The Relationship Between Service Quality and Pilgrims' Satisfaction: An Empirical Evidence from the Hotel's Industry in Saudi Arabia

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Abstract

Hotels struggle to enhance service quality to achieve customer satisfaction in a competitive business environment like the hospitality industry. This study examined the influence of service quality on Hajj and Umrah pilgrims’ satisfaction at mid-scale hotels in Makkah Al-Mukarramah in Saudi Arabia (KSA). Data was gathered from 265 guests using a convenience sampling approach. Multiple Regression Analysis was performed using Statistical Package for the Social Sciences (SPSS v24) to test all research hypotheses. The analysis found that hotel infrastructure, room quality, attitude and behaviour of employees, employee expertise, security and safety, and waiting time significantly predicted customers' satisfaction. At the same time, the front desk and food and beverage were proved the contrary. The current study findings could help the hotel managers to enhance
competitiveness and sustainability in the KSA hotels industry by paying much attention to improving the hotel infrastructure and employee expertise to sustain competitive advantage. Training and development and customized on-the-job training programs for hotels' employees could be an integral approach to strengthening the expertise of hotels' employees.

**Keywords:**
Service quality, customer satisfaction, mid-scale hotels, hotel industry, Haj and Ummrah, Saudi Arabia

1. **Introduction**

The pilgrimage journey (Haj and Ummrah) to Mecca in the Kingdom of Saudi Arabia (KSA) is an obligation to all Muslims, physically and mentally fit and financially capable, to perform Hajj at least once in their lifetime. The pilgrimage journey to Mecca is a spiritually deepening or transformative experience (no doubt there will be some touristic components, including social and economic). Hajj has predetermined tasks and rites that pilgrims must perform according to the holy scripture (Qur'an and Sunnah). Pilgrims' behaviour while performing Hajj and Ummrah is governed by piety and moral behaviours. This includes abstinence from all worldly temptations. Hence, compared to other religions' pilgrimage (voluntarily) with Islam, obligatory Hajj is not at par in terms of their status.

To achieve growth, firms exert effort to increase their financial revenue in the short- and long-term. In today's competitive environment delivering high-quality service is the key to sustainable competitive advantage. Thus, scholars (Allan, 2016; Angelova & Zekiri, 2011) claimed that customer satisfaction positively affects profitability. Similarly, Ganiyu et al. (2012); Gustafsson et al. (2005) debates that in the services sector, service quality leads to customer satisfaction, which in turn increases the firm's growth (Agyapong, 2011; Allan, 2016; Liat et al., 2017; Nguyen et al., 2018). Service quality and customer satisfaction are widely essential topics in the literature (Keiningham et al., 2006; Liat et al., 2017). Hence, Deng et al. (2013) claimed that the hotel is one of the most significant tourism sector elements. Consequently, hotel providers generally improve their service quality to remain competitive, retain existing customers, and attract new ones. Accordingly, improving service quality to achieve a high level of customer satisfaction to enhance organization's success is strongly recommended in the literature; therefore, researchers have shown a great interest in measuring customer satisfaction in the tourism and hospitality industry (Allan, 2016; Khalilzadeh et al., 2017; Kim et al., 2016; Ladeira et al., 2016; J. Lee & Whaley, 2019; Prayag et al., 2019; Rather, 2018).

The latest annual report issued in 2019 by World Travelers and Tourism Council (WTTC) displays that the travel and tourism sector experienced a 3.5% growth, raising the global economic growth by 2.5%. As a result, this sector has been considered the best industry for job creation over the past five years, where
one out of four new jobs has been created by the travel and tourism sector. In 2019, this sector generated direct and indirect contributions impact on the world’s GDP with US$8.9 trillion, exceeding 10.3% of global GDP, further generating 330 million jobs around the world. Also, it contributed around 6.8% of total exports and 28.3% of international services exports, with US$1.7 trillion in visitor exports. Besides, a contribution of US$948 billion in capital investment experienced 4.3% of total investment (WTTC, 2019).

Despite the global economic challenges currently faced, the hotel market has become competitively intensified, forcing hotel managers to consider the service's quality to gain customers' satisfaction (Robin Nunkoo et al., 2020; Varsanis et al., 2019). In terms of the hotel market in KSA, the KSA continues to attract growing numbers of tourists globally and locally. KSA searches for appropriate alternative resources to oil as its Vision 2030’s main focus in the KSA. In 2019, the most extensive research and markets store, "Renub Research," reported that the KSA's hotel market's volume and forecast in recent years displayed that the KSA's hotel industry has increased rapidly and is predicted to keep rising in future. Similarly, hotel service demand continues to grow with a substantial need for religious visits, business, and leisure (Renub, 2019).

The Two Holy Mosques in Saudi Arabia granted KSA a prominent place in the heart of all Muslims worldwide. Consequently, to achieve Pilgrims and Ummrah performance satisfaction, KSA pays great attention to improving the service sectors, mainly the hotel industry's quality of service in Makkah Al-Mukarramah (Alotaibi, 2016; Amoudy, 2014; Karban et al., 2018). The 2030 vision currently implemented in the KSA also planned to increase the number of Hajj and Umrah performances from around 19 Million in 2019 to 30 million visitors by 2030 (Al-Ghamdi et al., 2020). The contribution of the Saudi Arabia hotel market is expected to be more than US$ 24 Billion by the end of the year 2025.

Service quality and customer satisfaction are vital to firm performance in the hotel sector because of the customers' multi-cultural. Hence, hotels often have most or many customers with foreign cultural backgrounds, particularly during Hajj and Umrah's performance. Thus, the government of KSA employs a great effort to enhance religious tourism in Makkah Al-Mukarramah (Al Amoudy, 2014; Alotaibi, 2016). This nature makes hotel success and performance more dependent on customer satisfaction (Poku et al., 2013). In other words, the overall satisfaction of Hajj and Umrah performances is likely to experience from the quality of services offered in the hotels in Makkah Al-Mukarramah. It is considerably reflected by the perception of Hajj and Umrah performances. Accordingly, the most critical and challenging issue to achieving customer satisfaction in the hotel industry is providing a high quality of service (Li et al., 2013; Nguyen et al., 2018; Robin Nunkoo et al., 2020).

Therefore, this study’s primary objective was to investigate the correlation between service quality and customer satisfaction in the hotel sector in Makkah Al-Mukarramah, KSA. This study collected data from the Hajj and Umrah performers.
The attention was to determine which hotel service quality dimensions were crucial to hotel guests and significantly affected their overall satisfaction. In 2019, the Tourism and Information Center (Mas), Ministry of Tourism, KSA, reported that the total number of hotels in Makkah Al-Mukarramah is 1,724 hotels, rating from one to five stars (Mas, 2019). Thus, after intensive reviewing the literature, numerous studies have reported a significant effect of service quality on customer satisfaction (Marković & Raspor Janković, 2013; Robin Nunkoo et al., 2020). However, there is a dearth of empirical studies examining this relationship in the Saudia context and the impact of the type of religious scene, which has a different effect. In addition, Saudi Arabia has a diverse environment and culture in providing tourism services, and therefore there may be different results (Al Amoudy, 2014; Alotaibi, 2016).

Furthermore, this study contributes to the body of knowledge by enhancing service quality elements that have not been studied before as one dimension. Thus, this study tries to fill this gap in the literature. Therefore, after an extensive literature review, selected the agreed dimensions of service quality by scholars that influence hotel guest satisfaction (Aubert-Gamet, 1997; Bitner & Hubbert, 1994; Lockyer, 2002; Robin Nunkoo et al., 2020; A Parasuraman, 1998; A. Wu & Weber, 2005; H.-C. Wu & Ko, 2013). These dimensions include "hotel infrastructure, room quality, employees' front desk, food and beverage, safety and security, attitude, and behaviour, employee expertise, and waiting time."

Most previous studies investigated the four and five stars hotels to measure the relationship between service quality and customer satisfaction with limited studies on low and mid-range hotels (Rauch et al., 2015). Therefore, researchers Robin Nunkoo et al. (2020); Rhee and Yang (2015) called for further comparative studies in various cultures to understand the customer's point of view of different hotels classifications. Thus, this study responded to this call and examined the mid-scale hotels (rating two and three stars) in Makkah Al-Mukarramah, KSA, since %51.3 of the total hotels in Makkah Al-Mukarramah are under this category (Mas, 2019). Accordingly, our study contributes to the literature due to the lack of research that measures the association between service quality and customer satisfaction in hotels with mid-range hotels (two and three-star ratings).

1.1 Literature review

1.2 Customer Satisfaction

In the marketing literature, customer satisfaction has been intensively considered (Brady et al., 2005; Heskett & Sasser, 2010; Hutchinson et al., 2009). In every business, customer satisfaction is vital for retaining existing customers and attracting new ones, particularly in the service sector (Brady et al., 2005; Deng et al., 2013; Mathe et al., 2016). Customers' satisfaction lacks compatibility between the consumers' expectations for purchasing a service or a product and their assessment after usage (Oliver, 1980). Other scholars Tjiptono (2006); Woodruff and Gardial (1996) described customers' satisfaction as "the assessment or emotion that outcomes from the disconfirmation process. Hence, it is an

According to Adamu et al. (2016), customers' satisfaction is usually linked with factors related to price, customers' emotions, and delivery time for the quality of a service or product. Meanwhile, guests' satisfaction could be measured in the hotel sector through hospitable environments, employee behaviours, room quality, and variety and delightful cuisines. Therefore, customer satisfaction must be a strategic target for hotels to remain and grow to continue in a strictly competitive industry. As a result, customer satisfaction can inspire innovativeness and competitiveness for hotels and sustain excellent performance (Mohamad et al., 2018; Padma et al., 2010).

1.3 Service Quality

Service quality has several definitions depending on the aligned industry. For example, Bitner and Hubbert (1994) and Rossiter (2009) explained service quality as the sum of procedures influencing customers' opinions concerning a product or service performance. Several scholars in the marketing literature have emphasized the significance of service quality and customer satisfaction in tourism literature (J. Ali et al., 2021; Cronin Jr et al., 2000; Ding et al., 2020; Robin Nunkoo et al., 2020) and the association with the hotel's growth (M. Ali & Raza, 2017; Briggs et al., 2007; Chen et al., 2016; Rogerson, 2011; Saleem & Raja, 2014).

Service quality is increasingly becoming an essential part of the tourism and hotel sectors. Thus, several scholars Mei et al. (1999); Nadiri and Hussain (2005) argued that it is mandatory to define hotel services' quality and develop a psychometrically measurement tool. Accordingly, Christian (1982) and Anantharanthan Parasuraman et al. (1985) claimed that the concept of service quality is relevant to consumers' satisfaction and the expectancy-disconfirmation theory. Therefore, this study has found the expectancy-disconfirmation theory (ED-theory) developed by Oliver (1980) to be more applicable to explaining the construct of service quality. ED-theory describes customers' satisfaction as the difference between expectations and experience with a product or service, which leads to positive or negative disconfirmation or confirmation (Grimmelikhuijsen & Porumbescu, 2017; Oliver, 1980; Torres, 2014).

Several marketing scholars have developed different models for examining service quality. For example, the SERVQUAL model (A Parasuraman, 1998; Anantharanthan Parasuraman et al., 1985) measures the gap analysis between the expected quality and services or products received by customers and reality. This model involves five dimensions (reliability, responsiveness, assurance, empathy, and tangible). As an alternative model, the HOLSERV model was developed by Mei et al. (1999). Meanwhile, the LODGESERV model developed by Knutson et al. (2004) reflects the dimensions of service quality in the hospitality and tourism sector.
Building on the existing models in the marketing literature related to the hospitality sector, H.-C. Wu and Ko (2013) proposed the Scale of Service Quality in Hotels (SSQH) model as a broad scale to examine service quality construct in the hotel sector. The SSQH model consists of employee experience, environment, room quality, facility, design, location, sociability, and waiting time. Even though the service quality features vary from sector to sector across these different models, scholars confirmed that the service quality constructs are characterized by multiple dimensions (Cronin Jr et al., 2000; A Parasuraman, 1998; Anantharanthan Parasuraman et al., 1985).

1.3.1 Hotel Infrastructure and Customers' Satisfaction

According to H.-C. Wu and Ko (2013), the quality of hotel infrastructure is a significant service dimension in the hospitality industry that influences customer satisfaction. It involves features related to the interior decoration, infrastructure design, the environment, lighting, cleanliness, wall colour, temperature, music, noise, and signs (Aubert-Gamet, 1997; Bonn et al., 2007; Lockyer, 2002; A. Wu & Weber, 2005; H.-C. Wu & Ko, 2013). Therefore, we suggested the following hypothesis:

H1: The quality of hotel infrastructure has a positive and significant influence on customer satisfaction.

1.3.2 Employees' Attitudes and Behaviour and Customers' Satisfaction

Previous studies have confirmed a relationship between employees' attitudes and behaviour with customer satisfaction in the hospitality industry (Alhelalat et al., 2017; Kuo, 2007; Robin Nunkoo et al., 2020; Turkay & Sengul, 2014) Therefore, scholars argue about the significance of hotel managers' understanding of their employees' attitudes and behaviours to grow in the hospitality industry (Awasthi et al., 2020; Cappelli & Keller, 2014; Collings & Mellahi, 2009; Noor et al., 2017). Employees' attitudes and behaviours refer to employees' personalities, which contains their degree of willingness to help, understanding the customers' needs, trust and honesty, politeness and cheerful, and respect (Anantharanthan Parasuraman et al., 1985; Turkay & Sengul, 2014; H.-C. Wu & Ko, 2013; Zeithaml et al., 1996). Thus, we hypothesise the following:

H2: Employees' attitudes and behaviour positively and significantly affect customer satisfaction.

1.3.3 Employee Expertise and Customers' Satisfaction

Employee expertise is described as to which degree employees can organize their abilities, knowledge, and skills to accomplish the assigned tasks that influence the interaction between the employee and customer (Czepiel, 1990; Leher, 2017). Thus, employee knowledge, skills, and ability increasingly manage the quality of
employees' interpersonal and communication skills with the customer (Collier & Hoffman, 2016), which leads to improving customers' satisfaction (Barnes et al., 2011; S. A. Lee & Shea, 2015; Zainol & Lockwood, 2014). Previous research tested before and confirmed the significant influence of employees' expertise and customers' satisfaction (Jamal & Adelowore, 2008; Pugh et al., 2002; Solnet, 2006). Further, the findings of the previous studies confirmed the relationship between the ability and skills of employees in problem-solving and customers' communication within the service industry, which enhance the level of customers satisfaction (Aldaihani & Ali, 2018; Lumsdaine & Lumsdaine, 1994; Robin Nunkoo et al., 2020; Panigrahi et al., 2018; Torres & Kline, 2013).

**H3:** Employee expertise has a positive and significant effect on customer satisfaction.

### 1.3.4 Food and Beverage and Customers' Satisfaction

The quality of food and beverage in the hospitality industry that affects customers' satisfaction refers to the overall quality, diversity of food and beverages, hygienic, presenting, and serving service level (Diaz, 2019). The previous empirical studies found a significant positive relationship between food and beverage quality in the hotel market and customer satisfaction (Giritlioglu et al., 2014; Jeaheng et al., 2020; Karunaratne & Jayawardena, 2010; S. Lee, 2019; Mahafzah et al., 2020). Hence, we suggested the following hypothesis:

**H4:** The food and beverage quality positively and significantly affect customer satisfaction.

### 1.3.5 Front Desk Staff and Customers' Satisfaction

The hotel market's front desk's quality includes the check-in process, the luggage transfer procedure, and the ability to solve hotel guests' problems. Previous studies Bharadwaja et al. (2018); Bhat and Qadir (2013); Hassan (2018); Jang et al. (2018); Rao and Sahu (2013) examined the association between the quality of employees' front desk and customers' satisfaction, confirmed the significant influence of the front desk employees on overall customers' satisfaction. Therefore, we proposed the following hypothesis:

**H5:** The employees' front desk quality positively and significantly influence customer satisfaction.

### 1.3.6 Room Quality Significantly and Customers' Satisfaction

The room quality in the hotel's market refers to the room's cleanliness, size, air condition, quietness, and comfortable bed and cushion (Choi & Chu, 2001; Jang et al., 2018; Min & Min, 1997; Robin Nunkoo et al., 2020). Prior empirical studies Jang et al. (2018); Min and Min (1997); Min et al. (2002); Robin Nunkoo et al. (2020); Radojevic et al. (2015); Vo and Chovancová (2019) confirmed that hotel room quality was the most vital factor influence customers' satisfaction. Therefore,
we argued that room quality is a significant service quality factor leading to customer satisfaction in the current study. Accordingly, we suggested the following hypothesis:

**H6:** The room quality significantly and positively impacts customer satisfaction.

### 1.3.7 Safety and Security and Customers' Satisfaction

Safety and security factor in the hotel market covers different features such as protecting the hotel's guests, protecting the hotel property, preventing crimes and terrorism factors, customers' possessions, and ensuring that the electronic security system is working efficiently (Chauhan et al., 2018; Enz, 2009; Enz & Taylor, 2002). Security and safety have become a crucial concern for travellers around the world and continue a vital service quality factor that concludes the overall customers' satisfaction in the hospitality industry (Chauhan et al., 2018; Feickert et al., 2006; Robin Nunkoo et al., 2020; H.-C. Wu & Ko, 2013). Thus, we hypothesized:

**H7:** Safety and security positively and significantly affect customer satisfaction.

### 1.3.8 Waiting Time and Customer Satisfaction

Waiting time is an essential issue in the service sector that positively or negatively influences customers' satisfaction (Larson et al., 1991; Taylor, 1994). Therefore, waiting time for receiving the service is a primary concern for customer satisfaction in the hotel industry (McDougall & Levesque, 1999; Pruyn & Smidts, 1998). According to Benitez et al. (2007), waiting time refers to the customer's time to receive service. Schoales found staying time in the hotel industry is a substantial predictor of customer satisfaction (F. Ali et al., 2017; W.-H. Lee & Cheng, 2018; R Nunkoo et al., 2017). We, thus, suggested the following hypothesis:

**H8:** Waiting time positively and significantly affects customer satisfaction.

## 2. Methodology

### 3.1 Research Model

Building on the theoretical model developed by H.-C. Wu and Ko (2013) and Robin Nunkoo et al. (2020), we proposed an empirically tested research model with an extensive review of the literature. Figure 1 below shows the theoretical model of this study. In the current research, service quality is an independent construct. It consists of eight multiple dimensions (i.e., Hotel Infrastructure (HI), Room quality, employees' front desk (FD), Food and beverage (FB), Safety and Security (SS), Attitude and Behaviour of Employees (AB), Employee Expertise, and Waiting Time (WT), and one dependent variable is Customers' Satisfaction (CS).
3.2 Research Instruments

3.2.1 Service Quality

In the current study, we considered each factor of the service quality constructs as an independent variable to measure its influence on customer satisfaction. The service quality construct was measured by a scale developed by H.-C. Wu and Ko (2013), besides other scales from past studies (Akbaba, 2006; Caro & Garcia, 2008; Choi & Chu, 2001; Cronin Jr et al., 2000; Ko & Pastore, 2007; Min et al., 2002). The Likert scale five-points was used in this study ranging (1) = "strongly disagree" and (5) = "strongly agree." The scales' items include interior design, infrastructure, room quality, employees' attitude and behaviour, employees' expertise, food and beverages, security and safety, and waiting time. All of these features are considered significant in measuring customer satisfaction.

3.2.2 Customer Satisfaction

This study measured the overall customer satisfaction from adopted repeatedly satisfaction scales in the hotel's industry literature; three items were used from a scale developed by Deng et al. (2013) and two items from a scale developed by Rauch et al. (2015) and Fornell (1992). The scale items measured the service provided and the hotel's overall performance with the customers' satisfaction.
3.3 Data collection

This study collected data from respondents from a sample size of 265 domestic and overseas hotel guests who performed Hajj or Umrah. We collected the data using online forums, social networking sites such as Facebook and WhatsApp groups, and personal email contacts. Due to the Covid-19 pandemic in early 2020, the KSA government temporarily cancelled the Hajj and Umrah season. Hence, we targeted guests who have stayed at least two nights in any hotel rating mid-scale hotels (2-3 stars hotels) at Makkah Al-Mukarramah in 2019. Thus, the data were collected using a convenience sampling approach; nonprobability sampling was the most appropriate method for this study. Respondents have sampled because they are "convenient" sources of data (Lavrakas, 2008). The researchers used the Web-Based Questionnaire tool using Google Forms to collect the data. This method is used widely in market research (McDaniel Jr & Gates, 2013).

Several scholars Dunn Lopez et al. (2020); Madariaga et al. (2017); Nurmahmudah and Nuryuniarti (2020); Vasantha Raju and Harinarayana (2016) claimed that using Google Forms has several features. For example, it is a freely available online tool, inexpensive, simple to use and send to multiple and unlimited respondents, can access any time anywhere, minimize the missing data, and improve the efficiency of data extraction and synthesis. Data could be readily converted into a spreadsheet to facilitate data synthesis. The questionnaire with tested validity and reliability was used. Multiple regressions were used to measure customers' satisfaction.

3.4 Data Analysis

3.5 Reliability of the Survey Instruments

The data were analyzed using SPSS 22 Statistical Package for the Social Sciences software. Thirty-four (34) items consisted of the survey instruments exposed to analysis. The study questionnaire was pre-tested; the reliability of the variables is listed in Table 1. Five-point Likert scales (5 = strongly agree; 1 = strongly disagree) were used. The reliability of the study scales, Cronbach's Alpha (α) used to measure the internal consistency of scales' items as presented in Table 1, indicating the obtained Cronbach's alpha coefficients of factors ranged from 0.951 to 0.961. Thus, these values indicate the scales' high internal consistency and above the acceptable value of 0.60 (Hair, Black, et al., 2006). Finally, Cronbach's Alpha (α) 's overall cumulative value for the scale was 0.958, indicating its high reliability.
3.5.1 Reliability Analysis of Survey Instruments (Measures)

Table 1: Reliability Analyses of Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions/Items</th>
<th>Cronbach's Alpha (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Infrastructure (HI)</td>
<td>4</td>
<td>.953</td>
</tr>
<tr>
<td>Room Quality (RQ)</td>
<td>4</td>
<td>.956</td>
</tr>
<tr>
<td>Front Desk (FD)</td>
<td>3</td>
<td>.953</td>
</tr>
<tr>
<td>Food and beverage (FB)</td>
<td>3</td>
<td>.956</td>
</tr>
<tr>
<td>Attitude and behaviour of employees (AB)</td>
<td>3</td>
<td>.951</td>
</tr>
<tr>
<td>Employee expertise (EE)</td>
<td>4</td>
<td>.952</td>
</tr>
<tr>
<td>Safety and security (SS)</td>
<td>4</td>
<td>.955</td>
</tr>
<tr>
<td>Waiting time (WT)</td>
<td>3</td>
<td>.954</td>
</tr>
<tr>
<td>Customer satisfaction (CS)</td>
<td>6</td>
<td>.951</td>
</tr>
<tr>
<td>Overall</td>
<td>34</td>
<td>0.958</td>
</tr>
</tbody>
</table>

3.5.2 Demographic profile of the respondents:

Table 2 presents the demographic profile of the respondents. The descriptive analysis has revealed that 265 show that most of the respondents were male (n = 201, 75.8%), and 24.2% were female. The majority of the respondents' age between 31-40 years old (n= 127, 47.9%). The respondents' level of education in the sample who are holding above university was 57% (n = 151), and holding a university degree 34.3% (n = 91). Most of the respondents in the sample working in an institutional position with 31.3% (n = 83), and civil servant 25.3% (n = 67), and private company 20.8% (n = 55), and trader 6.4% (n = 17), and retired 3% (n = 8), Lastly, respondent in the sample working in other positions were 13.2% (n = 35).

Table 2: Demographic summary of the respondents (N = 265)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>52</td>
<td>19.6</td>
</tr>
<tr>
<td>31-40</td>
<td>127</td>
<td>47.9</td>
</tr>
<tr>
<td>41-50</td>
<td>57</td>
<td>21.5</td>
</tr>
<tr>
<td>above 50</td>
<td>29</td>
<td>10.9</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>201</td>
<td>75.8</td>
</tr>
<tr>
<td>Female</td>
<td>64</td>
<td>24.2</td>
</tr>
<tr>
<td><strong>Level of Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below University Degree</td>
<td>23</td>
<td>8.7</td>
</tr>
<tr>
<td>University Degree</td>
<td>91</td>
<td>34.3</td>
</tr>
<tr>
<td>Above University Degree</td>
<td>151</td>
<td>57</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil servant</td>
<td>67</td>
<td>25.3</td>
</tr>
<tr>
<td>Company staff</td>
<td>55</td>
<td>20.8</td>
</tr>
<tr>
<td>Institution staff</td>
<td>83</td>
<td>31.3</td>
</tr>
<tr>
<td>Trader</td>
<td>17</td>
<td>6.4</td>
</tr>
<tr>
<td>Retired</td>
<td>8</td>
<td>3.0</td>
</tr>
<tr>
<td>Others</td>
<td>35</td>
<td>13.2</td>
</tr>
</tbody>
</table>
3.5.3 Collinearity Assessment

Collinearity occurs when two or more predictors measure the same underlying constructs (Kline, 2011). A collinearity problem can decrease the predictive power of predicting variables (Hair, Bush, et al., 2006). Subsequently, a collinearity Inflation Factor (VIF) test was conducted to predict this research's variables. For collinearity assessment, Sarstedt et al. (2014) and Kline (2011) recommended that Variance Inflation Factor (VIF) values should be below 5, while the tolerance values should be above 0.20. The collinearity assessment for the variables in this study was tested using SPSS 24 multiple regression functions. Table 3 presents the findings of the collinearity test. The results revealed that all the VIF values of all variables remained under the cut-off value (i.e., ≤ 5), and tolerance values for all the variables are higher than 0.20, Thus, providing sufficient evidence of no indication of collinearity between each set of predictor constructs.

Table 3: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>HI</td>
<td>.277</td>
</tr>
<tr>
<td>RQ</td>
<td>.326</td>
</tr>
<tr>
<td>FD</td>
<td>.283</td>
</tr>
<tr>
<td>FB</td>
<td>.378</td>
</tr>
<tr>
<td>AB</td>
<td>.216</td>
</tr>
<tr>
<td>EE</td>
<td>.204</td>
</tr>
<tr>
<td>SS</td>
<td>.345</td>
</tr>
<tr>
<td>WI</td>
<td>.273</td>
</tr>
</tbody>
</table>

a. Dependent Variable: CS

Table 4 presents the discriminant validity established on the scale since the estimated correlations between the dimensions are not too high (i.e., > 0.85; Kline, 1998). The correlation estimates for the eight sub-dimensions were less than the suggested threshold (r = .85). The correlation coefficient analysis confirmed the existence of a strong positive relationship between the independent variable and the dependent variable. Table 3 showed that all relationships among variables are significant at 0.000 levels. The results revealed that dimensions “employee expertise” (EE), waiting time (WT), and “attitude and behaviour of employees” (AB) had the highest associations with the dependent variable “customer satisfaction” (CS) with values (r = 0.823, 0.813, .803, p < 0.01) respectively, followed by hotel infrastructure (HI), Front Desk (FD), safety and security (SS), and food and beverage (FB) with values (r =.781, 742, .721, .713, p < 0.01), respectively.
3.5.4 Correlation Analysis:

Table 4: Results of the Pearson Correlations Matrix (N = 265)

<table>
<thead>
<tr>
<th></th>
<th>HI</th>
<th>RQ</th>
<th>FD</th>
<th>FB</th>
<th>AB</th>
<th>EE</th>
<th>SS</th>
<th>WI</th>
<th>CS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ</td>
<td></td>
<td>.757**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FD</td>
<td>.716**</td>
<td></td>
<td>.718**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FB</td>
<td>.732**</td>
<td>.634**</td>
<td>.652**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AB</td>
<td>.746**</td>
<td>.710**</td>
<td>.786**</td>
<td>.701**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>.695**</td>
<td>.636**</td>
<td>.752**</td>
<td>.697**</td>
<td>.832**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>.727**</td>
<td>.733**</td>
<td>.716**</td>
<td>.664**</td>
<td>.697**</td>
<td>.647**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WI</td>
<td>.682**</td>
<td>.614**</td>
<td>.728**</td>
<td>.632**</td>
<td>.767**</td>
<td>.831**</td>
<td>.635**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>.781**</td>
<td>.686**</td>
<td>.742**</td>
<td>.713**</td>
<td>.803**</td>
<td>.823**</td>
<td>.721**</td>
<td>.813**</td>
<td>1</td>
</tr>
</tbody>
</table>

3.5.5 Regression Analysis.

The regression coefficient was used in this study to measure how strongly each independent (explanatory) variable predicted the variation in the dependent (explained) variable (Montgomery et al., 2021; Seber & Lee, 2012). Since this study has several service quality dimensions (independent variable) and was considered together, we used the multiple regression analysis to measure which dimension influences customer satisfaction (dependent variable). Table 3 showed the multiple regression results; it presented R², F statistics, and the model's significance. The results revealed that six factors of service quality (hotel infrastructure, room quality, attitude and behaviour of employees, employee expertise, security and safety, and waiting time) significantly predicted customer satisfaction.

The statistical findings have confirmed that the overall model was significant with a value (F (129.740) = 130.00, (p < 0.000), the coefficient of determination value was (adjusted R square = .797) means the independent variables of service quality (Hotel Infrastructure (HI), Room Quality (RQ), attitude and behaviour of employees (AB), Employee expertise (EE), Security and Safety (SS), and Waiting time (WT) collectively explains the variance of almost 80% for the dependent variable, i.e., Customers’ satisfaction (CS) at 95% probability level. In other words, this model displays that the 80% variance in customers’ satisfaction is explained by the dimensions of service quality collectively. Alongside these, independent variables (HI, WI, RQ, AB, EE) are also individually significant and positively correlated with the dependent variable, i.e., Customer satisfaction (CS). The regression model results are summarised in Tables 5, 6, and 7. Table 8 summarizes the results of the regression analysis.
Table 5: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.896a</td>
<td>.803</td>
<td>.797</td>
<td>.43797</td>
</tr>
</tbody>
</table>

Predictors: (Constant), WI, RQ, FB, SS, FD, HI, AB, EE

Table 6: Analysis of Variance ANOVAA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>199.093</td>
<td>8</td>
<td>24.887</td>
<td>129.740</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>48.914</td>
<td>255</td>
<td>.192</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>248.006</td>
<td>263</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: CS

Note. Hotel Infrastructure (HI), Room Quality (RQ), Front Desk (FD), Food and Beverage (FB), Safety and security (SS), attitude and behaviour of employees (AB), Employee expertise (EE), Waiting time (WT).

Table 7: Regression Coefficientsa

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant) -1.194</td>
<td>.137</td>
<td>-1.415</td>
<td>.158</td>
</tr>
<tr>
<td>HI</td>
<td>.324</td>
<td>.075</td>
<td>.277</td>
<td>4.338</td>
</tr>
<tr>
<td>RQ</td>
<td>.473</td>
<td>.076</td>
<td>.416</td>
<td>6.242</td>
</tr>
<tr>
<td>FD</td>
<td>.003</td>
<td>.053</td>
<td>.003</td>
<td>.054</td>
</tr>
<tr>
<td>FB</td>
<td>.062</td>
<td>.045</td>
<td>.062</td>
<td>1.376</td>
</tr>
<tr>
<td>AB</td>
<td>.307</td>
<td>.081</td>
<td>.245</td>
<td>3.789</td>
</tr>
<tr>
<td>EE</td>
<td>.237</td>
<td>.063</td>
<td>.231</td>
<td>3.757</td>
</tr>
<tr>
<td>SS</td>
<td>.135</td>
<td>.052</td>
<td>.122</td>
<td>2.585</td>
</tr>
<tr>
<td>WI</td>
<td>.251</td>
<td>.050</td>
<td>.269</td>
<td>5.052</td>
</tr>
</tbody>
</table>

Dependent Variable: Customer satisfaction

Table 8: Summary results of the regression analysis

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>t-value</th>
<th>p-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of hotel infrastructure has a positive and significant influence on customer satisfaction.</td>
<td>4.338</td>
<td>.000</td>
<td>supported</td>
</tr>
<tr>
<td>Employees' attitudes and behaviour positively and significantly affect customer satisfaction.</td>
<td>3.789</td>
<td>.000</td>
<td>supported</td>
</tr>
</tbody>
</table>
### Hypothesis Testing Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>t-value</th>
<th>p-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3:</strong> Employee expertise has a positive and significant effect on customer satisfaction.</td>
<td>3.757</td>
<td>.000</td>
<td>supported</td>
</tr>
<tr>
<td><strong>H4:</strong> The food and beverage quality positively and significantly affects customer satisfaction.</td>
<td>1.376</td>
<td>.170</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>5:</strong> The employees’ front desk quality positively and significantly influence customer satisfaction.</td>
<td>.054</td>
<td>.957</td>
<td>Not supported</td>
</tr>
<tr>
<td>The room quality significantly and positively impacts customer satisfaction.</td>
<td>6.242</td>
<td>.000</td>
<td>supported</td>
</tr>
<tr>
<td>Safety and security positively and significantly affect customer satisfaction.</td>
<td>2.585</td>
<td>.010</td>
<td>supported</td>
</tr>
<tr>
<td><strong>H8:</strong> Waiting time positively and significantly affect customer satisfaction</td>
<td>5.052</td>
<td>.000</td>
<td>supported</td>
</tr>
</tbody>
</table>

### 3. Discussion and Implication of the Study

The current study examined the association between service quality and overall customer satisfaction in the hotel sector in Makkah Al-Mukarramah, KSA. This study has a theoretical and practical contribution to the marketing literature. The findings shed light on the dimensions that influence customer satisfaction in the hotel industry. Besides, this study contributes to the literature since there is a lack of empirical studies examining the relationship between service quality dimensions and customer satisfaction, particularly in developing countries like KSA. On the other hand, Shmueli and Koppius (2011) pointed out that the R square tests' value explained the dependent variable's variance. The present study's total variance was 80%; the current model showed that service quality dimensions explained the 80% variance in customer satisfaction. This study's findings revealed that six out of eight dimensions of service quality construct (hotel infrastructure, room quality, employee expertise, attitude and behaviour of employees, safety and security, and waiting time) are positively and significantly correlated with customer satisfaction. These results were consistent with previous research findings (Amin, 2015; Bello & Bello, 2017; Choi & Chu, 2001; Hilliard & Baloglu, 2008; Kuo, 2007; Ladhari, 2012; Luciao & Maroco, 2013; Robin Nunkoo et al., 2020). Collectively, the above six dimensions of service quality can significantly predict customers' satisfaction.

The findings of this study revealed that the dimension “room quality” had the highest statistically significant standardized coefficient, precisely ($\beta = 0.416$, $p < 0.01$). Thus, it had the greatest influence on overall customer satisfaction. Followed by the dimensions “hotel infrastructure” ($\beta = 0.277$, $p < 0.01$), and “waiting time” ($\beta = 0.269$, $p < 0.01$). Besides, the dimension “attitude and behaviour of employees” ($\beta = 0.245$, $p > 0.05$), the dimension “employee expertise” ($\beta = 0.231$, $p < 0.01$). The smallest influence independent variable in
this regression model was “safety and security” ($\beta = 0.122, p > 0.05$), it means that this variable had the least influence on overall customer satisfaction. Meanwhile, the dimensions front desk and food and beverage were not statistically significant specifically ($\beta = 0.003, p = 0.957$), ($\beta = 0.062, p = 0.170$) respectively.

4. **Practical Implications**

The findings of this study provide practical implications to hotel managers precisely in Makkah Al-Mukarramah, KSA. According to research attributes in the hotel industry, the most crucial service quality dimensions that significantly influence customers' satisfaction are the hotel infrastructure and employee expertise. Subsequently, hotel managers should focus on improving the hotel infrastructure and employee expertise to sustain a competitive advantage. Training and development and customized on-the-job training programs for hotel employees could be an integral approach to strengthening the expertise of hotels' employees (Dhar, 2015; Jacobs & Ballenger, 2019; Swedberg et al., 2015). Besides, hotel managers in Makkah Al-Mukarramah, KSA, should consider the importance of their employees' attitudes and behaviour. Thus, to improve customer satisfaction, employees need to show a highly responsive attitude, be friendly and polite, and be required to solve the hotel guests' problems promptly.

Furthermore, managers of mid-range hotels in Makkah Al-Mukarramah, KSA, should also improve room quality, safety, and security features to enhance customer satisfaction. Regarding safety and security features, hotels in Makkah Al-Mukarramah, KSA, should have a high-quality fire safety system, straightforward access, and use to the guests. Hotel managers should also guarantee the rooms' security performance. Several scholars claimed that the hotel's safety and security features could be a competitive edge source (Chan & Lam, 2013; Enz, 2009; Sierra et al., 2012). Hence, hotel managers must pay much attention to the safety and security features to gain a competitive edge and enhance guests' satisfaction.

5. **Limitation and Future Study**

Although the current study has theoretical and practical contributions, this study has several limitations. The data collected for this study are limited to Pilgrims and Umrah Performers's stayed for at least two nights in hotels rated as two or three stars in Makkah Al-Mukarramah, KSA. Therefore, several scholars Bi et al. (2020); Gebremichael and Singh (2019); Malik et al. (2020); Mohsin et al. (2019); Ren et al. (2016) claimed various factors, i.e., lifestyle, location of the origin country, living cost, hotel infrastructure, safety and security, and language barriers, substantially influence customers' expectations in the hotel industry. Therefore, this study’s findings have limitations for generalizing the hotel sector to other communities. Thus, we recommended researchers carry out comparable empirical studies in other countries with different contexts to validate this study's findings. Besides, this study examined the association between the dimension of
service quality and customer satisfaction. Therefore, future studies advise measuring the relationship between service quality and customer satisfaction in the hotel industry with other variables such as customer loyalty, corporate image, cultural contact, and hotel technologies. Further, examining the mediation-moderation effect of different variables.

References


Varsanis, K., Belias, D., Kakkos, N., Chondrogiannis, M., Rossidis, I., & Mantas, C. (2019). The relationship between service quality and customer satisfaction on luxurious hotels so to produce error-free service. In *Strategic Innovative Marketing and Tourism* (pp. 67-76). Springer. [https://doi.org/10.1007/978-3-030-12453-3_8](https://doi.org/10.1007/978-3-030-12453-3_8)


