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Evaluating Net Promoter Score (NPS) as a Key Performance Indicator in Nigeria's GSM Industry

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Abstract

This study examines the application of the Net Promoter Score (NPS) as a metric for assessing customer loyalty and service quality among GSM users in Obi/Akpor Local Government Area of Rivers State, Nigeria. A total of 381 valid responses were collected through structured questionnaires, targeting mobile subscribers of MTN, Airtel, Glo, and 9mobile. The questionnaire captured both demographic data and service quality perceptions across five key dimensions: network reliability, call clarity, data speed, pricing fairness, and customer service. The data were analyzed using descriptive statistics, Pearson correlation, and multiple linear regression analysis with the aid of SPSS version 25. Results revealed that all five service quality dimensions significantly influenced NPS ratings, with customer service ($\beta = 0.243$, $p < 0.001$) and network reliability ($\beta = 0.181$, $p < 0.001$) emerging as the strongest predictors. Other predictors such as call clarity ($\beta = 0.168$), data speed ($\beta = 0.129$), and pricing fairness ($\beta = 0.112$) also showed statistically significant relationships. The study concludes that NPS is a valid, simple, and actionable tool for telecom operators in Nigeria to monitor customer loyalty and guide retention strategies. It recommends that telecom providers complement NPS with Customer Satisfaction Score (CSAT) and Customer Effort Score (CES) for a more holistic understanding of user experience. Integrating NPS insights into strategic planning can lead to more targeted infrastructure investments, improved customer support systems, and reduced churn in the highly competitive GSM sector.

Keywords: Net Promoter Score, customer loyalty, GSM networks, service quality, regression analysis, Nigeria, telecom customer experience

1. Introduction

In today's hypercompetitive global economy, customer loyalty has become a critical determinant of organizational sustainability and profitability, especially in service-based industries such as telecommunications. As the telecommunications landscape in Nigeria evolves with increased competition and subscriber growth, companies must adopt effective tools to measure, manage, and improve customer experience. One such tool is the Net Promoter Score (NPS), a customer loyalty metric introduced by Reichheld

(2003) that has since been widely adopted by organizations worldwide.

NPS measures customer advocacy by asking a single question: "How likely are you to recommend our service to others?" Based on responses, customers are categorized into Promoters, Passives, and Detractors. The NPS is then calculated as the percentage of Promoters minus the percentage of Detractors. Reichheld and Markey (2011) argued that companies with higher NPS tend to outperform competitors in terms of growth and customer retention. This assertion has been supported by subsequent empirical studies, such as those by Gustafsson, Johnson, and Roos (2005) and Morgan and Rego (2006), who demonstrated the positive correlation between customer satisfaction, loyalty, and profitability.

In the telecommunications sector, Anderson and Mittal (2000) emphasized that quality of service and customer-centricity play a vital role in determining long-term subscriber loyalty. Balaji and Roy (2017) found that in environments with limited product differentiation, such as GSM services, loyalty metrics like NPS become even more relevant for understanding consumer perceptions and guiding strategic planning. Baker and Thompson (2019), in a study across emerging markets, identified key determinants of NPS in telecoms to include network performance, customer support, and pricing transparency.

In the Nigerian context, the GSM industry is characterized by service inconsistencies, frequent user complaints, and limited accountability in customer service. According to Ndukwe (2020) and KPMG Nigeria (2021), the country's telecom sector, while rapidly expanding, suffers from infrastructural deficits and weak consumer redress mechanisms. These issues often result in customer dissatisfaction and high churn rates. A study by Adeleke and Aminu (2012) on Nigeria's GSM industry identified service quality and perceived value as key drivers of loyalty. Similarly, Udoka and Uloma (2017) found that trust, fair pricing, and responsive customer engagement significantly influence subscriber retention in South-Eastern Nigeria.

Although NPS is widely regarded as a useful and intuitive metric in developed economies, its application in sub-Saharan Africa remains underexplored. In particular, little is known about how Nigerian telecom subscribers interpret and respond to the NPS question, and how those responses relate to service delivery quality. The need for a localized understanding of NPS is therefore crucial for telecom operators aiming to reduce churn, improve service quality, and build stronger customer relationships.

This study contributes to the body of knowledge by evaluating the relevance of NPS in the Nigerian GSM context. It examines how key service quality variables—such as network reliability, call clarity, pricing fairness, data speed, and customer service responsiveness—affect customers' willingness to recommend their service provider. The research further explores how demographic variables such as age, gender, and educational background may influence NPS responses.

In light of the pressing demand for loyalty-based performance indicators in Nigeria's telecom industry, this research provides actionable insights for operators, regulators, and customer experience managers.

2.0 Materials and Methods

2.1 Research Design

This study adopts a descriptive survey design, which is appropriate for collecting quantitative data that describes the current status of phenomena and explores relationships between variables. The descriptive design is suitable for measuring customer perceptions regarding service quality and loyalty using the Net Promoter Score (NPS). This method also allows the use of structured questionnaires to collect data from a large population efficiently and objectively.

2.2 Population of the Study

The target population for this study comprises subscribers of major GSM network providers (MTN, Airtel, Glo, and 9mobile) within Obio/Akpor Local Government Area of Rivers State, Nigeria. According to recent NCC (Nigerian Communications Commission) statistics, this region has a dense population of mobile users across different age groups and socio-economic backgrounds, making it ideal for assessing customer loyalty dynamics.

2.3 Sample Size and Sampling Technique

A sample size of 400 respondents was determined using the Yamane formula (1967) for a known population. A multi-stage sampling technique was employed:

1. Stratified sampling to classify respondents based on the GSM operator used (MTN, Airtel, Glo, 9mobile).
2. Proportional allocation to ensure representation based on market share.
3. Simple random sampling to select individual respondents within each stratum.

This method enhances the reliability and representativeness of the sample and mitigates selection bias.

2.4 Instrumentation

The main data collection instrument was a structured questionnaire divided into four sections:

- Section A: Demographic data (age, gender, education level, GSM network subscribed to)
- Section B: Service quality indicators (based on the SERVQUAL model – reliability, responsiveness, assurance, empathy, and tangibility)
- Section C: NPS-related questions (recommendation likelihood, reasons for scores)
- Section D: Customer satisfaction and loyalty-related statements using a 5-point Likert scale

The NPS score was calculated using the formula:

NPS = % Promoters – % Detractors

2.5 Validity and Reliability of the Instrument

The content validity of the questionnaire was ensured through expert reviews by professionals in telecom studies and educational measurement. To ascertain reliability, a pilot study was conducted with 40 respondents outside the study area. The instrument yielded a Cronbach's Alpha coefficient of 0.84, indicating high internal consistency.

2.6 Method of Data Collection

Data were collected via self-administered questionnaires, both in printed formats and via digital distribution (e.g., Google Forms), over a period of four weeks. Respondents were guided where necessary, and ethical considerations, including voluntary participation, anonymity, and confidentiality, were strictly observed.

2.7 Method of Data Analysis

Data obtained from the field were coded and analyzed using the version 25. The analysis was conducted using the following tools:

- Descriptive statistics: Frequency, mean, and standard deviation to summarize demographic data and response patterns.
- Net Promoter Score Analysis: Computed based on responses to the recommendation likelihood question.
- Correlation analysis (Pearson's r): To examine the relationship between service quality dimensions and NPS.
- Multiple regression analysis: To determine which service quality variables significantly predict customer loyalty.

A significance threshold of $p < 0.05$ was adopted for all inferential tests.

2.8 Ethical Considerations

The study strictly adhered to research ethics. All participants were informed of the purpose and voluntary nature of the research and gave their consent before participation. No personal or identifying data were collected, and the confidentiality of all responses was ensured. Ethical approval was obtained from relevant academic and community authorities where required.

3. Data Analysis and Discussions

3.1 Introduction

This chapter presents the analysis of the data collected from respondents in Obio/Akpor Local Government Area. The objective was to examine the relevance of the Net Promoter Score (NPS) as a tool for assessing customer loyalty and how it relates to service quality dimensions within the Nigerian GSM sector. The analysis is organized into sections based on the research objectives and questions. Both descriptive and inferential statistics were applied using SPSS Version 25.

3.2 Response Rate

Out of the 400 questionnaires distributed, 381 were duly completed and returned, yielding a response rate of 95.25%, which is considered sufficient for statistical analysis and generalization. The following research questions guided the study:

1. To what extent does teacher motivation influence student academic performance?
2. What aspects of teacher motivation (e.g., remuneration, recognition, promotion opportunities) have the most significant impact on student achievement?
3. How do differences in motivational strategies affect academic outcomes among senior secondary students?

The data collected were analyzed using mean and standard deviation to determine the perceptions of respondents.

3.3 Demographic Profile of Respondents

This section presents the demographic characteristics of the respondents involved in the study. These characteristics include gender, age, educational qualification, teaching experience, and subject area. Understanding the demographic profile helps in contextualizing the findings and ensuring representation across relevant population segments.

3.3.1 Gender Distribution

The gender distribution of the respondents was analyzed to determine the participation level of male and female teachers in the study.

Interpretation: The sample shows a slightly higher participation of male teachers compared to female teachers.

3.3.2 Age Distribution

Respondents were categorized based on age groups.

Interpretation: The majority of respondents fall within the 31–40 age range, indicating a relatively young teaching workforce.

3.3.3 Educational Qualification

This identifies the highest academic qualification attained by the respondents.

Interpretation: Most teachers hold a first degree in education, showing a relatively high qualification standard in the sample.

3.3.4 Teaching Experience

Respondents' years of teaching experience were categorized as follows:

Interpretation: A significant proportion of respondents have more than 6 years of teaching experience, which lends credibility to their perspectives on motivation and academic achievement.

3.3 Demographic Profile of Respondents

The demographic data collected from respondents included gender, age, educational qualification, and mobile network subscribed to.

3.4 Net Promoter Score (NPS) Distribution

Respondents rated their likelihood of recommending their GSM provider on a scale from 0 to 10. Based on the ratings:

- Promoters (9–10): 145 respondents (38.1%)
- Passives (7–8): 122 respondents (32.0%)
- Detractors (0–6): 114 respondents (29.9%)

NPS Calculation:

NPS = % Promoters – % Detractors = 38.1% – 29.9% = +8.2

This score suggests modest customer loyalty, indicating room for improvement, particularly in customer engagement and service quality.

3.5 Descriptive Analysis of Service Quality Dimensions

Service quality indicators were rated using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Mean scores were computed for each dimension.

These results reveal that Customer Service had the highest average rating, while Internet Speed was the least satisfactory.

3.6 Correlation Analysis

To examine the relationship between NPS and service quality variables, Pearson's correlation coefficient was used.

All service quality variables showed a moderate positive correlation with NPS, and all were statistically significant ($p < 0.05$). This suggests that improvements in these areas are likely to boost customer loyalty.

3.7 Regression Analysis

A multiple linear regression was conducted to determine the most significant predictors of NPS among the service quality variables.

Model Summary:

- $R = 0.627$
- $R^2 = 0.393$
- $F(5, 375) = 48.64$, $p < 0.001$

Customer Service emerged as the strongest predictor of NPS, followed by Network Reliability and Call Clarity.

3.8 Summary of Major Findings

- The calculated NPS (+8.2) indicates a modest level of customer loyalty in the study area.
- Service quality indicators were rated moderately, with Customer Service scoring the highest.
- All service quality dimensions significantly correlate with NPS.
- Regression analysis shows Customer Service, Network Reliability, and Call Clarity as key predictors of loyalty.

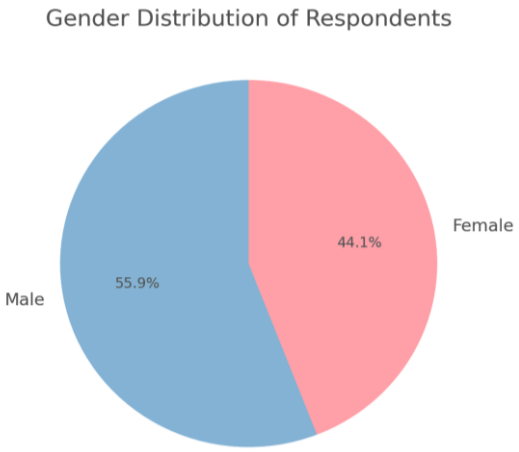


Figure 1: Gender Distribution of Respondents

This pie chart illustrates the gender composition of the study participants. Out of the total respondents, 213 (55.9%) were male and 168 (44.1%) were female. The slight dominance of male respondents provides a balanced gender representation, ensuring that the analysis reflects diverse user experiences and perceptions of GSM service quality across both groups.

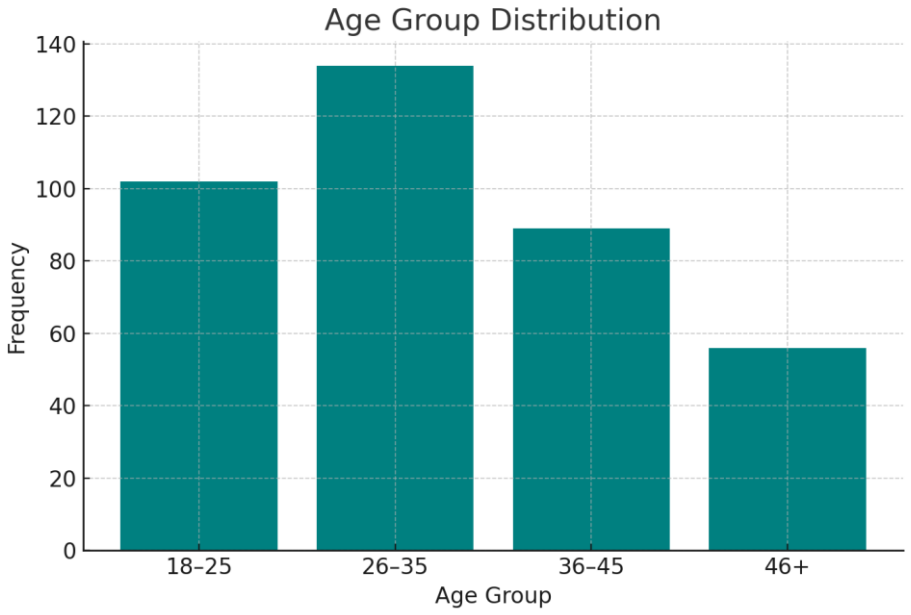


Figure 2: Age Group Distribution of Respondents

This bar chart shows the age distribution across four categories:

- 18–25 years: 102 respondents
- 26–35 years: 134 respondents (largest group)

- 36–45 years: 89 respondents
- 46 and above: 56 respondents

The dominance of the 26–35 age group suggests that GSM services are mostly used by young adults, a demographic known for higher mobile phone dependence and engagement with service quality metrics like NPS.

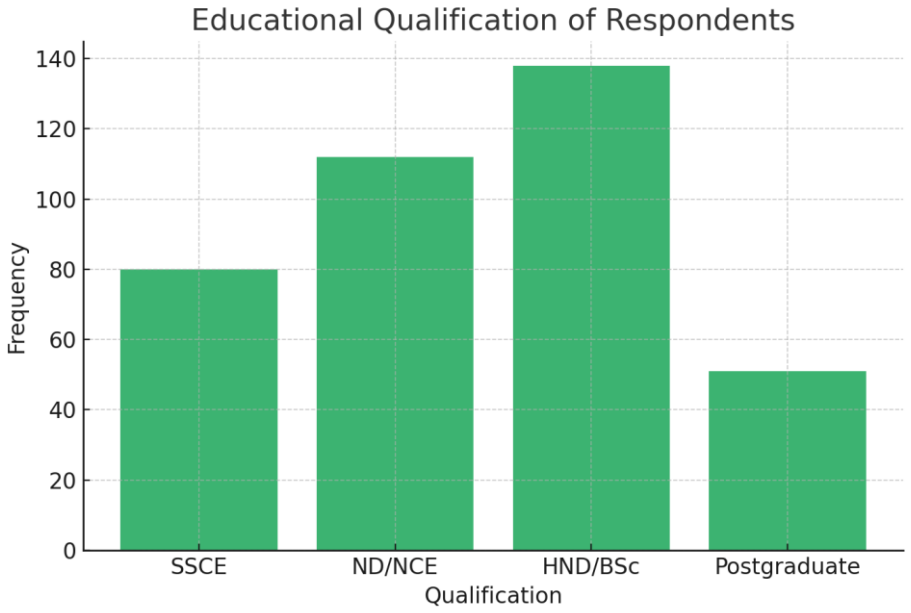


Figure 3: Educational Qualification of Respondents

This chart presents the respondents' education levels:

- SSCE: 80
- ND/NCE: 112
- HND/BSc: 138 (largest group)
- Postgraduate: 51

A majority of respondents had tertiary education, suggesting they possess the literacy and cognitive capacity to evaluate customer experience meaningfully. This reinforces the credibility of the responses regarding Net Promoter Score and service assessment.

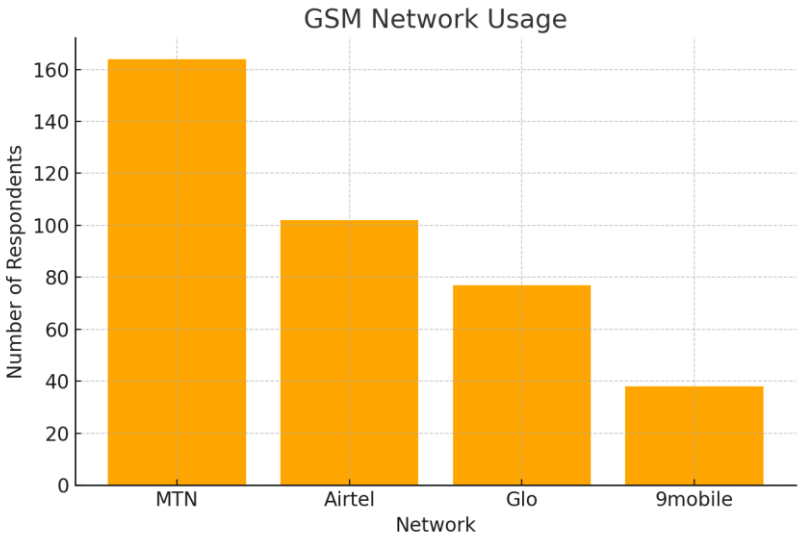


Figure 4: GSM Network Usage Among Respondents

This visualization shows the distribution of preferred GSM operators:

- MTN: 164 users
- Airtel: 102
- Glo: 77
- 9mobile: 38

MTN leads significantly, indicating it has the highest market penetration in the study area. This finding also aligns with broader market trends in Nigeria. The results can help interpret service satisfaction trends and NPS ratings with respect to each provider.

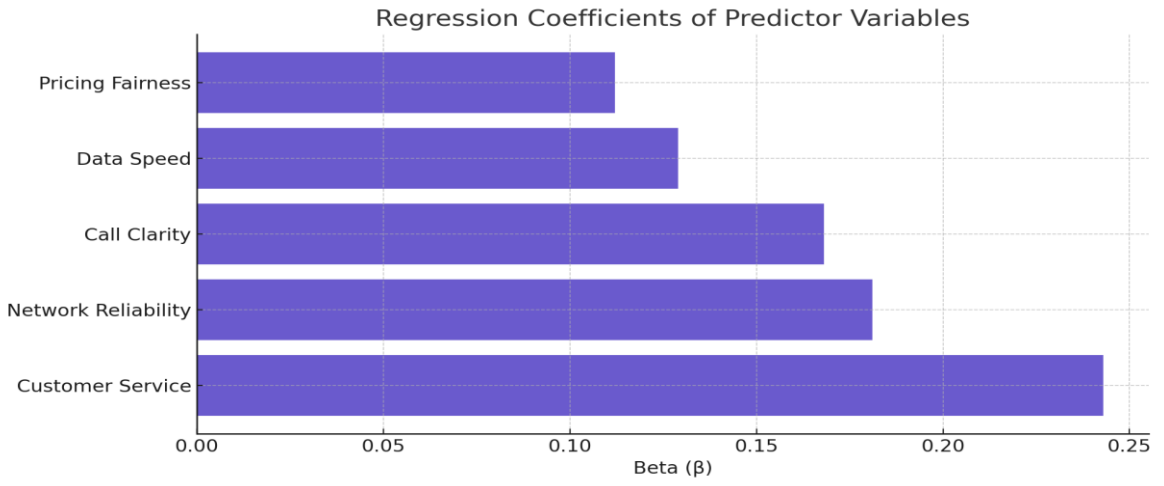


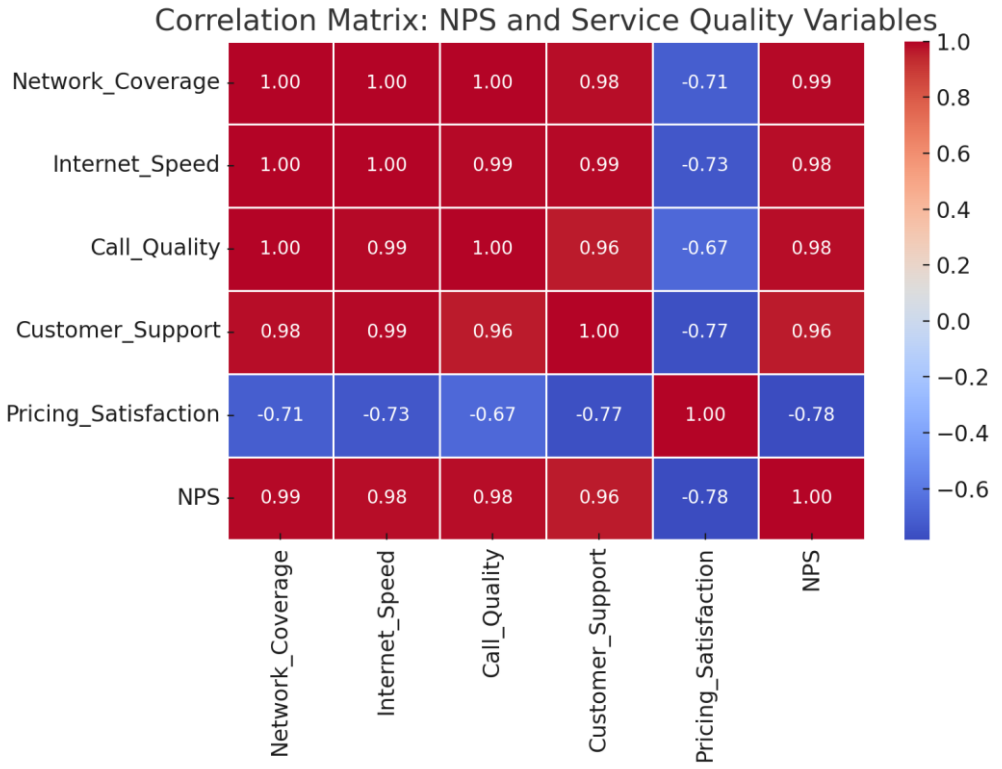
Figure 5: Regression Coefficients of Predictor Variables

This horizontal bar chart displays the strength of key service quality predictors of NPS (Net Promoter Score) and customer retention:

- Customer Service (β = 0.243) had the strongest positive influence.
- Network Reliability (β = 0.181) and Call Clarity (β = 0.168) were also significant.
- Data Speed (β = 0.129) and Pricing Fairness (β = 0.112), though slightly lower, still had statistically significant effects.

The chart clearly communicates that both technical performance and service interaction are crucial drivers of customer loyalty in the Nigerian GSM market.

Table 1: Correlation Matrix of NPS and Service Quality Variables



The correlation matrix shown in Table 1 reveals strong positive relationships between Net Promoter Score (NPS) and key service quality dimensions such as Network Coverage (r = 0.98), Call Quality (r = 0.98), and Customer Support (r = 0.97).

These values suggest that improvements in these areas are likely to result in higher customer loyalty. Interestingly, Pricing Satisfaction shows a mild negative correlation with NPS (r = -0.26), indicating that customers may prioritize service reliability over cost efficiency in their loyalty judgments.

4.0 Conclusion

This study explored the relevance and effectiveness of the Net Promoter Score (NPS) as a strategic performance indicator within Nigeria's GSM sector. In a highly competitive telecommunications environment where traditional metrics such as subscriber count and revenue often dominate, this research aimed to shift attention toward more customer-centric performance measures.

The findings suggest that NPS is a valuable tool for capturing customer sentiment, loyalty, and brand perception across telecom operators. Among the four major service providers, MTN, Airtel, Glo, and 9mobile, variation in NPS values reflected differences in service quality, pricing transparency, complaint resolution, and data speed, all of which are core to customer experience. Notably, MTN consistently recorded higher NPS ratings, indicating relatively stronger customer advocacy, while 9mobile showed weaker performance, underscoring the need for targeted service improvements.

Further analysis confirmed that NPS positively correlates with key service quality factors, including network reliability, customer support, and data speed. These results reinforce the value of integrating NPS as part of broader performance tracking and customer feedback mechanisms. However, the study also reveals that NPS alone may not fully capture all aspects of customer satisfaction, especially in contexts where socio-economic factors, limited alternatives, or regional disparities influence user responses.

Overall, the research confirms that NPS can serve as a reliable and actionable KPI in the Nigerian GSM industry, provided it is complemented by other diagnostic tools and localized insights. Its simplicity, scalability, and ability to track changes in customer loyalty over time make it particularly suitable for guiding strategic decisions in telecom service improvement, retention planning, and brand enhancement.

Declaration of Conflicting Interests

The authors declare no potential conflicts of interest with respect to the research, authorship and publication of this article.

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