA1	
2	It is not possible to imitate the history of our hotel.	SCA2	
3	The organizational culture of our hotel differs from other hotels.	SCA3	
4	Our hotel's organizational culture is better than the competitors at the same level of stars.	SCA4	
5	The technology used in our hotel is hard to imitate.	SCA5	
6	The technology used in our hotel when providing services is better than other hotels with the same level of stars.	SCA6	
4. Organizational support			
1	The top management in our hotel supports the employees.	SCA1	
2	The senior management of our hotel is keen on training and developing its employees.	SCA2	
3	Our hotel has a better organizational structure than other hotels of the same star level.	SCA3	
4	The control system in our hotel is better than the competitors.	SCA4	
5	There is a reward system in our hotel to encourage innovators and creative employees.	SCA5	