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Dining Satisfaction with Quick Service Restaurants among College Students

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Abstract

The purposes of this research were to investigate the reasons why college students enjoy fast food and why fast food is popular among college students. There were 313 respondents participating in this study. The majority of them were male, between 18-24 years of age, single, and they were freshmen and sophomores. On average, they visited the restaurant 3 times a week. Friends and family were their major source of information, followed by drive-by, the restaurant sign, social media, and billboard. Respondents were most satisfied with billing was accurate, operation hours were convenient, received food as ordered, menu was easy to read and order, and seat availability. Those who were satisfied with the restaurant would come back and recommend their friends and relatives to patron the restaurant.

Keywords: Fast Food, Quick Service Restaurant, College Students, Customer Satisfaction

Introduction

"Which quick service restaurants do college students like to eat?", "Why do they eat there?", "Who went with them?", and "How often do they go there?" These are questions come to mind for this study when seeing the main street of the main campus of nearly every university in the United States is surrounded by fast food restaurants and crowded by college students. It is evident that fast food restaurants must offer what college students want at the price they can afford to have them as their clientele.

Quick service restaurants (QSR)

Foodservice includes restaurants and QSRs is a major segment of the hospitality industry. Unique characteristics of the hospitality industry, such as intangibility, inseparability, perishability, and variability create challenges for conducting business. In restaurants, there is interaction between service providers who provide and deliver food to customers and customers who receive such services. Service providers vary in skill and passion to provide service. Simultaneously, customers differ in taste, choice of food, experience, and expectations. Differences in service providers and customers, together with the required customer involvement in the delivery process intensify the relationship between service providers and customers and create a challenge for customers to evaluate the quality of food or quality of service they received. Like with other businesses, the goal of restaurants is to make a profit, and in order to do so restaurants need to pay attention to their customers whose evaluations and satisfaction with products and services received impact their experiences and decisions to support the business (Walker, 2017).

For this study, a fast food or QSR is defined as a type of establishment that offers a limited menu at an inexpensive price, with limited food preparation time, providing fast service although employing a minimum number of employees. Limited menus enable customers to make quick decisions, leading to shortened waiting and order lines, and increasing customer satisfaction. They enable restaurants to hire unskilled employees and spend limited time in training them to cook or

serve, leading to less food preparation time. Location strategies (makes it convenient for people to find QSRs), limited menus, and fast service contribute to the popularity of fast food (Walker, 2017). Throughout the history, QSRs seem to adapt very well with the crises (i. e., 2008 recession and 2019 COVID-19 pandemic). This is mainly due to their unique characteristics of being inexpensive, quickly prepared and served food, convenient locations, and less contact or interaction between the service provider and the customers. These have helped QSRs to survive and sustain during the pandemic which requires less contact or contactless service compared to other types of restaurants or businesses.

Purpose of the study:

As previously stated, QSRs play an important role in American's economy because of its affordable price, limited menu selection, convenient location, and efficient serving time, which fit college students' lifestyles. Therefore, the purpose of this study is as follows:

1. To analyze characteristic of college students who patronize QSRs.
2. To analyze factors affected satisfaction among college students when dining at QSRs.
3. To analyze a relationship between the affected factors and college students' loyalty (return to the QSR and/or recommend that QSR to their friends and relatives).

Literature Review

This study was the application of the "Reasoned Action" theory, which was developed by Ajzen & Fishbein (1992). This theory stated that a person's emotional attachment (like or dislike) with the object is an outcome of how that person perceives the object's characteristics. This object's attachment led to future actions with that object. This implies that consumers' perceptions of QSRs affect their satisfaction or dissatisfaction, leading to their behavioral intention (i.e., repurchase or recommendation) for that QSRs (Mason et al., 2016).

Customer satisfaction

Customer satisfaction plays a major role for a company's success and has been a focus of study for nearly four decades (Gupta, McLaughlin, & Gomez, 2007). QSRs are similar to other businesses, which are to satisfy customers and gain competitive advantage in order to sustain the business or make profits. Customer satisfaction comes from their comparing purchased products/services against their expectations, and they are satisfied when the products/services they received meet or exceed their expectations. On the other hand, dissatisfied customers will take their business elsewhere and actively convince others to do the same (Gilbert, Veloutsou, Goode, & Moutinho, 2004). To prosper, restaurants must cultivate customer loyalty through delivering quality products or services as well as a high level of dining satisfaction. Customer loyalty can be measured by the extent to which patrons revisit restaurants and/or recommend the restaurants to others through positive word-of-mouth (Kivela, Reece, & Inbakaran, 1999). In this study, customer satisfaction is used interchangeably with dining satisfaction.

Factors that affect customer satisfaction

Numerous researchers (Parasuraman, et al., 1988; Kara, et al., 1995; Lee & Ulgado, 1997;

Qin & Prybutok, 2008) devoted their studies to determine factors affected customer satisfaction. There is no consensus regarding the number of factors, type of factors, and how to classify such factors. This might be because the research was conducted with different samples, different type of restaurants, age groups, and countries. The present study identified three factors (service quality, food quality and reliability) as main factors affect customer satisfaction in QSRs.

Service quality

Service quality is the extent to which intangible economic activities which are consumed at the point-of-sale meet customers' expectations and satisfy their needs and requirements. QSRs have improved their service quality due to increased competition among QSRs and a rise in number of QSRs (Qin & Prybutok, 2008). Using SERVQUAL to measure customer perceptions of service quality in service and retailing businesses in 1988 by Parasuraman et al. gave rise to the study of the service quality. In this study, Parasuraman et al. (1988) stated that intangibility, heterogeneity, and inseparability of production and consumption of services make it difficult to measure the level of service quality objectively. Service quality is determined by the discrepancy between customers' expectations of the services offered and their perceptions of the actual performances of the service providers. A negative gap between perceptions and expectations will result in customer dissatisfaction. On the other hand, a positive gap will result in satisfaction. The five dimensions in the 1988 study used to assess service quality were tangibles, reliability, responsiveness, assurance, and empathy. Since then, numerous other studies and measurement instruments have emerged based on Parasuraman, et al. and their famous SERVQUAL.

Globalization, the popularity of QSRs, especially in the U.S. market, and the opportunity to capture new markets and expand market share have inspired QSRs expansion overseas and accompanying research. Kara, Kaynak, and Kucukemiroglu (1995) compared similarities and differences in customers' perceptions and preferences for QSRs between 179 U.S. and 141 Canadian customers. The results revealed that hamburgers, pizza, and chicken were the top three fast food items among Americans, whereas seafood, hamburgers, and chicken were the top three items preferred by Canadians. Delivery service, variety of menu, service speed, quality, cleanliness and friendliness of personnel were important criteria among Americans in selecting QSRs, whereas seating capacity, cleanliness, nutritional value, friendly personnel and menu variety affected Canadians' choice of QSRs.

Qin and Prybutok (2008) examined the relationships among and between service quality, food quality, price/value, customer satisfaction, and behavioral intentions using the modified SERVPERF to measure QSR service (SERVPERF was developed by Cronin and Taylor in 1992 and was based on SERVQUAL). This study used an online survey with 203 respondents. Satisfied customers were more likely than others to become repeat patrons, recommend a given QSR to others, or say good things about it. However, providing quality service alone does not guarantee that customers will be satisfied, for attributes such as food quality and short waiting times are also important. There was a direct and positive relationship between food quality and customer satisfaction and between food quality and behavioral intentions. This means that food quality affect customer satisfaction, as well as impact customers' behavioral intentions. Consequently, quality of food can capture customer satisfaction. Customers will return to patronize that restaurant again in the future or convince their friends or relatives to patronize that restaurant because of food quality. In this study, price/value had no relationship to customer satisfaction, perhaps because the price/value variables under this study were competitive price, value worthy of price, and special

discounts.

Qin and Prybutok conducted another study in 2009, with 282 respondents. Some of the results were similar to the previous study in 2008. The 2009 study revealed that there was a direct and positive relationship between service quality and customer satisfaction, which was different from the results in 2008. This might be because respondents were more familiar with and accepted the level of service provided at QSRs. They might have recognized that they could not use the same service quality standard at other types of restaurants to evaluate service quality at QSRs. Another possible reason for differences in customer perceptions might be differences in sample characteristics, e.g., in the 2008 study, respondents were predominantly male (54.7% of respondents), whereas in the 2009 sample, respondents were mainly female (54.3%). Another difference was how the authors grouped the respondents' age in the survey. For 2008 samples, 76.3% of them were between 20 to 25 years of age, whereas 82.3% of the 2009 respondents were between 18-25 years of age. Both groups were college students.

Food quality

Johns and Howard (1998) stated that food is the main product or core business of restaurants, fulfilling a basic human need. They examined the relationship between customer expectations and their perceptions of service performance using the profile accumulation technique, developed by Johns and Lee-Ross in 1996, to collect data qualitatively yet analyze it quantitatively. Customers at two pizza restaurants filled out open-ended questionnaires about their meal experience or service received from each QSR, while passers-by reported on what they expected from restaurants in general. Then, the authors compared passer-by expectations with perceptions of diners at the two QSRs. There were 172 respondents: 50 diners from the first restaurant, 22 from the second, and 50 passers-by. Respondents of the first restaurant reported that food quality of the first restaurant exceeded their expectations, but respondents from the second QSR rated food quality as poor. This might be because during the data collection, the second restaurant was in the process of terminating its franchise agreement. In both QSRs, respondents' perceptions on food, staff and atmosphere exceeded what they had expected, which means respondents were satisfied with those aspects. Service and price were the most positive aspects. Qin and Prybutok (2008; 2009) reported that food quality was related to customer satisfaction, while Law et al. (2004) found that food quality affected repurchase behavior during lunch. Perlik (2003) found that consistent food quality was the top reason customers patronized their favorite chain restaurant.

Reliability

Reliability is defined as the service provider's ability to perform the promised service dependably and accurately. This has been one in five most famous dimensions used to measure service quality (Parasuraman, Zeithaml, & Berry, 1985, 1988). The purpose of Parasuraman et al's studies were to help the businesses understand customers' expectations and perceptions of service, which eventually led them to improve the service they provided to customers. They also emphasized the role service quality played as a source of competitive advantage. Moonkyu and Ulgado (1997) found differences existed between Korean and American fast-food customers in reliability and empathy dimensions. Humnekar (2017) found SERVQUAL scale is not applicable for a study of service quality in fast food restaurants in India, which might be because of cultural differences.

Some studies investigate the impact of waiting time on customer satisfaction. As fast service

is a major draw of QSRs (Walker, 2017), customers expect to place their orders and receive their food quickly. Thus, the length of waiting time affects customer satisfaction (Davis & Vollmann, 1990; Law et al., 2004), repeat restaurant patronage (Law et al., 2004), decisions as to which restaurant to patronize (Davis & Vollmann, 1990), and long-term profits (Davis, 1991). Taylor (1994) stated that customers would relate long waits for poor service.

Davis and Vollman (1990) collected data from two fast food restaurants, with 723 respondents. Results revealed that the longer a customer waited, the less satisfied or more dissatisfied he/she became with the service received. Customer satisfaction and waiting time also affected by time of day and store locations. The longer customers waited during lunch time, the less satisfied they became. Type of location (suburban versus downtown) affected customer satisfaction; the longer suburban customers waited, the less satisfied they became.

Law et al. (2004) studied with two groups of participants: 135 college students who patronized the university's QSR and 106 students who patronized both the university's QSR and off-campus food outlets. Results revealed that for the first group, a significant relationship existed between expected and actual waiting times only during lunch. The model also showed that a reduction in waiting time during lunch would increase the number of repeat customers. Staff service attitude impacted repurchase frequency. Food price and food quality did not affect repurchase frequency. This might be because college students were on a limited allowance, campus offered food at a reasonable price, and food quality was not their priority in selecting the place to eat. Among participants in the second group, significant relationships existed between repurchase frequency, food price, and seat availability for university's food outlet participants during dinner. For the off-campus food outlet group, only food price affected repurchase behavior during dinner, whereas waiting satisfaction, seat availability, and food quality affected repurchase behavior during lunch.

Etemad-Sajadi and Rizzuto (2013) compared Chinese and Swiss customers' perception of meal quality, service quality, price and their influence on satisfaction and loyalty, using McDonald's customers and measured with a modification of SERVQUAL. Data were collected from 52 Chinese samples and 66 from Swiss samples, for a total of 118. Results revealed that the Chinese respondents had higher perceptions of McDonald's service quality in terms of reliability (ability to perform the promised service dependably and precisely) and tangibility (physical facilities, equipment, and personnel) than their Swiss counterparts. Chinese respondents perceived McDonald's image and product quality as being higher than the perceptions of their Swiss counterparts. In general, both groups were satisfied with McDonald's, but the cross-cultural image and service quality perception differences meant that Chinese respondents were more loyal to this QSR than their Swiss counterparts.

Relationship between customer satisfaction and repeat-purchase intentions

Many studies in the 1980s until the early 2000s focused on customer satisfaction and factors affecting their satisfaction. Competitiveness makes restaurants seek to go beyond achieving customer satisfaction to winning their loyalty. The benefits of having loyal customers are many, including the clients' strong intention to re-purchase the company's products/services even though competitors are vigorously vying for their business; they purchase the company's products/services more often, purchase a variety of items offered, and are less price-sensitive than otherwise. In addition, loyal customers help attract new clients through spreading credible, highly effective word-of mouth (WOM) recommendations about the company to their friends or relatives, significantly

lowering the QSR's costs needed to maintain existing customers and create new ones (Kotler, et al., 2017). In the restaurant business, friends and relatives are the major source of information people sought out when they wanted to try out a new restaurant (Perlik, 2003). Reichheld and Sasser (1990) found that a small increase of 5% in customer retention resulted in a 25% to 85% increase in profit among nine service companies. Since then, the concept has expanded to include the relationship between customer satisfaction and repeat-purchase intentions, especially since repeat purchases are a main source of restaurant profits (Gupta, et al., 2007). In restaurants, various factors such as service quality, food quality, and waiting time contribute to customer satisfaction, encouraging patrons to return, make recommendations, and spread positive word-of-mouth about the QSRs (Qin & Prybutok, 2008; 2009).

Kivera, et al., (2000) found respondents (regardless of gender) who patronized the restaurant for business or social reasons were more likely to return to the QSR than those who dined there to celebrate an occasion or because the QSR was convenient. Female respondents who dined there due to social obligations were most likely to return to a given restaurant, but male respondents who patronized at a given restaurant for business reasons were most likely return. First and last impressions, service and food quality affected intention to return. Almost all (98.58%) repeat customers were likely to return to the given restaurant, suggesting the importance of satisfying first-time patrons to turn them into repeat diners.

Keshavarz, Jamshidi, and Bakhtazma (2016) examined relationships between customer expectations about service quality, perceived service quality, customer satisfaction and customer loyalty in restaurants, using 450 respondents. Results revealed that customer expectations affected their perceived service quality and loyalty. Also, there was a strong relationship between customer satisfaction and customer loyalty.

Methodology

Instrumentation

A questionnaire was developed as a means to collect data through a three-step process. First, the contents were based on previous studies (i.e., Keshavarz et al., 2016; Mason et al., 2016; Qin & Prybutok, 2008; 2009) mentioned in the review of literature. Second, students and professors in the hospitality management field were asked to review the content of the questionnaire and it was revised accordingly. Third, the questionnaire was pilot tested with 20 college students. Then, the content of the questionnaire was revised based on results of the pilot test.

Population and samples:

The population under this study was college students at a small college with less than 10,000 students on the main campus. Data were collected from 313 respondents; hence, a convenient sampling method was used.

Hypotheses

The purpose of this study was to investigate factors affect college students' satisfaction with quick service restaurants and whether those who were satisfied would come back or recommend the restaurant to their friends/relatives. Therefore, the following hypotheses were proposed:

H_1: There is a significant relationship between reliability and dining satisfaction in quick service restaurants among college students.

H_2: There is a significant relationship between food quality and dining satisfaction in quick service restaurants among college students.

H₃: There is a significant relationship between service quality and dining satisfaction in quick service restaurants among college students.

H₄: There is a significant relationship between dining satisfaction and customer loyalty (intention to return to quick service restaurants and recommending the restaurant to friends or relatives) among college students.

Results and Discussion

Demographic profile of respondents

As shown in Table 1, slightly more than half of the respondents (51.76%) were male. The majority of them were single (84.98%), between 18-24 years of age (94.2%), and they were freshmen and sophomore (63.2%). They went to a restaurant in a small group (mean = 2.56) as 32.9% of them reported of having two people in the group (including themselves), followed by being by themselves (27.2%), and 15.3% were there with three people in a group. They visited QSRs 3.29 times per week on average. Taco Bell was their most favorite QSR (19.4%), followed by Chick-Fil-A (14.7%), McDonald's (14.1%), Wendy's (8.3%), Popeyes (5.1%), and Sonic (5.1%). In terms of frequency of visiting the restaurants, slightly more than half of them (53.70%) patronized QSRs 1-3 times a week, followed by 4-6 times a week (34.50%), 7-9 times per week (4.70%), and over ten times per week (1.80%), with an average of 3.29 times per week.

Table 1. Demographic Characteristics and Profiles of Respondents

Variable	*n*	Percentage
Gender		
Male	162	51.76%
Female	147	46.96%
Age		
18-24	295	94.25%
25-34	11	3.51%
35-44	2	0.64%
45-54	4	1.28%
Over 65	1	0.32%
Marital status		
Married	20	6.39%
Single	266	84.98%
Academic status		
Freshman	124	39.62%
Sophomore	74	23.64%
Junior	54	17.25%
Senior	51	16.29%
Graduate	10	3.19%

Information sources
        To find out how respondents found out about QSRs, they were asked, "How did you find out about the fast-food restaurant (your last visit)? They could check 'Friend/relative, social media, Flyer, TV ad, newspaper ad, coupon, billboard, restaurant sign, drive by, mobile app, and other'. They could check more than one answer. The results in Table 2 revealed that friend/relative were the major source of information (37.1%), followed by drive-by (33.2%), restaurant sign (23.3%), TV ad (14.4%), and social media (8.6%). The result of this study emphasizes the important role that friends and relatives play in spreading the word-of-mouth about the restaurants. Loyal customers can spread positive word-of-mouth about the restaurants and bring in their friends/relatives to support the business.

Table 2. Number of People Accompanying and Information Sources

Variable	*n*	Percentage
Number of people dining with you		
1	85	27.16%
2	103	32.91%
3	48	15.34%
>3	77	24.60%
Source of information		
Friend/Relative	116	37.06%
Drive-by	104	33.23%
Restaurant sign	73	23.32%
TV ad	27	8.63%
Social media	45	14.38%

Ranking of customer satisfaction with the dining experience
        Table 3 shows the results of the ranking of respondents' satisfaction with the dining experience at the last QSRs. Respondents ranked billing is accurate, operation hours are convenient, received food as ordered, menu is easy to read and order, and seat availability as their top five attributes for their satisfaction. On the contrary, availability of healthy food, special discounts, coupons, Wi-Fi availability, cleanliness of dining area, and employees' appearance were attributes contributed to their least satisfaction. Some of these attributes were consistent with the previous research, whereas some are not. This might be because different location, different demographic and different time. The trend of healthy food and technology did not affect their selection of QSRs. This sample represented young college students whose lifestyle was different, and they could have access to the Internet through their own telephone company's network, so Wi-Fi availability at the QSRs is not their concern. In addition, at that moment, food is their priority. Food price at QSRs is already low, compared to other type of restaurants; therefore, there was no need to use special discounts or coupons.

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Table 3. Ranking of Customer Satisfaction with Products/Services Provided (Students)

Items	Ranking	Mean	SD
Billing is accurate	1	4.59	0.746
Operation hours are convenient.	2	4.47	0.858
Received food as ordered	3	4.45	0.887
Menu is easy to read and order	4	4.32	0.937
Seat availability	5	4.31	0.810
Location	6	4.31	0.863
Prompt service	7	4.27	0.896
Portion size of food	8	4.27	0.927
Variety of food/beverage	9	4.23	0.926
Value	10	4.18	0.909
Drive through	11	4.16	1.112
Employees' friendliness and courteous	12	4.12	0.927
Employees' knowledgeable	13	4.08	0.903
Appealing of physical facilities	14	4.02	0.864
Waiting time in line to order food	15	3.99	1.005
Competitive Price	16	3.97	0.945
Individual attention	17	3.97	1.019
Parking availability	18	3.96	1.023
Employees' appearance	19	3.91	0.933
Cleanliness of dining area	20	3.84	0.985
WiFi available	21	3.79	1.203
Special discounts, coupons	22	3.71	1.099
Availability of healthy food	23	3.27	1.320

Factor analysis

Table 4 summarizes the results of factor analysis (Varimax with Kaiser Normalization rotation), which was used to delineate the underlying dimensions of respondents' satisfaction with their restaurant's last visit. The results from this analysis were used for further analysis in the regression analysis. Results revealed that the Bartlett's Test of Sphericity was statistically significance (χ^2 = 2868.88, df = 253, p < 0.000) and the Kaiser-Meyer-Olkin (KMO) value was 0.89, indicating that factor analysis was appropriate for this study. Four factors were extracted and only three factors with a minimum of three components were retained. These three factors were labeled as "reliability", "food quality", and "service quality" and they explained 53.94% of the total variance. The reliability coefficient alpha (R^2) for the entire scale was 0.84, demonstrating that 84% of the variance in "customer satisfaction with the last visit" was explained by the three subscales of dining experience. This means there was a relationship between these three dimensions and their satisfaction with their last visit at the QSRs. The first dimension "reliability" explained 33.31% of the total variance and achieved a coefficient (Cronbach alpha) of 0.82. The second dimension "food quality" explained 8.2% of the total variance and achieved a coefficient of 0.78. The third dimension "service quality" explained 5.71% of the total variance and achieved a coefficient of 0.78.
Factors that affect customer satisfaction

Results of the present study identified three factors (reliability, food quality, and service

quality) affected customer satisfaction when dining at QSRs. The initial purpose of this study was to confirm that each variable specified in the survey would represent those three factors as planned. However, this was not the case. The components of the reliability factor identified in the results of the present study were not consistent with the components specified in the Parasuraman's famous research. However, they were consistent with a definition of reliability. This might be because there was a gap in time between the Parasuraman's study and the present study (30 years gap) and the sample used in this present study (college students with fast food restaurants) is different from Parasuraman's study, which were from service and retailing businesses. Some components of the other two factors (food quality and service quality) were also different from previous research mentioned in the literature review. This has created a challenge to group them under the appropriate factor identified from factor analysis.

Table 4. Factor Analysis for Students with Varimax

Survey items	Reliability	Food quality	Service quality
Billing is accurate	0.792		
Received food as ordered	0.790		
Portion size	0.679		
Prompt service	0.662		
Waiting time in line	0.631		
Value		0.766	
Food/beverage variety		0.753	
Competitive price		0.679	
Location		0.663	
Wi-Fi availability		0.630	
Convenient of operation hours		0.500	
Easy to read and order menu		0.470	
Employees' knowledge			0.796
Employees' appearance			0.794
Cleanliness of dining area			0.752
Employees' friendliness			0.723
Healthy food choice availability			0.652
Individual attention			0.640
Physical facilities appealing			0.611
Mean	4.316	4.184	4.184
SD	0.803	0.904	0.904
Total variance explained	0.539		
Eigen value	7.690	1.887	1.314
Variance explained (%)	33.312	8.204	5.714
Reliability coefficient	0.820	0.780	0.780

Customer satisfaction and customer loyalty

Respondents were asked, "How satisfied are you with the last visit at the restaurant?" to measure their satisfaction with their restaurant's last visit. The frequently distribution analysis shows that 90% of respondents were satisfied with the restaurant's last visit. A five-point Likert scale was also used with this question, with "5" indicating strongly satisfied and "1" indicating strongly dissatisfied. Respondents were satisfied with their last visit (mean = 4.43, s.d. = .77). Two aspects of customer loyalty were measured: revisit and recommendation to others. Respondents were asked, "How likely are you going to visit this restaurant again?" A five-point Likert scale was used with this question, with "5" indicating very likely and "1" indicating not likely. They were also asked, "Would you recommend this restaurant to your friend/relative?" A five-point Likert scale was also used with this question, with "5" indicating strongly recommend and "1" indicating not recommend. Very high percentage of them (91%) would likely visit the restaurant again (mean = 4.62, sd = .74), whereas 83% would recommend the restaurant to their friends/relatives (mean = 4.35, sd = .89).

Hypothesis testing

The final step is to examine how three factors from factor analysis influenced customer satisfaction. A separate standard multiple regression analysis was used to assess the impact of a set of predictors (reliability, food quality, and service quality) on a dependent variable (satisfaction). The relationship between each factor (reliability, food quality, and service quality) and satisfaction was investigated using Pearson Correlation coefficient. The correlation value above 0.3 would be retained in the model, as it indicates there was a relationship between each variable and satisfaction (Pallant, 2020). Table 5 shows a summary of the stepwise regression analysis. A variable with p-value below 0.05 would be retained in the model. Hypothesis 1 through 5 were tested to determine relationships between the three dimensions of college students' dining experience and their satisfaction. Table 5 summarizes the results of this study.

H_1: There is a significant relationship between reliability and dining satisfaction in quick service restaurants among college students. Results revealed that from five variables in a "reliability" factor, only three variables (received food as ordered, prompt service, and billing is accurate) had a relationship with dining satisfaction. Received food as order had a t-value of 2.8 and had a p-value of 0.005. Prompt service had a t-value as 2.4 and had a p-value as 0.02, and billing is accurate had a t-value as 2.8 and had a p-value as 0.05. Therefore, dining satisfaction is significantly related to reliability such as prompt service, order accuracy, and billing accuracy.

H_2: There is a significant relationship between food quality and dining satisfaction in quick service restaurants among college students. Results revealed that from seven variables in a "food quality" factor, only three variables (Menu is easy to read and order, value, and food and beverage variety) had a relationship with dining satisfaction. Received food as order had a t-value of 4.5 and had a p-value of 0.00. Value had a t-value as 2.9 and had a p-value as 0.00, and food and beverage variety had a t-value as 2.6 and had a p-value as 0.01. Therefore, dining satisfaction is significantly related to food quality such as the menu readability, food value, and food and beverage variety.

H_3: There is a significant relationship between service quality and dining satisfaction in quick service restaurants among college students. Results revealed that from seven variables in a "service quality" factor, only two variables (appealing of physical facilities and friendliness of employees) were retained in the model. For a "service quality" factor, only two components (appealing of physical facilities and friendliness of employees) had a relationship with dining

satisfaction. Appealing of physical facilities had a t-value of 6.6 and had a p-value of 0.00, whereas friendliness of employees had a t-value of 3.3 and had a p-value as 0.00. Therefore, dining satisfaction is significantly related to service quality such as facility attractiveness and employee friendliness.

Table 5. Summary of Regression Analysis

Indicators	SE	Std. β coefficients	*t*-value	Sig. level (all components listed here are significant at 0.05 or <0.05)
Factor 1: Reliability*				
Received Food as ordered	0.060	0.194	2.818	0.005
Prompt service	0.056	0.155	2.393	0.017
Billing is accurate	0.072	0.380	1.978	0.049
Factor 2: Food quality**				
Menu is easy to read/order	0.044	0.240	4.512	0.000
Value	0.057	0.201	2.993	0.003
Food and beverage variety	0.053	0.167	2.641	0.009
Factor 3: Service quality***				
Appealing of physical facilities	0.054	0.402	6.612	0.000
Friendliness of Employees	0.057	0.226	3.316	0.001

*R = 0.488, R^2 = .238, F = 19.221, significance = 0.000
**R = 0.543, R^2 = .295, F = 18.111, significance = 0.000
***R = 0.530, R^2 = .281, F = 17.063, significance = 0.000

H4: There is a significant relationship between dining satisfaction and customer loyalty (intention to return to quick service restaurants among college students). Results revealed that there was a slightly positive relationship between customer satisfaction and intention to return to quick service restaurants among college students (R = 0.606, P-value = 0.00). The reliability coefficient of satisfaction for reliability was 0.72, re-visit was 0.71, and recommend was 0.75, respectively. This shows a reasonable relationship between each item on the scale. Therefore, dining satisfaction and customer loyalty are significantly related.

Table 6. Summary of Customer Satisfaction and Customer Loyalty

Indicators	R	Std. β coefficients	*t*-value	Sig. level (all components listed here are significant at 0.05 or < 0.05)
Visit again	0.606	0.429	8.177	0.000*
Recommend to friends/relatives	0.555	0.308	5.865	0.000*

* significance = 0.000

Conclusions, Recommendations, and Limitations of the Study

The results revealed that the majority of respondents were males, between 18- 24 years of age, and they patronized QSRs 3 times a week. Friends/relatives were their major source of information, followed by drive-by, and restaurant sign. This study indicated that respondents were satisfied when they received food as ordered, received prompt service, billing is accurate, menu is easy to read and order, value, variety of food and beverage, appealing of physical facilities, and friendliness of employees. The most interesting factor was when the respondents identified "drive-by" as the second major source of information in selecting QSRs. This response was consistent with one of the factors (appealing of physical facilities) identified at the service quality which affect their satisfaction. This might be a factor that QSRs need to be aware of and make their facilities neat and clean as they attract customers and contribute to their satisfaction. All of these variables represent major characteristics of QSRs, and they are characteristics that customers expect to receive from QSRs. The results shows that respondents were satisfied with products/services offered at fast food restaurants and they have become loyal customers as they are willing to come back and recommend the restaurant to their friends/relatives. This is not a surprise as evidenced from the growth of fast-food restaurants especially around campus across the U.S.

To sustain in a business and make profits in the intensified competition, the restaurant needs to continue to providing quality of service, quality of food and managing the line customers stand in to place an order for their food and receive their food. At the same time, they must pay attention to customers and satisfy them. To stay ahead of a competitor, the restaurants must retain their customers and transform their satisfied customers into loyal customers. Loyal customers patronize the restaurant more often, purchase variety of products, are not price-sensitive, are less likely to switch to support the competitor's business, and they refer the business to their friends and/or relatives.

Limitations and future study

The result of this study is limited to those participants who completed the questionnaire in October 2018 and the result cannot be generalized to the entire college students across the U.S. The majority of the samples in this study were male, a similar survey might be conducted with more females and compared the results. In addition, this study was conducted prior to the COVID-19 pandemic; the results of a new study conducted with college students after the pandemic to compare the result with this study, which was conducted prior to the COVID-19 pandemic might be helpful.

References

Cronin, J. J. & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing, 56*(3), 55-68.

Davis, M. M. (1991). How long should a customer wait for service? *Decision Sciences,* 22, 421-434.

Davis, M. M., & Vollmann, T. E. (1990). A framework for relating waiting time and customer satisfaction in a service operation. *Journal of Service Marketing, 4*(1), 61-9.

Etemad-Sajadi, R., & Rizzuto, D. (2013). The antecedents of consumer satisfaction and loyalty in fast food industry. A cross-national comparison between Chinese and Swiss consumers. *International Journal of Quality & Reliability Management, 30*(7), 780-798.

Gilbert, G. R., Veloutsou, C., Goode, M.M.H., & Moutinho, L. (2004). Measuring customer satisfaction in the fast food industry: A cross-national approach. *Journal of Service Marketing, 18*(4/5), 371-383.

Gupta, S., McLaughlin, E., & Gomez, M. (2007). Guest satisfaction and restaurant performance. *Cornell Hotel and Restaurant Administration Quarterly, 48*(3), 284-298.

Humnekar, D. T. (2017). To study reliability and validity of SERVQUAL for measuring service quality of fast food joints in India. *Review of Business and Technology Research, 14*(1), 1941-1944. Retrieved from http://mtmi.us/rbtr/sept/sept2017/17-Humnekar_pp92-96.pdf

Johns, N., & Howard, A. (1998). Customer expectations versus perceptions of service performance in the foodservice industry. *International Journal of Service Industry Management, 9*(3), 248-256.

Johns, N., & Lee-Ross, D. (1996. Strategy, risk, and decentralization in hospitality operations. *International Journal of Contemporary Hospitality Management, 8*(2), 14-16.

Kara, A., Kaynak, E., & Kucukemiroglu, O. (1995). Marketing strategies for fast-food restaurants: A customer view. *International Journal of Contemporary Hospitality Management, 7*(4), 16-22.

Keshavarz, Y., Jamshidi, D., & Bakhtazma, F. (2016). The influence of service quality on restaurants' customer loyalty. *Arabian Journal of Business and Management Review (Oman Chapter), 6*(4), 1-16.

Kivela, J., Reece, J., & Inbakaran, R. (1999a). Consume research in the restaurant environment. Part 1. *International Journal of Contemporary Hospitality Management, 11*(5), 205-222.

Kivela, J., Reece, J., & Inbakaran, R. (2000). Consume research in the restaurant environment. Part 3: Analysis, findings and conclusions. *International Journal of Contemporary Hospitality Management, 12*(1), 13-30.

Kotler, P., Bowen, J. T., Makens, J. C., & Baloglu, S. (2017). *Marketing for Hospitality and Tourism* (7th ed.). Boston: Pearson.

Law. A. K. Y., Hui, Y. V., & Zhao, X. (2004). Modeling repurchase frequency and customer satisfaction fir fast food outlets. *International Journal of Quality & Reliability Management, 21*(5), 545-563.

Mason, K., Jones, S., Benefield, M., & Walton, J. (2016). Building consumer relationship in the quick service restaurant industry. *Journal of Foodservice Business Research, 19*(4), 368-381.

Moonkyu, L., & Ulgado, F. M. (1997). Consumer evaluations of fast-food services: a cross-national comparison. *The Journal of Services Marketing, 11*(1), 39-52.

Pallant, J. (2020). *SPSS Survival manual: a step by step using SPSS for Window (version 10).* Buckingham, Philadelphia: Open University Press.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and

its implications for future research. *Journal of Marketing, 10*(1), 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perception of service quality. *Journal of Retailing, 64*(1), 12-40.

Perlik, A. (February 15, 2003). High fidelity: Exclusive R & I research reveals what draws loyal customers and what drives them away. *Restaurant & Institutions, 113*(4), 44-45, 48-50.

Qin, H., & Prybutok, V.R. (2008). Determinants of customer-perceived service quality in fast food restaurants and their relationship to customer satisfaction and behavioral intentions. *The Quality Management Journal, 15*(2), 35- 50.

Qin, H., & Prybutok, V.R. (2009). Service quality, customer satisfaction, and behavioral intentions in fast-food restaurants. *International Journal of Quality and Service Sciences, 1*(1), 78- 95.

Reichheld, F. F., & Sasser, W. E., Jr. (1990). Zero defections: Quality comes to services. *Harvard Business Review, 68*(1), 105-111

Taylor, S. (1994). Waiting for service: The relationship between delays and evaluations of services. *Journal of Marketing, 58*(2), 56-69.

Walker, J. R. (2017). *Introduction to hospitality (7thed.).* Upper Saddle River, New Jersey: Pearson Prentice Hall.