Effect of Service Quality on Customer Satisfaction in Selected Cafeterias:
A Structural Equation Modeling Approach

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ABSTRACT

The study was conducted using 20 cafeterias in Greater Accra Region on the effect of service quality dimensions on customer satisfaction in the hospitality industry. Purposive sampling technique was employed for the collection of the study data. Two hundred questionnaires were distributed to the customers of the selected cafeterias. The data gathered was analyzed by employing structural equation modelling (SEM) supported by AMOS 23.0 with maximum likelihood estimation in order to test the proposed hypothesis for the study. From the analysis of the data, tangibility was statistically having significant relationship with customer satisfaction. The result indicates that responsiveness, empathy, and assurance have insignificant relationships with customer satisfaction of the selected cafeterias.

KEYWORDS

Cafeteria Services, Customer Satisfaction, Hospitality, Service Quality, Service Quality Dimensions

INTRODUCTION

Service quality is one of the key factors that influence customers to customers to make a decision on a given product. It plays a significant role in conventional and service industries. According to (Arokiasamy & Huam, 2014) indicated that customer satisfaction in the service industry especially the hospitality and tourism sector depends on the quality of service and overall experience and firms that are able to satisfy the needs of its customers have a competitive edge over others. According to (Mehta, Lalwani and Han, 2000), organizations over the years have regarded perceived service quality as a strategic tool for positioning as well as means of achieving operational efficiency and improving business performance. Service quality has been seen as critical for the success of organizations because of its close link with customer satisfaction (Gilbert and Veloutsou, 2006) especially in the service industry. This implies that, organizations regard quality as a source of competitive advantage which they always strive to achieve. Additionally, excellent service increases customer retention and leads to repeat customer purchase behaviour (Cronin and Taylor, 1992) which ultimately increases the market share of the companies and generates high revenues. For this reason, restaurant marketers and service

researchers more often try to study and understand customers' needs and desires on service quality and satisfaction level. The restaurant industry has evolved over the past few decades from merely a meal providing facility to an augmented combination of service associated features. These features are emphasized to satisfy the complementary needs of its customers. This notion of satisfaction is mainly attributed to the quality of service. An interesting development that has occurred in the food service industry is the many changes over the last two decades. A number of multinational companies are attracted by potential market, for instance, the leading fast food chains such as McDonald's, KFC, and Burger King. In Ghana the hospitality industry is 4th in ranking for profitability in the country. One of the main reasons for the growth in the hospitality business is the growth of the mining industry in Ghana. Foreign nationals in the country who are working in the local mines are starting to look for food and entertainment in these areas, which is creating a spin-off business boom, thus calling for quality service delivery that leads to customer satisfaction. The present study examines the effect of service quality on customer satisfaction in the hospitality industry using twenty (20) cafeterias. The food catering industry has evolved over the past few decades from merely a meal providing facility to an augmented combination of service associated features. These features are emphasized to satisfy the complementary needs of its customers. This notion of satisfaction is mainly attributed to the quality of service (Jones, 2009). This therefore implies that professional, qualified and dedicated staff is needed, at all times not only for quality service delivery but satisfaction of customers. In Ghana, a wide range of food catering establishments are evidenced almost everywhere especially in the city capitals. In Accra, the city capital for instance they range from restaurants, traditional catering outlets to institutional catering facilities such as cafeteria's etc. However, though some studies on service quality on customer satisfaction on food catering establishment is available, much of the study into cafeteria establishments are very scanty or limited. This study would add to the body of knowledge in the area of customers and cafeteria services in the country. Therefore, the present study examines effect of service quality on customer satisfaction using selected cafeterias in Greater Accra Region, Ghana.

Objectives of the Study

The study seeks to achieve the following research objectives:

- Evaluate the impact of service quality dimensions on customer satisfaction at the cafeteria.

Research Questions

How does their service quality dimension (tangible, assurance, responsiveness and empathy) impact on customer satisfaction at the cafeterias?
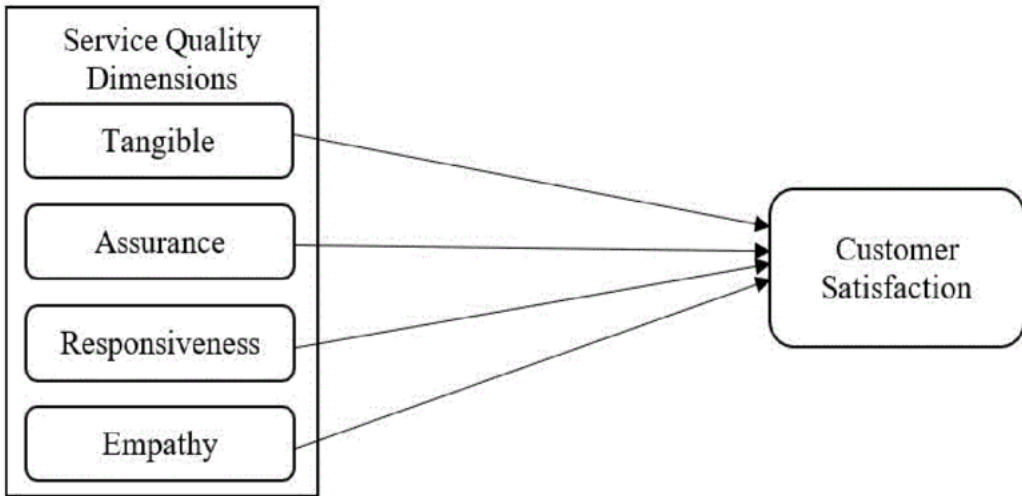
Research Hypothesis

H_1: Tangible has significance relationship with customer satisfaction at the cafeteria.
H_2: Assurance has significance relationship with customer satisfaction at the cafeteria.
H_3: Responsiveness has significance relationship with customer satisfaction at the cafeteria.
H_4: Empathy has significance relationship with customer satisfaction at the cafeteria.

LITERATURE REVIEW

Cafeteria food services are found in most facilities within our communities in Ghana. They are found in our schools and universities campuses, hospital facilities, institutions and other government organizations. Most of these institutions have cafeteria in their premises where they service food items for the staff, students or even to the general community. The services are often rendered to these people to prevent them from walking a long distance in search of food especially when it is lunch time. The

motive of these facilities is to provide customer satisfaction and ensuring that the customers are loyal to them (Abd-Elaziz et al., 2015; Alareefi et al., 2019; Khalifa, 2018). Due to the number of people who patronize these foods items, it mostly put much pressure on the staff of the facilities (Li, 2008) in quest to satisfy their need. Although staff most at times face these challenges service quality and customer satisfaction cannot be compromise. Studies have shown that customers who purchases food items observed certain factors before they make any purchases, factors such as the price, quality of food item, environment hygiene and attitude of staff of the facility (Ng, 2005). This study focuses on service quality dimensions (tangibles, assurance, empathy and responsiveness) on customer satisfaction in selected cafeterias in the Ghana. Many studies have been done around service quality and its impact on customers satisfaction in many disciplines. Service quality is described as the ability of any institution to meet the needs of its customers based on certain characteristics that the customer expects (Abo-Baker, 2004; Molina-Azorín et al., 2015). It is also considered as a way in which the customer compares the services or products with a given expectation (Yılmaz, 2008; Sudigdo et al., 2019). It can be stated that, service quality is about how the customer perceived a given product or services with a certain expectation at the end of patronising such service or product. The customer expects more from such service or product to be satisfy. Some customers are very judgmental and could rate a product or service based on how they perceived it quality and its impact on them. Customers who patronize food items from cafeterias all have different expectations, some view it from food quality in terms of nutrition, environmental conditions, attitude of the staff at such facility. This variations in expectation makes it very difficult for operators of such services to satisfy all the customers. Many researchers in the field of hospitality have been able to develop measurement that could be used to evaluate service quality in the hospitality industry and its usage in other fields. Measurement such as; tangibility, reliability, competence, responsiveness, courtesy, credibility, convenience, security/safety, communication and understanding have all been developed and use for assessing service quality in the hospitality industry (Parasuraman, Zeithaml & Berry, 1985; Kandampully et al., 2011). These dimensions were later reduced to five (5) main dimensions named as SERQUAL (Zeithaml, Berry, & Parasuraman, 1988). In this study, the service quality dimensions used are the tangibility which is refers to as the ability of the institution or organization to provide intended products or services accurately and independently without any fault with such services or products; the assurance dimension examines the attitude, ability and knowledge to convey trust and confidential information; tangibility refers to the physical aspect of the facility(edifice, materials used, hygiene and equipment); empathy refers to how the customers of the facility are treated especially whether they are given much attention when they visit the facility for services and finally, responsiveness refers to employees' willingness to help customers and to provide prompt services. Studies have shown that all these dimensions of service quality have influence on the customers satisfaction level of a product or services rendered to them. According to (Flick, 2015) indicated that there is significant relationship between empathy and customer satisfaction in business organization. Other studies have showed that customers will not be satisfied with a given service if such firm or the employees lack empathy. It is therefore necessary to ensuring that firms have empathetic attitude to improve their operations by way of satisfying their customers (Khan & Fasih, 2014). Literature indicates that satisfaction is seen as the act of meeting the needs of a customer (Oliver, 1980). In the case of the hospitality, all efforts must be made to ensuring that the needs of the customers that patronize the foods it's in the facility are meet even above their expectation (Saha & Theingi,2009). Service quality and satisfaction move together, the SERQUAL dimensions must be fully implemented or adhere to in the facility, while the customers expect to experience these qualities from the facility. When they are not properly implemented it leaves some level of dissatisfaction to the customers. The satisfaction level of the customers is therefore dependent on the dimensions. Based on the reviewed literature, the researchers formulated this main research hypothesis for the study based on the four main four dimensions of tangibility, assurance, empathy, and responsiveness for service quality. These service qualities or dimensions are popular and are able to measure quality of service provided by service providers (Kotler, 2012; Prakoso et al., 2017).

Figure 1. Represents the theoretical framework for the study

Hypothesis: Service quality dimensions statistically influence customer satisfaction at the cafeteria.

This main hypothesis is further divided into four hypotheses as follows:

H_1: Tangible has significance relationship with customer satisfaction at the cafeteria.
H_2: Assurance has significance relationship with customer satisfaction at the cafeteria.
H_3: Responsiveness has significance relationship with customer satisfaction at the cafeteria.
H_4: Empathy has significance relationship with customer satisfaction at the cafeteria.

Research Methodology

Two hundred (200) questionnaires were distributed to the customers of the selected cafeterias used for the study in the year 2019. In this study twenty (20) popular cafeterias (private and public) in Greater Accra were involved. Purposive sampling technique was used for the selection of the respondents for the collection of the data. Five-point Likert scale questionnaires ranging from 5 strongly agree to 1 strongly disagree was designed. The data gathered was analyzed in two main ways after the data has been edited and checked consistency namely descriptive approach and statistical approach. The descriptive approach used simple means, standard deviation, reliability (Cronbach alpha) and correlation analysis to describe the data. In the case of the statistical approach structural equation modeling using analysis of moment of structures (AMOS 23) with maximum likelihood estimation was used for the testing of the formulated hypotheses, after the model was checked for model adequacy and all items that did not load well were removed. The SEM is an advance version of the regression technique which combines multiple regressions analysis with confirmatory factor analysis to establish interrelationship between constructs. It has been applied in many areas of study including hospitality and marketing (Hull et al., 1991; Methlie & Nysveen, 1999; Seibert et al., 2001).

RESULTS

Demographic Profile

Table 1 shows the demographic profile of the respondents. In this study there were 200 customers who participated in the survey with 63% (126) of them females and 37% (74) males. The result reveals that,

Table 1. Demographic profile of respondents

Variable	Frequency(N)	Percent (%)
Gender		
Female	126	63.0
Male	74	37.0
Age group		
Less than 20	25	12.5
21-29	105	52.5
30-39	34	17.0
40-49	12	6.0
50-59	21	10.5
Above 60	3	1.5
Marital status		
Single	143	71.5
Married	50	25.0
No response	7	3.5
Educational level		
First degree	60	30
Higher National Diploma (HND)	20	10
Diploma	20	10
Cookery part 1	40	20
Cookery part 2	60	30
Lengths of relation with the cafeteria		
6months-1year	60	30
2-5years	80	40
6-9years	40	20
10-13years	20	10

12.5% (25) of the respondents were less than 18 years at the time of the study, 52.5%(105) were within 21-29years, 17%(34) were between 30-39years, 6%(12) were within 40-49 years, 10.5%(12) within 50-59 years and the remaining 1.5%(3) represent those who were above 60years and were customers to the selected cafeteria used for the study. The result reveals that out of the total of 200 respondents used for study, 71.5% (143) were singled, 25% (50) were married and the remaining 3.5(7) represents those who did not indicate their marital status as at the time of the study. The study revealed that, 30% (60) of the customers hold first degree, 10% (20) are Higher National Diploma (HND) holders, 10% (20) hold Diploma certifcates,20% (40) hold cookery part 1 while the remaining 30% (60) hold cookery part 2 certificate. The analysis reveals that, 30%(60) of the customers have been eating in the selected cafeterias between 6months to 1 year, 40%(80) of them indicated that they have been with the cafeteria between 2-5years now, those who have dealt with cafeterias between 6-9years formed about 20% while 10%(20) indicated that they have been eating in the selected cafeterias used in the study for 10-13years.

Descriptive Statistics

As shown in Table 2, it shows the item statistics for all the five constructs used. Statistics for each construct is outlined. The mean value range for each of the construct is given as ;3.54 to 4.11; 3.66 to 4.15; 3.48 to 3.98; 3.66 to 3.97 and 3.12 to 3.55 respectively with their corresponding standard deviation as indicated in the table. The estimated mean values indicate that respondents to a large extent agree to the items formulated for the study. The overall means for each of the construct is outlined in the table (3.88,3.84,3.76,3.08,3.46). The result provides the minimum and maximum level of response for each of the items. The skewness and the kurtosis were used to examine the normality of the data gathered skewness and kurtosis values must be within ±2.00 to indicate normality in the observed data (George & Mallery, 2001). From the table, all the items have skewness and kurtosis values within the acceptable range of values, to demonstrate that there is normality in the data gathered. The Cronbach alpha was used to test for the internal consistency in the responses provided by the respondents. It takes values between zero (0) to one (1). Alpha values of at least 0.70 are considered to be acceptable (George & Mallery, 2003; Nunnally, 1978). The analysis reveals that, all five (5) constructs have alpha values ranging from 0.78 to 0.89 which indicates high level of internal consistency in the responses provided by the respondents.

Table 3 presents the association between the constructs. It shows the correlation among the service quality constructs and the customer satisfaction construct. From the result, there is strong association between responsiveness and three constructs namely; tangible(rho=0.50), assurance (0.67**) and empathy(rho=0.72*). The strong of association between these variables are statistically significant at 5% significance level. Responsiveness which examines how the customer generally response to the service render to him or her could indicate if such customer would be satisfied for the service provided to him or not. Tangibility or tangible examines features such as the freshness of the cafeteria, how sits are arranged and the functioning of fans or if possible, air conditioning at the place. Once all these features are in place it is likely that there will be high association between the variables. Assurance correlate highly and positively with two main constructs namely; empathy(rho=0.62**); tangible(rho=0.60*). Empathy correlate highly with tangible(rho=0.66**).

Exploratory Analysis and Structural Equation Modeling

In this study 34 items were initially developed for the two main constructs (service quality and customer satisfaction). However, the service quality was further split into four (4) main subconstructs namely; assurance (10 items), tangible (6 items), responsiveness (4 items) and empathy (7 items). The satisfaction constructs also had 7 items. All the service quality constructs were measured on a five-point Likert scale (5 "strongly agree" to 1 "strongly disagree"). Exploratory factor analysis (EFA) using the principal component method of extraction and varimax rotation was conducted with 34 items and the result in Table 4 shows the initial test for the EFA. It shows a high KMO value of 0.916 to indicates that the sample size is adequate for the model and Bartlett's Test of Sphericity using the chi-square statistics $\left(\chi^2_{561} = 3388.22; sig = 0.000\right)$ to indicate that exploratory factor analysis using principal component analysis best fit the data gathered. The PCA method with the aid of the varimax rotation was conducted on all the items. The communities for the items take values between 0.511 and 0.76 which indicates high level of correlation with some form of cross loadings and as a result 11 of the items were removed and the rest retained for further analysis. The EFA analysis resulted in the extraction five main constructs based on the estimated eigenvalues of 1 which explained about 64.5% of total variance in the model.

The Measurement Model

After the exploratory factors analysis was performed to check for the sample adequacy, the variations explained by the factors and to assess whether the EFA best fits the data gathered, confirmatory factors analysis using analysis of moment of structures(version 23) was performed to validate the

Table 2. Descriptive statistics and reliability

	Mean	SD	Skewness	Kurtosis	Min	Max	Overall Mean	α
Tangible								
TA1	4.01	0.72	-0.66	0.82	2.00	5.00	3.88	0.78
TA2	4.02	0.67	-0.63	1.74	1.00	5.00		
TA3	3.54	1.06	-0.64	-0.32	1.00	5.00		
TA4	4.01	0.85	-1.06	1.40	1.00	5.00		
TA5	3.63	1.09	-0.71	-0.11	1.00	5.00		
TA6	4.11	0.67	-0.63	1.14	2.00	5.00		
Responsiveness								
RE1	3.66	0.97	-0.82	0.22	1.00	5.00	3.84	0.78
RE2	3.66	0.99	-0.69	0.14	1.00	5.00		
AS1	3.77	0.90	-0.85	0.93	1.00	5.00		
RE3	4.15	0.71	-0.65	0.54	2.00	5.00		
RE4	4.01	0.89	-1.10	1.36	1.00	5.00		
Assurance								
AS2	3.87	0.93	-1.00	1.05	1.00	5.00		
AS3	3.79	0.86	-0.81	0.83	1.00	5.00	3.76	0.89
AS4	3.83	0.84	-0.50	0.10	1.00	5.00		
AS5	3.87	0.76	-0.46	0.11	2.00	5.00		
AS6	3.98	0.75	-0.60	0.42	2.00	5.00		
AS7	3.86	0.83	-0.69	0.45	1.00	5.00		
AS8	3.70	0.91	-0.75	0.60	1.00	5.00		
AS9	3.53	0.91	-0.27	-0.01	1.00	5.00		
AS10	3.48	0.94	-0.24	-0.11	1.00	5.00		
Empathy								
EM1	3.66	0.84	-0.40	0.13	1.00	5.00		
EM2	3.73	0.86	-0.31	-0.27	1.00	5.00	3.08	0.83
EM3	3.93	0.81	-0.88	1.54	1.00	5.00		
EM4	3.68	0.94	-0.84	0.74	1.00	5.00		
EM5	3.80	0.88	-0.61	0.42	1.00	5.00		
EM6	3.97	0.83	-1.06	2.08	1.00	5.00		
EM7	3.90	0.92	-1.12	1.56	1.00	5.00		
Customer Satisfaction								
Sat1	3.71	0.98	-0.10	1.63	1.00	8.00		
Sat2	3.12	1.09	-0.19	-0.46	1.00	5.00	3.46	0.85
Sat3	3.43	0.95	-0.27	-0.08	1.00	5.00		
Sat4	3.55	0.97	-0.48	0.09	1.00	5.00		
Sat5	3.68	0.91	-0.33	-0.45	1.00	5.00		
Sat6	3.28	1.05	-0.11	-0.65	1.00	5.00		
Sat7	3.47	1.05	-0.22	-0.51	1.00	5.00		

Note: α represent Cronbach alpha, SD, Min, Max represent standard deviation minimum and maximum respectively.

Table 3. Correlation Analysis

			Estimate (ρ)
Responsiveness	<-->	Tangible	0.50*
Assurance	<-->	Responsiveness	0.67**
Assurance	<-->	Empathy	0.62**
Assurance	<-->	Tangible	0.60*
Responsiveness	<-->	Empathy	0.72*
Empathy	<-->	Tangible	0.66*

Note: Correlation is significant at both 1% and 5% level

Table 4. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.916
Bartlett's Test of Sphericity	Approx. Chi-Square	3388.222
	df	561
	Sig.	.000
Total Variance Explained	64.45%	

model and also test the relationship that exist the constructs. Before establishing relationship that exist among the constructs it is necessary to establish that there is reliability and validity (convergent and discriminant) in the model (Fornell & Larcker, 1981; Ifinedo, 2006) as indicated in the Table 4 below. In the case of the CFA, the composite reliability was used to assess the reliability of the constructs in the formulated model. It takes values ranging from zero (0) to one (1). Reliability values at least 0.70 are considered acceptable to support internal consistency. In this study all the constructs have at least reliability value of more than the 0.70 as proposed, this suggest that there is high level of reliability. The convergent validity is used to measure how each one of the items is loading in the model. Items that loads at least 0.50 are considered valid else that item must be remove from the model (Hair et al., 2010). Table 5 shows that all items have standardized loading values above the proposed acceptable value of 0.50. The observed items have loadings values ranging from 0.60 to 0.79 to indicate that item conforms to convergent validity. Discriminant validity was used to measure how independent the constructs are in the model (Hair et al., 2010). Constructs in the model must be independent without any latent variable(s) influencing it. The independence of the constructs is measured by comparison of the average variance extracted with the correlation squared as indicated by authorities (Fornell & Larcker, 1981). From the table, all the squared root values for the constructs were more than the correlation between the constructs as shown in the Table 3. This indicates that there is no multicollinearity in model (Byrne, 2001).

Testing for Model Fit

The model fit was performed using series of test in the model before the hypotheses were tested.

As indicated in the under Table 4, the overall model fit indices were statistically significant at 5% significance. However other model adequacy indices were used to evaluate the model; indices such as CFI=0.93, GFI=0.894, NFI=0.946, IFI=0.924 and RMESA=0.061 all provided evidence of

Table 5. Standardized loading, Reliability and Average Variance Extracted (AVE)

Constructs	Items	Standardized Loadings	Composite Reliability	AVE	Squared Root of AVE
Tangibles	TA1	0.68	0.73	0.48	0.69
	TA2	0.78			
	TA4	0.60			
Assurance	AS2	0.65	0.87	0.48	0.69
	AS4	0.67			
	AS5	0.75			
	AS6	0.71			
	AS8	0.70			
	AS9	0.66			
	AS10	0.71			
Responsiveness	RE1	0.64	0.73	0.47	0.69
	RE2	0.77			
	RE4	0.64			
Empathy	EM1	0.69	0.82	0.47	0.68
	EM2	0.70			
	EM3	0.67			
	EM4	0.70			
	EM6	0.67			
Satisfaction	Sat1	0.64	0.84	0.52	0.72
	Sat4	0.79			
	Sat5	0.74			
	Sat6	0.75			
	Sat7	0.68			

$$X^2 / df = \frac{379.55}{219} = 1.73 \text{; CFI=0.935; GF1=0.894; NFI=0.946; RMSEA=0.061; IFI=0.924}$$

adequate model fit. All the indices must the acceptable cutoff value as proposed (Hair et al.,2010; Byrne, 2001). Based on the model adequate fit indices, the formulated hypotheses were finally tested and evaluated once the model fit well the data gathered. From Figure 1 the impact that all the four constructs have on customer satisfaction was estimated to be $R^2 = 0.58$ value is quite high). This indicated how much the independent constructs could explain in the satisfaction level of the customers.

Testing for Hypotheses

Hypothesis 1 examine the relationship that that exist between tangible and customer satisfaction. Table 6 shows the results of the analysis relating to the hypotheses formulated for the study. It shows that tangible has statistically and significant positive relationship with satisfaction. The impact that tangible has on satisfaction is estimated to as (β=0.54; CR=3.26; *p-value* <0.05). Hence there is evidence that this hypothesis is supported (Saha, & Theingi, 2009). Hypothesis 2 to 4 which postulate the relationship that exist between satisfaction and three constructs namely; assurance, responsiveness

Table 6. Summary of hypotheses

		Path		Estimate	S.E.	C.R.	Sig	Label
H$_1$	Satisfaction	<---	Tangible	0.540	0.165	3.261	0.001*	Supported
H$_2$	Satisfaction	<---	Assurance	0.799	0.770	1.037	0.300	Not Supported
H$_3$	Satisfaction	<---	Responsiveness	-0.004	0.362	-0.011	0.991	Not Supported
H$_4$	Satisfaction	<---	Empathy	-0.389	0.555	-0.701	0.483	Not Supported

Note: β = standardized beta coefficients; S.E. = standard error; C.R. = critical ratio; *p< 0.05; Sig=significance value(p-value)

and empathy. As evident in Table 6, assurance has no significant relationship with customer satisfaction (β=0.799); responsiveness has no significant relationship with satisfaction, however the effect that it has on the customer satisfaction is inversely related (β=-0.004); Empathy has insignificant relationship with customer satisfaction, the effect that it has on satisfaction is estimated to be inversely related (β=-0.389). Hence hypotheses two (2) to four (4) are not supported at 5% significance level. Figure 2 depicts the estimated effect of each of the constructs and their impact on customer satisfaction.

CONCLUSION

This study examines that the relationship that exist between service quality and customer satisfaction in the hospitality industry(cafeteria). The study adds to the existing literature about customer satisfaction in the hospitality industry focusing on cafeterias. Service quality as a construct was spilt in four main constructs (tangible, assurance, responsiveness and empathy) to established their relationship with customer satisfaction. Four main hypotheses were formulated and the result shows that tangible has statistically, significant and positive relationship with customer satisfaction. Based on the result customers who patronize food services from the selected cafeterias used for the study were particular looking at the tangibles of the facility, this means that the customers were looking at how nice the place is, the neatness of the staff and the general atmosphere for such activity. The tangibility has a lot on impact on the satisfaction level of the customers due to the fact that faculty that has nice edifice and good environment is likely to produce better services (Eshetie et al,2016). Customer satisfaction is a key to the development of any products or services, people would patronize your services over a period if they are satisfied at most times. However, most organizations especially the hospitality
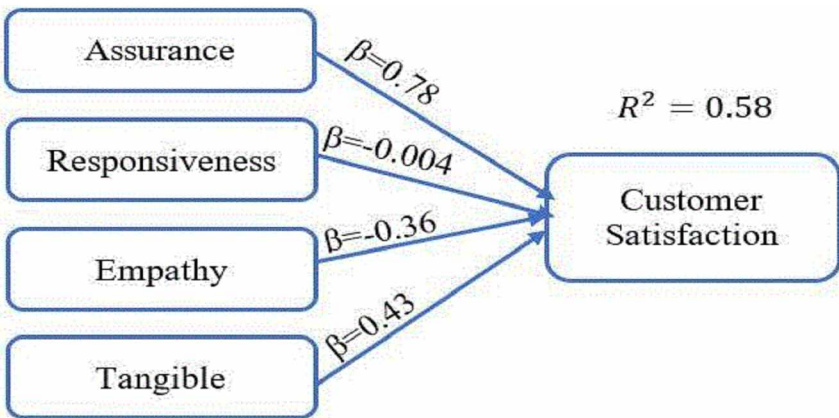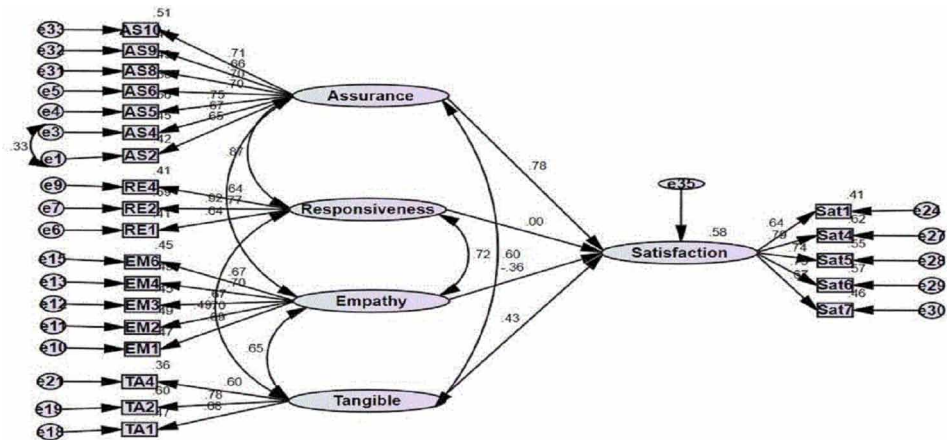
Figure 2. Extracted Path analysis

Figure 3. Full path analysis (Standardized coefficients)

industry at times fail to understand the demand of the customers. Although many studies done in various fields suggest that empathy, responsiveness and assurance influence customer satisfaction significantly, the result obtained in this study proves otherwise. This could be as result of the fact that organizations or business entity like the cafeterias fails to meet the needs of the customers and satisfy them (Almsalam, 2014). The analysis indicates that, customers were mostly not thinking about the how fast they were served and how well they were spoken to by the staff as indicated in the questionnaire (see Appendix). This could be as result of the education that people have obtained about where to buy food items people are now educated on eating healthy foods from good and sound environment. This education or the knowledge that the customers have had might be the cause of them emphasizing more on the tangibility construct of the selected cafeterias used in this study. This paper confirms the findings found in other studies about the positive effect of service quality dimensions on customer satisfaction. It offers a contribution in the existing theoretical literature about these significant variables of consumer behaviour. The findings provide some implications for the practitioners and institutions operating in the restaurant industry and the hotel sector. It is of vital importance that restaurateurs understand comprehensively the critical factors that are necessary to achieve high service quality and customer satisfaction. They should understand that the quality of the service, perceived from each dimension of service quality has an important positive effect on customer satisfaction. This study has significant implication on the cafetria settings in the country. The result obtained require that adequate planning and designing of new policies to ensuring that the services provided by the cafeterias meet the need of the customers of the facilities in community in which the live. One of the major implications of the study is when customers are not satisfied by services render by providers, they intend looking for alternative. As a result, cafeteria providers must ensure that their target either the students, academicians or the general public who patronized their food services are highly satisfied. The result in this study suggest that tangibility has impact on customer satisfaction as result cafeterias should invest in this issue through staff training and development, using fresh foods in the menu choices, providing an attractive and cozy ambience and choosing furniture suitably designed at their facilities for their customers.

Having researched into the effects of service quality on customer satisfaction limited to the hospitality industry especially in the area of cafeteria services, it is recommended that for future study especially in the cafeteria industry, factors such as emotion and customer loyalty must be studied.

Limitations of Study

This study was limited to few selected cafeterias in the Accra Metropolis due to insufficient funds. Further studies should seek funding to increase the member of cafeteria with more variables in the study.

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REFERENCES

Abd-Elaziz, M. E., Aziz, W. M., Khalifa, G. S., & Abdel-Aleem, M. (2015). Determinants of Electronic word of mouth (EWOM) influence on hotel customers' purchasing decision. *International Journal of Heritage, Tourism, and Hospitalit*y, *9*(2), 194–223.

Abo-Baker, M. (2004). *Marketing management in modern establishments*. University House in Alexandria.

Alareefi, N. A. O. M., Abuelhassan, A. E., Khalifa, G. S. A., Nusari, M., & Ameen, A. (2019). Employee's Innovative Behaviour: Evidence from *Hospitality Industry. Pakistan Journal of Social Sciences*, *16*(1), 14–29. doi:10.36478/pjsssci.2019.14.29

Almsalam, S. (2014). The Effects of Customer Expectation and Perceived Service Quality on Customer Satisfaction. *International Journal of Business and Management Invention*, 79-84.

Arokiasamy, A. R. A., & Huam, H. T. (2014). Assessing the relationship between service quality and customer satisfaction in the Malaysian automotive insurance industry. *Middle East Journal of Scientific Research*, *20*(9), 1023–1030.

Asubonteng, P., McCleary, K. J., & Swan, J. E. (1996). SERVQUAL revisited: A critical review of service quality. *Journal of Services Marketing*, *10*(6), 62–81. doi:10.1108/08876049610148602

Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concept application and programming*. Lawrence Erlbaum Associates.

Cronin, J. J. Jr, & Taylor, A. S. (1992). Measuring Service Quality: A Reexamination and Extention. *Journal of Marketing*, *56*(3), 55–68. doi:10.1177/002224299205600304

Dube, L., Renaghan, L. M., Miller, J. M (1994). Measuring Customer Satisfaction for Strategic Management. *Cornell Hotel and Restaurant Management Quarterly*, *35*(1), 39-47.

Eshetie, S. K., Seyoum, W., & Ali, S. H. (2016). Service Quality and Customer Satisfaction in Hospitality Industry: The Case of Selected Hotels in Jimma Town, Ethiopia. *Global Journal of Management and Business Research*.

Flick, U. (2015). Introducing research methodology: A beginner's guide to doing a research project. *Sage (Atlanta, Ga.)*.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *JMR, Journal of Marketing Research*, *18*(1), 39–50. doi:10.1177/002224378101800104

George, D., & Mallery, P. (2001). *SPSS for Windows 10.0* (3rd ed.). Allyn and Bacon.

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Allyn & Bacon.

Gilbert, G. R., & Veloutsou, C. (2006). A cross-industry comparison of customer satisfaction. *Journal of Services Marketing*, *20*(5), 298–308. doi:10.1108/08876040610679918

Hair, J. F., Black, B., Babin, B., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate Data Analysis: A Global Perspective*. Pearson Education Inc.

Hull, J., Lehn, D., & Teddlie, J. (1991). A general approach to testing multifaceted personality constructs. *Journal of Personality and Social Psychology*, *61*(6), 934–945. doi:10.1037/0022-3514.61.6.932 PMID:1774631

Ifinedo, P. (2006). Acceptance and Continuance Intention of Web-based Learning Technologies (WLT) Use among University Students in a Baltic Country. *The Electronic Journal on Information Systems in Developing Countries*, *23*(1), 1–20. doi:10.1002/j.1681-4835.2006.tb00151.x

Jones, M. T. (2009). A celebrity chef goes global: The business of eating. *The Journal of Business Strategy*, *30*(5), 14–23. doi:10.1108/02756660910987572

Kandampully, J., Juwaheer, T. D., & Hu, H.-H. (2011a). The influence of a hotel firm's quality of service and image and its effect on tourism customer loyalty. *International Journal of Hospitality & Tourism Administration*, *12*(1), 21–42. doi:10.1080/15256480.2011.540976

Khalifa, G. S. A. (2018). The Egyptian Hotels, Where in the Competitive Environment? Competitive Strategies and Market Orientation and its Impact on Customer Loyalty: The Mediating Role of Operational Performance. *International Journal of Management and Human Science*, 2(4), 60–72. http://www.ijmhs.org/index.asp

Khan, M. M., & Fasih, M. (2014). Impact of Service Quality on Customer Satisfaction and Customer Loyalty: Evidence from Banking. *Pakistan Journal of Commerce and Social Sciences*, 8(2), 331–354.

Ladhari, R., Morales, M., & Lakhal, S. (2005). Service quality, emotion and satisfaction in restaurant setting. *Proceedings of the Annual Conference of the Administrative Sciences Association of Canada*.

Li, G. (2008). Difficulties facing university catering service work and responses. *Science and Technology Information*, *14*, 72–73.

Lovelock, C. H., Edwardson, M., & Patterson, P. G. (1998). *Managing the customer Service function*. Prentice-Hall.

Mehta, S. C., Lalwani, A. K., & Han, S. L. (2000). *Service quality in retailing: relative efficiency of alternative measurement scales for different product-service*. Academic Press.

Methlie, L., & Nysveen, H. (1999). Loyalty of online bank customers. *Journal of Information Technology*, *14*(4), 375–386. doi:10.1177/026839629901400406

Molina-Azorín, J. F., Tarí, J. J., Pereira-Moliner, J., Lopez-Gamero, M. D., & Pertusa-Ortega, E. M. (2015). The effects of quality and environmental management on competitive advantage: A mixed methods study in the hotel industry. *Tourism Management, 50*, 41-54.

Ng, Y. (2005). *Study of the impact of customer satisfaction on intention to return and return intention, and word-of-mouth endorsement in university dining operations* (Master thesis). Graduate College of Oklahoma State University, Stillwater.

Nunnally, J. (1978). *Psychometric theory*. McGraw-Hill.

Oliver, R. L. (1981). Measurement and Evaluation of Satisfaction Process in Retail Setting. *Journal of Retailing, 57*, 25-48.

Palmer, A., & O'Neill, M. (1999). The effects of tangibles on long-term perceptions of service quality. In *ANZMAC Annual Conference*. University of New South Wales.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, *49*(4), 41–50. doi:10.1177/002224298504900403

Prakoso, A. F., Nurul, R., Wulandari, A., Trisnawati, N., Fitrayati, D., Rachmawati, L., & Andriansyah, E. H. (2017). Reliability, Responsiveness, Assurance, Empathy, And Tangible: Still Can Satisfy The Customer. *International Journal of Business and Management Invention*, *6*(3), 68–75.

Qureshi, F. (2004). Need to regulate the catering business. *Daily Dawn*. Available: http://www.dawn.com/2004/04/13/letted.htm#7

Saha, G. C., & Theingi, . (2009). Service quality, satisfaction, and behavioural intentions: A study of low-cost airline carriers in Thailand. *Managing Service Quality*, *19*(3), 350–372. doi:10.1108/09604520910955348

Seibert, S., Kraimer, M., & Liden, R. (2001). A social capital theory of career success. *Academy of Management Journal*, *44*(2), 219–237.

Sudigdo, A., Khalifa, G. S. A., & Abuelhassan, A. E. (2019). Driving Islamic Attributes, Destination Security Guarantee & Destination Image to Predict Tourists' Decision to Visit Jakarta. *Int. J. Recent Trends Bus. Tour.*, *3*, 59–65.

Yılmaz, E. (2008). Toplam Kalite Yönetimi ve İnsan Merkezli Kütüphanecilik. In *Symposium of scientific communication and knowledge management* (pp. 185–211). Ankara: Üniversite ve Araştırma Kütüphanecileri Derneği.

APPENDIX

Table 7. Item /Construct list

	Tangible
TA1	The cafeteria has nice edifice
TA2	The employees had clean, neat uniforms
TA3	The cafeteria 's atmosphere was inviting
TA4	The outdoor surroundings were visually attractive
TA5	The cafeteria is bright and well Lighted
TA6	The cafeteria's interior and exterior were well maintained
	Responsiveness
RE1	Employees responded promptly to my requests
RE2	Informative literature about the cafeteria was provided
RE3	Employees were willing to answer my questions
RE4	Employees responded quickly to solve my problems
RE5	Serving of food items is prompt
	Assurance
AS1	The staff have in-depth Knowledge at cafeteria services
AS2	The staff have skills required to perform services
AS3	The staff speak with you by appropriate forms
AS4	The staff are trustworthy
AS5	The staff make you feel safe when purchasing food
As6	Staff are respectful
As7	Staff makes me feel at home
As8	Quality of food is excellent
As9	Price of foods purchased is affordable
As10	I am willing to visit the cafeteria at all time
	Empathy
Em1	The staff are able to communicate with me in my own language
Em2	The staffs are able to communicate effectively with me
Em3	The staff show personal attention towards me
Em4	The staff know my specific needs
Em5	The staff have the customers interest at heart
Em6	I received undivided attention at the cafeteria
Em7	Reservationists tried to find out my particular needs
Em8	Managers of the cafeteria goes around supervising and friendly welcoming customers
Em9	Cafeteria employees deals with guests in a caring fashion

Table 7. Continued

	Satisfaction
Sat1	Food (taste, quantity, attractiveness, aroma etc.)
Sat2	Menu (presentation, variety, attractiveness etc.)
Sat3	Price (value, fairness, reasonableness)
Sat4	Service (staff and service quality)
Sat5	Environment (cleanliness, scent, décor, lighting etc.)
Sa6	Facilities (toilets, tables, chairs, plates, cutlery, entertainment)
Sat7	Layout (space, arrangement, functionality etc.)

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