Effect of Service Quality on Customer Loyalty among Churn-prone Subscribers of Telecommunication Companies in Northeastern Nigeria: A Pilot Test

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Abstract

This study aims to examine the viability of carrying-out a full paper on the effect of service quality on customer loyalty among churn-prone subscribers of telecommunication companies in northeastern Nigeria. The study aimed at evaluating the instrument through testing reliability and validity and other issues that need adjustment prior to distributing it to for the main work. Similarly, a total of 100 copies of questionnaire were distributed to the respondents within northeastern Nigeria so that they express their opinions on what they were asked to reveal for the progress of this work. The methodology used was quantitative research approach via convenient, snowballing and purposive sampling techniques. The study conducted the reliability and validity tests; and the results showed that the instrument is suitable for the main work.

Keywords- churn-prone subscribers; customer loyalty; northeast; service quality; telecommunication

1.0 Introduction

Service quality and customer loyalty play an important role in literature of marketing. This is documented in various literature works across various continents which signifies their contributions towards boosting and enlarging the body of knowledge (Jin, 2024; Lestari et al., 2024; Orazgaliyeva et al., 2024). However, there is little attention towards assessing churn attitude especially in telecommunication sector which opens a wide gap in theoretical advancement. Therefore, this study is set to fill the gap by examining the effect of service quality on customer loyalty among churn-prone subscribers of telecommunication companies in northeastern Nigeria.

Subsequently, the study will pay attention towards methodology, descriptive statistics of the respondents, reliability and validity tests, results, and also the implications for the main study.

2. Pilot Testing

The study issued 100 copies of questionnaire to the targeted respondents across northeastern Nigeria as part of the exercise. This sample size was chosen based on the results of other studies (Bello & Inuwa, 2024). The results of the tests revealed that the questionnaire was ready for the main research since the responses were no having any issue that could affect the progress of the study from its extension to the main work.

3. Validation of the Research Instrument

Content validation deployed involved reviews by three experts; two from Academia and one from Industry, ensuring the questionnaire's relevance. Construct validity and Confirmatory Factor Analysis (CFA) will be conducted in the main study to verify the factor structure, while the Average Variance Extracted (AVE) will be used to assess convergent validity.

4. Demographic Information of the Respondents

Table 1 presents the demographic information of the respondents in the pilot study.

Table 1: Demography of the Respondents

			Frequency	Percentage (%)
Age	**Valid**	18-30	43	43.0
		31-40	39	39.0
		41-60	17	17.0
		61>	1	1.0
		Total	100	100.0
Gender	**Valid**	Male	81	81.0

		Female	19	19.0
		Total	100	100.0
Marital	**Valid**	Married	60	60.0
		Single	39	39.0
		Divorced	1	1.0
		Divorced	1	1.0
		Total	100	100.0
Qualification	**Valid**	SSCE	15	15.0
		Diploma	21	21.0
		NCE	11	11.0
		Degree	34	34.0
		Masters	52	13.5
		PhD	9	2.3
		Total	100	100.0
Occupation	**Valid**	Business	21	21.0
		Civil servant	41	41.0
		Public servant	14	14.0
		Others	24	24.0
		Total	100	100.0
Income	**Valid**	High	1	1.0
		Medium	69	69.0
		Low	30	30.0
		Total	100	100.0
State of Origin	**Valid**	Adamawa	9	9.0
		Bauchi	3	3.0
		Borno	3	3.0
		Gombe	74	74.0
		Taraba	5	5.0
		Yobe	6	6.0
		Total	100	100.0
Preferred Telecommunication Network	**Valid**	Airtel	18	18.0
		Globacom	4	4.0
		MTN	76	76.0
		9 Mobile	2	2.0
		Total	100	100.0
Internet Subscription	**Valid**	Daily	6	6.0
		Weekly	37	37.0
		Monthly	56	56.0
		Annually	1	1.0

		Total	100	100.0
Device used	**Valid**	Smartphone	41	41.0
		Laptop	13	13.0
		Tablet	17	17.0
		Others	29	29.0
		Total	100	100.0
Type of connection	**Valid**	Broadband	3	3.0
		Dial-up	4	4.0
		Mobile data	93	93.0
		Total	100	100.0
Level of Expertise	**Valid**	Beginner	18	18.0
		Intermediate	70	70.0
		Advanced	12	12.0
		Total	100	100.0

Source: Primary Data (2026).

The table above has displayed the demographic data of the respondents who took part in the pilot study.

4.1 Age of the Respondents

From the data obtained, respondents within 18-30 years have the frequency of 43 (43.0%), respondents within 31-40 years have 39 (39.0%), customers within 41-60 years score 17 (17.0%), and those 61 years and above have the frequency of 1 (1.0%). This indicated that the respondents within the age bracket of 31-40 years has the highest frequency, followed by those in the category of 18-30 years, then the subscribers in a class of 41-60 years, and finally those fall within the range of 61 years and above. The practical implication here is that most of the churn prone subscribers are found within the range of 18-30 years. Therefore, managers of the telecommunication companies have to improve in satisfying customers through serious marketing

campaigns as well as offering packages such as: free data for night calls, so that they would entrust the quality of the replenished data in order to switch back to their normal patronage as before.

4.2 Gender of the Respondents

Based on the result obtained, male respondents have the frequency of 81 (81.0%) while female respondents have the score frequency of 19 (19.0%). This shows that male customers have the majority in terms of churn prone subscription, and the implication here is that most of the churn prone subscribers are male customers. Therefore, managers of the telecommunication companies need to strategize ways for targeting male subscribers through persuading to be loyal subscribers so that they would create a strong customer relationship with them.

4.3 Marital Status of the Respondents

From the data obtained, respondents that are married have the frequency of 60 (60.0%), respondents that are singled have 39 (39.0%), customers that were divorced score 1 (1.0%), and those that are divorced have the frequency of 1 (1.0%). The practical implication here is that those that are married have the highest churn prone attitude in telecommunication companies; this implies that they have household economic responsibilities which compelled them to stop subscribing from either of the telecommunications companies. Therefore, managers should consider the economic status of households in determining the price of data so that everybody can afford subscribing in addition to his house hold responsibilities.

4.4 Qualification of the Respondents

From the data obtained, respondents that possess SSCE have the frequency of 15 (15.0%), respondents that obtain Diploma have the frequency of 21 (21.0%), customers that possess NCE score 11 (11.0%), respondents that possess Degree have the frequency of 34 (34.0%,), customers that obtain Master Degree have the score of 16 (16.0%), and those that bagged PhD have the frequency of 3 (3.0%). The practical implication here is that those that are Degree holders are the highest churn prone subscribers in telecommunication companies; this implies that they might be unemployed, and are compelled by economic situation to be churn prone from either of the telecommunications companies. Therefore, managers should consider the general economic situation in determining the price of data so that everybody can afford subscribing data upon his daily basic needs.

4.5 Occupation of the Respondents

From the data obtained, respondents that are engaged in business have the frequency of 21 (21.0%), respondents that customize partake in civil service have the frequency of 41 (41.0%), customers that are in public service have the score of 14 (14.0%), respondents that delve in other activities have the frequency of 24 (24.0%). The practical implication here is that those that engage in civil service are the highest churn prone subscribers in telecommunications companies; this implies that they might be neglected, and are compelled to be churn prone from either of the telecommunications companies. Therefore, managers should consider all human activities, not necessarily business; civil or public service in determining the price of data so that every occupational niche can be acquired and maintained as customers.

4.6 Income of the Respondents

From the data obtained, respondent that earns high income is 1 (1.0%), those that earn medium income level have the frequency of 69 (69.0%), and respondents that earn low income level have 30 (30.0%). The practical implication here is that those that earn medium income are the highest churn prone subscribers in telecommunications companies; this implies that there might be trends in customer preference which makes them to be churn prone from either of the telecommunications companies. Therefore, managers should focus customer preference in determining the price of data so that each customer can prefer their service every time.

4.7 State of Origin of the Respondents

From the data obtained, respondents that are from Gombe State have the frequency of 74 (74.0%), respondents that are from Bauchi State have the frequency of 3 (3.0%), respondents that that are from Yobe State have the frequency of 6 (6.0%), those customers that that are from Borno State have the frequency of 3 (3.0%), those customers that that are from Taraba State have the frequency of 5 (5.0%), and customers that that are from Adamawa State have the score of 9 (9.0%). The practical implication here is that most of the churn prone subscribers in telecommunications companies in Northeast are from Gombe State; this implies that there might be poor or unstable network which makes the subscribers in Gombe State to be churn prone from either of the telecommunications companies. Therefore, managers should pay utmost attention towards standardizing network service so that the whole northeast should be fully and stably covered by strong data network among all telecommunication networks.

4.8 Preferred Networks of the Respondents

From the data obtained, respondents that give preference to MTN network have the frequency of 76 (76.0%), respondents that prefer Airtel network have the frequency of 18 (18.0%), respondents that chose 9 Mobile network have the frequency of 2 (2.0%), and customers that that subscribe Globacom network have the score of 4 (4.0%). The practical implication here is that most of the churn prone subscribers in telecommunications companies in Northeast are subscribers of MTN network; this implies that there might be issue of data cost in MTN network which makes the subscribers to be churn prone from either of the telecommunications companies. Therefore, managers should focus on affordable cost of data so that subscribers would patronize and remain life customers.

4.9 Preferred Subscription of the Respondents

From the data obtained, respondents that subscribe on monthly basis have the frequency of 56 (56.0%), respondents that do weekly subscription have the frequency of 37 (37.0%), respondents that go for daily subscription have the frequency of 6 (6.0%), and customer that subscribes annually has the score of 1 (1.0%). The practical implication here is that most of the churn prone subscribers in telecommunications companies in Northeast are monthly subscribers; this implies that most of the subscribers are directly or indirectly linked to the salary earners because the economic situation of Nigeria's macroeconomic trends have forced them to be churn subscribers. Therefore, managers should pay attention towards reducing cost of data so that data service would be subscribed by all categories of the markets within northeastern Nigeria.

4.10 Device Used by the Respondents

From the data obtained, respondents that use smartphone have the frequency of 41 (41.0%), respondents that use other devices for browsing have the frequency of 29 (29.0%), respondents

that go for laptop device have the frequency of 13 (13.0%), and customers that tablet have the score of 17 (17.0%). The practical implication here is that most of the churn prone subscribers in telecommunications companies in Northeast use smartphones for browsing; this implies that most of the subscribers are browsing with old version smartphone models. Therefore, managers should pay attention towards brand new model smartphones that have modern accessories and facilities adequate for smooth browsing.

4.11 Connectivity Used by the Respondents

From the data obtained, respondents prefer mobile data have the frequency of 93 (93.0%), respondents that use dial-up have the frequency of 4 (4.0%), and customers that chose broadband connection have the score of 3 (3.0%). The practical implication here is that most of the churn prone subscribers in telecommunications companies in Northeast use mobile data for browsing; this implies that most of the subscribers have smartphones for connectivity. Therefore, managers should concentrate on targeting subscribers that use portable means of data connectivity so that customer would find it easy to handle and maintain.

4.12 Expertise of the Respondents

From the data obtained, intermediate respondents have the frequency of 70 (70.0%), respondents that are the beginners have the frequency of 18 (18.0%), and customers that are advanced have the score of 12 (12.0%). The practical implication here is that most of the churn prone subscribers in telecommunications companies in Northeast are classified as intermediate users; this implies that most of the subscribers have no much expertise in browsing. Therefore, managers should concentrate on enlightenment campaigns on how to load and handle data services so that customers would have adequate knowledge on browsing purpose.

5. Reliability Test

For the purpose of this study, Cronbach's alpha coefficient was used to measure reliability and validity of the data collected. Reliability test was conducted in order to ascertain internal consistency among the items in the questionnaire. However, validity test was carried out in order to find out appropriateness of the wordings used in the questionnaire instrument. Similarly, the samples of 100 copies of questionnaires were administered online to respondents to fill in order to achieve a minimum standard of viability of the instrument under study. Cronbach's alpha was used as method commonly adopted especially in assessing or measuring internal consistency and reliability of questionnaire items. The result of the reliability test is shown in the table 2 below:

Table 2: Reliability Result

Individual Constructs	Cronbach's Alpha	**No. of items**	Remarks
Reliability	.779	10	Highly Reliable
Assurance	.851	10	Highly Reliable
Convenience	.825	10	Highly Reliable
Empathy	.709	10	Highly Reliable
Responsiveness	.720	10	Highly Reliable

Customer Loyalty	.799	10	Highly Reliable

Source: (Survey, 2026).

Based on the above, the results of the Cronbach's alpha have clearly indicated that all the variables and/or proxies are assumed to be adequate for subsequent analysis in the study. This is because all the variables and their dimensions, based on normal assumption, have exceeded the threshold value of 0.6 as recommended by Hair (2012). In line with this above postulation, all the variables are highly recommended for further study.

6. Validity Test

Face and content validity test was conducted through issuing the instrument to academicians and other experts in the field of marketing management. This was done in order to assess the accuracy of the instrument for further factor analysis in the main study. The recommendations were given on the suitability of the questionnaire for the subsequent exercise. On one hand, other validity tests would be conducted in the main study especially during final submission of the thesis in progress.

7. Conclusion

Even though this study is a preliminary to the main work, it is clearly indicated that conducting further analysis is necessary because the assessment of service quality and customer loyalty among churn-prone subscribers yielded a viable result for further study. The validity and reliability of the questionnaire were quite good and reliable with recommended Cronbach's Alpha coefficient of above 0.6 as recommended by Hair (2012). Therefore, the primary research will now collect data from respondents within the geographic location of North Eastern states of Nigeria.

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