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INVESTIGATING FOOD QUALITY AT UUM'S LAKE RESTAURANT: ARE CUSTOMERS SATISFIED?

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ABSTRACT

The restaurant concept plays an important role in establishing and running a successful food business. Maintaining the quality of foods is an important criterion that service providers must look at to attract new customers and retain existing customers on the premises. By considering the importance of the quality of foods and customers in the restaurant industry, this study examines the relationship between the quality of food attributes and customer satisfaction. The research utilized a quantitative approach to conducting the study. Universiti Utara Malaysia students who visited The Lake restaurant are chosen as the unit of analysis. The close-ended questionnaires were distributed to the students to obtain the data for this study. In order to conduct the survey, the researchers used Google form as a tool. The questionnaires were distributed by Google form using the purposive sampling method. A total of 400 questionnaires were distributed among the students, and 364 usable questionnaires proceeded for the descriptive and inferential analyses of the study. The study found that there is a positive relationship between food quality attributes (freshness, taste, healthy options, variety of menu, presentations, and temperature) and customers' satisfaction. The findings of the study posed significance and added new knowledge to the practitioners and academicians.

Keywords: Food Quality, Customer Satisfaction, UUM's Lake Restaurant, Restaurant Industry

INTRODUCTION

Food quality is one of the values most consumers wanted during a restaurant visit. Previous studies have emphasized the importance to measure the food quality of university cafeterias and customers' satisfaction which can make a good impact on the restaurant industry (Garg & Kumar, 2017; Cha & Seo, 2019). The suppliers of food establishments in the university must also provide their consumers' outstanding food quality. It is also very critical that research is investigated and addressed. It is to be noted that restaurants should also no longer rely on their good tastes or low prices for their popularity alone (Liu & Jang, 2009). To satisfy them, restaurants need to achieve a great overall dinner experience through outstanding food along with a decent environment and quality service. Nevertheless, the empirical testing of food, atmosphere or employee treatment is still not carried out by consumers in this chapter. Service efficiency and customer retention are the key marketing goals because they are conditions for commitment to consumers, such as repeated purchases and good word of mouth (Lai, 2015; Liu & Jang, 2009). The most important element in today's highly competitive market is usually providing good quality service that leads to happy consumers (Gebremichael & Singh, 2019).

Customers use food, the physical atmosphere, and the employee facilities in the restaurant industry, in particular as core components in the evaluation of the quality of the services provided by the restaurant (Zhong & Moon, 2020; Alhelalat et al., 2017). A right combination of these essential characteristics can lead to a high restaurant product experience by consumers, increasing customer happiness and customer engagement in the restaurant industry. By considering the importance of food quality, this study examines the relationship between the quality of food attributes and customers' satisfaction toward the UUM's Lake Restaurant. The Lake Restaurant, established under the Business Strategies and Development is located at the University Utara Malaysia (UUM) main campus in Sintok, Kedah. It began operations in early 2019. The UUM's Lake Restaurant is available and open not only for staff and students but also for outsiders. The operation hour are from 8.00 am to 10.00 pm every day except for public holidays. The UUM's Lake Restaurant serves a variety of local and western foods for breakfast, lunch and dinner. Additionally, it also serves daily sumptuous buffet and ala carte.

Literature Review

Food Quality

Food quality is one of the most important elements in a restaurant experience (Namkung & Jang, 2007, Sulek & Hensley, 2004). Hyun (2010) confirmed that food quality was the primary factor influencing customer satisfaction in the choice of restaurant. Zhong and Moon (2020) stressed that quality food is a key factor in visiting a restaurant in customer view. Majid et al. (2018) considered food quality an empirical study of the importance of food quality in restaurant settings. They receive a favorable relationship between food quality and satisfaction/compliance intentions (Patwary, 2020). Namkung and Jang (2007) recently tested the effect of food quality on consumer satisfaction and behavioral intentions. A selection of different attributes was used to calculate food consistency. To study the impact of excellent food on customer satisfaction and return patronage, Sorensen et al. (2012) have found many food quality features, such as food tastiness, menu choice, and nutrition. Raajpoot (2002) has used product consistency (food quality) in the food industry for food appearance, serving size, menu design, and diversified food. Sulek and Hensley (2004) have claimed that food quality is determined by three general characteristics: protection, appeal, and acceptability for diet. Appeal contains many features, such as flavor, display, shape, color, temperature, and portions. Recent appearance, menu item variation, nutritious choices, taste, freshness, and temperature for the evaluation of food-grade were chosen by Namkung and Jang (2007).

According to Peri (2006), a restaurant requires quality food to meet its customers' desires and aspirations. Sulek and Hensley (2004) reviewed the relationship between a fully served restaurant's physical conditions, quality of food, and service. They concluded that food quality was the most important indicator of customer satisfaction. Earlier research showed that food, air, and service constitute three main components of the experience in the restaurant (Dulen, 1999; Susskind & Chan, 2000). This is backed by Lovelock (1985), whose main characteristics of restaurant food are the physical setting and service. Peri (2006) notes that food consistency is an essential prerequisite to meet consumers' demands and desires. A competitive advantage in specialty food restaurants is

commonly advertised as superior food quality. Many specialty restaurants promote high-quality natural or biological produce. This may inspire customers to search and eat in a specialty restaurant for the best quality food. Ryu and Han's (2010) also reported that they explored relationships between quality dimensions (food, service, and physical environments), price, consumer satisfaction, and compliance in the case of fast-paced restaurants. The effect of food quality on customer satisfaction and behavioral intentions inside restaurants was typical in other previous research (Ryu et al., 2010).

While food quality is very significant in the food industry, a consensus on the specific characteristics that can determine food quality can be difficult to achieve (Sulek & Hensley, 2004). Kivela et al. (1999) created a dining enjoyment and return patronage model, which has sustained each of the food attributes in only one variable. The author also discussed several food quality attributes: appearance, deliciousness, range of menu items, and temperature. However, the quality analysis of food attributes about the comfort of the consumer and the purpose is still lacking. A literature review shows that the main emphasis is on (i) freshness, (ii) flavor, (I ii) safe choice, (iv) menu range, (v) appearance, and (vi) temperature in the general classification of food quality among researchers. In order to assess customer satisfaction results at the restaurant, this analysis used the six dimensions of quality attributes (freshness, taste, and a healthier choice, selection of menus, appearance, and temperature). Food consistency and product characteristics were considered the most relevant parameters (Cichero et al., 2017). Quality is regarded as a "satisfaction in the shop" consideration in that quality increases have a marginally positive effect on satisfaction. At the same time, loss in the same amount is much more likely to reduce satisfaction (Marinova & Singh, 2008). Quality of goods is a significant differentiating factor for specialty store consumers. The value of Food quality for these consumers was shown in one analysis by the customers of specialty restaurants who ranked higher food quality compared to other restaurants (Yan, Wang, & Chau, 2015). A related study showed that food quality for niche consumers was significantly better than for mass merchant and supermarket customers (Huddleston, 2009). For specialized foodstuff customers, we expect equal high scores for food consistency. Food quality is a heterogeneous concept.

Food Attributes

The freshness of food is an important cue of quality alimentary, as revealed by Acebrón and Dopico (2000) and Johns and Tyas (1996). The customer always looks forward to fresh food. Crispness, juiciness, and fragrance generally apply to fresh produce and freshness (Péneau et al., 2006). Besides freshness, the flavor of the food itself was a significant factor in consumer satisfaction. Taste is the main characteristic of the food for our consumers (Kivela et al., 1999). Cortese (2003) said that many consumers have become knowledgeable about food and that food taste is increasingly important in restaurants. Therefore, taste influences customer satisfaction and restaurant intentions for buying behavior (Kivela et al., 1999). Additional features that customers are looking for in the restaurant are safe choices in their eating habits (Sulek & Hensley, 2004). Healthy food can significantly influence the assessment of a restaurant experience by customers (Johns & Tyas, 1996). A study by Kivela et al. (1999) is extremely necessary to make safe choices available in the restaurant to meet clients. To consumer satisfaction and return, healthy foods have been proposed as one of the fundamental principles that should be delivered. In this respect, one of the key reasons for customer satisfaction was the range of food made available to customers. As Kivela et al. (1999) have suggested, the menu articles are a key characteristic of food quality to create a pleasant restaurant experience. However, a certain study showed that it is not more attractive to have more or fewer options (Iyengar & Lepper, 2000). They argued that offering a broad option could attract the buyer at first. However, it could limit the likelihood that they would buy the product in the future.

Food appearance is the following critical trait. Normally, customers attribute consistency to food appearance. Kivela et al. (1999) pointed out that food submission is one of the main features of dining satisfaction. Raajpoot (2002) defined the presentation on food as one of the product and/or service factors. The last characteristic proposed in previous food safety studies is the food temperature (Johns & Tyas, 1996; Kivela et al., 1999). The perceived flavor of food has been assessed and affected by temperature and interaction with other sensory properties, such as the flavor, scent, and vision (Delwiche, 2004). Thus, the temperature should be regarded to improve customers' food experience (Kahkonen et al., 1995). Blomme et al. (2010) and Teller and Wall

(2000) indicate that the development of the hotel and food sectors would have substantial revenue and employment opportunities. The customer chose to dine with a variety of menus offered (Ha & Jang, 2013). The menu utilizes several influences, including the physical context, the texture of the paper, color, photographs, the placement of objects, prices, font style, and scale (Beldona et al., 2014). The restaurant menu is one of the most tangible aspects of the restaurant. This map can be defined as facilitating the navigation of hunger and customer satisfaction (Buchanan, 2011).

The freshness of foods with their crispness, juiciness, and aroma is described as their placate and the raw material (Deutsch & Murakhver, 2012). Earlier studies have shown that food freshness is a significant indicator of food quality (Becker, 1999; Shaharudin et al., 2011; Chamhuri & Batt, 2015; Baek et al., 2015; Liu & Grunert, 2020). According to Day et al. (2006), “for the reason that dehydrated ingredients do not give the result desired and those fresh ingredients must be used for a quality product; it has been impractical to purchase for extended future use the fresh ingredients at periods when the market is most favorable.” Freshness is also cited as one of the factors that affect the decision of consumers to buy fresh meat (Krystallis & Chryssohoidis, 2005). After eating the food, consumers will assess familiarity with food characteristics such as flavor, tenderness, cruelty, and juiciness. For example, consumers shopping for the night and fresh markets in Malaysia can also use the meat to assess the freshness before choosing to buy it (Chamhuri & Batt, 2015). Hutchings (2011) also claimed in their purchase of fresh vegetables that the key physical element most commonly related to freshness is further explained by the appearance and texture, and consistency of fresh fruit and vegetables. Not young, withered, or rotting, fruits and vegetables are often defined as poor quality food. Consumers are looking for organic ingredients to ensure healthy health and flavor to buy fresh or new meat (Haugaard et al., 2014).

Tasting is a core element of food that affects customers' happiness and future behavior (Kivela et al., 1999). Many of the food consumers are largely drawn to the flavor of the food they choose. Delicious food still is the preferential factor in food selection. Five simple tastes define taste in sensory research: honey, sweet, acidic, salty, bitter, and umami; the latter is a savory, meaty taste. Food taste typically stimulates the human senses in selecting their food. Mixing all six tastes in one meal ensures they are properly met, thus preventing the food or overconsumption of such foods.

Good foods have long shown taste-motivation motivation, and taste remains one of the main factors in food choices (Miller & Cassady, 2012; Siegrist et al., 2019). Nowadays, it is one of the main motivations for customers to choose those kinds of food (Phan & Chambers, 2016; Funches et al., 2009). Sensory reactions to food's smoke, flavor, and texture aid in determining eating patterns and food preferences. But sensory reactions alone do not predict the intake of food. Food habits have been linked to patterns of consumption (Johnson et al., 2002). The flavor of diet is commonly developed for today's eating habits as various methods and recipes provide fresh and good taste. The consumer who places the taste buds as their key desire to choose food leads to this condition. The food and drink sectors have made taste one of the key factors in ensuring healthy food and making consumers their main priority. Nutritious and organic food supplies are healthy choices. According to Namkung and Jang (2007) and Ryu and Han (2010), the perceived consumer appraisal of the restaurant's experience may have a huge impact on healthy eating. The remarkable thing is that many restaurant customers are anxious for fitness, so the supply of healthier food is becoming more important as a key feature of catering satisfaction (Sulek & Hensley, 2004). According to Honary et al. (2019), "results show that, ironically, people are more likely to make dietary decisions when there is a nutritious object than when there is not." Nutritious choices are increasingly favored, and 72 percent of customers choose to be healthier while dining outside their homes, such as in grocery stores like restaurants (Cohen & Babey, 2012).

One explanation why the food was not chosen was that many fitness, comfort, beauty, ease, habit, and price barriers affect food choices (Sogari et al., 2018). For example, information about nutritious products can impact eating habits and consumer preferences. Still, other elements of the decision atmosphere or personal thinking with a particular food can also be influenced (Szakály et al., 2012). Consumers may choose not to buy healthy food because they lack a sense of connection and caution with their preferred lifestyle or because some healthy food is not as costly as regular food (Padel & Foster, 2005). Each dish has its distinctive presentation style based on the imagination of the chef. The presentation of foods primarily helps improve the overall quality of the food to look good and attractive. The presentation defines how attractively food is shown and decorated as a concrete indication of consumer quality experience. Food served should be at the

correct temperature. For example, cold food, ice cream, cold soup, and cold dish can be eaten at cold temperatures. As an example, soup and main course, hot food should be eaten, or it would not be acceptable. The interaction between temperature, taste, smell, and sight with other sensory properties affects the assessment of the taste of food (Rolls, 2005; Sørensen et al., 2003). Moreover, lack of temperature change increases pathogenic bacterial growth and survival rates and increases the risk for toxin generation afterward (Dziallas & Grossart, 2011). Temperature can also affect the growth of food-contaminating bacteria. Fresh meat is a highly-priced commodity, and its limited shelf life is often defined and listed. Temperature is well known to affect the nature and welfare of meat (Sreenath & Ravishankar, 2007).

Customers' Satisfaction

Customers' satisfaction shall be characterized as a customer's opinion that a product or service use provides a satisfactory degree of satisfaction with the customer's needs, wishes, and objectives. (Oliver, 1999). In addition, customers' satisfaction is a significant measure of a business's past, present, and future success and is thus critical for marketers and academics for many years (El-Adly, 2019). Based on previous studies, the literature contains two general concepts of the satisfaction model: transaction-specific satisfaction and cumulative satisfaction (Rita et al., 2019). Customers' satisfaction is the assessment of full consumer experience of a product or service to date, which has direct consequences after purchasing (Zhao & Wang, 2019). For example, Oliver (1993) concluded that positive and negative emotional reactions impacted customer satisfaction as a whole. Due to the lack of confirmation resulting from conflicts between previous assumptions and real results, Bolton and Drew (1991) emphasized consumer frustration. For instance, unsatisfied customers have demonstrated a tendency to lament or demand relief to alleviate cognitive dissonance and missed consumption encounters more frequently (Pakurar et al., 2019). High market satisfaction results in higher customer engagement, which contributes to potential sales (Vasic et al., 2019; Al-Omari et al., 2020). Fornel and Wernerfelt (1988) maintained that rising consumers' satisfaction contribute to lowering customer complaints (restaurant). Anderson and Fornell (2000) believed that companies live and compete for customer satisfaction. Investors are drawn to companies that excel in customer satisfaction.

Customers' satisfaction is described as assessing the purchasing decision after purchase (Day et al., 2006). Grisseman and Stokburger-Sauer (2012) propose to consumers to evaluate their customer satisfaction, compares real events or performances to their desires, which is the most commonly known approach for explaining customer satisfaction. This customers' satisfaction approach is founded on a cognitive preferences validation process (Oliver, 1993, Oliver, 1987). In consumer assessments, theory indicates three potential situations: (1) confirmation is provided when the actual outcome corresponds to expectations; (2) positive confirmation happens when the current achievement beats expectations and lead to satisfactory results; and (3) negative confirmation occurs when real performance is worse than anticipated which leads to disappointment. However, researchers have recognized that it is impossible to understand only the cognitive facets of satisfaction assessment. In several prior surveys, consumer loyalty included cognitive decisions and affective responses using a performance-based approach (Jiang & Rosenbloom, 2005; Oliver, 1993).

The central mediator in marketing and service quality theory is customer satisfaction (Mahamad & Ramayah, 2010; Rabiul et al., 2021). Such concepts of customer loyalty were put out in the history of marketing. Customers' satisfaction may generally be characterized as a positive impact of the positive assessment of a consumer experience (Rust & Zahorik, 1993). A positive response is mainly due to benefits that match or exceed customer requirements. Regarding marketing, it was claimed that a customer's assessment of the degree of satisfaction could be rendered in many aspects, including assessments of the services and the service environment (Andreassen & Lindestad, 1998). For example, in the healthcare setting, judgments of fulfillment are influenced by patient and service evaluations. The owner or management may then consider and behave closely on the various forms of customer satisfaction or unpleased (Bennett & Rundle-Thiele, 2004) as buyers are more than expected to be impressed. Consumers who get more as they have negotiated may buy again. Successful utility providers deliver a much superior service plan to their clients. In a discrete exchange of services, prices, output, and desires are the determinants of satisfaction (Ekinici et al., 2008). When prices and results are compatible, performance and satisfaction assessments are assimilated with standards. Both predictors and outcomes of user

happiness and proof that anticipation generates representational results instead of simply measuring contexts and language responses (Siegrist et al., 2019).

METHODOLOGY

Research Framework

Based on the above literature and discussion, this study has identified six independent variables as food quality attributes and one dependent variable as presented in the conceptual framework (Figure 1).

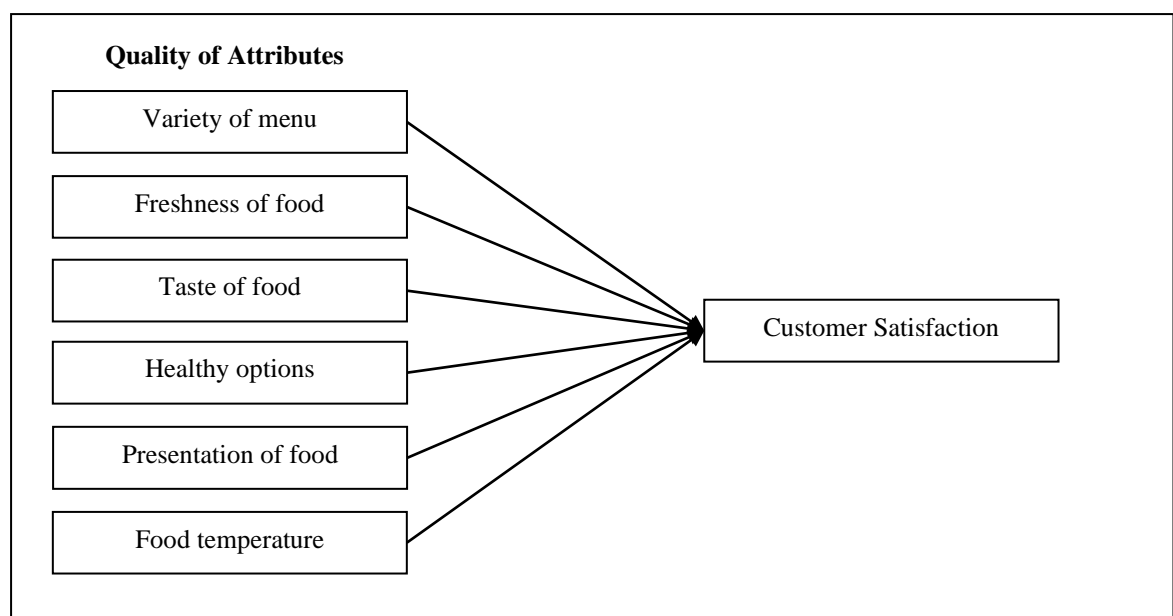


Figure 1

Conceptual framework

(Source: Adapted from Gotlieb et al. (1994), Namkung & Jang (2007), Ramli & Ideris (2014))

Research Hypotheses

Six hypotheses were developed from the conceptual framework:

H1: There is a relationship between varieties of menu and customers' satisfaction toward the UUM's Lake Restaurant.

H2: There is a relationship between the freshness of food and customers' satisfaction toward the UUM's Lake Restaurant.

H3: There is a relationship between tastes of food and customers' satisfaction toward the UUM's Lake Restaurant.

H4: There is a relationship between a healthy option and customers' satisfaction toward the UUM's Lake Restaurant.

H5: There is a relationship between the presentation of food and customers' satisfaction toward the UUM's Lake Restaurant.

H6: There is a relationship between the temperature of food and customers' satisfaction toward the UUM's Lake Restaurant.

Research Instrument

The research utilized a quantitative approach to conduct the study. UUM students who visited The Lake restaurant are chosen as the unit of analysis. The close-ended questionnaires were distributed to the students to obtain the data for this study. In order to conduct the survey, the researchers used Google form as a tool. The questionnaires were distributed using Google form due to the Covid-19 pandemic. A total of 400 questionnaires were distributed among the students using the purposive sampling method. After the data collection process, 36 questionnaires were deleted due to a multivariate outlier. The multivariate outlier was detected by employing the Mahalanobis test using SPSS software. After this screening process, only 364 usable questionnaires were proceeded for the descriptive and inferential analyses of the study. The survey instrument for this study was divided into three major sections, and the measurement items were adapted from previous studies. The first part of the instrument in this study is presented in Section A, which consists of three items. Items were designed using a nominal scale and focused on the respondent's demographic profiles. Section B was designed to understand consumers' evaluations of the quality of The UUM's Lake Restaurant. There are six dimensions used in this study to measure the quality of food, namely variety of food (4 items), the freshness of food (4 items), the taste of food (3 items), healthy option (3 items), presentation of food (4 items), and temperature of food (4 items) adapted from Ryu et al. (2010). Section C was designed to measure customer satisfaction. There were seven (7) items used to measure customer satisfaction, and items were adapted from Wright et al. (2006), Hwang et al. (2003), Namkung, and Jang (2007), and Ruetzler et al. (2011). Reviews of

related studies that provided measurement items for this part have been modified to suit the study. Respondents were asked to evaluate a numerical five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The style and type of the questionnaires for this study were close-ended questions using a numerical Likert scale.

RESULTS

Respondents' Demographic Profile

This part provides background information of respondents who participated in this study. Based on Table 1, it can be seen that out of the 364 respondents, the majority of the respondents for this research are male 53.2% and the remaining are female (46.8%). The majority of the respondents are Malay (61%), Chinese (24.6%), Indian (8.2%), and other races (6.2%). It is also shown that the highest qualification of the respondents for this research is the degree level (64.0%). This is followed by the Diploma (24.7%), Master (9.3%), and PhD (1.9%).

Table 1

Demographic Profiles of the Respondents (N = 364)

Variable	Frequency	Percent (%)
<i>Gender</i>		
Male	194	53.2
Female	170	46.8
<i>Race</i>		
Malay	222	61
Chinese	89	24.6
Indian	30	8.2
Others	23	6.2
<i>Level of Education</i>		
Diploma	90	24.7
Degree	233	64
Masters	34	9.3
PhD	7	1.9

Reliability Analysis

Based on Table 2, the result indicates that the Cronbach's alpha value for each variable ranged

from 0.853 to 0.962. Based on Nunnally (1980), the score between 0.60 and 0.70 is acceptable, thus the reliability of each variable of this study is met.

Table 2

Reliability Analysis

Variable Name	Number of Items	Cronbach' Alpha
Variety of Menu	4	0.933
Freshness Of Food	4	0.962
Taste Of Food	4	0.853
Healthy Option	4	0.945
Food that Visually Attractive	4	0.941
Appropriate Temperature	4	0.856
Customer Satisfaction	7	0.784

Relationship between Food Quality Attributes and Customers' Satisfaction

The results presented in Table 3 shows the correlation analysis among variables. It can be seen that all the attributes of food quality were significant and have positive relationship with customers' satisfaction.

Table 3

Relationship between Food Quality Attributes and Customers' Satisfaction

Attributes	Pearson Correlation	Sig. (2-tailed)
Variety of menu	.848**	.000
Freshness of Food	.799**	.000
Taste of Food	.842**	.000
Healthy Option	.775**	.000
Presentation of Food	.802**	.000
Temperature of food	.791**	.000

*Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

The outcome from this study has shown that hypothesis one is supported, which indicated a significant relationship between the variety of food and customers' satisfaction toward the UUM's

Lake Restaurant. Thus, the students' satisfaction with foods depends on the number of choices offered to them. The result is supported by previous studies where food variety is one of the important attributes contributing to satisfaction (Xi & Shuai, 2009; Raajpoot, 2002). Concerning hypothesis two, the result explained that students' satisfaction with the UUM's Lake restaurant is affected by the freshness of foods, implying that H2 is accepted. This result is similar to previous findings where quality and freshness of ingredients are the most important reasons for customers to return to a restaurant (Soriano 2002), and one of the most fundamental cues of food that satisfies customers (Acebrón & Dopico, 2000; Kivela et al., 2000). Regarding hypothesis three, the result explained that food taste has a relationship with the students' satisfaction toward the UUM's Lake Restaurant. This finding is similar to previous studies by Namkung and Jang (2007). Additionally, the study has also found a positive relationship between healthy food and customers' satisfaction, and thus, H4 is accepted. This result is supported by a previous study by Kivela et al. (1999) as well as suggested by other authors in previous studies, healthy foods have been found to influence customer satisfaction (John & Tyas, 1996), and healthy options have become increasingly sought by restaurant customers (Sulek & Hensley, 2004). Further, the results showed that food presentation has a positive relationship with customers' satisfaction toward the UUM's Lake Restaurant, and thus, H5 is accepted. This indicates that how the foods are being presented to the students is very important, affecting their level of satisfaction. This finding is also similar to the previous study where food presentation is a key attribute in modeling dining satisfaction by Kivela et al. (1999).

CONCLUSION

Customers' satisfaction is greatly affected by consistency in a food service establishment. Quality food guarantees that the food consumed is based on the quality of food. The main objective of this study is to test the relationships between food quality attributes and customers' satisfaction toward the UUM's Lake Restaurant. Food quality attributes namely variety of menu, freshness of food, taste of food, healthy option, presentations and temperature have been identified as the main determinant for students' satisfaction toward the UUM's Lake Restaurant. This study aims to find out customers' happiness and produce returns and satisfaction for service providers or food and

beverage establishments. The findings of the study contributes in terms of providing the UUM's Lake Restaurant managers an awareness of the standard of food quality as it is a big challenge to the consumers. There are also improvements in ways that contribute to a more satisfying restaurant experience, so restaurants recognize the importance of the food attributes. In addition, the findings of this study is also useful for restaurant managers to concentrate on three aspects and seeks to identify scarce business capital to achieve better quality that will boost food providers' satisfaction in the future.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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