



## **Restaurant Quality and Customer Satisfaction**

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### **ABSTRACT**

This study aimed to explore the impact of restaurant quality on customer satisfaction. Restaurant quality was measured using 11 dimensions related to halal, food, hygiene, menu and atmospheric quality, as well as assurance, accuracy, responsiveness, interior design, external environment and price. The sample consisted of 289 respondents randomly selected from 100 small (70) and large (30) full-service restaurants in Saudi Arabia. A questionnaire containing 33 items was developed based on a review of the literature to collect the required data. Based on the dimensions of restaurant quality selected, 11 hypotheses were proposed, all of which are supported. The findings show that all the restaurant quality dimensions examined have a significant and positive influence on customer satisfaction. Moreover, it can be concluded that halal quality is unquestionably influential as none of the restaurants serve prohibited foods. However, other dimensions are also very important, particularly food quality (taste, freshness of meals and amount of food), hygiene (clean dining area and clean staff), responsiveness (prompt service) and menu (display, variety and knowledge of items). As the study was carried out in full-service restaurants, the results cannot be generalized to all types of restaurants, such as fast-food or self-service restaurants. Therefore, future research should consider a larger sample size and different types of restaurant.

**Keywords:** Restaurant Quality, Customer Satisfaction, Full-service Restaurants, Service Quality

**JEL Classifications:** L1, L83

## **1. INTRODUCTION**

The relationship between quality and customer satisfaction has gained great attention in the literature. A number of previous studies have been carried out on different types of restaurant in order to examine the impact of service quality on customer satisfaction (Kanta and Srivalli, 2014; Rahman et al., 2012; Saglik et al., 2014; Tat et al., 2011). However, little attention has been paid to the relationship between the total quality of restaurants and customer satisfaction (Gagić et al., 2013; Jaini et al., 2015). Hence, this study used different dimensions related to service quality, food quality, food status (i.e. halal quality), restaurant quality (i.e. cleanliness, environment and design) and price. That is, the study used diverse dimensions to measure not only service quality, but also other aspects of restaurant quality.

The primary search for works on restaurant quality and customer satisfaction in the literature indicated that most previous studies were carried out in countries other than Saudi Arabia, for example, Taiwan (Kang and Wang, 2009), Malaysia (Tat et al., 2011),

Bangladesh (Rahman et al., 2012), Pakistan (Malik et al., 2013), Serbia (Gagić et al., 2013), Croatia (Pecotic et al., 2014), India (Kanta and Srivalli, 2014), Indonesia (Canny, 2014) and Vietnam (Dao and Tin, 2015). In contrast, few studies were found related to Arab countries (Akroush et al., 2013; Al-Tit, 2015), particularly Saudi Arabia (El-garaihy, 2013). In terms of the results found in previous research on the relationship between restaurant quality and customer satisfaction in general, it can be accepted that all dimensions related to restaurant quality have a positive impact on customer satisfaction. To investigate the impact of these dimensions on customer satisfaction in Saudi restaurants, this study is essential.

## **2. LITERATURE REVIEW AND HYPOTHESES**

### **2.1. Relationship between Restaurant Quality and Other Factors**

Many studies have been conducted to research the quality of different types of restaurant in numerous countries. Several quality

dimensions have been proposed as independent variables to have relationships with different dependent variables. Table 1 shows some examples of these variables, types and countries.

**2.2. Service Quality Dimensions of Restaurants**

Numerous dimensions of restaurant quality emerge in the literature, as can be seen in Table 2. Sumaedi and Yarmen (2015) proposed a model for service quality of restaurants in Islamic countries. Their model consists of eight dimensions: General physical environment, Islamic physical environment, food quality, waiting time, personnel, process, Islamic-related expertise and halal quality. Malik et al. (2013) explored customers' perceptions of the

service quality of restaurants in Pakistan using five dimensions: Food quality, tangibles, staff, convenience and tips.

Jaini et al. (2015) investigated the factors that affect the service quality of fast-food restaurants, studying the relationship between customer experience and total quality. They used three main dimensions to measure the total quality of restaurants: Service quality, food quality and atmospheric quality. Abdul and Zainal (2016) explored the relationship between quality and customer satisfaction using five independent variables: Perceived value, emotional price, monetary price, behavioural price and reputation. In their study of the relationship between interior design and

**Table 1: Examples of variables and restaurant types studied**

Independent variables	Dependent variables	Restaurant type and country	Researchers	Year
Service quality	Behavioural intentions	Seafood restaurants in Penghu, Taiwan	Kang and Wang	2009
Perceived value				
Customer satisfaction				
Service quality	Student satisfaction	Fast-food restaurants at a Malaysian public university	Tat et al.	2011
Service quality	Customer satisfaction	Restaurants in Khulna city, Bangladesh	Rahman et al.	2012
Price				
Service quality	Customer satisfaction	Full-service restaurants in Pakistan	Malik et al.	2013
Food quality				
Restaurant quality	Guest satisfaction	Restaurants in Serbia	Gagić et al.	2013
Service quality	Customer satisfaction, loyalty and intention	Hotels in the eastern province of Saudi Arabia	El-garaihy	2013
Interior design	Customer satisfaction	Restaurants in Croatia	Pecotic et al.	2014
Service quality	Customer satisfaction	Large restaurants in India	Kanta and Srivalli	2014
	Repeat patronage			
Service quality	Student satisfaction	Refectories in universities in Turkey	Saglik et al.	2014
Customer satisfaction	Behavioural intentions	Casual restaurants in south Jakarta, Indonesia	Canny	2014
Total restaurant quality	Customer experience	Local fast-food restaurant in Malaysia	Jaini et al.	2015
Perceived value	Customer satisfaction	Malay upscale restaurants	Abdul and Zainal	2016

**Table 2: Restaurant-related dimensions of quality**

Dimensions	Researchers	Year
Tangibility, responsiveness, empathy, reliability, assurance and customer-perceived service quality	Tat et al.	2011
Menu, price, waiting time, staff service, hygiene quality, internal and external environment	Saraiva et al.	2011
Assurance, empathy, reliability, appearance of facilities and prompt service, staff quality, appearance of dining area and confidence	Markovic et al.	2011
Image of the restaurant, accuracy, speed of service and price	Rahman et al.	2012
Tangibles, reliability, responsiveness, assurance, empathy and food quality	Ramseook-Munhurrun	2012
Food quality, tangibles, staff, convenience and tips	Malik et al.	2013
Food quality, service quality, physical environment and price fairness	Gagić et al.	2013
Tangibles, reliability, responsiveness, assurance and empathy	Surapranata and Iskandar	2013
Reliability, assurance, empathy and responsiveness	Akroush et al.	2013
Dining experience: Food quality, service quality and physical environment	Canny	2014
Service, hygiene and atmosphere	Saglik et al.	2014
Interior design	Pecotic et al.	2014
Reliability and responsiveness	Sabir et al.	2014
Tangibles, reliability, responsiveness, assurance and empathy	Yulisetiari	2014
General physical environment, Islamic physical environment, food quality, Islamic-related expertise, waiting time, personnel, process and halal quality	Sumaedi and Yarmen	2015
Service quality (tangibles, reliability, responsiveness, assurance, empathy) and food quality (taste and freshness of food)	Al-Tit	2015
Service quality, food quality, atmospheric quality and perceived value	Jaini et al.	2015
Service quality (tangibles, reliability, responsiveness, empathy, assurance), price, authenticity and meal pace	Ngoc and Uyen	2015
Product (product character, culinary arts and hygiene and safety) and customer (environment atmosphere, marketing and promotion and service quality) categories	Ko and Su	2015
Tangibles, food quality/reliability, responsiveness and assurance/empathy	Dao and Tin	2015
Perceived value, emotional price, monetary price, behavioural price and reputation	Abdul and Zainal	2016

customer satisfaction, Pecotic et al. (2014) used numerous factors related to furniture, size, colour, art, music and layout.

Saglik et al. (2014) studied the service quality of restaurants in terms of three dimensions: Service, hygiene and atmosphere. Tat et al. (2011) carried out a study among undergraduate students in Malaysia to explore their purchase intentions in fast-food restaurants, adopting the SERVPERF dimensions. Rahman et al. (2012) studied key drivers that affect customer satisfaction in terms of service quality and price. They measured service quality using the following dimensions: Image of the restaurant, accuracy and speed of service.

Gagić et al. (2013) identified four dimensions of restaurant quality: Food quality, service quality, physical environment and price fairness. Canny (2014) used three dimensions to measure dining experience: Food quality, service quality and physical environment. Saraiva et al. (2011) developed a study to measure customer satisfaction using the following dimensions: Menu, price, waiting time, staff service, hygiene quality and the internal and external environment. Surapranata and Iskandar (2013) evaluated the service quality of a family restaurant in Indonesia using the SERVQUAL dimensions, i.e. tangibles, reliability, responsiveness, assurance and empathy.

Sabir et al. (2014) investigated factors that have an influence on customer satisfaction in restaurants in Pakistan. Their research model consisted of three independent variables (quality, price and environment) and one dependent variable (customer satisfaction). They operationalized service quality in terms of reliability and responsiveness. Akroush et al. (2013) examined a model of internal marketing and internal service quality in a sample of Jordanian restaurants. They assessed service quality using reliability, assurance, empathy and responsiveness. In a study of a limited number of restaurants in Jordan, Al-Tit (2015) investigated the impact of service and food quality on customer satisfaction and customer retention. The SERVQUAL scale was used to measure service quality and two main items were employed to evaluate food quality (freshness and taste of food).

Ngoc and Uyen (2015) studied the effect of service quality, measured by the SERVQUAL dimensions, price, meal pace and authenticity, on customer satisfaction. Ko and Su (2015) carried out a study to identify the main factors of food service quality. They identified two categories of dimensions related to products and customers. The product category comprised product character, culinary arts and hygiene and safety. The customer category consisted of environment atmosphere, marketing and promotion and service quality. In their study on traditional restaurants in Vietnam, Dao and Tin (2015) examined the relationship between service quality and customer satisfaction, using the following dimensions to measure service quality in restaurants: Tangibles, food quality/reliability, responsiveness and assurance/empathy. Ramseook-Munhurrun (2012) examined the impact of service quality on customer satisfaction and behavioural intentions, employing the SERVQUAL dimensions in addition to food quality to assess restaurant quality.

### 2.3. Quality Dimensions of Restaurants used in this Study

Eleven dimensions were selected from those found in the literature to measure restaurant quality in this study. Table 3 shows the most important dimensions selected for the study with a justification for each.

### 2.4. Research Hypotheses

Malik et al. (2013) explored the relationship between service and food quality and customer satisfaction. They found a positive relationship between restaurant staff, tangibles and food quality and customer satisfaction. In addition, their results showed a non-significant relationship between tips and convenience and customer satisfaction. Pecotic et al. (2014) conducted a study to identify factors (interior design of restaurants) that influence customer satisfaction and found that furniture comfort, music, table ware conditions, lighting and table layout have a significant influence on customer satisfaction. Jaini et al. (2015) studied the relationship between customer experience and total quality of fast-food restaurants and found positive relationships between service quality, food quality and perceived value and customer

**Table 3: Restaurant quality dimensions used in the present study**

Dimensions	Justification	Adopted from	Year
Assurance	One of the most important factors, which includes the critical sub-dimensions of restaurant quality	Tat et al.	2011
Menu external environment	The study was conducted in restaurants in which the menus are the main aspect of business. The external environment refers to the location of the restaurant, accessibility for people with special needs and parking	Saraiva et al.	2011
Accuracy	This dimension refers to serving the same food as ordered	Rahman et al.	2012
Food quality	The target population of this study is restaurants	Malik et al.	2013
Responsiveness	This dimension indicates willingness to help and provide fast service	Surapranata and Iskandar	2013
Hygiene quality	This is a new dimension	Saglik et al.	2014
Interior design	Size, table layout and furniture design and comfort have been found to have a significant importance on customer satisfaction	Pecotic et al.	2014
Halal quality	The study was undertaken in Saudi Arabia, which is an Islamic country	Sumaedi and Yarmen	2015
Atmospheric quality	It has been found that atmospheric quality has no significant relationship with customer experience	Jaini et al.	2015
Price (emotional, monetary, and behavioural)	Three types of price were proposed by a recent study conducted in an Islamic country and supposed to have a significant relationship with customer satisfaction concerning restaurants	Abdul and Zainal	2016

experience. According to their results, atmospheric quality has no significant relationship with customer experience.

Abdul and Zainal (2016) investigated the influence of five dimensions (perceived value, emotional price, monetary price, behavioural price and reputation) on customer satisfaction. A main finding of their study was the high significant impact of emotional, monetary and behavioural prices on customer satisfaction. In a study carried out by Saglik et al. (2014) in refectories in universities, service and hygiene quality were found to have a significant relationship with customer satisfaction. Tat et al. (2011) examined the influence of service quality dimensions (tangibility, responsiveness, empathy, reliability, assurance and customer-perceived service quality) on students' satisfaction in fast-food restaurants at a university. Their results led to the acceptance of the hypotheses that all five dimensions have a significant impact on satisfaction.

The aim of Rahman et al.'s (2012) study was to investigate the relationship between service quality and price and customer satisfaction. Their results revealed that the image of the restaurant, accuracy in serving the food ordered and speed of service were significantly associated with customer satisfaction. Canny (2014) investigated the mediating role of dining experience in the relationship between customer satisfaction and behavioural intentions and concluded that food quality, service quality and the physical environment have significant relationships with customer satisfaction. Kang and Wang (2009) rejected the hypothesis that service quality has a significant impact on customer satisfaction. Saraiva et al. (2011) tried to determine factors that affect customer satisfaction in university restaurants in Portugal. They showed that the menu, food quality, price, waiting time, staff, hygiene quality and internal and external environment are critical factors in stimulating customer satisfaction. In a study of a family restaurant in Indonesia, Surapranata and Iskandar (2013) investigated the relationship between service quality and customer satisfaction and found that tangibles, empathy, responsiveness, reliability and assurance are significant factors, playing an important role in customer satisfaction. Shariff et al. (2015) studied the influence of service quality and food quality on customer satisfaction. They found that both service quality and food quality are significant antecedents of customer satisfaction. Based on the above literature, the following hypotheses are proposed:

- H<sub>1</sub>: Assurance has a significant and positive impact on customer satisfaction.
- H<sub>2</sub>: The menu has a significant and positive impact on customer satisfaction.
- H<sub>3</sub>: The external environment has a significant and positive impact on customer satisfaction.
- H<sub>4</sub>: Accuracy has a significant and positive impact on customer satisfaction.
- H<sub>5</sub>: Food quality has a significant and positive impact on customer satisfaction.
- H<sub>6</sub>: Responsiveness has a significant and positive impact on customer satisfaction.
- H<sub>7</sub>: Hygiene quality has a significant and positive impact on customer satisfaction.
- H<sub>8</sub>: Interior design has a significant and positive impact on customer satisfaction.
- H<sub>9</sub>: Halal quality has a significant and positive impact on customer satisfaction.
- H<sub>10</sub>: Atmospheric quality has a significant and positive impact on customer satisfaction.
- H<sub>11</sub>: Price has a significant and positive impact on customer satisfaction.

- H<sub>9</sub>: Halal quality has a significant and positive impact on customer satisfaction.
- H<sub>10</sub>: Atmospheric quality has a significant and positive impact on customer satisfaction.
- H<sub>11</sub>: Price has a significant and positive impact on customer satisfaction.

**2.5. Research Model**

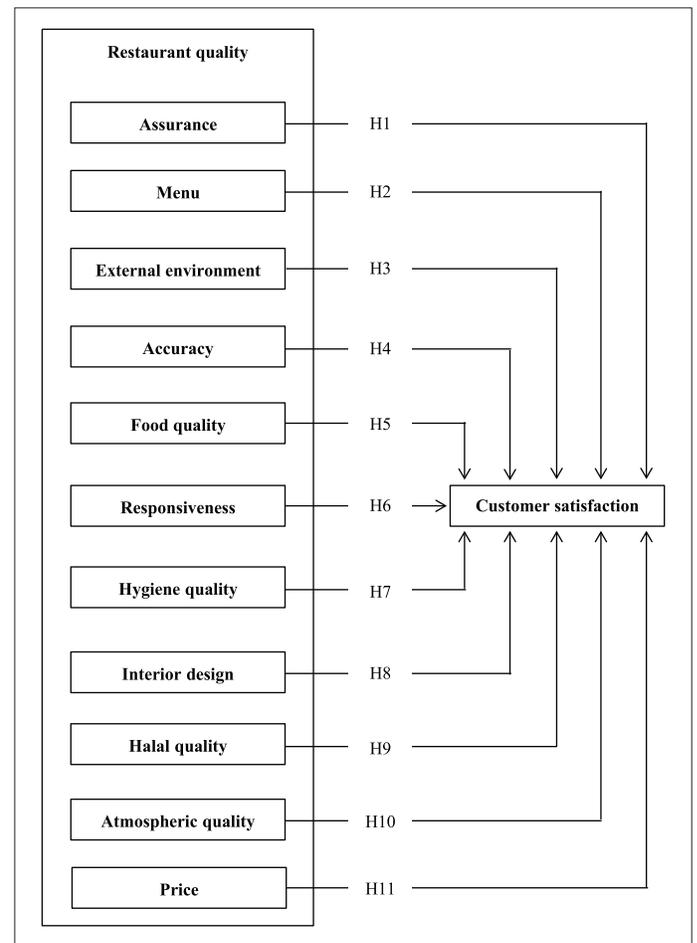
Figure 1 presents the research model, which consists of 11 dimensions of restaurant quality drawn from the literature and used as independent variables and one dependent variable, i.e. customer satisfaction. The Figure 1 also displays the presumed relationships between these variables. Hence, the model illustrates the 11 hypotheses outlined above.

**3. METHODOLOGY**

**3.1. Data Collection**

The study was conducted in small and large full-service restaurants in Saudi Arabia. The sample comprised 350 customers. The data were collected using a questionnaire consisting of 33 items to measure assurance, the menu, the external environment, accuracy, food quality, responsiveness, hygiene quality, interior design, halal quality, atmospheric quality, price and customer satisfaction (customer satisfaction with the dining experience and positive

**Figure 1:** Research model



mood). Of the 350 questionnaires distributed to customers in 100 restaurants, 289 questionnaires were returned complete.

### 3.2. Measures

Table 4 displays the measures used to assess the independent (dimensions of restaurant quality) and dependent (customer satisfaction) variables.

### 3.3. Validity and Reliability

Following Kim et al. (2009), exploratory factor analysis was used to test construct validity and alpha coefficient values were employed to assess the reliability of the constructs. The results shown in Table 5 demonstrate good validity and reliability. Factor loadings were  $>0.5$ , eigenvalues  $>1$ , reliability coefficients  $>0.7$  and the average variance extracted  $>0.5$ .

## 4. RESULTS

The aim of this research was to investigate the impact of restaurant quality on customer satisfaction. Eleven hypotheses were proposed in order to achieve this aim. The hypotheses were tested using correlational and regression analyses.

### 4.1. Correlation Matrix

The results shown in Table 6 show that all restaurant quality dimensions are significantly correlated with customer satisfaction.

That is, customer satisfaction is correlated with assurance ( $r = 0.48$ ), the menu ( $r = 0.54$ ,  $P < 0.05$ ), the external environment ( $r = 0.35$ ,  $P < 0.05$ ), accuracy of order fulfilment ( $r = 0.37$ ,  $P < 0.05$ ), food quality ( $r = 0.76$ ,  $P < 0.05$ ), responsiveness ( $r = 0.56$ ,  $P < 0.05$ ), hygiene quality ( $r = 0.61$ ,  $P < 0.05$ ), interior design ( $r = 0.40$ ,  $P < 0.05$ ), halal quality ( $r = 0.87$ ,  $P < 0.05$ ), atmospheric quality ( $r = 0.52$ ,  $P < 0.05$ ) and price ( $r = 0.50$ ,  $P < 0.05$ ).

### 4.2. Regression Analysis

The results of the regression analysis, displayed in Table 7, show that all the hypothesized influences of restaurant quality dimensions on customer satisfaction are accepted. The results indicate that halal quality ( $\beta = 0.423$ ,  $P < 0.05$ ) has the strongest effect on customer satisfaction, followed by food quality ( $\beta = 0.389$ ,  $P < 0.05$ ), hygiene quality ( $\beta = 0.361$ ,  $P < 0.05$ ) and responsiveness ( $\beta = 0.356$ ,  $P < 0.05$ ). Menu ( $\beta = 0.344$ ,  $P < 0.05$ ), atmospheric quality ( $\beta = 0.339$ ,  $P < 0.05$ ), price ( $\beta = 0.319$ ,  $P < 0.05$ ), assurance ( $\beta = 0.301$ ,  $P < 0.05$ ), accuracy ( $\beta = 0.256$ ,  $P < 0.05$ ), interior design ( $\beta = 0.297$ ,  $P < 0.05$ ) also have a positive and significant impact on the dependent variable. The smallest effect is that of the external environment ( $\beta = 0.199$ ,  $P < 0.05$ ). Overall, the findings point out that the 11 restaurant quality dimensions have a positive and significant impact on the 2 dimensions of customer satisfaction in small and large full-service restaurants in Saudi Arabia.

**Table 4: Measures used in the study**

Variable	Measure (dimensions)	Items	Reference
Assurance	Courtesy	7	Tat et al. (2011)
	Credibility		
	Security		
Menu	Presentation of menu	3	Saraiva et al. (2011) Shariff et al. (2015)
	Variety of items		
External environment	Knowledge of menu items	4	Saraiva et al. (2011)
	Location of the restaurant		
	Accessibility for people with special needs		
	Opening hours		
Accuracy	Parking	1	Rahman et al. (2012)
Food quality	Serving the same food as ordered		
	Taste	4	Malik et al. (2013) Saraiva et al. (2011)
	Quality		
Responsiveness	Freshness of meals	1	Surapranata and Iskandar (2013)
	Amount of food		
Hygiene quality	Help and quick service	2	Saglik et al. (2014)
	Clean dining area		
Interior design	Clean staff	4	Pecotic et al. (2014)
	Size		
	Table layout		
	Furniture design		
Halal quality	Furniture comfort	1	Sumaedi and Yarmen (2015)
	Halal status		
Atmospheric quality	Ambience	1	Jaini et al. (2015)
	Emotional price		
Price	Monetary price	3	Abdul and Zainal (2016)
	Behavioural price		
	Satisfaction with dining		
Customer satisfaction	Positive mood	2	Al-Tit (2015)

**Table 5: Validity and reliability results**

Variables and items	Factor loading	Eigenvalue	Reliability coefficient	AVE	Variables and items	Factor loading	Eigenvalue	Reliability coefficient	AVE
AS		1.5	0.74	0.79	RE		1.7	0.88	0.74
1	0.62				20	0.65			
2	0.54				HQ		1.4	0.74	0.86
3	0.52				21	0.67			
4	0.62				22	0.55			
5	0.58				ID		1.6	0.76	0.79
7	0.56				23	0.58			
ME		1.6	0.77	0.81	24	0.56			
8	0.68				25	0.54			
9	0.60				26	0.51			
10	0.58				HL		1.6	0.79	0.80
EE		1.3	0.81	0.77	27	0.78			
11	0.65				AQ		1.8	0.80	0.79
12	0.66				28	0.70			
13	0.59				PR		1.9	0.82	0.78
14	0.54				29	0.55			
AC		1.7	0.82	0.83	30	0.67			
15	0.71				31	0.59			
FQ		1.4	0.79	0.76	CS		1.7	0.88	0.84
16	0.66				32	0.75			
17	0.62				33	0.78			
18	0.57								
19	0.69								

AVE: Average variance extracted, AS: Assurance, RE: Responsiveness, HQ: Hygiene quality, ID: Interior design, ME: Menu, HL: Halal quality, EE: External environment, AQ: Atmospheric quality, PR: Price, AC: Accuracy, FQ: Food quality, CS: Customer satisfaction

**Table 6: Results of correlation matrix**

M	SD	Var.	AS	ME	EE	AC	FQ	RE	HQ	ID	HL	AQ	PR	CS
3.11	0.93	AS	-											
3.81	0.84	ME	0.42	-										
3.61	1.10	EE	0.29	0.20	-									
4.20	0.95	AC	0.64*	0.23	0.18	-								
4.01	0.74	FQ	0.51*	0.44	0.21	0.32	-							
3.77	0.59	RE	0.41	0.37	0.30	0.28	0.26	-						
3.60	0.77	HQ	0.39	0.31	0.27	0.18	0.59*	0.33	-					
3.50	0.84	ID	0.25	0.24	0.44	0.20	0.34	0.21	0.43	-				
4.11	0.85	HL	0.61*	0.51*	0.31	0.22	0.67*	0.20	0.51*	0.20	-			
3.12	0.79	AQ	0.15	0.30	0.41	0.19	0.34	0.25	0.23	0.19	0.22	-		
3.79	0.88	PR	0.47*	0.60*	0.33	0.29	0.55	0.41	0.48*	0.39	0.33	0.41	-	
4.31	0.89	CS	0.48*	0.54*	0.35	0.37*	0.76*	0.56*	0.61*	0.40*	0.87*	0.52*	0.50*	-

\*Significant at P<0.05. AS: Assurance, RE: Responsiveness, HQ: Hygiene quality, ID: Interior design, ME: Menu, HL: Halal quality, EE: External environment, AQ: Atmospheric quality, PR: Price, AC: Accuracy, FQ: Food quality, CS: Customer satisfaction, SD: Standard deviation

**Table 7: Results of regression analysis**

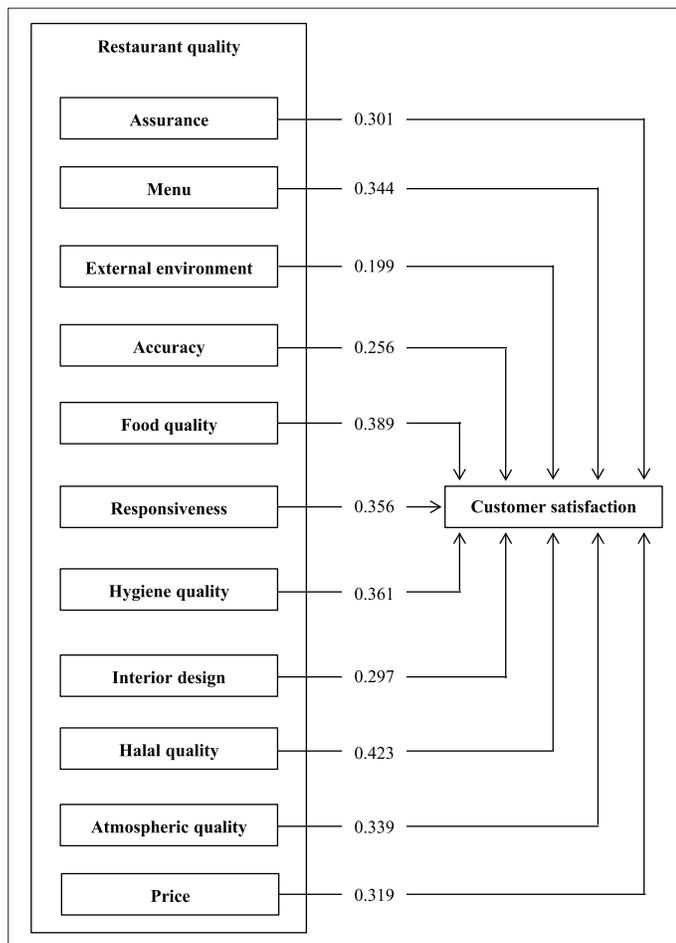
H	Independent variable	Dependent variable	β	t	Result
H <sub>1</sub>	Assurance	Customer satisfaction	0.301*	4.201	Supported
H <sub>2</sub>	Menu		0.344*	6.115	Supported
H <sub>3</sub>	External environment		0.199*	4.001	Supported
H <sub>4</sub>	Accuracy		0.256*	4.120	Supported
H <sub>5</sub>	Food quality		0.389*	9.140	Supported
H <sub>6</sub>	Responsiveness		0.356*	4.212	Supported
H <sub>7</sub>	Hygiene quality		0.361*	6.320	Supported
H <sub>8</sub>	Interior design		0.297*	8.201	Supported
H <sub>9</sub>	Halal quality		0.423*	11.02	Supported
H <sub>10</sub>	Atmospheric quality		0.339*	4.332	Supported
H <sub>11</sub>	Price		0.319*	6.371	Supported

\*Significant at P<0.05

## 5. DISCUSSION AND CONCLUSION

The study was developed to test the impact of restaurant quality on customer satisfaction. Based on the dimensions selected as the independent variables (representing restaurant quality), 11 hypotheses were proposed. Hypothesis 1 supposed that assurance is positively associated with customer satisfaction and the first seven items of the questionnaire measured this dimension. The results indicate that assurance has a positive impact on customer satisfaction and thus hypothesis 1 is supported, in line with Tat et al.'s (2011) study of the relationship between service quality dimensions and customer satisfaction.

Hypothesis 2 concerned the influence of the menu on customer satisfaction and this was also supported. Saraiva et al. (2011) obtained the same result. Also in agreement with Saraiva et al.

**Figure 2:** The results of restaurant quality on customer satisfaction

(2011), hypothesis 3, which postulated a significant impact of the external environment on customer satisfaction, is accepted. Accuracy, addressed in hypothesis 4, is revealed to be a significant variable determining customer satisfaction. This is in accordance with Rahman et al. (2012) who found that accuracy, as measured by the ability to serve the same order, has a positive impact on customer satisfaction. Hypothesis 5 proposed that food quality has a significant impact on customer satisfaction. This is again supported, in agreement with Malik et al. (2013), Canny (2014) and Shariff et al. (2015).

Responsiveness, addressed in hypothesis 6, is also accepted as an independent variable with a significant impact on customer satisfaction, the same result as that found by Al-Tit (2015). Based on the results, hypothesis 7, namely that hygiene quality has a significant impact on customer satisfaction is also accepted, just as in Saglik et al. (2014). Interior design (hypothesis 8), consistent with Pecotic et al. (2014), appears as an important factor for customer satisfaction. Hypothesis 9 suggested a positive impact of halal quality on customer satisfaction and this is supported in agreement with Sumaedi and Yarmen (2015). Atmospheric quality, measured by ambience, also has a positive impact on customer satisfaction, supporting hypothesis 10 and in line with Sumaedi and Yarmen (2015). The last hypothesis supposed a significant impact of price on customer satisfaction, which is again supported in this study, as in other studies (Abdul and Zainal, 2016; Rahman

et al., 2012; Saraiva et al., 2011). In summary, the results indicate that halal quality has the greatest impact on customer satisfaction, followed by food quality, hygiene quality, responsiveness, menu, atmospheric quality, price, interior design, accuracy and external environment. A graphic presentation of these results is given in Figure 2.

Based on the afore-mentioned results, the study concludes that restaurants in Saudi Arabia should focus on numerous factors concerning quality to maintain customer satisfaction. The first dimension, halal quality, is without doubt predominant as restaurants must not and do not serve prohibited foods in the kingdom. However, other dimensions are also very important, particularly food quality (taste, freshness of meals and amount of food), hygiene quality (clean dining area and clean staff), responsiveness (prompt service) and menu (display, variety and knowledge of items).

## 6. LIMITATIONS AND FUTURE RESEARCH

The most important limitation in this study was the collection of data, which was conducted by distributing questionnaires to respondents during their meal. Most of those approached declined to participate in the study. The study was conducted in a limited sample of small (7) and large (3) restaurants, all of which were full-service restaurants. Hence, the results cannot be generalized to other types of restaurant, such as fast-food or self-service restaurants. Therefore, further studies are needed to examine the same variables using a larger sample and different types of restaurant.

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