



Examining Service Quality Dimensions Towards Satisfaction of Malaysian Airport Customers in Sarawak

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Abstract

Nowadays, concentrating on quality is extremely important in any type of businesses for the organization to survive in long term and remain competitive in uncertain and complex environment. Service quality is the key thrust of the success of any business organization especially for the tourism service provider in Muslim country like Malaysia. Malaysia is known as a progressive Muslim-majority country, is well positioned in offering high-quality services in the tourism sector while upholding Islamic values. It is very important to recognize clearly on what is required and how they experience on the actual service quality at the airport as a tourism spot. Passengers come from different countries representing various cultures and societies from all over the world, thus it is challenging and hard to recognize on which medium to satisfy or what type of service they expect to perceive and receive from the airport service provider like Malaysian Airport Holdings Berhad (MAHB) which also includes on what they encountered from the service provided and perceived expectation. This study attempts to examine the relationship between service quality dimensions and satisfaction of Malaysian Airport customer in Sarawak, Malaysia. This study utilizes quantitative approach which employs a self-administered a cross-sectional survey design. There are 200 copies of questionnaires were distributed to the respondents and 150 usable copies were subsequently collected. Regression analysis was applied to assess the effect of service quality dimensions toward customer's satisfaction. The findings indicate that tangibility, reliability, responsiveness, assurance and empathy having positive effect on customers' satisfaction. This study has important implications for policymakers and stakeholder of MAHB for appropriate interventions as to enhance customer's satisfaction in the tourism industry in Malaysia.

Keywords: Service Quality; Satisfaction; Malaysian Airports; Sarawak

1. Introduction

In today's competitive business environment, an unwavering assurance to quality is very important and crucial in the organization. Quality is no longer just a differentiator but, it has become a fundamental requirement for long-term survival and the successful of the business. By focusing on delivering high-class products and services, the businesses can build trust to the customers, enhance customer loyalty, as well as position their business in the marketplace. Generally, airport act as a meeting point for the tourist that plays a vital role in the global tourism industry. Several scholars have recognized that the service quality is outcome from the comparison between consumers on their expected service and service received (Parasuraman, Berry and Zeithaml in 1985, 1988). Service quality consists of 5 (five) dimensions namely reliability, assurance, tangibility, responsiveness and empathy. As world is moving towards to the claimed futuristic standard, the passengers are no longer get amazed by the world-class facilities alone, but it is rather more to services that necessitate special attention to elements which left a huge impact on the passengers. In attainment on the standard of a world-class airport, most of the airports which especially airports that bound for international flights would focus on their terminal design such as an example long distance walking distances and narrow passageways. In addition, it is very important to understand clearly on what is required and how the customers experience on the actual service quality at the airport. Passengers come from various countries representing a various culture from all over the world, thus it is very difficult to recognize which medium can satisfy or maybe on what kind of service that they are expected to perceive and receive from the airport service provider. Thus, this paper examines the service quality dimensions toward satisfaction of Malaysian Airport customers at Kuching International Airport, Sarawak, Malaysia.

2. Literature Review

2.1 Service Quality

The SERVQUAL theory which developed by Parasuraman, Zeithaml, and Berry in the 1980s, remains a fundamental framework aimed at evaluating service quality by measuring the gap between customer expectations and perceptions of actual service delivered. This model recognizes five key dimensions which is tangibles, reliability, responsiveness, empathy, and assurance that mutually capture the critical aspects of service quality (Parasuraman et al., 1988). Recent studies continue to authenticate the model's relevancy throughout various sectors which including healthcare, education, as well as hospitality which emphasizing reliability as a crucial dimension that affecting customer satisfaction (Lam, 2002; Raza et al., 2020). Another example, research in higher education and public services has



applied SERVQUAL model to identify service gaps and guide improvements, strengthening its utility for continuous quality enhancement (Goumari et al., 2020; Yildirim et al., 2025). Service quality approaches consist of 5 dimensions namely tangibles, reliability, responsiveness, empathy and assurance. Tangibles are described as physical facilities, equipment, and appearance of personnel that customers use to evaluate service quality (Parasuraman, Zeithaml, & Berry, 1988). These tangible fundamentals provide visible indications that influence customers first impressions and as overall perceptions of service provided. Recent research highlights that well-maintained facilities, modern equipment, and professional staff appearance is significantly enhance the customer satisfaction, especially in education and hospitality sector (Walton et al., 2024; Utkirov, 2025). Tangibles is important component that act as concrete evidence of the service providers commitment to quality and professionalism as well as shaping customer expectations even before the service encounter. Followed by reliability is well-defined as the ability to perform the promised service dependably and accurately (Parasuraman et al., 1988). It is considered as the most critical element because the customers are expecting consistent and error-free service delivery. Previous studies show that reliability builds trust and loyalty by guaranteeing that services are delivered as promised, on time, and without mistakes (Lam, 2002; Utkirov, 2025). In healthcare, education, as well as banking sector, reliability reduces uncertainty and forms the foundation of a dependable relationship between service providers and customers. Next is responsiveness, that denotes the willingness to help customers and provide rapid service (Parasuraman et al., 1988). This element reflects how quickly and attentively employees respond to customer demands or handle any problems. Previous research in higher education and hospitality sectors explain that responsiveness significantly affects customer satisfaction, as timely assistance reduces uncertainty and improves the service experience (Misaii et al., 2019; Walton et al., 2024). The organizations that prioritize responsiveness are well positioned to maintain their customer loyalty and competitive advantage.

After that, assurance is described as the knowledge and politeness of employees and their ability to encourage trust and confidence (Parasuraman et al., 1988). It incorporates competence, credibility, as well as security, which is very important in services perceived as risky or complex. Based on recent studies in financial and educational services that highlight assurance builds customer confidence by representing professionalism and effective communication (Yildirim et al., 2025; Utkirov, 2025). As results, assurance reduces perceived risk and promotes long-term customer relationships. Lastly is empathy where it is described as the caring, individualized attention the firm provides its customers (Parasuraman et al., 1988). It also involves understanding customer needs and providing personalized service. In addition, empathy strengthens emotional bonds between customers and service providers which leading to higher satisfaction and loyalty (Al-Rabia et al., 2021; Utkirov, 2025). Based on service industries like education, healthcare, and tourism, empathy differentiates providers by concentrating unique customer concerns and enhancing the overall experience. According to (Parasuraman et al. 1985, 1988, 1994), which is based on his successful qualitative and quantitative research, service quality assembled is not to commonly accepted procedures but to be given in the time it is needed. Service quality is an indicator whether the customer expectation can be matched when the measurement is well and good the service delivered (Lewis & Booms, 1983). Moreover, based on (Parasuraman, Zeitham and Berry, 1985) service quality is the comparison of expectations and performance if perceived by customers. Several scholars also found that the whole attraction of the airport is determine by not only the passenger's perception but also the service provided by the airports itself to its customers of passengers and airlines (Fodness & Murray, 2007).

2.2 Customer Satisfaction

The rapid development of service industries worldwide, connected with deregulation in many sectors, has heightened the requirement for a deeper understanding on service quality and its impact toward business success. A high-quality service is extensively recognized as essential for businesses aiming to achieve competitive advantage and customer loyalty. According to Kotler et al., (2009), as cited in Ali Malik et al., (2011), define customer satisfaction as a person's feeling of pleasure or disappointment resulting from comparing a product perceived performance against their expectations. This conceptualization supports with extensive research signifying that superior service quality positively effects customer satisfaction, which in turn fosters repeat patronage and enhances profitability (Rust et al., 1995; Zeithaml, 2000). As an example, recent studies confirm that customers are willing to pay a premium and remain loyal to the businesses that consistently deliver high-quality service experiences (IBM Study, 2023). In addition, by maintaining quality service is cost-effective, as retaining existing customers reduces marketing expenses compared to obtaining new ones (Service Alliance Group, 2024). Thus, businesses must prioritize improving service quality to meet developing customer expectations and drive sustainable growth in competitive markets. Moreover, customer satisfaction plays an important role across various sectors, such as banking, food services, government agencies, and many more. But to ensure customer satisfaction, the organizations must consistently maintain and enhance their service quality. Inadequate service often led to customer attrition, as they dissatisfied consumers tend to switch to other competitors who offer excellent service experiences. Nowadays, most of the businesses increasingly recognized that effective delivering and manage to provide high-quality service is essential for achieving customer satisfaction and sustaining competitive advantage.



Parasuraman, Zeithaml, and Berry (1988) then further conceptualized the evaluation of service quality as the difference or “gap” between customers’ expectations and their perceptions of the actual service performance, underlining the importance of narrowing this gap to improve satisfaction (Jaiswal, 2008). To support this, more recent study emphasizes that continuous improvement in service quality dimensions directly associates with higher customer satisfaction and loyalty across industries (Seth, Deshmukh, & Vrat, 2005; Ladhari, 2009).

2.3 Service Quality and Customer Satisfaction

Several researchers have discussed the relationship between service quality and customer satisfaction, with some associating the two concepts, while others argue that they are distinct but related constructs. According to Walker and Baker (2000), service quality should be observed as a component subordinate to customer satisfaction rather than synonymous with it, which means that service quality influences but does not entirely define satisfaction. Their findings suggest that the level of service quality providing significant impacts user satisfaction. To support this perspective, Herstein and Gamliel (2006) highlighted that superior service quality leads to increased customer satisfaction, which is dynamic for maintaining competitiveness in today business environments. Furthermore, Newman and Pyne (1996) noted that beyond commercial transactions, service quality improves the relationship between providers and customers. Significantly, Gilbert and Veloutsou (2006) highlighted that customer satisfaction encourages loyalty, which in turn produces sustained, long-term profits and develops an organization’s chance of achieving market leadership. Recent studies reaffirm this relationship, showing that improvements in service quality dimensions such as reliability and responsiveness will consistently enhance customer satisfaction and loyalty across diverse industries (McDougall & Levesque, 2000; Sivadas & Baker-Prewitt, 2025). Thus, by ensuring high service quality it will remain a strategic priority for businesses seeking to cultivate enduring customer satisfaction and loyalty. Empirical evidence also shows that high service quality positively effects customer satisfaction, which in return fosters customer loyalty and retention. For example, a study examining on mobile users in Malaysia found that reliability and responsiveness is a two key dimensions of service quality that have significant positive effects on customer satisfaction, whereby other dimensions showed mixed results (Surin et al., 2024). Another research also highlights strong direct relationship between empathy and customer satisfaction were emphasizing the importance of personalized attention in academic service contexts (Rahim et al., 2020).

Furthermore, investigation of business-to-business firms in China also revealed that service quality improves relationship quality which includes trust, satisfaction, and commitment, where it partially mediates the effect on customer loyalty, suggesting that relationship management plays a vital role alongside service quality in driving long-term loyalty (Ali, 2020). Collectively, these studies show that service quality is a fundamental antecedent of satisfaction, and organizations that consistently improve service dimensions associated with customer needs are better positioned to cultivate satisfied, loyal customers.

2.4 Conceptual Framework and Hypothesis Development

Service quality model adapted in this study which was developed by Parasuraman (1988) is divided into five (5) components, namely (i) Tangibility (ii) Reliability, (iii) Responsiveness, (iv) Empathy and (v) Assurance. In this study, Tangibility signifies to the state of the physical assets of the firm as buildings, vehicles, property and staff. Reliability denotes the ability of the businesses to deliver services guaranteed to be accurate and reliable. Responsiveness refers to the willingness of the businesses to help their customers by providing quick service and providing ultimate satisfaction to their customers. Next, empathy states the level of attention given to every individual customer dealing with the businesses and lastly is assurance that refers to the knowledge and attention of the businesses in providing services and their ability to convey trust and confidence towards customers. Accordingly, five hypotheses are formulated to address the research problems and objectives:

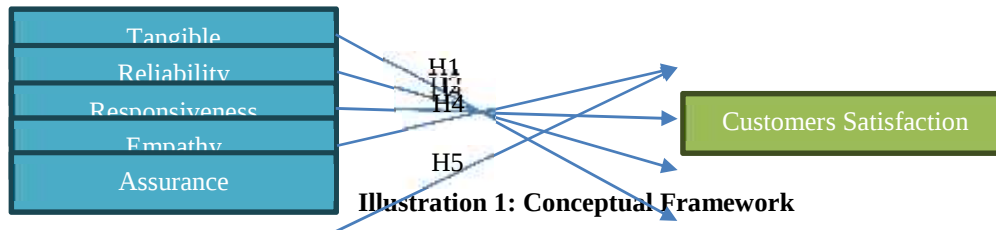
H1: The tangibility of airport service quality is positively related towards passengers’ satisfaction of Kuching International Airport (KIA).

H2: The reliability of airport service quality is positively related towards passenger’s satisfaction of Kuching International Airport (KIA).

H3: The responsiveness of airport service quality is positively related towards passenger’s satisfaction of Kuching International Airport (KIA).

H4: The empathy of airport service quality is positively related towards passenger’s satisfaction of Kuching International Airport (KIA).

H5: The assurance of airport service quality is positively related towards passenger’s satisfaction of Kuching International Airport (KIA).



3. Research Methodology

Data were collected from 150 respondents. They were Malaysian airport customers in Sarawak. To collect the respondent's data, we distributed the questionnaires via offline through one-to-one session with the respondents. A total of 200 questionnaires were distributed. As indicated by G*Power 3.1.9.2 calculation, the minimum sample required for this study is 137 respondents ($f2 = 0.15$, number of predictors = 5). Convenience sampling was used to select respondents. Quantitative approach via self-administered questionnaire was adopted. A pilot test was conducted to ensure the questionnaire was well designed and to measure consistency. Apart from the demographic profile details, the questionnaire contained statements about six (6) variables in the study. Likert scale which ranges from 1 to 5 assesses respondents' level of agreement applied. Data were then tested using correlation and multiple regression analysis using Statistical Package for the Social Sciences (SPSS) version 20.

4. Findings and Discussion

4.1 Demographic Profile

Table 1 shows the demographic profiles of 150 respondents among Malaysian airport customers. Out of the 150 respondents, a total of 86 (57.3 percent) were male while 64 (42.7 percent) were female. Majority of the respondents were Dayak (54 percent) followed by Chinese 36 (24 percent), Malay 33 (22 percent), Melanau 20 (13.3 percent), Indian 4 (2.7 percent) and Others 3 (2 percent). In terms of religion and origin, majority were **Christian** 78 (52 percent) and Sarawakian 120 (80 percent) subsequently. 89 respondents were single (59.3 percent), married 52 (34.7 percent) and divorced 9 (6 percent).

Table 1: Demographic Profile

Variable		Count	Percentage
Gender	Male	86	57.3
	Female	64	42.7
Race	Malay	33	22
	Chinese	36	24
	Indian	4	2.7
	Dayak	54	36
	Melanau	20	13.3
	Others	3	2.0
Religion	Muslim	47	31.3
	Christian	78	52
	Buddhist	22	14.7
	Hindu	2	1.3
	Others	1	0.7
Origin	Sarawakian	120	80
	Sabahan	11	7.3
	Peninsular Malaysia	12	8.0
	Asian	7	4.7
	Europe	0	0
Status	Single	89	59.3
	Married	52	34.7
	Divorced	9	6.0



4.2 Test of Hypotheses

Table 2: Regression Analysis (I)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.814	.266		3.065	.003
Tangibles	.218	.077	.233	2.815	.006
Reliability	.120	0.45	.180	2.650	.009
Responsiveness	.251	.103	.235	2.438	.016
Empathy	.098	.038	.160	2.579	.011
Assurance	.324	.089	.326	3.647	0.00

* $p < 0.05$ (one-tailed)

4.2.1 Hypotheses 1

The result showed that there is a significance relationship between tangibility and satisfaction (p value= 0.006).

4.2.2 Hypotheses 2

The result showed that there is a significance relationship between reliability and satisfaction (p value= 0.009).

4.2.3 Hypotheses 3

The result showed that there is a significance relationship between responsiveness and satisfaction (p value= 0.016).

4.2.4 Hypotheses 4

The result showed that there is a significance relationship between empathy and satisfaction (p value= 0.011).

4.2.5 Hypotheses 5

The result showed that there is a significance relationship between assurance and satisfaction (p value= 0.000).

4.3 Model Summary R^2

Table 3: Regression Analysis (II)

Model	r	R^2	Adjusted R square	Std. error of the estimate
1	0.775	0.601	0.580	.35042

Table 3 shows the Adjusted R Square of 0.601, indicates that 60.1 percent of the variance in the satisfaction can be explained by the five (5) dimensions of service quality. This is an indication of strong predictive or explanatory capacity of the model.

5. Discussion, Conclusion and Recommendation

This study has proposed a Service Quality Model which is adapted from SQ Model (Parasuraman, 1988). This model examines the relationship between service quality dimensions and satisfaction of Malaysian airport customers at Kuching International Airport (KIA), Kuching, Sarawak, Malaysia. The results of this study support the findings the literatures that service quality dimensions (Tangibility, Reliability, Responsiveness, Empathy and Assurance) having a positive effect on customer satisfaction. Based on standardized coefficients of which relationships are significant, assurance has the highest beta value followed by responsiveness, tangibility, reliability and empathy. Assurance is perceived as the most important factor which contributes to customer satisfaction at Kuching International Airport (KIA). Assurance builds trust- especially in the industries like tourism, healthcare, finance and education-where Malaysian airport customer rely heavily on the provider's expertise and ethical conduct. When customers feel assured, they are more likely to return, recommend the service, and remain loyal in the long term. It is crucial to translate the findings and discussion into managerial implications as to enhance tourism industry in Sarawak, facilitate service improvement and maximize business performance. The present study has underscored the relationship between service quality dimensions and satisfaction, and more specifically, the effect of each dimension on satisfaction. Hence, it helps the airport management personnel to enhance their service quality continuously. Notwithstanding its magnitude, the study is limited in several areas which underline the need for future research. Instead of using satisfaction as the outcome variable, customer loyalty and trust can be modelled as an outcome variable. Finally, it would be beneficial to conduct a qualitative study to explore important factors that contribute to customer satisfaction.

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