What affects customer satisfaction and behavioral intentions in Saudi restaurants? The role of healthy-food choices.

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ABSTRACT
Healthy eating is considered as one of many determinants deciding where to dine? Previous studies have indicated that quality of food and services seem to be perceived as primary component to satisfy restaurants' customers. However, other attributes emerged to contribute customer satisfaction. This study investigates Saudi customers’ perceptions of healthy food choices. It also tested which attributes of fine-dining restaurants influence Saudi customers’ satisfaction and behavioral intentions. Data were collected from 350 guests of 36 restaurants in major cities in Saudi Arabia. Using simple and multiple regression analysis techniques, this study shows that healthy food is pivotal to create satisfied customers and positive post dining behavioral intentions. Food quality attributes play crucial role in satisfying customers and behavioral intention, however service related attributes contribute slightly to customer satisfaction and has no effect on customers' behavioral intention.

Keywords: Healthy Food; customer satisfaction; behavioral intention.

Introduction:
Eating out has become increasingly common in Kingdom of Saudi Arabia. Nowadays the Saudis spending more on eating-out (Food and Drug Authority, 2018) FDA. Consumption of food at different restaurants including quick-service restaurants has attracted the scientific attention due to its association with higher energy, fat contents and saturated fat; lower fiber and calcium contents and lower fruit and vegetable intake. Scholars have indicated that frequent consumption of food away from home particularly at fast food restaurants, leads to excess weight gain. (French et al 2000; Kant and Graubard, 2004; Pereira, et al. 2005).
Moreover, Pereira, et al. (2005) confirmed that adults who consume fast food for a long time are exposed to greater weight gain among in a study of a group of adults over a 15-year. According to Saudi Food and Drug Authority statistics (2018), about 42% of Saudis were overweight. Being overweight or obese leads to serious medical problems, hence obesity increases the risk of many chronic diseases and health conditions such as hypertension, diabetes, and certain types of cancer (Harvard Men’s Health Watch, 2006). When personnel eat considerable quantities of healthy food, they get essential nutrients, to help them to prevent diseases, provide with more energy and improve human general health. Eating out is considered the main reason for getting weight and being obese.

Over the past decade, lifestyle elements have changed largely to affect consumers' decisions of what to eat and where (Senauer et al., 1991). Broadly, many reasons have encouraged Saudis to seek healthy food for example; the growing numbers of health conscious groups in KSA, frequent traveling abroad for studying, medication or leisure and the recent initiative launched by the Food and Drug Authority (2018) puts much emphasis on consuming healthy food.

The main objective of the present study is to examine the effects of healthy food choices availability on customers' satisfaction and behavioral intentions. The study also tested the effects of food quality attributes and service related attributes on customers' satisfaction and behavioral intentions. The results might help restaurants' operators and menu planners to design appropriate marketing promotion strategies for healthy food consumption.

**Theoretical framework and hypothesis development**

**Foodservice in Saudi Arabia**

According to Morder (2018) food service market in the kingdom of Saudi Arabia amounted to be 29.83 billion USD in 2017, and it is anticipated to reach an increase of 5.9% during the predict time phase (2018–2023). The entry of females to the labor market in Saudi Arabia has led to increased demand for food away from home. The increasing number of health conscious consumers and the
Growing rate of obesity among the KSA population is challenging the foodservice market growth. Quick service restaurants, public cafeterias are growing quickly while; full-service restaurants hold a considerable share by type, quality, variety, and service in the KSA foodservice market in 2017.

Foodservice market in Saudi Arabia is divided into international chains, local chains and independent restaurants. Independent establishments' include restaurants that offer the local tastes and preferences. Local chain type encompasses restaurants, such as Herfy, Al-Baik, Kudo and Shawaya House, are supporting the expected demand for food away from home, creating a huge market share for fast food market in Saudi Arabia, in addition to affiliated restaurants such as fine-dining restaurants, theme restaurants and cafés. Moreover, casual dining restaurants share the Saudi foodservice market, with international brands, like Applebee’s, Steak House, Chilis and TGI Fridays. However, American fast food chains predominate the fast food restaurant sector in Saudi Arabia such as KFC, Pizza Hut, Burger King, Hardee’s, Subway, Little Caesar’s Pizza, Pizza Inn, and Domino's Pizza, are major players in the service market. Fast-food outlets have changed their basic style to attract the growing demand of Saudi young people, in terms of food contents. Many restaurants including fast food have launched new items on their menus to reflect local tastes such as McArabia Grilled Chicken by McDonald's- a pita bread sandwich. They also offered healthy options to meet customers' requirements. Recently, healthy food commenced to spread in full-service and upscale restaurants, hence restaurants' operators placed some healthy food choices on their menus to attract health conscious customers (FDA, 2018).

**Food quality**

Quality of food described is as a key element affecting customer delight and repeat intention visit. Dube and Renaghan (1994) examined the major causes leading to revisit intention in an upscale restaurant; the results showed that quality of food was the most crucial element to revisit upscale restaurants. While, Sulek and Hensley (2004) tested different attributes such as quality of food, environment, and attributes of service in a full-service restaurant and concluded that quality of food was the main element affecting satisfaction and predicting post-dining behavioral intention. In the same context, Namkung and
Jang (2007) investigated the link between quality of food items such as food presentation, variety, healthy choices, taste, freshness and both customer satisfaction and repeat visit. The findings proved that food related such as taste, temperature, and presentation were associated with customer satisfaction while healthy options availability were strong predictors of repurchase intention. MacLaurin and MacLaurin (2000) found that food quality greatly contribute to customer satisfaction along with the environment concept, efficient service, food variety and prices.

Healthy Food

It is well known that food choices and cultural elements are the main motives to select food. Cultural background plays important role in food selection due to certain preferences such as food preparation techniques, moreover avoiding of meat products and milk from the diet (Lau, et al, 1984). Generally, food is a reflection of social mode for many people (Sanjur, 1982). Food taste or sensory appeal, likes, dislikes and customs are all related (Krondl et al., 1982; Rozin, et al., 1984; Parraga, 1990). Food taste may be important in choice of high fat food, because fats are responsible for carrying the food aroma (Drenowski, 1992). Conversely, "healthy food" mostly selected for reasons such as concern about weight or for health reasons (Cockerham, et al., 1988). Controlling body weight largely decides the food intake for those who are concerned about their body appearance. The rapid spread of health conscious groups over the last ten years has led to change eating habits and food ingredients and the majority of health conscious groups prefer food that is not harmful for the health. Healthy food has been achieving a growing customer demand; health factor was an important motive to prefer healthy food. Some customers buy healthy food, as they perceived them as higher in quality (Bordeleau et al, 2002).

Healthy food items are commonly described as diets that enhance better health and decrease the risk of chronic diseases (Cannon, 1992). Most healthy food options emphasize a variety, balanced meals, less fat meals, vegetable meals, lower caloric content meals and fiber staples (Carels et al., 2007). A wide variety of healthy meals have been offered across Europe and Australia each of them focuses on consumers' requirements; in other words, consumers who desire to keep a healthy weight, be physically and actively choose meals that encompasses
quantities of nutritious food (Plenty of vegetables with different types and colors and fruit) along with drinks to meet their energy needs. While customers who have health concerns other alternatives are available such as meals that reduce consumption of foods containing saturated fat, added sugar and salty food (Crane et al., 2011). Many restaurants started to offer meals that give much consideration for low sugar content meals that suit diabetic consumers and low sodium contents for hypertension consumers (Friel et al., 2006). In Saudi Arabia, full-service restaurants and up-scale restaurants commenced to give a brief description for each meal contents offered on menus, in addition a separate section on these restaurants' menus dedicated for healthy meals (Al-Ammar, 2016). Not only restaurants started to offer healthy food but also supermarkets and retail stores offer organic food products and healthy food options in KSA (Estimo, 2017). Women were regarded as more concerned with healthy food and were seen as keen for change towards healthier food diets (Fagerli and Wandel, 1999). According to Szykman, et al., (1997) restaurants' operators who present nutrition information about the food on their menus may achieve considerable level of customer satisfaction and higher repurchase intentions.

**Service Quality**

The topic of service quality has been long investigated in service management literature. Zenithal et al., (1996) described quality of service as the customer’s assessment of the overall performance of a given service. Parasuraman et al., (1988) developed the most often-used instrument for assessing quality of service in service marketing literature known as SERVQUAL. It encompasses five main dimensions, called, tangibles, reliability, responsiveness, assurance and empathy. In restaurants' context, Stevens et al. (1995) developed the main SERVQUAL model and devised DINESERV model to measure perceived service quality in restaurants. Broadly, restaurants' patrons not only judge food quality, but also the quality of service. Service quality regarded as strong factor influencing customer satisfaction and repeat purchase. Mattila (2001) reported that the main three motives affecting customers' decisions to revisit restaurants were quality of food, style of service, and the atmosphere. Likewise, Andaleeb and Conway (2006) investigated the elements that interpret customer satisfaction and found reliability, physical design and price, service responsiveness were important
contributors to customer satisfaction. Hossain (2012) concluded that the five service quality dimensions positively influence customer satisfaction.

**Customer Satisfaction.**
Customer satisfaction and behavioral intention are inarguably two basic conceptions in marketing philosophy (Spreng and Mackoy, 1996). The fierce competition in service sector has urged food-service operators to assure excellence in their services to guarantee customers satisfaction (Shemwell, et al., 1998). Customer satisfaction concept has drawn considerable attention of service providers to enhance food and service quality and to retain loyalty of customers within a highly competitive marketplace (Awwad, 2012). Customer satisfaction is described as after experiencing the food/service evaluation or judgment (Chi and Qu, 2008). In line with this, Ryu et al., (2012) portrayed the disconfirmation theory, which proposes that the process of satisfaction assessment depends on comparisons hold by the customers between expectations conducted before and post the performance or experience. Expectancy–disconfirmation model hypothesizes that satisfaction of customer is a function of subjective disconfirmation subjected to different circumstances (Churchill & Surprenant, 1982). Particularly, if customer perception about the quality goes beyond customer hope a positive disconfirmation, then the customer will be satisfied. While, if customer expectation of performance comes below expectations a negative disconfirmation, then the consumer is dissatisfied. Specifically, elements such as quality of food, variety of menu, atmosphere, quality of service, cleanliness, theme, price, interior design and décor, neatness of staff, and store location have identified as components of store image in the restaurant industry, which lead to customer satisfaction (Lindquist, 1974; Taylor and Baker 1994; Prendergast and Man, 2002). Likewise, Han and Ryu (2007) declared that improving the level of customer satisfaction is essential to increase the probability of revisit intention and recommendations to others. While dissatisfied patrons are more likely to change, criticize, or boycott the operation (Barsky, 1992; Oliver, 1997). Furthermore, Woodside et al, (1989) confirmed the direct relationship between customer satisfaction and behavioral intention. While, Olorunniwo et al., (2006) found customer satisfaction as strong mediator in the relationship between service quality and behavioral intention.
Behavioral Intentions

Behavioral intention is defined as people’s viewpoint about what they are going to do in a certain situation (Ajzen & Fishbein, 1980). Further, Kim et al., (2010) reported that behavioral intention is the aspiration of a customer to repurchase from a given operation. The same authors also added retaining current customer is crucial for the success of any food-service operator. Zeithaml et al. (1996) suggested that customers' assessments of the products/services reflect customers’ desirable intentions and strengthen their relationship with the same service provider. The authors classified behavioral intentions into desirable and undesirable intentions. Specific behavior indicate desirable behavioral intentions such as spreading good word of mouth about a certain service provider to others and recommending it to them in the future, willingness to pay higher prices, and remaining loyal. Nonetheless, complaining and changing to competitors are examples of undesirable behavioral intents (Reichheld and Sasser, 1990; Boulding, et al., 1993; Rust and Zahorik, 1993 Zeithaml et al., 1996).

Customer behavioral intention is a strong indicator of customer future behaviors. Although, there is a debate regarding customer satisfaction and behavioral intention, they are not the same; but they are related to each other, as the outcome of satisfaction may underpin a customer’s decision to reengage in certain service/product provider (Cronin & Taylor, 1992). In addition, some studies have illustrated discrepancy between the factors that influencing customer satisfaction and behavioral intention. For instance, Sulek and Hensley (2004) found that food, ambiance and quality of service, the seating were factors leading to dining satisfaction, but only quality of food and variety predicted post-dining behavioral intention. While, Namkung and Jang (2007) reported that temperature of food directly affects customer satisfaction while it has no effect on behavioral intention. On the contrary, healthy-food choices were found to be a strong determinant for behavioral intentions but did not affect customer satisfaction (Kozup, et al., 2003). When nutrition facts or health claims were presented, consumers had more favorable attitudes toward nutrition and intentions to repurchase (Kozup, et al., 2003). Based on the aforementioned discussion the following hypotheses are proposed:
*Ha1.* Food quality attributes have positive impact on customer satisfaction.

*Ha2.* Food quality attributes have positive impact on behavioral intention.

*Hb1.* Healthy-food choices have positive impact on customer satisfaction

*Hb2.* Healthy-food choices have positive impact on behavioral intention

*Hc1.* Service-related attributes have positive impact on customer satisfaction.

*Hc2.* Service-related attributes have positive impact on behavioral intention.

*Hd1.* Customer satisfaction greatly influenced by, food quality attributes, healthy food choices and service related attributes.

*Hd2.* Customer behavioral intention greatly influenced by, food quality attributes, healthy food choices and service related attributes.

**Methodology**

**Study Sample and Data Collection**
Based on random sampling strategy, this study collected the data from a sample includes full-service restaurants in major cities in the kingdom of Saudi Arabia (Riyadh, Jeddah, Makkah, Dammam and Kobar). KMO and Bartlett's Test were conducted, KMO value measuring the sampling adequacy equals to 0.840 (greater than 0.5) which is acceptable level, with significant value 0.000. A sample of 445 patrons for full-service restaurants was surveyed randomly in this study. After getting the ethical approval from the sampled restaurants three research assistants have assigned to collect data. The forms were randomly distributed by the assistants to customers who already finished their meals. A total of 445 forms were collected and 350 were used for analysis after excluding 95 forms due to incomplete responses.

**Measurement and instrument development**
Drowning on a comprehensive review of the literature related to food quality, quality of service, customer satisfaction and behavioral intention, the researcher developed a self-administered questionnaire comprised of five sections. The first part asked respondents to state their personal information such as age, gender,
occupation, and income and dining-out frequency. The second asked customers to state their perception regarding food related attributes, using a 5-point Likert-type scale, where 1 = completely disagree and 5 = completely agree. A number of food qualities were identified (16) for this study; the items were adopted partially from previous a previous study conducted by Steptoe et al., (1995). The third part concerned with the quality of service in restaurants, respondents were asked to rate their perception regarding the services in the restaurants, the items were adopted partially from the SERVQUAL model (Parasuraman et al., 1988) and DINESERV scales (Stevens et al., 1995), this section items were anchor by 1 (Extremely disagree) and 5 (Extremely agree).

The fourth and fifth parts dealt with measuring the patrons' satisfaction and behavioral intention; hence, they were asked to indicate their perception regarding satisfaction with the restaurants and post-dining behavioral intentions. Customer satisfaction was measured using three items based on Oliver’s (1997) study: for example ‘I am satisfied with this restaurant’. Behavioral intention was measured using three items modified from Zeithaml et al. (1996) such as ‘I would like to come back to this restaurant in the future. All the items of this section were measured by a 5-point Likert scale, where 1 = strongly disagree and 5 = strongly agree.

**Validity and Factor analysis**

Questionnaire Validity is confirmed by comprehensive literature reviewing and by a jury from the hospitality industry experts' opinions. Moreover, SERVQUAL (Parasuraman et al., 1988) and DINESERV scales (Stevens et al., 1995) were the main trust references to construct question items for this study. A number of items (25) were devised to this research based on earlier work by Parasuraman et al., 1988; Stevens et al., 1995 formulated the study construct. Exploratory factor analysis and a Varimax rotation on these 25 items revealed a five-component solution explaining 67.757 % of the total variance, with factor loadings on all items at least 0.619 (see Table 2). The reliability of the five components was satisfactory ($\alpha = 0.878$ and 0.854, 0.769, 0.771 and 0.689 respectively). The first factor named food quality attributes since it included items related to food taste, food texture, variety of food and freshness. The second component, is healthy food choices, encompasses items related to low calories food, food contains a lot of vitamins and minerals, offers of low fat food and low sugars content and availability of healthier options. The third component called service related attributes and concerned with staff occupational skills and knowledge,
appearance of staff and the quality of the service. The fourth one called customer satisfaction and the fifth is behavioral intention. See table 1 for items details.

Table 1: Exploratory factor analysis for the study variables.

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Loading</th>
<th>% of variance explained</th>
<th>Alpha σ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food quality attributes.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good taste of food</td>
<td>0.842</td>
<td>15.845</td>
<td>0.878</td>
</tr>
<tr>
<td>Food has a pleasant texture</td>
<td>0.798</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variety of food</td>
<td>0.812</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Freshness</td>
<td>0.687</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate temperature</td>
<td>0.781</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food smells good</td>
<td>0.878</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Healthy-food choices.</strong></td>
<td></td>
<td>14.747</td>
<td>0.854</td>
</tr>
<tr>
<td>Menu offers low calories food</td>
<td>0.744</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food contains a lot of vitamins and minerals</td>
<td>0.848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menu offers low fat food and low sugars content</td>
<td>0.809</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menu offers food high in fiber and roughage</td>
<td>0.679</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menu offers food high in protein</td>
<td>0.874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menu offers natural ingredients food</td>
<td>0.832</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthier options available</td>
<td>0.826</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Service-related attributes</strong></td>
<td></td>
<td>13.581</td>
<td>0.769</td>
</tr>
<tr>
<td>Prompt service</td>
<td>0.781</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff with occupational skills</td>
<td>0.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledgeable Staff</td>
<td>0.619</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good appearance of staff</td>
<td>0.832</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands guest specific needs</td>
<td>0.714</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customer satisfaction</strong></td>
<td></td>
<td>12.843</td>
<td>0.771</td>
</tr>
<tr>
<td>I found my needs in this restaurant</td>
<td>0.868</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with this restaurant”</td>
<td>0.829</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am pleased to have visited this restaurant.</td>
<td>0.745</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Behavioral intention</strong></td>
<td></td>
<td>10.741</td>
<td>0.689</td>
</tr>
<tr>
<td>I would like to come back to this restaurant in the future.</td>
<td>0.801</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would recommend this restaurant to my friends or others.</td>
<td>0.779</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will return to this restaurant even though the prices increased</td>
<td>0.784</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A pilot study with a convenience sample of 15 customers was conducted. Accordingly, instrument was slightly amended. Corrections were related to the phrasing of some questions.

**Statistical analysis**
This study defines two different dependent variables; named customer satisfaction and customer behavioral intention. Food quality related attributes, healthy food choices and service related attributes are the independent variables for this study. To establish a relationship among food quality related attributes, healthy food attributes, service related attributes, customer satisfaction and behavioral intention, a simple regression analysis and multiple regressions analysis have been utilized as analysis techniques to test the hypotheses. Descriptive statistics (mean scores and frequencies) were also used in the analysis. Correlation analysis was conducted among the study variables before regression analysis via the Pearson correlation co-efficient. The results showed that the study variables were significantly and positively correlated with some, variables and correlated with other.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Means</th>
<th>SD</th>
<th>FQ</th>
<th>HF</th>
<th>SA</th>
<th>CS</th>
<th>BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food quality attributes (FQ)</td>
<td>3.62</td>
<td>.741</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy food attributes (HF)</td>
<td>3.78</td>
<td>.812</td>
<td>.634</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service related attributes (SA)</td>
<td>2.99</td>
<td>.756</td>
<td>.521*</td>
<td>.647*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer satisfaction (CS)</td>
<td>3.33</td>
<td>.724</td>
<td>.563</td>
<td>.737**</td>
<td>.686*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Behavioral intention (BH)</td>
<td>4.09</td>
<td>.815</td>
<td>.502*</td>
<td>.898**</td>
<td>.356*</td>
<td>.471*</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (**). Correlation is significant at the 0.05 level (*).

The results in table 2 indicate significant correlation between the study variables. Moreover, high correlation coefficients between food quality attributes and healthy food choices were detected. Thus, the Variance Inflation Factor (VIF) that measures the inflation in parameter estimate due to the collinearities among independent variables is calculated for the regression model. By setting the acceptable value range for VIF as suggested in the literature, it is found that model variables are within the VIF limit (0.755 - .829) Tolerance > 0.200 and VIF < 10 (1.099-1.623) indicating that their multi-collinearities do not affect the
least squares estimates. Accordingly, all the variables in the model are fit for further analysis.

**Empirical results**

Descriptive analysis indicates that, among the 350 valid forms, females accounted for 55.2% of total diners. The average patrons' age was 37 years old. The majority of respondents eat out 3 three times a week (60.2%). Respondents used to dine out with their family (45.6%), this result accords Mills (2000) who reported that fine-dining restaurants appeal to families and attracts almost a ratio of (28.1%) of all customers. of the diners were friends and relatives (14.2%), while business colleagues were less likely to dine-out (8.7%). The average monthly income was 15000 SR- 20000 SR for these restaurants' patrons (55%), followed by (23.2%) their income level were more than 20000 SR monthly, while (17%) of the sample have monthly income ranging from 5000-10000 SR. Approximately, (58 %) of the sample holding a bachelor degree and (18.7%) hold post graduate degrees, the remaining sample were high school.

To test the relationship between food quality attributes, healthy food choices, service related attributes and customer satisfaction customers' behavioral intention, several simple and multiple regression analysis have been conducted which enables to examine the linear relationship between the study dependent variables (customer satisfaction and behavioral intention) and multiple independent variables food quality attributes, healthy-food choices and service related attributes) by calculating the coefficients for the equation for the straight line. Beta (β) coefficient has been calculated hence, it shows the change level in the dependent variable for each unit change in the independent variable. Use of beta coefficient allows direct comparisons between many independent variables and their influences on dependent variable. Clearly, **Ha1** supposes food quality attributes is expected to have a positive effect on customer satisfaction. The simple regression indicated a positive and statistical significance relationship between food quality attributes and customer satisfaction as illustrated from the tabulated results \( \beta = (0.517) \) and \( R^2 (0.496) \) at a significance level \( p, (0.028) \). This finding accords with MacLaurin and MacLaurin (2000), therefore, **Ha1** is accepted. Likewise, the simple regression model reflected a strong effect of food quality attributes on customer behavioral intention, results of \( \beta = (0.736) \) and \( R^2 (0.594) \) at a significance level \( p, (0.000) \). The results in table (3) indicate that
food quality is a strong predictor of customer behavioral intention to fine dining restaurants in KSA, the results also match with Namkung and Jang (2007) who highlighted the effects of food taste, food temperature and food texture on customer behavioral intention. Accordingly, $Ha_2$ is completely accepted.

Table 3. Simple regression model between food quality attributes, Customer satisfaction and behavior intention.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Standardized coefficient $\beta$</th>
<th>$t$</th>
<th>$p$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS: Customer Satisfaction.</td>
<td>FQ: Food quality attributes</td>
<td>0.517</td>
<td>12.381</td>
<td>0.028</td>
<td>0.496</td>
</tr>
<tr>
<td>BI: Behavior intention.</td>
<td></td>
<td>0.736</td>
<td>15.076</td>
<td>0.000</td>
<td>0.594</td>
</tr>
</tbody>
</table>

Regarding, $Hb_1$, which hypothesizes that healthy-food choices have a positive impact on customers' satisfaction. Results of the simple regression analysis in table (4) assured the existence of a strong positive and statistical significance relationship between healthy food choices and customer satisfaction, hence, Standardized coefficient $\beta = (0.728)$ and $R^2 = 0.744$ at a significance level $p = (0.000)$ the obtained results reflected the powerful of healthy food choices in predicting customer satisfaction. This finding is congruent with Sulek and Hensley (2004), consequently, $Hb_1$, is proved and accepted.

Table 4. Simple regression model between healthy-food attributes, Customer satisfaction and behavior intention.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Standardized coefficient $\beta$</th>
<th>$t$</th>
<th>$p$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction.</td>
<td>HF: Healthy food attributes</td>
<td>0.728</td>
<td>15.832</td>
<td>0.000</td>
<td>0.744</td>
</tr>
<tr>
<td>Behavioral intention.</td>
<td></td>
<td>0.879</td>
<td>16.751</td>
<td>0.000</td>
<td>0.881</td>
</tr>
</tbody>
</table>

$p<0.05$, $R^2$ adjusted.

Similarly, healthy food greatly affects customer behavioral intention, the emerged results showed high level of $\beta = (0.879)$, $R^2$ adj. 0.881, at statistical significance $P = (0.000)$. It can be depicted from results of $R^2$ that describe the amount of variation in the customer behavioral intention as a dependent variable which associated with variation in the healthy food choices as independent variable. $R^2$ also indicated that the percentage of total variation in the dependent variable (customer behavioral intention) can be explained when using the independent variable (healthy food choices). Moreover, the high level of $\beta (0.879)$ showed that an increase in the dependent variable based on an increase in
the independent variable in other words, the more the healthy food will be offered the higher the customers will be revisited the restaurants. Based on the obtained results \( Hb2 \) is strongly accepted.

Service related attributes was hypothesized (\( Hc1 \)) to have a positive impact on customers' satisfaction. Based on the results of the simple regression table (5), it can be depicted that service related attributes has a positive relationship with customer satisfaction however, the relationship is not strong as, Standardized coefficient \( \beta = (0.328) \) and \( R^2 (0.411) \) at a significance level \( p, (0.014) \). This result accords with (Baker et al., 1994; Prendergast & Man, 2002) Therefore, \( H5 \) is moderately supported.

Conversely, (\( Hc2 \)), which hypothesized service-related attributes have a positive impact on customers' behavioral intention. The results in table (5) showed a very weak Standardized coefficient \( \beta = (0.119) \) and \( R^2 (0.098) \) and it was not statistically significant \( p, (0.503) \). The obtained results contradicts with Cronin & Taylor, (1992) who pointed to the importance of quality of service for customers' revisit, thus, \( Hc2 \) was rejected.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Standardized coefficient ( \beta )</th>
<th>( t )</th>
<th>( p )</th>
<th>( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction.</td>
<td>SA: Service related attributes.</td>
<td>0.328</td>
<td>11.218</td>
<td>0.014</td>
<td>0.411</td>
</tr>
<tr>
<td>Behavioral Intention.</td>
<td></td>
<td>0.119</td>
<td>7.001</td>
<td>0.503</td>
<td>0.098</td>
</tr>
</tbody>
</table>

\( p<0.05, R^2 \) adjusted.

To explore the most powerful variables affecting customers' satisfaction in fine-dining restaurants, multiple regression analysis was performed based on the following model:

\[
\text{CS} = \alpha + \beta_1 \text{FQ} + \beta_2 \text{HF} + \beta_3 \text{SA} + e.
\]

When food quality, healthy food and service attributes were regressed on customer satisfaction, the results in Table (6) demonstrated a strong and moderate significant association among food quality attributes, healthy food choices, service related attributes and customer satisfaction. The emerged finding portrays the power of healthy food choices in attaining customer satisfaction; hence, the obtained results indicte a high standard coefficient \( \beta (0.823) \) at a
significant level $P$ (0.000). While, food quality attributes and service quality attributes have a moderate significant effect on customer satisfaction. Although, the simple regression analysis between customer satisfaction and both food quality attributes and service quality attributes indicated a strong positive relationship, the existence of healthy food choices in the regression equation was more powerful in predicing customer satisfaction in fine-dining restaurants. The obtained result supported by the results of the simple regression analysis between service-related attributes and customer satisfaction that interpreted weak relationship between customers' satisfaction and service related attributes. It can be concluded that the healthy food availability affects customer satisfaction greatly. Therefore, $Hd1$ is partially accepted.

Further, multiple regression analysis was conducted to find-out more insight into the influence of the independent variables that greatly affect customers' behavioral intention to fine dining restaurants

$$BH= \alpha + \beta_1 FQ + \beta_2 HF + \beta_3 SA + e.$$ 

The empirical results show strong effects for healthy food choices on the customer decisions to revisit the fine dining restaurants in the future. As illustrated in table (7) healthy food choices was the dominant variable affecting customers' behavioral intention, with the highest score for $\beta$ coefficient (0.879) at a significant level $P$ (0.000). Likewise, food quality attributes had also moderate effect on customers' behavioral intention as indicated in table (7).
Table (7) Multiple Regression model between the variables

<table>
<thead>
<tr>
<th>dependent variable</th>
<th>Independent variable</th>
<th>Standardized coefficient $\beta$</th>
<th>$t$</th>
<th>$p$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Intention</td>
<td>FQ: Food quality attributes</td>
<td>0.547</td>
<td>12.457</td>
<td>0.000</td>
<td>0.831</td>
</tr>
<tr>
<td></td>
<td>HF: Healthy food choices</td>
<td>0.879</td>
<td>17.712</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA: Service related attributes</td>
<td>0.029</td>
<td>5.324</td>
<td>0.081</td>
<td></td>
</tr>
</tbody>
</table>

$p<0.05, R^2$ adjusted

Nonetheless, service related attributes have no effect on customers' decisions to return to restaurants. This result accords with $Hc2$ that proved that service related attributes has no effect on behavioral intention. Accordingly, $Hd2$ is partially accepted.

**Conclusion**

The findings of the study show a strong link between healthy-food choices and customer satisfaction. Moreover, the results also show that healthy food choices greatly influence customer decisions to eat in fine dining restaurants in KSA. For food-service operators in KSA, healthy food should be considered and included on their menus to meet the fast growing demand for healthy food. This study derived another crucial element for restaurants' managers concerned with the age category that concerned with healthy food; the results indicate that youth, adults and senior patrons give much attention to healthy choices. Food quality attributes were also a significant support to customer satisfaction and behavioral intention. Service related attributes to some extent influence customers' satisfaction, while they have no effect on behavior intention.

Two main limitations of this study; firstly: the data was collected only from four major cities in KSA. thus, the results of the study cannot be generalized. Secondly, the study was only conducted in fine-dining restaurants; therefore the results cannot be applied or generalized to the whole Saudi food-service market.
References


