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FORECASTING CUSTOMER MOBILE NUMBER PORTABILITY (MNP) INTENTIONS AND CUSTOMER SATISFACTION OF SELECTED STATES IN NIGERIA: A CASE STUDY OF MTN NIGERIA.

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ABSTRACT

The purpose of this article is to forecast customer mobile number portability (MNP) intentions and customer satisfaction of telecommunication service in selected states of Nigeria, using Mobile Telecommunication Network (MTN) Nigeria as a case study. The research was propelled to empirically measure customer satisfaction before and after a successful network porting. The type of data used is primary and secondary, and their sources are from subscribers visiting the MTN Nigeria service centers in Rivers State, Abia State and Bayelsa State. The sampling technique applied for this study is the stratified random sampling via administration of structured questionnaire to 1200 selected respondents. Chi-square was used to confirm the significance of the variables. The result confirms that bad network, customer service, high tariff, value added services, quality of network service, customer satisfaction and behavioral intentions contribute to generating customer satisfaction and intention to port out of the network. The research also discovered other factors that can affect customer satisfaction and increase the switching intentions of customer which are Reliability, Responsiveness and Empathy. Drawing inferences from the results discovered through the analysis of the data from the various states within the study area, it is therefore recommended that a policy be passed to safe guard telecommunication facilities in all locations by engaging both the police and local community vigilante groups. It was also recommended that a close look into the activities of the industrial training fund (ITF) be investigated and they are mandated to make sure all customer service staffs are well trained adequately in their different areas of specializations.

Index Terms

Mobile number portability, customer satisfaction, network porting, bad network, customer service, high tariff, value added services, behavioral intentions

INTRODUCTION

Complaints from subscribers about the poor state of the network service and the inability of mobile telecom subscribers to migrate their numbers to other network service providers for fear of losing their registered unique numbers, NCC in 2006 announced that it would work towards the implementation of the MNP in Nigeria but the network service providers (MTN, Mtel, Etisalat, Globacom and Airtel) were not ready, even after five years of operation in Nigeria; still complained that their network infrastructures were not ready. NCC reiterated its intention again in 2009 but again the service providers complained that their network infrastructure was not robust enough to accommodate the expected impact. After series of meetings with the operators, the NCC appointed a consortium comprising Saab Grintek; Interconnect and telecordia for the operation of the service for an initial five years and fixed a pilot date for the MNP to be launched in Lagos on the 22nd of April, 2013 (Lambo & Oghenechuko, 2013).

The state of customer satisfaction with service delivery is not clear as there are scanty documents on the issue and their reasons initiating the switch due to the regulation and stiff instruction given by Nigerian Communications Commission (NCC) to network service providers not to inquire why subscribers want to switch their lines. The goals set by government through the NCC need to be accessed and the performance measured especially on the development and quality of service that is still poor and deteriorating especially in the rural areas where only a few network providers are available.

Even with the tremendous increase in subscriber growth rate in the industry witnessed over the decade for all the network providers, it can still not be attributed to customer satisfaction but rather substantial growth in investment and expansion of their networks. NCC has lamented that inspite of the appreciable growth and expansion recorded in the industry, quality of service is still poor.

Therefore, the gap created by this important information of which the NCC tried to bridge by introduction of MNP, necessitated further research studies that will determine the broad objective of forecasting customer Mobile number portability (MNP) intentions and Customer Satisfaction of telecommunication service in Nigeria using MTN Nigeria as the basis for the study.

This study was done to examine and forecast of customer Mobile number portability (MNP) intentions and Customer Satisfaction of telecommunication service in Nigeria.

Specifically, the objectives are;

1. to identify the intentions responsible for MNP and the variables that contributes to customers switching.
2. to examine if MNP increased the quality of network service delivery.
3. to investigate if high level of service quality increases customer satisfaction.
4. to examine if behavioral intentions has effect on rate of porting.

The questions presented below helps in formulating the hypothesis that was tested in this research work.

1. What is Mobile number porting in Nigeria?
2. Have you ported your line before?
3. Or are you planning to port your line out of MTN Nigeria?
4. How long did the entire process last in Nigeria?
5. Is there any significant difference in quality of service between your previous operator and your present operator in Nigeria?
6. Rate your satisfaction on what will necessitate you to port your line out of your present network?
 - a. Network quality?
 - b. Customer satisfaction?
 - c. Behavioral intentions of customer?

The null hypothesis that was tested in this research are;

H_{01} : Porting does not improved network service to customers?

H_{02} : High level of service quality does not increase customer satisfaction?

The other sections of this paper include the analysis of developmental issues contained in the second section which is the literature review, section three explains the methodology applied in the analysis of the research problem. Section four discusses the findings with relation to the data and analysis applied while the last section; five, draws conclusion of the results based on the inference from the analysis.

LITERATURE REVIEW

This section reviews some contributions and research studies by scholars in the area of telecommunication mobile network porting (MNP) and the reasons why customers port their lines.

Literature reviews on customer satisfaction are mostly centered on service quality, customer value, behavioral intentions, price fairness, good customer services, trust etc.

Most studies undertaken by researchers on this subject matter usually focus on how these factors impact on customer satisfaction. Some other studies tend to state different hypothesis which the researcher believes affects the level of satisfaction the customer derives from the telecommunication service provider.

The local number portability was invented by Edward Sonnenberg for fixed lines who was a staff working with the telecommunications giant; SIEMENS. The initial plan was to use it as a tool to promote competition and discourage monopoly within the telecommunications industry; it became popular with the invention of mobile phones. The importance grew as in most countries; there are different operators with different codes. Few network providers with a good level of patronage have a contrary opinion about argument stated above, to make available an offer involves money and others are of the view that this engenders healthy competition as it is in line with standard practice.

Hovland, et al (1957) assert that for utility to be achieved or to overcome disutility one needs to reduce the difference between what s/he actually anticipated and what was felt by pulling away from the former which would have been overstated in line with the disparity.

Series of research under the marketing discipline did accept this theorem. Theory of Contrast – customers' utility did forecast individual's response to stimuli from dissonance; where an end-user of a particular commodity is likely to blow things out of proportion because of the displeasure felt as a result of disparity in the taste anticipated and what was actually experienced.

In the report of Kim, et al (2004) they observed that end-users level of satisfaction could be a resultant of so many other negative factors influencing him/her and not just the ones explored in their study. They re-iterate that clarity and price in calls could affect the level satisfaction. In conclusion, the recommend user friendly subscribers and service oriented telecommunication industry to increase patronage.

Nimako, Ntim and Mensah (2014) stated that customer behaviors towards mobile number portability policy posited from their theoretical models in customer behavior that mobile number portability adoption by customers can influence customer switching in different ways. This was in line with other research findings stating the difficulty faced by subscribers in moving from one plan to another and round off by saying the issue with most subscribers is more of formative influence.

Shin & Kin (2008) research on switching barriers in the US, used logistic regression and application of ANOVA to investigate the effects on demographics on switching decision, they assert that the two major issues which have been figured out as areas where subscribes or end-users encounter hiccups are yet to be addressed but the subscribers tend to go soft on the network providers due to relative call rate or charges in the mobile industry. Give the scenario they draw their conclusion that the pleased subscribers will stick long enough to one particular network provider.

We shall study the aforementioned variables (suggested by the authors) in order to find out if mobile number porting in the telecommunication industry impact positive or negatively on the level of utility derived by subscribers in Nigeria.

Ominike (2016) research on mobile number portability (MNP) in Nigeria suggested that expectation of improved quality of services, improved customer service and attractive tariffs were the main reasons why subscribers port their lines out of any network.

The study used percentage proportions to measure the outcomes from the variables/hypothesis chosen.

In the imperative study Hanif, et al (2010) they asserted that a customer friendly firm is more likely to attract more customers and this brings to bear the desired level of customers' satisfaction. Their study was on customers' satisfaction: the fairness of prices in telecommunication industry in Pakistan. They ended the study by encouraging service providers to ensure they give fair prices as this is a veritable tool to satisfying the end-users.

Ojo, (2010) did a nice job on Service quality perception and customers' satisfaction in Nigeria using a simple random sampling method. The study unveils customers' high level satisfaction with one of the service providers (MTNN) for being true with their network subscribers in terms of solving their problems when one arises. This shows that trust, quality of service and customers' level of satisfaction are rightly signed. He therefore recommended that mobile service providers stay true to their customer as this will help improve service performance and happy customers.

Efforts of Boohene and Agyapong, (2011) were channeled to study loyalty among Vodafone users in Ghana. They adopted a regression approach (the multiple-logistic). There was little disparity in their findings which show an inverse connection between level of satisfaction among consumers and their commitment to mobile operators. They advise that mobile operators should not just sit back and expect patronage but improve on the services provided which show the operators ability to retain their customers.

Khan and Afsheen, (2012) investigated the fairness in prices and mobile coverage in Pakistan. The study was done in Peshawar using regression technique. Pakistan identified six hypotheses which they believe is responsible for customer satisfaction in telecom industry. The population for this study was private university students of Peshawar, Khyber Pakhtunkhwa, Pakistan. The method used for data collection was structured questionnaires designed with Likert scale to measure the variables. The questionnaires were distributed to 180 students of Sarhad University of IT, City University of science and IT, Preston University, Cecos University and university of Peshawar Khyber Pakhtunkhwa, Pakistan. The result shows that the independent variables are connected to the dependent variable which is customer satisfaction. In conclusion, they indulge mobile operators in the area to be considerate in their charges as this boost the level of utility among end users.

Jahanzeb, Tasneem and Khan (2016) used a different approach to the study of customer's loyalty to a brand in the mobile communication industry in Pakistan. A simple regression approach was adopted. The study discovered that employee are medium through which mobile operators reach their subscribers and if they are well treated they transfer such care to the network subscribers which guarantees happy and satisfied subscribers. In conclusion, the researchers state that there other variables outside the specified model that also influence patronage.

The investigation of Byeong-Seo (2016) asserts that a good performance by a network provider is likely to steers up other beneficial activities that will be of great value to the subscribers and providers. The study focused on The Telecom industry and consumers. In conclusion, he recommend just one needful things which will trigger a beneficial change to both network users and providers and that is good service.

Jamil, et al, (2016) they evaluated selected variables using a technique of partial least square. Their result shows that the variables selected have not link or connection with the expected service output.

The recent research of Wang, et al (2017), on mobile communication and consumer service in China shows different result from the earlier reviewed works they explain how some of the selected variables doesn't have any influence on service outcome or perception. They concluded that some of the impacts were overstated.

Anderson and Gerbin (1988), research work revealed that there are some of the factors which were mentioned in the study and it is not all the factors outlined that has contributed or influenced the quality of anticipated services. They concluded therefore, that there are other ways service delivery can be improved for mobile to be pleased other than the variables listed.

Hafez and Akther (2017), investigated Telecom industry: subscribers' loyalty in Bangladesh using a twin method of analysis of variance and regression method. The findings affirm that it is not all variables that make subscribers stick with a particular service provider but it could be other factors such as relative service performance.

RESEARCH METHODOLOGY

Research Design

We used the contrast theory originally developed by Hovland *et al* (1957). Ominike (2016) and Shin & Kim (2008) employed the designed to the methodology for their work. The theory presents an augmentation of the assimilation theory for evaluation of post-usage Process. The theory argued that the evaluation of post-usage leads to the opposite calculation for expectation results on customer satisfactions.

Because it is a behavioral research, we employ the stratified sampling technique and use of questionnaires to get our responses from the respondents for the research analysis. The Likert scale was used to give the respondents a wide range of options to measure level of satisfaction with the network provider.

The method of percentage proportion was used to explain the hypothesis and the results of the outcomes for easy understanding.

These outcomes was grouped in stratum and their responses analyzed in accordance with the hypothesis and the focus of the study. The essence is to analyze them separately for each group response. Secondly, to enhance the validity and reliability of the research instrument, a pretest pilot survey was conducted before the main survey. This contributed to make sure the research is significant and will contribute to the needs of the sector as it concerns MNP.

MTN Nigeria staffs were presented with questionnaires that are related to the areas of interest. The questionnaires was tested for validity and verified by the staffs.

To measure customer retention, respondents were asked if they will port out their lines as soon as possible.

The willingness and the intention of the respondent was considered for recommendation for other customers before the measurement of the loyalty for the respondent in question.

To measure customer contentment, respondents were asked directly to comment; if they were completely satisfied with the network.

Population of the Study

This study focused on forecasting customer Mobile number portability (MNP) intentions and Customer Satisfaction of telecommunication service in Nigeria. The study specifically focused on MTN Nigeria.

MTN Nigeria is included in the MTN Group of company. The MTN group of company is the largest and leading cellular telecommunication firm in Africa. They are located in more than 223 cities and over 10,000 communities and villages across Nigeria. The services network covered the 774 local government areas in Nigeria.

Our population of study is MTN Nigeria subscribers. From the NBS first quarter of 2017 report on telecommunication sector, a total of 151, 999, 197 subscribers are recorded out of which MTN has the highest ratio of 60, 391, 959 of the total population (“Nigerian Telecommunication sector report, Q1, 2017”).

From available statistics, Abia State has a total of 1, 345, 196, Bayelsa State has 457, 130 and Rivers Sate has 2, 492, 877 (“NBS, State disaggregate data”) of the entire population of MTN subscribers in Nigeria. MTN has a total of about 12 service centers scattered in Abia State, 2 in Bayelsa State and 35 in River State and this population forms our target to select our sample from (“MTNN, Walk-in Centers”).

Sample Size and Sampling Techniques

The Taro Yamane formula was employed to calculate the sample needed for this research from the population of MTN Nigeria subscribers in Rivers State.

This formula was invented in 1967 by the Statistician “Taro Yamane” and is applied to determine sample size from a given population.

Mathematically, it is represented as:

$$n = \frac{N}{(1+N(e)^2)}$$

Where; n= sample size sought for.

N = Population of interest.

e = Margin error.

The population of interest are; 1,345,196 (Abia State), 457,130 (Bayelsa State) and 2,492,877 (Rivers State) out of a population of 60,391,959. Applying the formula and using 5% allowance for error margin;

Abia State:

$$n = \frac{1345196}{1+1345196*(0.05)^2} = \frac{1345196}{3363.99}$$

Therefore n = 399.88 ≈ 400.

Hence, our sample size will be 400 persons.

Bayelsa State:

$$n = \frac{457130}{1+457130*(0.05)^2} = \frac{457130}{1143.825}$$

Therefore n = 399.65 ≈ 400.

Hence, our sample size will be 400 persons.

Rivers State:

$$n = \frac{2492877}{1+2492877*(0.05)^2} = \frac{2492877}{6233.1925}$$

Therefore n = 399.94 ≈ 400.

Hence, our sample size will be 400 persons.

The total sample size will be selected using stratified random sampling technique to achieve our target group.

Nature and Sources of Data

The data collected was sourced primarily and also from secondary sources. Data required are gotten through structured questionnaires, personal interviews and personal observations from the respondents and customers behaviors about the target population.

Others sources that was considered for secondary data are publications on the internet, journals, NBS website, Central Bank of Nigeria (CBN) website, text books etc.

Because the study concerns behaviors and reactions of human beings; the data is focused on measurement of customer satisfaction that can be gotten easily from literatures of this nature and others relevant conceptual studies. The study also got data through meeting points and spot group discussions, of which most of them were from pilot studies and interactions with consumers.

Specific items was developed for each quality related factor which was arrange into reliability, assurance, responsiveness, tangibles, and empathy network quality. For behavioral intentions; three items was asked and used to evaluate it, as suggested by Zeithaml (1996) and Cronin, Brady and Hull (2000).

For customer perceived sacrifice; price charged, efforts and time required to received service was calculated with three different items. Also, three items each were used to assess quality service that are to be perceived by the customer (Cronin et al, 2000 and Dabholkar, Shepard and Thorpe; 2000)

Method of Data Collection

The primary data was obtained from structured questionnaires and through personal interviews designed in accordance with the test hypothesis.

A total of 1,200 questionnaires was administered to walking-in customers into MTN Nigeria walk-in centers for enquires.

Instrument for Data Collection

The instruments deployed was a combination of structured questionnaires, paid trained adhoc staff, biro, pencils, erasers and personal oral interviews.

The questionnaires were divided into two major sections, one section for questions relating to porting while the second section was for questions relating to customers' satisfaction.

The reason for this design is to simplify the questions and break them into much simpler and understandable easy to answer questions for the respondents at their level but at the same time, should fit into the hypothesis of the study to analyze the outcome.

A cover letter was submitted to the management to pre-inform them and seek their approval followed by a pilot questionnaire administered to management staff to assess the content of the questionnaires.

Method of Data Analysis

Likert Scale

A **Likert scale** is the process that ranks the qualitative response of the respondents into quantitative responses. It scales the response into strongly agreed, agreed, No response, Disagreed and strongly disagree for the case of five point Likert scale. The likert scale assigned equal distance between each items or responses. It assumed that response are considered parallel instruments.

Chi-Square.

To test for significance of the variables used in the research, we will employ the chi-square test.

Mathematically, it is stated as:

$$\chi^2 = (O - E)^2 / E$$

Where O = Observed frequencies and

E = Expected frequencies.

Cookey, A.E. (2009).

RESULTS AND DISCUSSIONS

Results on the intentions responsible for MNP and the variables that contributed to customers switching their lines to other network in the selected states; Abia, Bayelsa and Rivers respectively;

In other to analyze the responses from our field report on customer's opinions, we used SPSS 22.0 software in carrying out most of the analyses. The presentation of the results and actual analyses was carried out with Chi-Square distribution and done separately for each state to promote better understanding and allow for further studies. The variables considered here are Bad network, customer service, high tariff charge, value added service and no network.

SPSS 22.0 Results related to variables affecting MNP in the three states:

ABIA STATE										
	BAD NETWORK		CUSTOMER SERVICE		HIGH TARIFF		VALUE ADDED SERVICES		NO NETWORK COVERAGE	
RESPONSES	yes	No	yes	No	yes	No	yes	No	yes	No
count	182	NIL	NIL	NIL	118	NIL	NIL	NIL	NIL	NIL
Expected count	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
% within reasons	100	NIL	NIL	NIL	100	NIL	NIL	NIL	NIL	NIL
% within response	60.7	NIL	NIL	NIL	39.3	NIL	NIL	NIL	NIL	NIL

BAYELSA STATE										
	BAD NETWORK		CUSTOMER SERVICE		HIGH TARIFF		VALUE ADDED SERVICES		NO NETWORK COVERAGE	
RESPONSES	YES	NO	yes	No	yes	No	yes	No	yes	No
count	47	NIL	61	NIL	138	NIL	54	NIL	NIL	NIL
Expected count	NIL	NIL	NIL	NIL	NIL	NIL	100	NIL	NIL	NIL
% within reasons	100	NIL	100	NIL	100	NIL	18	NIL	NIL	NIL
% within response	15.7	NIL	20.3	NIL	46	NIL	NIL	NIL	NIL	NIL

RIVERS STATE										
	BAD NETWORK		CUSTOMER SERVICE		HIGH TARIFF		VALUE ADDED SERVICES		NO NETWORK COVERAGE	
RESPONSES	YES	NO	yes	No	yes	No	yes	No	yes	No
count	67	NIL	NIL	NIL	53	NIL	NIL	NIL	60	NIL
Expected count	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
% within reasons	100	NIL	NIL	NIL	100	NIL	NIL	NIL	100	NIL
% within response	37.2	NIL	NIL	NIL	25.4	NIL	NIL	NIL	33.3	NIL

SPSS 22.0 Results to investigate if MNP increases quality of network for all three states:

	ABIA STATE		BAYELSA STATE		RIVERS STATE	
RESPONSE RATE	significant	Not Significant	significant	Not Significant	significant	Not Significant
Count	41	259	52	248	76	224
expected count	NIL	NIL	NIL	NIL	NIL	NIL
% within satisfaction	13.7	86.3	17.3	82.7	25.3	74.7
% within response	24.3	35.4	30.8	33.9	45.0	30.6

SPSS 22.0 Results to investigate if high level of service quality increase customer satisfaction:

ABIA STATE								
	NETWORK QUALITY				CUSTOMER SATISFACTION			
	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED
Count	5	21	73	5	5	41	53	0
expected count	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
% within satisfaction	4.8	20.2	70.2	4.8	5.1	41.4	53.5	0
% within response	33.3	21.6	40.8	55.6	33.3	42.3	29.6	0

BAYELSA STATE								
	NETWORK QUALITY				CUSTOMER SATISFACTION			
	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED
Count	0	50	0	50	50	25	0	25
expected count	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
% within satisfaction	0	50	0	0	50	25	0	25
% within response	0	40	0	66.6	100	20	0	33.3

RIVERS STATE										
	NETWORK QUALITY					CUSTOMER SATISFACTION				
	VERY DISSATISFIED	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED	VERY DISSATISFIED	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED
Count	3	5	18	21	13	8	17	40	54	12
expected count	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
% within satisfaction	5	8.3	30	35	21.7	6.1	13	30.5	41.2	9.2
% within response	10.7	11.6	22.5	18.3	38.2	28.6	39.5	50	47	35.3

SPSS 22.0 Results on the examination of the Behavioural Intentions of Customer effect on Porting rate:

ABIA STATE						
	VERY DISSATISFIED	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED	
Count	0	5	35	53	4	
expected count	NIL	NIL	NIL	NIL	NIL	NIL
% within satisfaction	0	5.2	36.1	54.6	4.1	
% within response	0	33.3	36.1	29.6	44.4	

BAYELSA STATE					
	VERY DISSATISFIED	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED
Count	0	0	50	50	0
expected count	NIL	NIL	NIL	NIL	NIL
% within satisfaction	0	0	50	50	0
% within response	0	0	40	100	0

RIVERS STATE					
	VERY DISSATISFIED	DISSATISFIED	FAIR	SATISFIED	VERY SATISFIED
Count	28	43	80	115	34
expected count	NIL	NIL	NIL	NIL	NIL
% within satisfaction	9.3	14.3	26.7	38.3	11.3
% within response	100	100	100	100	100

DISCUSSION ON FINDINGS

Following the results presented above on the findings and subsequent analysis on the variables; we can make the following inferences:

Bad network forms a major reason why customers of MTN Nigeria switched their sims to other network providers. In Abia state, a whopping number of 60.7% choose bad network while in Bayelsa, the number dropped to 15.7% but Rivers State had a slight increase to 37.2%. Bad network is a major setback within the telecommunication industries and form a huge bunch of complaints received by NCC. An improvement on the

network might have a huge draw in on their profit but will create a boost in their subscriber base that will cause customers from other network to switch in.

This issue is very important as it was prevalent in all the responses gotten from the study in the three states where it was conducted, though Abia state had the highest contribution.

Only in Bayelsa state that respondents choose customer service as a reason to switch their lines out of their network. The other two states had other reason selected different from customer service. This can be further explained that MTN Nigeria staffs in Rivers and Abia State have better customer relationship skills than their counterparts in Bayelsa State. The value of 20.3% respondents from Bayelsa is high and we suppose this value will drop if the telecom service providers improve on their customer service staff and skills.

Another area of interest is in the amount charged for service delivery. All the customers in the three states identified high tariff as one of the reasons why they left their previous network. This is a very critical issue for a poor nation like Nigeria where service is always matched with Value of tariff charged. The highest number of respondents was in Bayelsa state with a value of 46% followed by Abia state with 39.3% while Rivers State had 29.4% respondents. For all three states to complain about the tariff; it revealed that respondent or customers are not contended with the tariff charge when matched with the service quality.

Only in Bayelsa state that respondents reacted to value added services. This might be associated with the level of network service delivered in those areas. For a good streaming of the internet, the 4G service must be available. Most Bayelsa towns are rural which will discourage investors from wanting to carry out such a massive project. We suppose that the value of 18% gotten from Bayelsa could rise, if there is no immediate attention given to checkmate the quality of their 4G service

Rivers state had the only record from respondents for “no network service”. This might not be unconnected with customers who spend reasonable time in remote areas and oil rigs where there are bad MTN networks or no service at all but there is presence of strong network service from other providers. This value of 33.3% recorded can also increase if there are no immediate action to increase the mast in rural communities.

From the results gotten from the analysis of significant difference comparing their previous network and their ported network service providers, over 81% of the subscribers from the three states indicates no obvious relationship between previous network service and their current network service. That is there is no significant difference between previous network provider and their current network provider. This average can be broken down in explanations; that Abia state respondents had the highest customers of 86.3% in support of “no significant difference” followed by Bayelsa State with 82.7% while Rivers State had the least value with 74.4%. In other words, most subscribers regretted ever porting their lines outside MTN Nigeria. This might be associated with the self-mounted pressure on the network service provider and the fear of losing customers that would have caused the improvement in their network. With the mandate given by NCC to allow for porting, telecommunication firms had no choice but to improve their network facilities and upgrade the existing base stations to avoid losing all their subscribers to other network providers.

From the above results of network quality, Rivers State recorded customers; of about 5% of respondents who choose the option that were very dissatisfied, 8.3% of the respondents also claims they are dissatisfied with the network quality; Abia had 4.8% of dissatisfied customers while Bayelsa had none. Majority of the customers had fair opinion about the network quality with Rivers State having the highest value of 30% followed by Abia with 20.2%. The highest respondent gave their opinion as satisfied for all the states which makes us suppose that customers are contended with the network quality of service delivered by MTN Nigeria. Abia state had the highest respondents with a value of about 70.2%, followed by Bayelsa with 50% while 35% response was gotten from Rivers state.

Some of the issues usually responsible for poor network or temporary service outage are usually the activities of vandals who are fond of stealing generator parts. Others are congestions based on the size of the mast capacity with the population it delivers service to.

Almost the same results were obtained here for customer satisfaction. Rivers State had 6.1% of very dissatisfied customers and 13% of dissatisfied customers followed by Abia State with 5.1% of dissatisfied customers while Bayelsa State had none. The next was the respondents with fair opinion, Abia State having the highest value of 41.4% followed by Rivers State with 30.5% and finally Bayelsa with 25%. The majority of customers in the states gave their opinion as; been satisfied with the network service provider with Abia State again topping the list with a value of 53.5%, followed by Rivers State with 35% while Bayelsa had none. For very satisfied customers; Bayelsa state had the highest respondents with a value of 25% while Rivers State had 9.2% of the respondents favouring this option and none for Abia State.

In summary, we suppose that customers in all the three states are relatively satisfied with the MTN Nigeria network in these three states but caution should be taken in handling the very dissatisfied customers.

Responses from the three states shows that for behavioural intentions, customers responded to “dissatisfied” in Rivers State, we have more of the customers stating their opinion as satisfied with the network. Other responses are 5.2% and 14.3% of respondents from Abia and Rivers State, 36.1%, 50% and 26.7% from Abia, Bayelsa and Rivers State with Bayelsa state having the highest value for fair opinion. Abia state had the highest value of 54.6% for satisfied customers followed by Bayelsa state with 50% and Rivers state with 38.3%. Rivers state had 11.3% of very satisfied customers while Abia state had 4.1%. From the results, we suppose that customers are willing to continue with the network and will introduce more people to the network.

By doing this, the network will increase its customer base and profitability. The presence of dissatisfied and very dissatisfied customers shows that the network operator might lose some customers and referrals.

Other findings

In course of the research, other factors not considered as part of the aim of this study but were given by customers as reasons why they left the network and some customers that are still undecided gave these same reasons as why they may leave the network were also captured.

These include **Reliability** of the company’s promises which shows that Abia state has the highest of the three states with a value of 34.3%, followed by Rivers state with a value of 34.27% while Bayelsa state was the least with a value of 31.8%.

Responsiveness of the staff to their queries projected Abia state again as the highest with a value of 35.8%, followed by Rivers state with 34.5% and Bayelsa with 33.2%.

Finally, show of **empathy** to their situation has the highest response from Bayelsa state with a value of 34.9%, followed by Rivers state with 31.2% and Abia state with 29.9%.

Respondents rated the company above average in all three areas but some customers were really dissatisfied with the offerings of the company.

These factors that appear to be silent here are very important to take into account while resolving customer’s queries.

CONCLUSION

This study undertaken is geared towards examining the intentions of customers as regards switching their lines and customer satisfaction in three states of Nigeria; Abia, Bayelsa and Rivers state.

Considering the enormous contribution of the telecommunication sector to the nations GDP, it is important that we x-ray the challenges facing this sector with an aim to list out the possible threats and seek immediate solutions that are not subjective but objective.

This is because knowledge of what customer’s desire and the various challenges they face will serve as a backbone in the formulation of strategies, policies and instruments that will be used to tackle present and future problems before they become evident.

Inferences from the analyses carried out with SPSS 22.0 software package gives the reasons why customers port their lines out of MTN Nigeria network which are bad network, customer service, High tariff, value added services and absence of network in some locations were most people spend reasonable time.

Also the study investigated if the introduction of MNP improved network service and the result was obvious as significant customers who ported out of the network returned back to the network. Another variable was network quality which was given a satisfactory level by majority of the respondents.

Following the inferences from the results, we recommend that a policy be passed to safe guard telecommunication facilities in all locations by engaging both the police and local community vigilante group. On Customer satisfaction we recommend that a close look into the activities of the industrial training fund (ITF) be investigated and they are mandated to make sure all customer facing staff is well trained adequately in their different areas of specializations. In consideration of High tariff which was generally selected in all the three states. A policy should be imposed on telecommunication service providers that will cap what they can charge as maximum fee for all the different services rather than allowing market forces determine the price.

On suggestions for further studies; we recommend research in these area of customer satisfaction within the telecommunication sector:

- i. An investigation of Tangible effects.
- ii. A study of reliability.
- iii. An investigative study of responsiveness.
- iv. An investigative study of Assurance.
- v. An investigative study of Empathy.
- vi. An investigative study of customer perceived service quality.
- vii. An investigative study of customer perceived sacrifice.
- viii. An investigative study of customer value.

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