Fast Food Industry: A means of boosting Agribusiness in Nigeria

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ABSTRACT

Principal Component Analysis (PCA) with Varimax rotation was used to extract factors that were essential to describe quality service needed to achieve customers' satisfaction in the fast food industry in the study area. The overall Cronbach's Alpha was 0.875 while the Bartlet Test of Sphericity was also significant at 1%level. The (PCA) extracted 9 factors with Eigenvalue equal or greater than 1 but only 4 that had at least 3 items per factor were analyzed and named for the study. In the multiple regressions that were applied to know the effects of the indicators on satisfaction, most items of these indicators were highly significant and they had positive signs indicating their positive effects on satisfaction. Name of the Restaurant was negatively signed in most of these regression models indicating that satisfaction could only be achieved through observance of high quality service and not the names of the operators. The study attempted highlighting the fact that the Nigerian mono-product economy bedeviled by a recession can regain a momentum through diversification to other sectors of the economy like Agribusiness and fast food industry for income and employment generation. The study also affirmed the fact that satisfaction is the hallmark of good service quality in the fast food industry.

Keywords: Mono-product economy, Eigenvalue, Cronbach's Alpha, Varimax rotation and fast- food.

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INTRODUCTION

Fast Food in Nigeria like in most countries of the world makes use of agricultural raw materials for their food products. Fries are gotten from potatoes, fried chicken from local poultry since most poultry products are barred from importation, local fried plantain (dodo) is from local plantain, cat fish combo meal is from local catfish producers and a lot of other raw materials have their local supply chain tied to the Fast Food sector. There are a lot of potentials for the Fast Food sector in Nigeria but the cost of doing business is high due to many obvious reasons like low infrastructure: power supply is epileptic and highly influenced by local politics and roads are poorly maintained. Business environment is polluted by corruption hence poverty level is high and purchasing power of the Naira low. Most of the Fast Food is dominated by the informal sector which makes these potentials a mirage. Security is another pollutant to this environment as militants had relegated crude oil production potential of Nigeria to its lowest level ever. Crude oil sales provided the petrol –dollars upon which the whole economy depends. The Quick Service Restaurants (QSRs) as the fast food restaurants are known in Nigeria provide a medium upon which the diversification of the economy can be built. As of 2014 ,there were over 800 QSR outlets in Nigeria, the vast majority of them branded by about 100 small and medium-sized local companies generating about N200bn ($1.22bn) in revenue and employed more than 500,000 workers. (*www.oxfordbusinessgroup.com)*.Out of these, the informal fast food sector takes the largest chunk with their unorganized formats. As early as 2010, the informal fast food sector; the akara, suya, fried yam sellers, was estimated at $600-750 million a year. (Orgah, 2013). The crude oil prices had been falling, the Niger Delta where much oil is got had been under constant attacks of militants and oil pipe vandals, the currency –the Naira had witnessed so many depreciation and unofficial devaluation, the Boko Haram Jihadists raged in the North –Eastern part and many states as many as 27 out of 36 were unable to pay workers salary in a cash-run economy. Buhari regime promised to diversify economy and fight corruption .One aspect to focus is the large informal sector that needs to be formalized.

Fast food is the one that can be produced in quantity and served quickly to customers within a relatively very short time. In the Nigerian traditional context, they include akara (fried bean cakes), roasted corn (agbado), suya, (local barbeque), roasted plantain (booli), fried plantain known as “dodo Ikire” and fried yam. They have low preparation time and are served to customers in kiosk, stores, tents (buka) and secluded areas known as joints as in the case of suya which is mainly sold in make-shift tents in conspicuous junctions or in designated areas of big hotels and motor parks. They are served in a packaged form which can be eaten within or taken away. Many of these are known as snacks for motorists and those on transit from one town to another. With urbanization and modernization, some (otherwise small businesses} have grown into big restaurants and big time stores while those combining modernity with traces of tradition are known as joints or spots where these fast food are an integral part of the menu served together with different types of drinks and other services . They are now referred to Quick Service Restaurants (QSR).

The big and organized fast food sector are mainly located in the mega city of Lagos while some of the largest firms have spread hinterland to big cities of Ibadan, Abuja, Ilorin ,Osogbo and cities like Ogbomoso where we have large student populations. They are presented in forms like Kentucky Fried Chicken [kfc], Kairos N Kosh Limited, Finger King, Mario's Pizza, Magrellos, Chicken Republic, Domino's Pizza, The Promise and Barcelos in Lagos. Others include Captain Cook, the Royals in Ilorin, Finger Licking, Care and Spices in Osogbo, Food Concepts (Food co) in Ibadan and a host of others. The biggest ones are Mr. Bigg's, Tantalizers and Food Concepts which is the parent company of Chicken Republic.

Customer Satisfaction and service quality

Service quality is very paramount in the successful running of a fast food company while customers' satisfaction is the hallmark of good service quality. Results of many previous studies have revealed that service quality has a strong relationship with customer satisfaction (e.g. Stevens et al., 1995; Andaleeb and Conway; 2006; Kim et al., 2009; Min and Min, 2011). Andaleeb and Conway (2006) noted that customer satisfaction was significantly influenced by the reaction of the employees, price and food quality. A number of researchers (e.g. Cronin and Taylor, 1992; Oliver, 1997; H. Lee, Y. Lee and Yoo, 2000; Ting, 2004 and Kim et al., 2009) supported that service quality is one of the main drivers of customer satisfaction. High service quality usually leads to high level of customer satisfaction, but customer satisfaction is also influenced by several other factors such as price, personal and situational factors, and is an emotional evaluation (Cronin and Taylor, 1992).Customer satisfaction, a business term is defined as a measure of how products and services supplied by a business meet or surpass customer expectation. According to Zairi (2000), the feeling of pleasure and expectation fulfillment is known as Satisfaction. Lim (2010), opined that Customer's ultimate satisfaction may have significant effect of the atmosphere. Physical surroundings are helpful to create image in the mind of customer and to influence their behavior. Physical atmosphere of the restaurants have the significant impacts on the customers satisfaction. Lightning, furnishing, scent, music and different other atmospheric factors among them influence the customer satisfaction.

METHODOLOGY

The Study Area

Nine Quick Service Restaurants were focused in the cities of Ibadan Oyo State, Osogbo Osun State, Ilorin Kwara State and Ogbomoso also in Oyo State of Nigeria. The study focused Fast Food Restaurants of Mr. Biggs, Captain Cook, Finger Licking and Spices in Osogbo, Osun State, Mr. Biggs, Tantalizer , Captain Cook and Royals, Ilorin in Kwara State , Mr. Biggs, Tantalizer and Food Co in Ibadan, Oyo state and Mr. Biggs, Alata and Amazing , Ogbomoso also in Oyo State of Nigeria. As at June 2015, publicly available records showed that the 7 market leaders had 314 outlets located in various locations all over the country. Mr. Biggs remains the only QSR in Nigeria with national spread. Most other brands are either largely regional or concentrated in 2-3 major cities (*http://www.financialnigeria.com*).

In terms of outlets as at June 2015, the 7 market leaders were in the following order: Mr. Biggs had 154, Tantalizer 50, Chicken Republic 49, Sweet Sensation 25, Domino's Pizza 13, Tastee Fried Chicken 13 and Kentucky Fried Chicken 10.(*http://www.financialnigeria.com)*. Others especially the Indigenous ones are localized in 2-3 major cities. In this study however, Mr. Biggs had about 20% of the respondents, Tantalizer 12.9% and Food Concepts 11.7%, others mostly indigenous or localized constituted 10% or less of the respondents for the study (Table 1).

Table 1: Distribution of the respondents by fast food restaurants

Name of the Restaurant	Frequency	Percentage
Mr. Biggs,	95	19.8
Captain Cook,	72	15.0
Finger Licking	31	6.4
Spices	30	6.2
Tantalizer	62	12.9
Royals	43	9.0
Food Co	56	11.7
Alata	48	10.0
Amazing	43	9.0
Total	480	100.0

Four hundred and eighty respondents were randomly picked and interviewed using questionnaires calibrated on a 5- point Likert scale, based on service quality that may prompt a consumer to be satisfied or otherwise with a fast food restaurant. The determinants of factors responsible for the satisfaction of consumers were analyzed using the SERVPERF model designed by Cronin and Taylor, 1992.This is a performance-based measure of service quality. The SERVPERF model consists of five major dimensions and customer's overall assessment of the satisfaction derived as the sixth. This is further broken into 29 items that elicit service quality and satisfaction. (Table 2)

Table 2: Indicators of Service Quality Dimensions

Indicators	Items	Number of items
Empathy	Employees are sensitive to your needs Make you feel special Anticipate your individual needs and wants Employees are sympathetic Have customer's best interests at heart	5
Assurance	Employees can answer questions completely Feel comfortable and confident Personnel able and willing Personnel seem well trained and experienced	4
Responsiveness,	During busy hours, has employees shift Provide prompt and quick service Employees are polite Enough employees to attend to customers	4
Reliability,	Serve in dining room Management quickly corrects anything that is wrong Dependable and consistent Food is served on time Do not serve stale food Serve your food as you ordered it	6
Tangibles	Virtually attractive parking: building Virtually attractive dining area Staff members are neat and clean Virtually attractive menu Dining area that is comfortable Rest rooms are thoroughly clean Comfortable seat in the dining room	7
Overall satisfaction	Has your experience been up to your expectation? The fast food restaurant serves you perfectly well Service compared to the ideal	3
Total		29

RESULTS AND DISCUSSION

Socio –Economic Characteristics of the Respondents

Most respondents that patronized the fast food outlets were males (57.7%) while others (42.3%) were females. Most of them (85.4%) were youths below the age of 40 years. They were mainly Christians (58.3%), singles (56.5%) with smaller household size of (1-4 members) and educated at least up to the secondary (39.0%) mostly tertiary level (59.4%).

Table 3: Socio –Economic Characteristics of the Respondents

Variable		Frequency	Percentage
Sex:			
Male		277	57.7
Female		203	42.3
Age(Years)	20-40	410	85.4
	40-50	44	9.2
	>50	26	5.4
Religion:	Christianity	280	58.3
	Islamic	190	39.6
	Traditional	10	2.1
Marital Status	Married	195	40.6
	Single	271	56.5
	Divorced	8	1.7
	Widowed	6	1.2
Household Size	1-4	297	61.8
	5-7	161	33.6
	>7	22	4.6
Education	Primary	8	1.6
	Secondary	187	39.0
	Tertiary	285	59.4

The Principal Component Analysis

The Principal Component Analysis with Varimax rotation was applied, which is a right-angled rotation and orthogonal. Orthogonal rotations produce factors that are uncorrelated; This allows the variance between variable loads to be maximized, on a specific factor, having as a final result little loads become less and big loads become bigger, and finally, those with in -between values are minimized (Hair et al., 2005). Before a factor analysis can be applied, there are conditions and tests to be fulfilled. These include: Sample size, for factor analysis to be reliable, the sample size should be big enough (Costello & Osborne, 2005; Field, 2009; Tabachnik & Fidell, 2001). A sample size of 200-300 is good, in this study however, the sample size of 480 is adequate and big enough. The Measure of Sampling Adequacy (MSA) using the Kaiser-Meyer-Olkin (KMO). The KMO "represents the ratio of the squared correlation between variables to the squared partial correlation between variables" (Field, 2009). Another prerequisite for factor analysis is that the variables are measured at an interval level (Field, 2009). A Likert scale is assumed to be an interval scale (Ratray & Jones, 2007) as in the case of this study.

Reliability of Scale and Reliability Testing:

Cronbach's Alpha

Cronbach's alpha is an index of reliability associated with the variation accounted for by the true score of the "underlying construct." Construct is the hypothetical variable that is being measured (Hatcher, 1994). Table 4: shows a Cronbach's Alpha overall score of 0.876 which is far greater than 0.7 thresholds.

This is an indication of internal consistency of the items used in the questionnaire. Nunnaly, (1978), has indicated 0.7 to be an acceptable reliability coefficient but some researchers have been using lower thresholds in literature.

Table 4

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.876	.885	31

Table 5 shows the Scale Statistics that pertains to the entire scale used in the study. It shows that the mean is 110.20 while the standard deviation is 12.439 for the items.

Table5.

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
110.20	154.739	12.439	31

The sample sufficiency and Sphericity test

The Kaiser-Meyer-Olkin (KMO) Test is a measure of how suited the set of data one uses is for a Factor Analysis. It measures the sampling adequacy of each variable in the model and for the complete model itself. The KMO values lie between 0 and 1. The closer the value to 1 the better but some authors believe values less than 0.5 to be an indication that the sampling is not adequate, so they take 0.5 as the threshold.

In the study however,(Table 6) The Kaiser-Meyer-Olkin (KMO) statistic is 0.887 while the Bartlet Test of Sphericity(4941.856) which examines if the subscales of the scale are inter-independent, is also significant at 1% level. Kaiser (1974), recommends a bare minimum of 0.5 and that values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb. The importance of Bartlet Test of Sphericity being significant is that the initial null hypothesis that the correlation matrix between variables is an identity matrix has been rejected.

Table 6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.887
Bartlett's Test of Sphericity	Approx. Chi-Square	4941.856
	df	496
	Sig.	.000

Number of factors extracted

Factors with Eigenvalue equal to or greater than 1 were regarded as important, but the number of items per factor is also important. At least 2 but some authors take the least to be 3 items in literature. The KMO values for individual variables are produced on the diagonal of the anti-image correlation matrix, it is important to examine the diagonal elements of the anti-image correlation matrix: the value should be above the bare minimum of 0.5 for all variables (and preferably higher) (Field, 2009). Based on these facts, 9 factors had their Eigenvalue equal to or greater than 1 which accounted for 57.25 of the total variation. (Scree plot) but only four had at least 3 items per factor, hence these were the ones amenable to analysis in this study. The factor analysis produced dimensions that were different from what the study started with and these dimensions are assumed to be the major factors needed to be taken into consideration when service quality and customer satisfaction measurement is being contemplated in the study area. These produced new variables that were uncorrelated, independent known as the principal components. The factors were named in accordance with what is suggested in the literature. Factor 1 shows items in tangibles indicating that customers would always take the issue of attractive menu, staff cleanliness and neatness, easily readable menu in a dining area that is comfortable seriously before patronizing a quick service restaurant in the study area. Other factors are reliability and empathy in factors 2and 3 followed by assurance and responsiveness in factor 4 as indicated in Table 8.

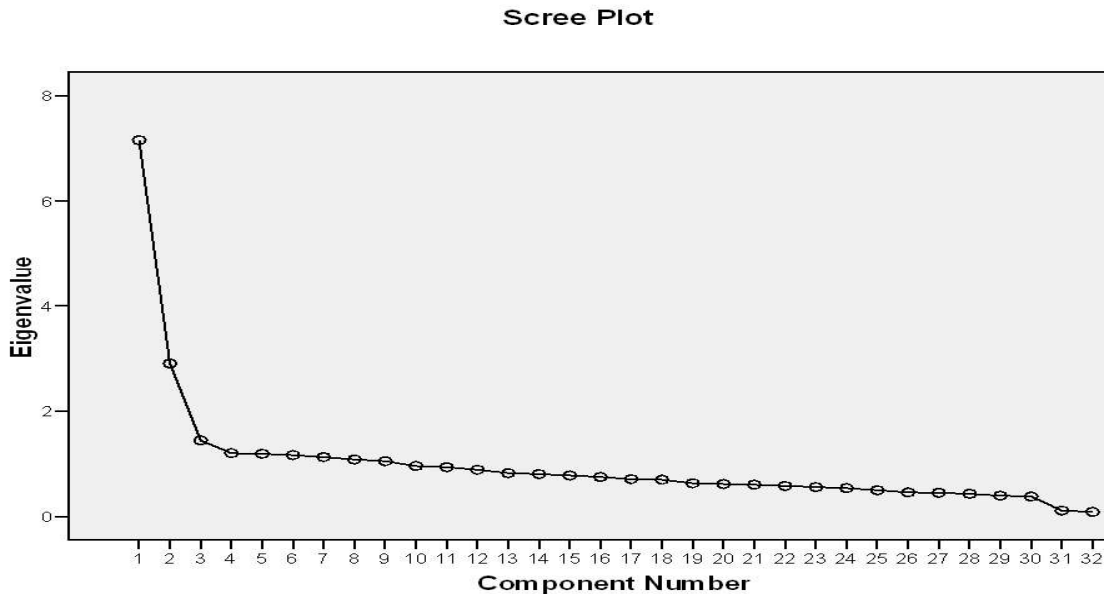

Table 8: Factors Extracted (PCA).

Factors and Variables	
Factor 1 : Tangibles	
Virtually Attractive Menu	.650
Staff Clean and neat	.641
Menu Easily Readable	.579
Dining area that is comfortable	.519
Factor 2: Reliability and Empathy	
Workers anticipates needs and wants	.688
Workers make you feel special	.669
Employees are sympathetic	.627
Have customers interest at heart	.625
Management quickly corrects anomaly	.526
Dependable and consistent	
Factor 3: Reliability	
Food served perfectly as ordered.	.961
Food never served stale .	.956
Serves in the dining room	.956
Factor 4: Assurance and Responsiveness	
Workers seem well trained, experienced	.794
Employees are polite	.534
Feel comfortable and confident	.527
Employees can answer questions completely	.504

Effects of service quality on overall customer satisfaction

The effects of service quality on overall customer satisfaction were explored through multiple regression analyses as in Table9. Before a regression model can be considered to be of good fit, its R- Square should be high, F statistic should be significant and some variables should be significant. As indicated in the table, the model on empathy shows that 44.7% of the variability in Y=overall satisfaction index is explained by the independent variables while the remaining 52.3% belonged to the error term or was exogenous to the system. The F statistic was significant at 1% level indicating that some variables were going to be significant. All items were significant at 1% except Employees are sympathetic that is significant at 5% level. They also showed positive signs indicating positive effects on Y. Educational Level, Civil Service Profession also had positive signs indicating that higher educational level and being a civil servant increase Y based on items in empathy. This is true in that most people that patronize the Fast Food restaurants were either students in higher institutions, graduates doing their youth service and Civil Servants that were away from their homes. However, Name of Restaurant impacted negatively on Y indicating that costumers may decide to discriminate against some Fast Food restaurants on hearing their names based on items in empathy. The Assurance model showed that 57.7% of the variability in Y is explained by the independent variables. The F statistic was significant at 1% level. All items were significant at 1%. Educational Level and Name of Restaurant were significant at 1% level while Civil Service Profession was significant at 5% level. They also showed positive signs indicating positive effects on Y except Name of Restaurant that also impacted negatively on Y.

Table 9: Effects of service quality on overall customer satisfaction

Indicators	Variables	T	Sig.
	Employees are sensitive to your needs	6.080	.000
	Make you feel special	4.504	.007
	Anticipate your individual needs and wants	3.024	.000
	Employees are sympathetic	2.172	.030
Empathy	Have customer's best interests at heart	4.671	.000
	Educational Level	2.996	.003
	Name of Restaurant	-4.617	.000
	Civil Service Profession	2.716	.007
Model Summary	R Square =0.447: F =20.622		.000
	Employees can answer questions completely	4.939	.000
	Feel comfortable and confident	6.435	.000
Assurance	Personnel seem well trained and experienced	3.848	.000
	Educational Level	2.773	.006
	Name of Restaurant	-5.034	.000
	Civil Service Profession	2.092	.037
Model Summary	R Square =0.577: F =14.445		.000
	During busy hours, has employees shift	3.973	.000
	Provide prompt and quick service	6.128	.000
	Employees are polite	7.636	.000
Responsiveness	Enough employees to attend to customers	5.317	.000
	Educational Level	3.012	.003
	Name of Restaurant	-4.217	,000
	Civil Service Profession	2.458	.014
	Law enforcement profession	-1.840	.066
Model Summary	R Square =0.440: F =21.293		.000
	Serve in dining room	6.851	.000
	Management quickly corrects anything wrong	7.853	.000
	Dependable and consistent	6.474	.000
	Do not serve stale food	21.058	.000
Reliability	Serve your food as you ordered it	8.947	.000
	Civil Service Profession	-3.292	.001
	Traders	1.710	.088
Model Summary	R Square =0.731: F = 69.360		.000
	Virtually attractive parking: building	4.207	.000
	Virtually attractive dining area	4.622	.000
	Staff members are neat and clean	2.468	.014
	A menu that is easily readable	4.600	.000
	Virtually attractive menu	2.155	.032
	Dining area that is comfortable	1.199	.046
	Rest rooms are thoroughly clean	3.919	.000
Tangibles	Comfortable seat in the dining room	5.940	.000
	Educational Level	3.370	.000
	Name of Restaurant	-5.565	.000
Model Summary	R Square =0.529: F = 23.323		.000

The responsiveness model showed that 44.0% of the variability in Y is explained by the independent variables. All items on Responsiveness were highly significant at 1% level. Educational Level was positive and significant at 1% level but Civil Service Profession was significant at 5% level and with positive signs. Name of Restaurant and Law enforcement profession impacted negatively on Y. The Reliability model showed that 73.1% of the variability in Y is explained by the independent variables. All items on Reliability were highly significant at 1% level. Civil Service Profession was significant at 1% level but negatively signed. Trading was positive and significant at 10% level.

The Tangibles model showed that 52.9% of the variability in Y is explained by the independent variables. Most items were highly significant at 1% level while some significant at 5% level. Educational Level was positive and significant at 1% level but Name of Restaurant was negatively signed and significant at 1% level.

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