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SERVICE QUALITY AND CUSTOMER SATISFACTION THROUGH AIRQUAL DIMENSIONS: AN EMPIRICAL INVESTIGATION ON IRAQI AIRWAYS

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ABSTRACT

In today's rapidly evolving business environment, customer requirements and expectations are continually increasing. Many service-oriented companies, including airlines, are struggling to accurately understand and meet the true needs and desires of their passengers. Often, they rely on outdated views of airline services. This study investigated how various dimensions of service quality impact customer satisfaction at Iraqi Airways. Using a convenience sampling technique, data were collected through questionnaires distributed at Baghdad International Airport and Erbil International Airport in Iraq. A total of 381 valid responses were analyzed using Structural Equation Modelling (SEM). The results indicate that five service quality dimensions—airline tangibles, terminal tangibles, security and safety, personnel services, and airline image—have a positive and significant effect on customer satisfaction. However, empathy does not significantly influence customer satisfaction. The findings suggest that Iraqi Airways should focus on differentiating its services to enhance customer satisfaction. Managers are encouraged to concentrate on factors that elevate service quality, thereby improving customer satisfaction. This study can assist Baghdad International Airport and Erbil International Airport in understanding the importance of service quality, which could lead to higher passenger satisfaction and foster long-term relationships with their customers.

Keywords: Service quality, customer satisfaction, airport, airlines, AIRQUAL.

INTRODUCTION

Today, the airline industry is fiercely competitive as it seeks to capture a larger market share and attract more customers by introducing new services and employing various promotional strategies. Despite these efforts, many initiatives fail to effectively motivate customers to utilize their services, particularly at the critical decision-making stage. Therefore, meeting customer expectations and requirements are essential for improving service quality. High-quality service offers significant benefits to the industry. The global increase in airlines has intensified competition, especially in the Middle East, particularly in Iraq, where new airlines often focus on offering low fares at the expense of comfort and service quality. Consequently, it is vital for airlines to acknowledge that investing in service quality is a strategic necessity. This investment is not merely a costly long-term expenditure but a potentially lucrative one (Hussain et al., 2015). To achieve high levels of customer satisfaction, airlines must deliver superior service quality, as customer satisfaction relies heavily on it. The commercial aviation industry has experienced tremendous growth in passenger travel worldwide, increasing competition among airlines. Pricing remains a major competitive factor in the aviation industry. Airlines also face numerous challenges, including economic conditions, government regulations, geopolitical tensions, and technological advancements. Additional factors such as manpower shortages and fuel prices further impact the industry. Recent events, including the COVID-19 pandemic and the ongoing conflict between Russia and Ukraine, have also had significant effects on the airline sector.

The airline sector faces several challenges related to its workforce, including a shortage of competent workers, rising labour costs, and high turnover rates (Ziakkas et al., 2022). Additionally, there is a lack of interest among younger individuals in pursuing careers in aviation, which limits the pool of qualified candidates (Kazda et al., 2022). The sector's stringent regulations for pilots, flight attendants, and ground staff further complicate the recruitment and training of competent personnel. Conversely, fluctuating fuel costs have posed a significant challenge for airlines. Recent years have seen volatile fuel prices, making it difficult for airlines to forecast operating expenses (Samunderu et al., 2023). Fuel constitutes a sizeable amount of operational costs, and changes in fuel prices can significantly impact an airline's profitability (Horobet et al., 2022). To mitigate these costs, airlines have adopted strategies such as fuel hedging, deploying more fuel-efficient aircrafts, and adjusting ticket prices.

Manpower issues and fluctuating fuel costs can significantly impact service quality, customer satisfaction, and customer loyalty in the airline industry. Both academics and industry professionals are keenly interested in these aspects due to their relevance and direct impact on the economic performance and profitability of aviation businesses. While the SERVQUAL model is widely used to assess service quality in airlines, the AIRQUAL model is less commonly applied, particularly in the context of Iraq (Shen & Yahya, 2021). Moreover, there is limited studies on service quality in the airline sector in developing countries (Farooq et al., 2018; Hussain et al., 2015) and even fewer studies focus specifically on Iraq (Suham-Abid & Vila-Lopez, 2019). One of the main goals of this study is to contribute to the understanding of service quality in developing countries, particularly in the Iraqi airline sector. The COVID-19 pandemic has dramatically altered the business landscape, causing severe disruptions for airlines worldwide, including Iraqi Airways, as flights were cancelled and grounded for extended periods (Iraqi News Agency, 2020). In this challenging environment, ensuring the survival of airlines has become a critical priority for both airline management and government authorities. Therefore, this study aims to determine the impact of AIRQUAL dimensions on customer satisfaction at Iraqi Airways.

LITERATURE REVIEW

Customer Satisfaction

Customer satisfaction hinges on the idea that the service provided must meet or exceed passenger expectations. According to Famiyeh et al. (2018), customer satisfaction is defined as the positive feeling experienced after a purchase. It is a key indicator of organizational performance and a critical measure of excellence, indicating an important element of an organization's success (Md Noor & Hashim, 2015; Munusamy & Chelliah, 2011). Furthermore, businesses recognize that retaining existing customers is often more cost-effective than seeking out new ones to replace those who have left (Hussain et al., 2015).

In the highly competitive airline industry, merely satisfying customers is not enough. Typically, passengers who perceive high service quality are more likely to develop loyalty to the brand (Hussain et al., 2015). Conversely, dissatisfied customers may exhibit behaviors that negatively impact a company's profitability (Hussain et al., 2015). For instance, negative word-of-mouth can spread unfavorable impressions about a company to others. With the rise of social media, such negative sentiments can quickly reach a wide audience, potentially harming the company's reputation (Hussain et al., 2015).

Previous studies have shown a strong link between customer satisfaction and repurchase intention (Sreejesh & Nagra, 2011; Yaacob & Router, 2010). Furthermore, customer satisfaction plays an important role in retaining customers (Abdullah et al., 2011; Farooq et al., 2018). Satisfied customers can enhance a company's profitability by expanding the existing customer base through word-of-mouth promotion and repurchasing (Prayag, 2007). In the airline industry, assessing customer satisfaction is increasingly important, as delivering top-notch service is crucial for maintaining competitiveness and ensuring survival (Park et al., 2005). According to Hoffman and Bateson (2010), dissatisfied customers tend to share their negative experiences with at least nine others. Such negative word-of-mouth can significantly damage a company's reputation and profitability. However, when a company effectively addresses and resolves negative experiences, dissatisfied customers are likely to share this positive turnaround with at least five others (Hoffman & Bateson, 2010) and are more inclined to continue doing business with the company (Hoffman & Bateson, 2010).

Service Quality

SERVQUAL is a widely recognized method for evaluating service quality. The SERVQUAL model developed by Parasuraman et al. (1985) has five primary components: reliability, responsiveness, assurance, empathy, and tangibles. This model has been widely adopted across various industries and contexts (Basfirinci & Mitra, 2015; Famiyeh et al., 2018; Hong et al., 2020; Shokouhyar et al., 2020). Although this model provides a complete assessment for examining service quality, Robledo (2001) argue that SERVQUAL's focus on comparing customer perceptions with customer expectations may not be suitable for all sectors including aviation because of the unique characteristics of airline service quality in this sector compared to others (Hussain et al., 2015). Culiberg and Rojšek (2010) suggest that the SERVQUAL five dimensions should be tailored according to specific industries, given their distinct traits and attributes (Gursoy et al., 2005). In the airline industry, the quality of service is shaped by various interactions between customers and airline staff, which influence passengers' perceptions and the airline's reputation. Due to the diverse nature, intangibility, and inseparability of airline services, measuring and assessing service quality can be particularly challenging. Despite these challenges,

numerous theoretical and practical studies have explored service quality in the airline industry. For instance, Cronin and Taylor (1992) introduced the SEVPERF model, which measures service quality based on performance rather than expectations. However, this model has faced criticism for being too general and not specifically suited for measuring service quality in the airline industry (Ali et al., 2015; Farooq et al., 2018). As a result, there are several studies measuring service quality in the airline industry using various models and dimensions. Table 1 shows a summary of service quality dimensions.

Table 1

Dimensions of Airline Service Quality

Author(s) and Year	Service Quality Dimension
Aksoy et al. (2003)	Personnel
	Food and beverage service
	Internet services
	Cabin features
	Country of origin and promotion
	In-flight activities
	Speed
	Punctuality
	Aircraft
	Flight offer
Mikulic and Prebežac (2011)	Ticket purchase experience
	Flight experience
	Price
	On-time performance
	Flight experience
Jiang (2013)	Ground service
	Airfare and schedule
	Service reliability
	Consistency
	Price policy
	Website
Tsafarakis et al. (2018)	Flight schedule and routes
	Airport services during the flight
	Airport services after landing
	Tangibility
Shokouhyar et al. (2020)	Reliability
	Responsiveness
	Assurance
	Empathy
	Airline tangibles
Shen and Yahya (2021)	Terminal tangibles
	Personnel service
	Empathy
	Airline image
	Price

One such model is AIRQUAL, introduced by Ekiz et al. (2006) which focuses specifically on the airline industry. This model comprises five dimensions: airline tangibles, terminal tangibles, personnel service, empathy, and airline image. Previous research has validated this model's effectiveness (Ali et al., 2015; Farooq et al., 2018; Shen & Yahya, 2021).

Hence, this study utilizes the AIRQUAL model to evaluate service quality in the context of Iraqi Airways in Iraq. Given the limited research on service quality in this sector, applying the AIRQUAL model in this context is particularly important. Additionally, this study adapts the AIRQUAL model to include a focus on security and safety, which are critical concerns for Iraqi citizens, especially considering the country in previous years, faced security issues.

AIRQUAL Dimensions

Airline Tangibles

Airline tangibles are an important component of service quality in the airline industry. This dimension includes various aspects of the aircraft, such as the interior equipment, seat comfort, cleanliness of the cabins (Ali et al., 2015), effective air-conditioning, and well-maintained restrooms (Farooq et al., 2018). The overall atmosphere of the aircraft, including entertainment facilities, Internet access, seat quality, and lavatories, also falls under this category (Tsafarakis et al., 2018). Essentially, the physical environment of the aircraft is considered a tangible aspect of service quality (Kos Koklic et al., 2017).

Terminal Tangibles

Terminal tangibles significantly impact the overall perception of an airline. These tangible factors reflect the quality of services provided at the airport terminal (Ekiz et al., 2006). Key elements include clear signage, efficient security and access control systems, well-functioning terminal air conditioning, clean restroom facilities, and helpful information desks for travelers (Ali et al., 2015). These aspects contribute to the development of the airline's image.

Personnel Services

Personnel services encompass activities such as assisting clients, providing prompt service, and responding quickly to customer needs (Hussain et al., 2015). This dimension also includes effective communication with passengers throughout their journey (Shen & Yahya, 2021), particularly in various languages (Hussain et al., 2015). According to Farooq et al. (2018), personnel services is crucial for airlines, influencing passenger behavior and attitude. Airlines company should focus on error-free ticketing through ticket booking, crew responsiveness to individual needs and overall service quality provided to passengers (Farooq et al., 2018; Namukasa, 2013). Effective personnel services involve addressing customer needs swiftly, providing prompt service and demonstrating strong communication skills, especially when dealing with passengers from diverse linguistic and cultural backgrounds (Hussain et al., 2015).

Empathy

Empathy in the airline industry involves providing attentive and personalized service to passengers. This includes careful handling of luggage, courteous ticketing services, and compassionate compensation arrangements in the event of loss or danger (Ekiz et al., 2006). Parasuraman et al. (1988) defined empathy as offering caring and customized attention to clients. In the context of airlines, empathy means understanding and addressing the unique needs of passengers through customized service approaches. Important aspects include providing multiple user-friendly ticketing options, having multilingual flight attendants, offering convenient flight schedules, and ensuring attentive and caring

service. By demonstrating empathy, airlines can offer exceptional service that boosts passenger satisfaction (Shen & Yahya, 2021).

Airline Image

The airline image refers to the perceptions and emotions that consumers associate with a brand; which can influence both current and potential passengers (Shen & Yahya, 2021). In the competitive airline industry; a strong and positive airline image is essential to attract passengers and set an airline apart from its rivals. An airline that is perceived as reliable, timely, safe, and comfortable can inspire greater trust and enhance its brand image (Shen & Yahya, 2021). Studies indicates that a positive airline image is closely linked to increased customer satisfaction (Ali et al., 2015; Farooq et al., 2018; Shen & Yahya, 2021).

Security and Safety

Safety and security are paramount in the aviation sector. Airlines invest heavily to ensure that passengers receive the protection and safety they require. The security issues in Iraq started in 1988 due to the Iraqi and Iranian war, which continued for eight years, followed by the Gulf War from 1990 until 2003 and, recently, the war against ISIS. Consequently, aspects of safety and security have become a major concern for Iraqi passengers when booking domestic and international flights with Iraqi Airways. The Director-General of Iraqi Airways reported that the International Civil Aviation Organization (ICAO) provided security training to Iraqi aviation staff, and in 2020, ICAO representatives visited Iraq to inspect the security systems at Iraqi airport and within the aviation operations (Aerospace, 2019).

In today's aviation environment, airlines must utilize the latest techniques and technologies to communicate their Safety and Security features to clients (Hussain et al., 2015). Additional safety concerns include potential delays in luggage delivery and damage during loading and unloading processes (Hussain et al., 2015). Hasisi and Weisburd (2011) found that effective Safety and Security measures positively impact passengers' sense of protection during flights. According to Srinivasan et al. (2006), the effectiveness of airline security policies relies heavily on passengers' perceptions and comprehension of these measures. Therefore, it is imperative for airport management to inform passengers about security protocols both at the airport and on board through targeted advertising campaigns.

AIRQUAL and Customer Satisfaction

Research on AIRQUAL has gained momentum as the link between customer satisfaction and revenue growth has become increasingly clear. Customer satisfaction is both an antecedent and a predictor of AIRQUAL. In the airline sector, maintaining high customer satisfaction is important for long-term operations and building strong consumer relationships (Ali et al., 2015; Wu & Cheng, 2013). High passenger satisfaction fosters loyalty while dissatisfaction often leads passengers to switch to other airlines (Ali et al., 2015; Farooq et al., 2018).

Despite a general understanding of the connection between perceived AIRQUAL and customer satisfaction, the nature of their causal relationship remains disputed. Some studies suggest that AIRQUAL precedes customer satisfaction (Cronin & Taylor, 1992; Parasuraman et al., 1988), while other studies argue that customer satisfaction is a precursor to service quality (Bitner, 1990; Wallin Andreassen & Lindestad, 1998). Additionally, airlines can develop a competitive advantage of creating

and maintaining high levels of AIRQUAL, which can enhance customer satisfaction (Hussain et al., 2015).

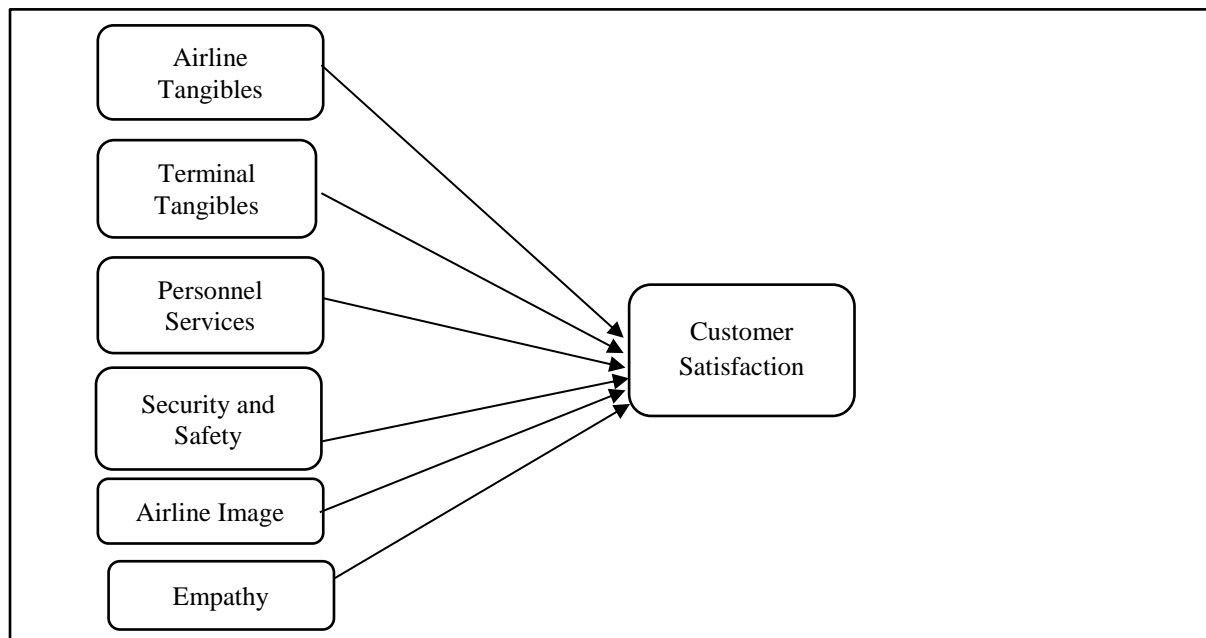
Recently, Farooq et al. (2018) examined the impact of AIRQUAL on customer satisfaction within the airline industry. The study found that service quality had a strong impact on customer satisfaction. Using the AIRQUAL model developed by Ekiz et al. (2006), the research assessed service quality across five dimensions: airline tangibles, terminal tangibles, personnel services, airline image, and empathy. This model has been tested within the airline industry in several countries.

In a study evaluating AIRQUAL for Pakistan International Airlines, the results revealed that airline tangibles, terminal tangibles, personnel services, empathy, and airline image all significantly influenced customer satisfaction (Ali et al., 2015). Another study by Ali et al. (2021) in Pakistan assessed service quality and customer satisfaction in the airline industry. The results indicated that airline tangibles, personnel services, and airline image positively impacted customer satisfaction. In contrast, terminal tangibles and empathy did not significantly affect customer satisfaction. In Malaysia, Farooq et al. (2018) indicated that all five dimensions of AIRQUAL significantly enhanced customer satisfaction. Conversely, Shen and Yahya (2021) confirmed that in Southeast Asia, airline tangibles, empathy, and airline image significantly improved customer satisfaction, while personnel services and terminal tangibles had an insignificant impact. This variation in results highlights inconsistencies in the empirical findings. Therefore, the following hypotheses are proposed:

- H₁: Airline tangibles have a significant effect on customer satisfaction.
- H₂: Terminal tangibles have a significant effect on customer satisfaction.
- H₃: Personnel services have a significant effect on customer satisfaction.
- H₄: Empathy has a significant effect on customer satisfaction.
- H₅: Airline image has a significant effect on customer satisfaction.
- H₆: Security and safety have a significant effect on customer satisfaction.

Figure 1

Framework



Iraqi Airways as the Context

Founded in 1933 and headquartered at Baghdad International Airport, Iraqi Airways is owned by the Iraqi government. Iraqi Airways experienced significant transformations following a political system change in 2003. After being under sanctions since the Gulf War in 1990, Iraqi Airways faced numerous challenges in rebuilding and re-establishing itself as a viable carrier (Kami, 2010). A major step in its recovery was the acquisition of new aircraft. In 2008, the airline signed a deal with Boeing to purchase 30 new planes, including models such as the 737 and 787. This acquisition marked a significant upgrade from its ageing fleet of Soviet-era aircrafts (Arab News, 2011). Another major challenge for Iraqi Airways was the airline's debt. The accumulated debt during the sanctions period created financial strain. In 2010, the Iraqi government intervened, assuming the airline's debt and providing necessary funding for its operations.

Despite these challenges, Iraqi Airways has made significant strides in recent years (Arab News, 2011). By 2019, the airline resumed flights to Europe for the first time in 20 years, launching services to Frankfurt, Germany (Kami, 2010). Additionally, it expanded its domestic and regional routes, including new flights to Saudi Arabia, Iran, and Turkey. Iraqi Airways now operates routes across Europe, the Middle East and domestically (Rawabet Centre, 2016). During a decade of political and security turmoil in Iraq, all resources were directed to wars. As a result, Iraqi Airways was far from the global airline perspectives throughout the Iran-Iraq war in 1980 and the 1990 embargoes. The focus on reviving the national economy meant the airline struggled with outdated practices and technology, impacting its global competitiveness. However, with the political changes in 2003, the airline began to modernize its fleet and operations. Today, Iraqi Airways boasts a fleet of modern aircraft, and has seen increased demand for flights due to economic improvements and the lifting of outbound travel restrictions. These major changes have placed considerable strain on the airline.

Iraqi Airways is the national flag carrier of Iraq and is recognized as the largest airline in the country. While there are fewer smaller airlines operating in Iraq, such as Fly Baghdad and Al-Naser Airlines, Iraqi Airways remains the most well-known and established airline (Shuba & Jassim, 2020). It operates scheduled domestic and international flights to various destinations, playing a vital role in Iraq's aviation industry (Suham-Abid & Vila-Lopez, 2019). In 2007, Iraqi Airways served over one million Iraqi passengers across 6,000 flights. By 2017, these figures had grown significantly, with more than ten million Iraqi passengers traveling on 90,000 flights (Aerospace, 2019). The country is currently focused on enhancing and rebuilding its civil aviation sector. This includes upgrading Iraqi Airways' infrastructure, modernizing airports, and lifting flight bans to most countries. The Director-General of Iraqi Airways has highlighted documentation as a key issue. He noted that the airline is progressively updating its documentation to align with international requirements (Aerospace, 2019). According to the Iraqi Minister of Transport, while Iraqi Airways has shown continuous improvement in recent years, its progress has yet to reach the expected level (Iraqi News Agency, 2020). Additionally, like many airlines globally, Iraqi Airways has been significantly impacted by the COVID-19 pandemic.

METHODOLOGY

Sample Design and Data Collection

This study aims to evaluate the service quality and customer satisfaction among Iraqi Airways passengers. The target population consists of passengers who traveled with Iraqi Airways in the past

six months. Given the broad scope of this population, a convenience sampling technique was employed, as it would be impractical to reach the entire population.

Table 2

Service Quality Dimensions, Number of Items and Sources

Construct	Statement	Source
Airline Tangibles	1. The aircraft have a modern and stylish appearance.	Ekiz et al. (2006)
	2. The quality of food and beverages provided on the aircraft.	
	3. The cleanliness of the aircraft's toilets.	
	4. The cleanliness of the aircraft's seats.	
	5. The comfort of the aircraft's seats.	
Terminal Tangibles	1. Availability of parking spaces at the airport.	Ekiz et al. (2006)
	2. The airport's passenger capacity.	
	3. Availability of luggage trolleys at the airport.	
	4. Reliability of the security control system.	
	5. The airport's waiting area provides a pleasant and welcoming environment for passengers.	
Personnel Services	1. The overall behaviour of the airline employees is positive.	Ekiz et al. (2006)
	2. The airline staff demonstrates empathy.	
	3. The airline employees have a clear understanding of their responsibilities.	
	4. Reservation and ticketing transactions are error-free.	
	5. Timely arrivals and departures.	
Empathy	2. Availability of transportation between city and airport.	Ekiz et al. (2006)
	3. Careful handling of passenger luggage.	
	4. Presence of medical staff on the aircraft.	
	5. Location of the airline's company offices.	
	6. Number of flights available to meet passenger demands.	
Airline Image	1. Availability of low-priced ticket options.	Farooq et al. (2018)
	2. Consistency of ticket prices with the level of service provided.	
	3. The overall image of the airline.	
	4. Positive experiences with Iraqi Airways' customer service.	
Security and Safety	1. Current security measures are effective in ensuring passenger safety.	(Jameel & Ahmad, 2019)
	2. The security screening procedures need improvement.	
	3. Iraqi Airways explains security procedures to passengers.	
	4. The airline collaborates with third entities for security measures.	
	5. The use of biometric identification for airport security is satisfactory.	
Customer Satisfaction	1. My satisfaction with Iraqi Airways has increased.	Ekiz et al. (2006) Farooq et al. (2018)
	2. My impression of Iraqi Airways has improved.	
	3. I now have a more positive attitude towards Iraqi Airways.	
	4. My experience with Iraqi Airways has been enjoyable.	
	5. Choosing Iraqi Airways as my service provider was a wise decision.	

Data were collected using questionnaires distributed at two airports in Iraq: Baghdad International Airport and Erbil International Airport. The sample size was determined based on previous related studies (Ali et al., 2015; Farooq et al., 2018; Hussain et al., 2015). A total of 600 questionnaires were distributed to Iraqi Airways passengers at the two mentioned airports between January 2021 and March 2021. Of these, 398 questionnaires were returned, resulting in a response rate of 66.33%. This rate is comparable to the response rate observed in Farooq et al. (2018) for a similar study on Malaysia

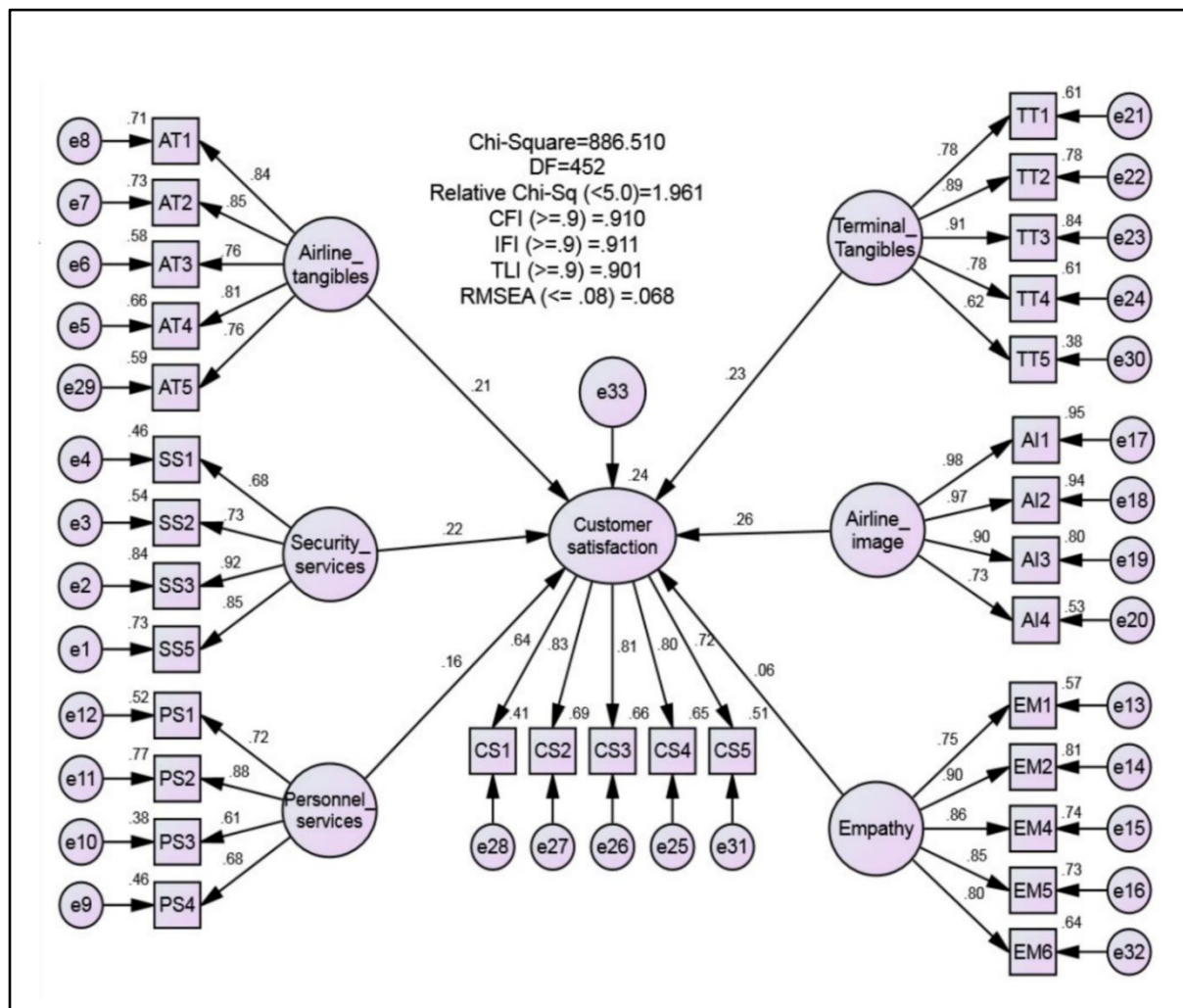
Airlines. After cleaning the data by removing missing values and outliers, 381 questionnaires were deemed valid for analysis. The data were analyzed using Structural Equation Modeling (SEM) to verify the proposed hypotheses.

Measurements and Instrumentation

The questionnaire comprised 34 items, adapted from previous studies, with responses measured on a five-point Likert scale. Table 2 provides details on the number of items and the sources for each construct.

Figure 2

Structural Model



RESULTS

The data were analyzed using AMOS, starting with confirmatory factor analysis (CFA) to validate the measurement model's validity and reliability. Initially, items with low factor loadings were identified and removed. The threshold for factor loadings was set at 0.600 (Hair et al., 2010). Two items, EM3

and SS4, had factor loadings below this threshold and were removed to enhance model fit and reliability. All remaining items met the minimum factor loading requirement (see Table 3). Reliability was assessed using composite reliability (CR), with a minimum acceptable value of 0.700 (Hair et al., 2010). In this study, the constructs showed high reliability, with CR values ranging from 0.817 to 0.943. Convergent validity was evaluated using Average Variance Extracted (AVE), which should be 0.5 or above according to Hair et al. (2010). The AVE values for the constructs ranged from 0.532 to 0.806 (see Table 3). After making the necessary adjustments, the model fit indices met the recommended standards by Hair et al. (2010). Specifically, the indices were as follows: RMSEA = .068 < 0.08, CFI = 0.910 > 0.90, TLI = 0.901 > 0.90, IFI = 0.911 > 0.90 and Relative Chi-Sq = 1.961 < 5.0 (see Figure 2).

Table 3

Validity and Reliability of Constructs

Construct	Item	Factor Loading	CR	AVE
AT	AT1	0.853	0.903	0.652
	AT2	0.852		
	AT3	0.751		
	AT4	0.809		
	AT5	0.763		
TT	TT1	0.765	0.900	0.646
	TT2	0.894		
	TT3	0.907		
	TT4	0.786		
	TT5	0.633		
PS	PS1	0.714	0.817	0.532
	PS2	0.883		
	PS3	0.623		
	PS4	0.669		
EM	EM1	0.752	0.920	0.697
	EM2	0.897		
	EM4	0.862		
	EM5	0.855		
AI	AI1	0.975	0.943	0.806
	AI2	0.969		
	AI3	0.896		
	AI4	0.728		
SS	SS1	0.691	0.879	0.646
	SS2	0.746		
	SS3	0.903		
	SS5	0.856		
CS	CS1	0.684	0.897	0.638
	CS2	0.859		
	CS3	0.844		
	CS4	0.835		
	CS5	0.754		

Structural Model

Figure 2 illustrates the causal effects of exogenous variables on endogenous variables. The results are presented in Table 4. H₁ is supported in which airline tangibles significantly affect customer satisfaction ($\beta = 0.225$, $P = 0.016 < 0.05$). Additionally, H₂ is supported in which terminal tangibles have a significant impact on customer satisfaction ($\beta = 0.233$, $P = 0.008 < 0.01$). Likewise, H₃ is also supported in which

personnel services significantly impact customer satisfaction ($\beta = 0.194$, $P = 0.039 < 0.05$). Furthermore, H_4 is not supported in which empathy does not significantly impact customer satisfaction ($\beta = 0.073$, $P = 0.426 > 0.05$). H_5 is supported as airline image significantly influences customer satisfaction ($\beta = 0.191$, $P = 0.000 < 0.05$). Finally, H_6 is also supported because it was found that safety and security significantly affect customer satisfaction ($\beta = 0.220$, $P = 0.005 < 0.05$).

Table 4

Hypotheses Results

Hypotheses	Estimate	SE.	CR.	P-Value	Decision
H ₁ : CS <-- Airline Tangibles	0.225	0.094	2.390	0.016	Supported
H ₂ : CS <-- Terminal Tangibles	0.233	0.088	2.635	0.008	Supported
H ₃ : CS <-- Personnel Services	0.194	0.094	2.060	0.039	Supported
H ₄ : CS <-- Empathy	0.073	0.092	0.795	0.426	Not Supported
H ₅ : CS <-- Airline Image	0.191	0.055	3.477	0.000	Supported
H ₆ : CS <-- Security and Safety	0.220	0.078	2.796	0.005	Supported

Note: CS: Customer satisfaction

DISCUSSIONS

The findings of this study reveal that both airline tangibles and terminal tangibles significantly impact customer satisfaction, which is consistent with previous research (Ali et al., 2015; Ali et al., 2021; Ekiz et al., 2006; Farooq et al., 2018). Customers tend to be more satisfied when they have positive experiences with both the airline services and the terminal environment. Notably, the current study reveals that airline tangibles have a stronger effect on customer satisfaction compared to terminal tangibles and other service quality dimensions.

This study also confirms that personnel services positively influenced customer satisfaction, aligning with earlier research (Ali et al., 2015; Ali et al., 2021; Ekiz et al., 2006; Farooq et al., 2018). The attitude and behavior of terminal staff and attendants are crucial in enhancing customer satisfaction with Iraqi Airways. Therefore, it is recommended that the airline focus on improving the professionalism of its staff through targeted training programs.

However, the study found that empathy did not significantly impact customer satisfaction, contrary to the findings of most previous studies (Ali et al., 2015; Farooq et al., 2018; Shen & Yahya, 2021), although it concurs with Ali et al. (2021). This suggests that while empathy is generally essential to customer satisfaction; it may not always be a significant factor. In the context of this study, other elements, such as airline and terminal tangibles, security and safety, and airline image may have overshadowed the impact of empathy on customer satisfaction.

This study found that airline image significant impacts customer satisfaction, supporting previous studies (Ali et al., 2015; Ali et al., 2021; Ekiz et al., 2006; Farooq et al., 2018; Shen & Yahya, 2021). Consequently, airlines should leverage marketing strategies to attract new customers, retain existing ones, and differentiate themselves from their competitors.

Additionally, safety and security were found to significantly affect customer satisfaction, consistent with previous findings (Hasisi & Weisburd, 2011; Srinivasan et al., 2006). Given Iraq's history of involvement in a raging conflict, ensuring robust airport and flight security and safety assurance are crucial for both local and international passengers. The airline should focus on enhancing safety and security measures at both the aircraft and terminal. It is important to balance safety provisions with minimizing delays in service operations, ensuring that security inspections do not lead to substantial flight delays.

Customer satisfaction is achieved when the service meets or exceeds expectations. Satisfied passengers are likely to share their positive experiences with others and prefer the same airline for future travel over others. Customers who believe they received excellent service have a high degree of satisfaction. To keep customers pleased, high-frills airlines must invest in and offer high levels of interaction quality (e.g. professional and courteous staff), physical environment quality (e.g. inflight facilities), and result quality (e.g. safety and security) contribute to a high degree of customer satisfaction. To maintain this satisfaction, high-frills airlines must continuously invest in and provide these high service standards. Moreover, customers often pay a premium for high-ranking flights, so it is crucial for high-frills airlines to consistently deliver excellent service quality. If customers feel that they are not receiving value for the ticket price, they may switch to other airlines. While branding plays a significant role in airline marketing, a favorable brand image cannot be sustained without meeting customer expectations for service quality. Effective advertising and marketing efforts must be backed by high stands of service to maintain a positive brand reputation.

Theoretical and Practical Implications

This study significantly contributes to the body of knowledge regarding airline customer satisfaction and service quality in the context of Iraq. It is among the first to examine the relationship between service quality, as defined by the AIRQUAL model, and customer satisfaction using AMOS-SEM methodology in Iraq. By providing empirical evidence and a conceptual model that links service quality dimensions to customer satisfaction, this research offers a valuable framework for future studies. Researchers interested in examining the impact of service quality on customer satisfaction in the airline industry can utilize the conceptual model developed in this study as a reference point for their investigations.

The findings of this study have important implications for airline strategic management, particularly in improving airline service quality and customer satisfaction through targeted marketing strategies. Iraqi Airways should adopt a service differentiation approach to better meet passengers' needs and improve satisfaction. Since the political and economic changes after 2003, including growth in the tourism sector and increased air traffic, Iraqi Airways has experienced significant changes. The findings of this study offer valuable insights for policymakers by highlighting key aspects of airline service quality. To capitalize on these insights, Iraqi Airways should invest in recruiting and training staff to enhance personnel services. By focusing on improving staff performance and service quality, the airline can better meet passenger expectations and achieve higher levels of customer satisfaction.

It is recommended that airlines focus on improving the quality of tangibles. This includes upgrading the exterior and interior appearance of aircraft and improving the overall ambience of airports. In addition, Iraqi Airways should focus on enhancing the efficiency of their catering services, cargo handling, and aircraft maintenance to uphold their reputation as a reliable and secure airline. Full-service airlines in Iraq need to consistently deliver and sustain high service quality in areas within their control. Ensuring

that service quality meet passenger expectations is crucial in gaining customer loyalty, including repeat purchases and recommendations. Satisfied passengers are more likely to return and to recommend the airline to others, fostering loyalty. To achieve this, Iraqi Airways should regularly measure customer satisfaction to ensure that their services meet or exceed customer expectations. Investing in service quality is only effective if it results in actual improvements in customer satisfaction. High service quality not only enhances the airline's reputation but also reinforces its competitive position in the market.

For effective marketing, airline managers need to develop a variety of strategies to ensure high-quality service for passengers. Delivering excellent quality service not only enhances the airline's image but also encourages word-of-mouth recommendations through SMS, email, and social media platforms like Facebook and Twitter. Customers tend to prefer airlines that offer better value and meet or exceed their expectations. Therefore, the marketing department should continue to embrace innovative and flexible approaches to service delivery. Additionally, airline managers should allocate their budget more effectively to marketing resources to enhance firm profitability and support sustainability.

This study not only highlights the impact of service quality on customer satisfaction but also provides a comprehensive analysis of passenger satisfaction and service quality dimensions. It contributes valuable insights to the understanding of the Iraqi airline sector. The study employs a standard approach and utilizes a well-established service quality scale designed for the airline sector.

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH DIRECTIONS

In recent decades, the airline industry has faced significant changes, prompting airlines to reassess and enhance the service they provide to passengers in order to maintain a competitive edge. This task has proven to be one of the most challenging aspects impacting an airline's long-term success. To address this challenge, a comprehensive decision-making tool is necessary to effectively manage the uncertainties and contradictions associated with evaluating service quality criteria. Additionally, this tool should also harness the benefits of various multi-criteria decision-making approaches in complex settings. The objective of this study is to analyze customer satisfaction among passengers of Iraqi Airways by evaluating service quality parameters. The findings offer Iraqi Airways managers clear guidance on how to enhance customer satisfaction. Notably, this study expanded the AIRQUAL model by introducing a new dimension, safety and security, recognizing its importance to all passengers, particularly in Iraq. The results showed that aspects such as airline tangibles, terminal tangibles, safety and security, personnel services, and airline image positively contributed to customer satisfaction among Iraqi Airways passengers. On the other hand, empathy was found to have an insignificant impact on customer satisfaction in this context.

While this study provides valuable insights into service quality in the airlines industry, it has some limitations. The study was conducted exclusively with Iraqi Airways passengers, and since there are several private airlines in Iraq, the findings may not be generalizable to all passengers in Iraq. Future research could explore service quality across different private airlines in Iraq and compare Iraqi Airways with other airlines. Additionally, this study focused on the direct effects of service quality dimensions on customer satisfaction, future work could examine the causal effects by including mediating variables.

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