
PREDICTIVE INDICATORS OF CUSTOMER LOYALTY IN THE NIGERIAN GSM MARKET

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ABSTRACT: *This study focuses on the predictive indicators of customer loyalty among GSM users in the South-Eastern Nigeria. Most of the studies on customer loyalty in the Nigerian GSM market are alien to South-Eastern Nigeria. The main objective of this study is to empirically inquire the factors that influence customer loyalty in the Nigerian GSM market. The study adopted survey research design and the population of study is the mobile phone users in Anambra State. Quota sampling method was employed while the sample size was determined using survey systems formula. Questionnaire was employed as the research instrument and the reliability test was achieved using split-half method. Factor analysis was used for data reduction and multiple regressions were employed to test the hypotheses. The findings revealed that trust, customer satisfaction, corporate image, service quality, network coverage have significant effect on customer loyalty with customer satisfaction as the strongest predictor of customer loyalty in the Nigerian GSM market. In addition, prompt customer service was seen to have no significant effect on customer loyalty. It was recommended that GSM service providers should focus more on customer satisfaction, trust, corporate image, service quality, and network coverage in order to build sustainable relationship with their customers as to become very competitive. Also, attention should be paid on providing quality customer care service elements.*

KEYWORDS: Customer Loyalty, Customer Satisfaction, Customer Trust, Corporate Image, Switching Barrier, Service Quality.

INTRODUCTION

Telecommunication facilities were first established in Nigeria in 1886 by the colonial administration through the introduction of public telegraph services linking Lagos submarine cable along the west coast of Africa, Ghana, Gambia, and unto England (UNILAG CONSULT cited in Emerah, Oyedele & David, 2013). Then, Nigeria only had 18,724 functional lines for a population of about 45 million people at independence (Emerah, Oyedele & David, 2013) with a teledensity of about 0.04 telephones to 100 people. Only 181,276 lines were added to increase the nation's functional lines to 200,000 between 1960 and 1984 as against the planned target of about 460,000 and all the exchanges were analogue (NBI cited in Emerah, Oyedele & David,

2013). This dismal failure led to the creation of NITEL in 1985 which enjoyed all sorts of monopoly but could not solve the telecommunication problems of Nigeria ever-increasing population (Emerah & David, 2013). According to Adeleke and Aminu (2012), GSM revolution started in Nigeria in August 2001, with the licensing of three mobile operators namely; MTEL, Econet (now Airtel) mobile and MTN by Nigeria Communication Commission (NCC), and since then ICT in Nigeria has been transformed. Later, Globacom and Etisalat were licensed to operate and compete with the existing mobile operators thereby increasing the numbers to five as at 2012. (Adeleke & Aminu, 2012).

Nigeria according to NCC cited by Adeleke and Aminu (2012) is the leading African's telecom market with active subscribers of 92,006,608 by end of February, 2012. This represents a tele-density of 68.68% up from a tele-density of 0.73% in 2001. The astronomical growth rate in the market has resulted in intense rivalry among the GSM operators and calls for the engagement of marketing activities that would help them attract and retain large chunk of their customers and make them loyal. This is more so as the market has become saturated and with little opportunity to attract new customers. The emerging competition has resulted to tariff reduction, introducing new products, advertising blitz, increasing sales promotion and innovation customer care among others (Adeleke & Aminu, 2012) and these are focused at attracting and retaining customers. Also, the high growth of subscribers resulting in impressive financial performance of the GSM providers has made necessary the need to examine the factors that influence customer loyalty in the market.

The rapid growth in the subscribers based of the GSM in Nigeria has led to unhealthy and cut-throat competition in the GSM market. The stiff competition is a resultant effect of lower switching cost among the subscribers of the diverse networks. This shows in the rate at which they (subscribers) freely enter and exit networks (Adeleke & Aminu, 2012). Despite the remarkable and outstanding improvement in GSM accessibility, there exist an avalanche of complaints of high call tariff, poor voice signals, poor reception among others (Emerah, Oyedele & David, 2013), there is an urgent need to examine the determinants of customer loyalty in this pervasive industry. More so with competition among GSM providers becoming stiffer, they realized that retaining one's existing customer base is important as much as acquiring the new ones (Coyles & Gokey, as cited in Adeleke & Aminu, 2012). Various studies have been conducted to know factors responsible for customer loyalty in the loyalty literature (Yang & Peterson, 2004; Khan, 2012; Boohen & Agyapong, 2011; Siddiqi, 2011; Adjei & Denanyoh, 2014; Akroush, Al-Mohammed, Zuriekat & Abu-Lail, 2011; Aydin & Ozer, 2005 and Khurshid, 2013). These studies were conducted in America, Europe and Asia except the studies carried out by Adjei and Denanyoh (2014) in Ghana and that of Boohen and Agyapong (2011) on customer loyalty in Ghanaian banks. Rai and Medha (2013) focus on customer loyalty's antecedents in insurance and the study was conducted in India, also Blackwell, Szeinbach, Barnes, Garner and Bush (1999) look at antecedents of customers loyalty in the health sector. Few studies that were conducted in Nigeria on customer loyalty either focus on switching cost and customer loyalty (Oyeniya & Abiodun, 2010) or on attitude to patronage of GSM services in the South-South region (Ogwo & Igwe, 2012). Though the studies carried out by Adeleke and Aminu (2012), Emerah, Oyedele and David (2013) looked at the determinants of customer loyalty in the GSM

market, these studies are alien to South-Eastern Nigeria context because they were carried out in the South-Western Nigeria and there is need for context specific study on the determinants of customer loyalty in this important sector of Nigerian economy especially in the South-Eastern Nigeria.

LITERATURE / THEORETICAL UNDERPINNING

Conceptual Review

Customer loyalty: According to Boohene and Agyapong (2011), loyalty as a concept has its base from the consumer behavior theory and is something that consumers may portray to brands, services or activities. Customer loyalty has been defined early that it is the normal willingness of customer to maintain their relations with a particular firm or service/product (Kim & Yoan cited in Khan, 2012). According to Lovelock cited in Adeleke and Aminu (2012), loyalty is used to show the submissiveness of a customer to continue patronizing a firm's product over a long period of time and on a repeated and preferably exclusive basis, and voluntarily recommending the firm's products to friends and associates. Customer loyalty is the outcome of a firm's creating a benefit for customers so that they will maintain increasingly repeat business with the organization (Anderson & Jacoben cited in Adeleke & Aminu, 2012). From the foregoing, customer loyalty in the GSM market in Nigeria is a function of the length of time and the frequency with which customers stay and remain on a network. It is therefore of a necessity for all GSM service providers to retain large numbers of subscribers on their networks.

Customer satisfaction: Satisfaction is a consumer's post-purchase evaluation, effective and affective response to the overall product or service experience (Oliver cited in Adjei & Denanyoh, 2014). It is considered a strong predictor for behavioral variables such as repurchase intentions, word-of-mouth recommendations, or loyalty (Adjei & Denanyoh, 2014). In the word of Khurshid (2013) customer satisfaction means that how much the present customers are happy and motivated from the company. He further states that it is considered very important for companies that their customers are loyal to them because if they are happy it will help the firm to build long term relationship with the customers so that they can purchase more and more from them and also recommend it to other customers as well.

Customer Trust: Trust is the willingness of the party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trust or, irrespective of the ability to monitor or control that other party (Mayer et al. cited in Rai & Medha, 2013). Nguyen and Leclerc cited in Ria and Medha (2013) posit that customers in service industry tend to hold positive behavioral attitude toward the brand they trust. In the word of Khurshid (2013), customer trust has both impact on the purchase behavior and decision of the customers. He further asserts that trust shows customers' ability to be loyal with the company and give favourable positive feedback to them over the competitors.

Corporate image: This implies the perception or the personal opinion of the customers when they hear about the brand or when they see it or more specifically when they experience it (Khurshid, 2013). It can also be seen as the general impression made on the minds of the public

about a firm (Barich & Kotler cited in Boohene & Agyapong, 2011). Keller cited in Adeleke and Aminu (2012) defines corporate image as the perceptions of a firm as reflected in the associations held in consumer memory. Corporate image, according to Aaker cited in Ogwo and Igwe (2012), is an image that a firm acquires and reflects its heritage, value, culture, people and strategy. From the foregoing, it is therefore essential that GSM operators show concern about the way it is perceived by their variety of stakeholders such as employees, customers and the general public, as this determines loyalty.

Service Quality: Quality is the comparison of perceived performance and expected performance (Kang cited in Adeleke & Aminu, 2012). Service quality is the customer's overall impression of the relative inferiority/superiority of a firm and its offerings (Bitner et al. cited in Adeleke & Aminu, 2012). It has been empirically discovered that service quality and customer loyalty shown positive relationship. From the foregoing, GSM operators in Nigeria should endeavour to improve the quality of their service in terms of signal strength, clear voice, call rate and GPRS rate among others in order to attract and retain more customers hence, customer loyalty.

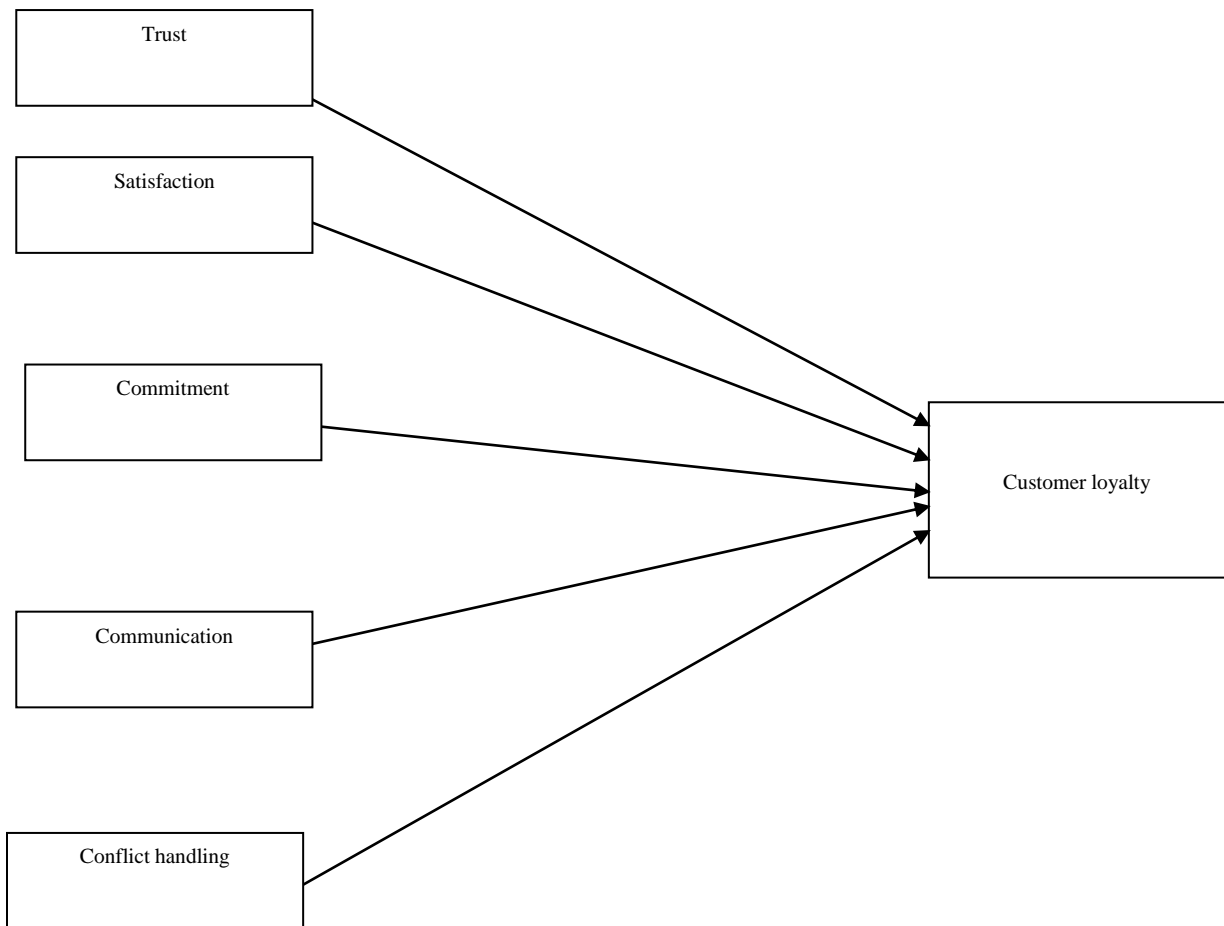
Customer Service: This is a system that comprises customer support systems, complaint processing, conflict handling, communication with customer (Kim et al. cited in Adjei & Denanyoh, 2011). Customer service has positive and favourable impacts on increasing the loyalty of customers towards the company and its product (customer management IQ cited in Khurshid, 2013).

Theoretical Framework

Boora and Singh (2011) customer loyalty model was adopted in this study. This model is an offshoot of Oliver (1999) model of customer loyalty. They grouped the determinants of customer loyalty into four:

- i. Characteristics of the environment
- ii. Characteristics of the dyadic relationship
- iii. Characteristics of the consumer and,
- iv. Consumer perception of the relationship with the marketing firm.

This model was adopted in this study because it captures the underpinnings of customer loyalty in a typical service-oriented industry, especially the telecommunication industry. Boora and Singh (2011) customer loyalty model is shown below:



Source: Boora and Singh (2011), "Customer loyalty and its antecedents: A Conceptual Framework, APJRB, Vol. (1), pp.151-164

Hypotheses

H₁: Customer satisfaction will positively affect customer loyalty of mobile phone users in Onitsha South LGA.

H₂: Customer trust will positively affect customer loyalty of mobile phone users in Onitsha South LGA.

H₃: Image of the GSM provider will positively affect customer loyalty of mobile phone users in Onitsha South LGA.

H₄: Perceived service quality of the GSM provider will positively affect customer loyalty in Onitsha South LGA.

H₅: Prompt customer service will positively affect customer loyalty of mobile phone users in Onitsha South LGA.

H₆: Price/Tariff of GSM service will positively affect customer loyalty of mobile phone users in Onitsha south LGA.

H₇: Wide network coverage will positively affect customer loyalty of mobile phone users in Onitsha South LGA.

Empirical Review

In a study conducted by Boohene and Agyapong (2011) in Ghana, they found that there exist a positive relationship between service quality, image and customer satisfaction and customer loyalty. However, the study revealed a negative relationship between customer satisfaction and customer loyalty. The work of Yang and Peterson (2004) contradicts that of Boohene and Agyapong (2011), when they found out that customer loyalty is a function of customer satisfaction and perceived value. Also, Khan (2012) discovered that customer satisfaction has significant impacts on customer retention while customer retention has significant effect on customer loyalty in the telecommunication industry.

According to the study conducted by Adeleke and Aminu (2012) in South-Western Nigeria, they found out that service quality, customer satisfaction, and corporate image are the important determinants of customer loyalty in the Nigeria's GSM market and that GSM companies should take note of these and emphasize them in their marketing strategies formulation and implementation.

Moreover, Almossawi (2012) found in his study conducted in Bahrain that there exist a poor association between customer satisfaction and loyalty. Adjei and Denanyoh (2014) found that network coverage has a significant positive relationship to customer loyalty while corporate image and prompt customer service were found to have a less effect on customer loyalty. However, Akroush, Mohammad, Zuriekat and Abu-lai (2011), revealed that their structural path analysis shows that customer satisfaction, trust, perceived switching costs and perceived service quality affected customer loyalty in the Jordanian telecommunication industry. Also, in the study carried out in the Turkish mobile telecommunication market by Aydin and Ozer (2005), they found out that perceived service quality is a necessary but not sufficient condition for customer loyalty. Contrary to the finding of Aydin and Ozer (2005), Achour, Said and Boerhannueddin (2011) in their study conducted in Malaysia revealed that service quality and image are separate constructs that combine to determine the loyalty, with service quality exerting a stronger influence than corporate image.

Adjei and Denanyoh (2014) introduced other determinants of customer loyalty which is synonymous to African telecommunication environment. They added price, network coverage, sales promotion, call rates, call quality, SMS rates/packages, GPRS rates and quality. However,

in this study we adopt only price and network coverage and subsume call quality, GPRS, quality under service quality variable. This was supported by the work of Adeleke and Aminu (2012) and Oyeniyi and Abiodun (2010) all done in South-Western Nigeria.

Price (tariff) according to Adjei and Denanyoh (2014) plays a key role in telecommunication market especially for the mobile telecommunication service provider. Price in this context include SMS rate, call rate, GPRS rate. However, Adeleke and Aminu (2012) revealed that price is not a determinant of customer loyalty in Nigeria GSM market. Khurshid (2013) revealed that network coverage has a significant impact on customer loyalty.

METHODOLOGY

The research design adopted in this study is the survey research design-involves asking questions to respondents and recording responses; the aim of which is to elicit answers to the questions needed to address the objectives of the study (Okeke, Olise & Eze, 2012). The population of this study is the mobile phone users in Anambra State. The population is an infinite (unknown) one because the researchers could not obtain the exact number of mobile phone users in the area from any secondary source. This study employed quota sampling and the aim was to ensure that respondents from the various demographic characteristics are involved in the sample. Quota sampling involves the selection of potential respondents according to pre-specified behaviors though disproportionately (Okeke, Olise & Eze, 2012). Since the population of the study is unknown (infinite), the researchers adopted a formula that estimates the representativeness of the sample on certain critical parameters at an acceptable level of probability. The formula for sample size determination adopted for this study is:

$$n = \frac{Z^2(P)(1 - P)}{C^2}$$

Source: <http://www.surveysystems.com>

n= sample size

Z = Standard deviation associated with a given level of confidence

P = % of picking a choice, expressed as decimal

C = confidence interval, expressed as decimal

Thus, the sample size, n is;

Z = at 95% confidence level is 1.96 (from standard normal distribution table).

(1-P) = 1-0.8 = 0.20

C = 0.05 (since we chose 95% as our confidence limit)

$$n = \frac{(1.96)^2 (0.8)(0.2)}{(0.05)^2} = 245.86 \cong 245$$

The sample size is 245 mobile phone users.

For reliability test, split-half method was adopted; this was carried out by dividing the questionnaire items into two equal halves by dividing the items into odd and even numbers. The split-half reliability coefficient was determined by correlating the scores on the odd items of the questionnaire against the even items. The reliability test for the research instrument is 0.75 which is good for a study like this (Akuezuilo & Agu, 2004). Data collected were analyzed using descriptive and inferential statistics. Descriptive statistics was employed to explain the characteristic features of the respondents while multiple regression analysis was employed to test the significance of the research hypotheses. The data were analyzed using Statistical Package for Social Science (SPSS) 20.0.

In the light of these, the research model was proposed thus:

$$\text{Cust loyalty} = f(\text{CusSat} + \text{CusTrust} + \text{CorImg} + \text{Serqual} + \text{CusServ} + \text{Price} + \text{Netwrk Cov}).$$

This is translated thus:

$$\text{Cust loyalty} = a + b_1 \text{CusSat}_{x_1} + b_2 \text{Custrust}_{x_2} + b_3 \text{Corplmg}_{x_3} + b_4 \text{Serqual}_{x_4} + b_5 \text{CusServ}_{x_5} + b_6 \text{Prc}_{x_6} + b_7 \text{NtwrkCov}_{x_7} + e_i$$

Cusloyalty \Rightarrow Customer loyalty

Cus Sat \Rightarrow Customer satisfaction

CusTrust \Rightarrow Customer Trust

Corplmg \Rightarrow Corporate image

Swtchbarr \Rightarrow Switching barrier

Servqual \Rightarrow Perceived service quality

Cus Serv \Rightarrow Customer Service

Prc \Rightarrow Price

NtwkCov \Rightarrow Network Coverage

e_i \Rightarrow Error margin

RESULT / FINDINGS

The total number of usable copies of questionnaire returned and analyzed was 236 and it amounted to 95.55% response rate. This is considered to be acceptable for the study of this nature. The first presentation is the demographic variables as shown in table 1. Five demographic variables were used namely gender, network choice, years on network, education and occupation. They showed that the respondents are suitable for the study and have the educational and financial willpower to participate in the study.

Table 1: Demographic Characteristics of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	149	63.1	63.1	63.1
	Female	87	36.9	36.9	100.0
	Total	236	100.0	100.0	
Network	Airtel	35	14.8	14.8	14.8
	Etisalat	46	19.5	19.5	34.3
	Glo	47	19.9	19.9	54.2
	MTN	108	45.8	45.8	100.0
	Total	236	100.0	100.0	
Years on Network	2-4 years	68	28.8	28.8	28.8
	5-7 years	80	33.9	33.9	62.7
	8 years or more	88	37.3	37.3	100.0
	Total	236	100.0	100.0	
Education	PLSC/O'level	20	8.5	8.5	8.5
	OND/NCE	28	11.9	11.9	20.3
	HND/BSc	120	50.8	50.8	71.2
	Post-Graduate	68	28.8	28.8	100.0
	Total	236	100.0	100.0	
Occupation	Civil/Public servant	164	69.5	69.5	69.5
	Private Firm's employee	60	25.4	25.4	94.9
	Self-employed	12	5.1	5.1	100.0
	Total	236	100.0	100.0	

The next information is the descriptive statistics and this is shown in table 2 below. The table reveals that most of the items have standard deviations of less than one except GSM Network choice, customer loyalty item 4, customer satisfaction item 2 and service quality items 2, 3, 4 and 5. Standard deviations above one show high variations in response; except for 17 items with high

variations the other 19 items have standard deviations less than one and this shows respondents agreement with the dimensions of the research model.

Table 2: Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Gender	1.37	.483	236
GSM Network	2.97	1.118	236
Years on Network	2.08	.810	236
Education	3.00	.865	236
Occupation	1.36	.576	236
Customer loyalty 1	1.76	.723	236
Customer loyalty 2	2.25	.951	236
Customer loyalty 3	2.29	.977	236
Customer loyalty 4	2.58	1.110	236
Customer loyalty 5	2.31	.909	236
Customer satisfaction 1	2.10	.917	236
Customer satisfaction 2	2.03	1.010	236
Customer satisfaction 3	2.07	.991	236
Customer satisfaction 4	2.46	.999	236
Service quality 1	2.41	.996	236
Service quality 2	2.51	1.017	236
Service quality 3	2.85	1.135	236
Service quality 4	2.66	1.021	236
Service quality 5	2.86	1.159	236
Price 1	2.03	.903	236
Price 2	2.08	.871	236
Price 3	2.36	.899	236
Prompt customer service 1	2.19	.855	236
Prompt customer service 2	2.31	1.064	236
Prompt customer service 3	2.49	1.000	236
Prompt customer service 4	3.51	1.143	236
Corporate image 1	2.03	1.209	236
Corporate image 2	2.68	1.035	236
Corporate image 3	2.92	1.359	236
Trust 1	2.66	1.116	236
Trust 2	2.22	.692	236
Trust 3	2.15	.973	236
Trust 4	2.64	1.134	236
Network coverage 1	2.41	.996	236
Network coverage 2	2.07	1.120	236
Network coverage 3	2.36	1.072	236

Factor analysis was employed to reduce the data. The second run in factor analysis had KMO measure of sampling adequacy of .666, an improvement on the first run with KMO measure of sampling adequacy of .610. Also, 10 items were deleted from the first run during the second run and there was an improvement on the total variance of 66.872 in the first run to 76.238 the second run. This shows that the internal consistency of all the remaining items is within the bounds for further analysis.

Table 3: Factor Analysis – (First-Run)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.610
Bartlett's Test of Approx. Chi-Square	4758.942
Sphericity Df	465
Sig.	.000

Table 4: Communalities

	Initial	Extraction
Customer loyalty 1	1.000	.526
Customer loyalty 2	1.000	.818
Customer loyalty 3	1.000	.737
Customer loyalty 4	1.000	.680
Customer loyalty 5	1.000	.552
Customer satisfaction 1	1.000	.613
Customer satisfaction 2	1.000	.790
Customer satisfaction 3	1.000	.717
Customer satisfaction 4	1.000	.750
Service quality 1	1.000	.742
Service quality 2	1.000	.796
Service quality 3	1.000	.714
Service quality 4	1.000	.756
Service quality 5	1.000	.523
Price 1	1.000	.683
Price 2	1.000	.620
Price 3	1.000	.680
Prompt customer service 1	1.000	.701
Prompt customer service 2	1.000	.576
Prompt customer service 3	1.000	.669
Prompt customer service 4	1.000	.534
Corporate image 1	1.000	.693
Corporate image 2	1.000	.782
Corporate image 3	1.000	.525
Trust 1	1.000	.547
Trust 2	1.000	.624
Trust 3	1.000	.574
Trust 4	1.000	.657
Network coverage 1	1.000	.709
Network coverage 2	1.000	.731
Network coverage 3	1.000	.709

Extraction Method: Principal Component Analysis.

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.137	26.248	26.248	8.137	26.248	26.248
2	2.709	8.738	34.986	2.709	8.738	34.986
3	2.227	7.184	42.170	2.227	7.184	42.170
4	1.870	6.032	48.202	1.870	6.032	48.202
5	1.676	5.406	53.608	1.676	5.406	53.608
6	1.455	4.694	58.302	1.455	4.694	58.302
7	1.378	4.446	62.747	1.378	4.446	62.747
8	1.279	4.124	66.872	1.279	4.124	66.872
9	1.133	3.654	70.526			
10	1.099	3.545	74.070			
11	.916	2.954	77.024			
12	.886	2.858	79.882			
13	.805	2.595	82.477			
14	.686	2.213	84.690			
15	.654	2.110	86.800			
16	.620	2.000	88.800			
17	.540	1.742	90.542			
18	.481	1.553	92.095			
19	.412	1.328	93.423			
20	.357	1.153	94.576			
21	.339	1.092	95.668			
22	.259	.836	96.503			
23	.222	.718	97.221			
24	.186	.599	97.820			
25	.156	.503	98.323			
26	.125	.405	98.727			
27	.105	.338	99.066			
28	.100	.324	99.389			
29	.081	.260	99.649			
30	.065	.208	99.857			
31	.044	.143	100.000			

Extraction Method: Principal Component Analysis.

**Table 6: Factor Analysis – (Second Run)
 KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.666
Bartlett's Test of Sphericity	Approx. Chi-Square Df Sig.	3023.207 253 .000

Table 7: Communalities

	Initial	Extraction
Customer loyalty 2	1.000	.807
Customer loyalty 3	1.000	.753
Customer loyalty 4	1.000	.702
Customer satisfaction 1	1.000	.628
Customer satisfaction 2	1.000	.803
Customer satisfaction 3	1.000	.783
Customer satisfaction 4	1.000	.769
Service quality 1	1.000	.715
Service quality 2	1.000	.870
Service quality 3	1.000	.714
Service quality 4	1.000	.788
Price 1	1.000	.758
Price 2	1.000	.762
Price 3	1.000	.766
Prompt customer service 1	1.000	.817
Prompt customer service 3	1.000	.760
Corporate image 1	1.000	.761
Corporate image 2	1.000	.794
Trust 2	1.000	.796
Trust 4	1.000	.732
Network coverage 1	1.000	.722
Network coverage 2	1.000	.745
Network coverage 3	1.000	.788

Extraction Method: Principal Component Analysis.

Hypotheses Testing

To test the hypotheses, multiple linear regressions we used to test the hypotheses with factors and the results are shown below:

Table 8: Model Summary^b

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.767 ^a	.588	.575		.65195333	1.595

a. Predictors: (Constant), Network coverage, Prompt customer service, Service quality, Price, Corporate image, Customer satisfaction, Trust

b. Dependent Variable: Customer loyalty

The result of the model summary of the regression analysis shows the coefficient of correlation R of .767, which is a strong correlation. The coefficient of determination R^2 is .588, which means that 58.8% of variations in customer loyalty are accounted for by the independent variables. Durbin-Watson (D-W) statistic of 1.595 indicates that there exist no redundant variables that need to be expunged in the study.

Table 9: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	138.090	7	19.727	46.412	.000 ^b
	Residual	96.910	228	.425		
	Total	235.000	235			

a. Dependent Variable: Customer loyalty

b. Predictors: (Constant), Network coverage, Prompt customer service, Service quality, Price/tariff, Corporate image, Customer service, Trust

Table 9 reveals the analysis of variance (ANOVA) of the regression analysis, and from the results, the F-value of 46.412 that was significant at .000 implies that the research model is a good-fit in explaining determinants of customer loyalty in the GSM industry.

Table 10: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.412E-017	.042		.000	1.000
Customer satisfaction	.619	.059	.619	10.445	.000
Service quality	.108	.055	.108	1.966	.050
Price/tariff	.124	.051	.124	2.407	.017
1 Prompt customer service	-.061	.052	-.061	-1.176	.241
Corporate image	.212	.058	.212	3.675	.000
Trust	.206	.060	.206	3.424	.001
Network coverage	-.257	.068	-.257	-3.793	.000

a. Dependent Variable: Customer loyalty

From the coefficients table of regression analysis above, customer satisfaction has a t-value of 10.445 and it is significant at less than 0.05 hence, hypothesis 1 is validated and accepted. The t-value for Trust is 3.424 and it is significant at 0.05 hence, we accepted hypothesis 2.

For the GSM provider (corporate) image construct, t-value is 3.675 and significant at 0.05, based on that we accepted hypothesis 3. Service quality has a t-value of 1.966 which is significant at 0.05 hence, we validated and accepted hypothesis 4. For the prompt customer service, it has a t-value of -1.176 and no significance hence, hypothesis 5 is rejected. Price/tariff has a t-value of 2.407 and significant at 0.05 hence, hypothesis 6 is validated and accepted. For network coverage, it has a t-value of -3.793 but significant at 0.000 hence, we accepted hypothesis 7.

DISCUSSION

The study investigated the determinants of customer loyalty among GSM users in Anambra, Nigeria. Following the outcomes of literature reviews and frameworks, seven hypotheses were assessed. The results of the study show that six (6) of the seven (7) constructs (customer satisfaction, trust, corporate image, service quality, price/tariff and network coverage) showed significant effect on customer loyalty, whereas prompt customer service did not reveal any significant effect on customer loyalty.

The findings of this study revealed that customer satisfaction has a significant relationship with the loyalty in the GSM market. This findings is supported by the work of Yang and Peterson (2004), Khan (2012), Adeleke and Aminu (2012), Oyeniyi and Abiodun (2010) but contradicts the findings of Almosawi (2012), Booheem and Agyapong (2011) when they discovered that there exist a poor association between customer satisfaction and loyalty. Trust was found to be statistically significant in our study and this is consistent with the findings of Akroush et al. (2011) when their structural path analysis revealed that trust positively affected loyalty in the Jordanian telecommunication industry. Our study also revealed that corporate image is a

significant factor that affects customer loyalty in the Nigerian GSM market; this findings was supported by the study done by Boohene and Agyapong (2011); Adeleke and Aminu (2012); Adjei and Denanyoh (2014) and Achour et al. (2011) however, the findings of Adjei and Denanyoh (2014) showed that corporate image had a less effect on customer loyalty. Service quality in our study was found to be statistically significant to customer loyalty. This is consistent with the findings of Boohene and Agyapong (2012); Adeleke and Aminu (2012); Akroush et al. (2011) and Achour et al. (2011) while Aydin and Ozer (2005) found that out that service quality is a necessary but not sufficient condition for customer loyalty. Network coverage was also found to be significant in this study. This was supported by Khurshid (2013); Adjei and Denanyoh (2014) and Achour et al. (2011) when they discovered that network coverage is one of the factors considered by GSM users in the course of being loyal to any GSM service provider. Price/tariff was also found to be statistically significant in this study. This is in consonance with the finding of Adjei and Denanyoh (2014) in a study done in Ghana however, this is in contrary with the finding of Adeleke and Aminu (2012), done in South-Western Nigeria that price does not necessarily determine customer loyalty in the Nigerian GSM market. However, Olatokun and Nwonne (2012) in a similar study in South-Western Nigeria stated that price has a significant positive impact on customer perception in selecting telecom service providers. This study reveals no relationship between prompt customer service and customer loyalty which supports the finding of Adjei and Denanyoh (2014). This may be as a result of respondents' report that they are disappointed with the quality of customer care they received such as long delay in getting through to the customer care personnel to make their complaints or inquiries and inability to connect to the customer care lines most times.

IMPLICATION TO RESEARCH AND PRACTICE

Based on the research results, customer satisfaction, trust, corporate image, service quality, price/tariff and network coverage significantly affect customer loyalty whereas prompt customer service has no statistical relationship with customer loyalty for the sample. Therefore, GSM service providers should focus on trust, corporate image, price/tariff, and network coverage and customer satisfaction in order to build a long lasting relationship with their customers so as to become very competitive. Also, attention should be paid on providing quality and prompt customer service elements (easy-to-connect customer care lines, quick response lines and easy-to-understand customer care numbers) to meet customer's needs. GSM service providers should ensure a steady and stable network so that their customers can remain loyal since, the study revealed that customer loyalty depends on network availability.

FUTURE RESEARCH

It is expedient to bear in mind that this study was conducted in a telecommunications context. Therefore, the generalizations we make are limited to the telecommunications sector. Wider generalizations require the replication of this study in other service sectors. Also, there are other factors influencing customer loyalty, apart from factors suggested in this study, such as the demographic characteristics of customers, their life cycles and their usage pattern of mobile telecommunication service. In order to remedy these limitations, future studies could examine some of those aforementioned factors.

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