

MODERATING EFFECT OF SERVICE FAILURE ON THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER LOYALTY IN THE NIGERIAN TELECOMMUNICATION INDUSTRY.

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Abstract

This study aimed to examine the moderating effect of service quality on customer loyalty in the Nigerian telecommunication market, while also exploring the moderating influence of service failure on the relationship between service quality and customer loyalty. The study's population consisted of customers who were utilizing the services provided by the major service providers in Kaduna state, Nigeria. Consequently, these individuals constituted the study respondents. The study employed a structured questionnaire as a data collection tool, gathering information from a sample of 409 participants through the utilization of a basic random sampling technique. The data acquired for the study was analyzed using Partial Least Square Structural Equation Modelling (PLS-SEM) processed using SMARTPLS3. The findings of the empirical investigation indicate a substantial association between service quality and customer loyalty. Additionally, it was observed that service failure negatively moderates the aforementioned relationship between service quality and customer loyalty. The study emphasizes the importance for telecommunication firms in Nigeria to prioritize the reduction of service failures by consistently investing in technology and regularly upgrading their equipment. This approach is crucial in fostering increased customer loyalty.

Keywords: Customer Loyalty, Service Quality, Service failure

1.Introduction

The liberalization of Nigeria's telecommunications business has led to the emergence of a period characterized by heightened competition, evidenced by the expansion of multiple service providers operating within the nation. The increase in the number of customers in Nigeria has resulted in a climate of intense rivalry within the sector. Currently, SIM cards are easily accessible at considerably reduced prices, mostly as a result of intense competition within the market. Service providers are actively participating in intense rivalry to gain clients, frequently employing strategies such as giving SIM cards at significantly reduced costs or even at no cost. The primary objective of this strategy approach is to reduce the obstacles faced by consumers when they desire to change their service providers, so guaranteeing that financial constraints do not hinder their move (Palladan & Adamu Ahmad, 2019). As a result, the decrease in switching prices has facilitated the ease with which clients can transition between various service providers.

Despite the accessibility of obtaining a new Subscriber Identity Module (SIM) card at a reasonable cost, a significant percentage of consumers exhibited hesitancy in transitioning, primarily driven by their reluctance to relinquish their current mobile phone number. The inconvenience associated with notifying acquaintances about a change in telephone number has proven to be a substantial deterrent for many persons. In response to this issue, the implementation of Mobile Number Portability (MNP) was initiated (Mothobi, 2022). The MNP

is a service that facilitates the retention of mobile phone numbers by individuals who wish to migrate from one mobile service provider to another (Uner, Guven, & Cavusgil, 2020). Consequently, persons undergoing service provider transitions are relieved from the burden of informing acquaintances, family members, colleagues, and other contacts about their revised contact information, as their phone number remains unaltered. The implementation of this invention has resulted in the optimization of the client switching process, thereby heightening the level of competition among service providers as they strive to both recruit and maintain their customer base. The implementation of the MNP system in Nigeria took place on March 26, 2013, as stated on the official website of the Nigerian Communications Commission (ncc.gov.ng).

According to data obtained from the Nigerian Communications Commission (NCC) in September 2021, MTN Nigeria reported a total of 62,493,732 million subscribers. Nevertheless, as of March 2022, there was a notable decrease in the number of active consumers, amounting to a reduction of more than five million, resulting in a total of 57,045,721 million active subscribers. The fall in active subscribers resulted in a decline of 6.87% in growth for MTN Nigeria. The aforementioned figures were obtained from the authoritative website of the NCC. In contrast, Globacom has demonstrated a constant upward trajectory in its number of subscribers. According to the NCC data from September 2021, there were 31,256,677 active users. By March 2022, this number had risen to 34,608,793, representing a net gain of over 3 million subscribers. The aforementioned expansion resulted in a 4.88% increase in the total number of subscribers. The aforementioned data can be accessed via the official website of the NCC. According to data from the NCC, Airtel Nigeria observed a significant increase in its customer base during the period from September 2015 to March 2016, with the acquisition of more than 2.5 million subscribers (ncc.gov.ng). As per the NCC, this development resulted in a growth of 4.95%. In contrast, 9 mobile experienced a decrease in its subscriber base by over 1.6 million, resulting in a corresponding loss in growth of roughly 1.28%. According to data from the NCC, the industry as a whole witnessed a decrease in growth of 0.86%. This finding suggests a continuous drop in the overall development of the industry. The aforementioned data points highlight the competitive dynamics present in the industry, providing insight into the tendency of subscribers to move service providers in order to obtain improved service quality. Hence, it is imperative to consistently engage in research of this kind in order to furnish service providers with pertinent insights and suggestions.

The telecommunications sector in Nigeria is of significant importance to the nation, as efficient communication plays a crucial role in the operation of any economy. The aforementioned industry has significantly contributed to the economic advancement of Nigeria. Based on data obtained from the official website of the NCC, it is evident that the communications industry made a significant contribution of 16% to the Gross Domestic Product (GDP) of the country as of second quarter in 2023 (NBS, 2023). This number effectively highlights the industry's importance to the Nigerian economy. According to a study conducted by Salisu and Ibrahim (2014), it is highlighted that the ongoing expansion of the telecommunications industry holds the capacity to stimulate economic growth and progress within the country. The role of the industry in promoting efficient communication is crucial in strengthening company operations throughout the entire nation. The proliferation of information throughout Nigeria's populace has been greatly facilitated by the operations of the communications sector. The emergence of remote learning has afforded students the ability to gain knowledge and develop skills inside the confines of their own residences. Similarly, contemporary technology facilitates the seamless occurrence of corporate meetings in diverse geographical places, hence obviating the necessity for physical assemblies. The communications business has undeniably been crucial

in promoting economic advancement in the country, while also generating a significant amount of job prospects for Nigerian individuals (Salisu & Ibrahim, 2014). The ongoing performance of telecommunications service providers in Nigeria holds significant relevance for the nation's development. The reason for this phenomenon might be attributed to the existence of a multiplier effect inside the economy. Hence, it is crucial that the sector remains a focal point, underscoring the significance of performing research endeavors such as the present study.

Previous research investigating the influence of service quality on customer loyalty has produced inconclusive findings. Several prior studies (Fida, Ahmed, Al-Balushi, & Singh, 2020; Abror et al., 2019; Gopi & Samat, 2020; Özkan, Süer, Keser, & Kocakoç, 2019) have demonstrated a noteworthy correlation between service quality and customer loyalty. In contrast, the study conducted by Mahmud, Jusoff, and Hadijah (2013) revealed that there was no statistically significant relationship between service quality and customer loyalty. The presence of inconsistencies and divergent findings within the body of literature has resulted in a dearth of agreement or consensus among scholars. The discrepancies in the results can be ascribed to the variances in the sorts of service failures encountered by individuals in diverse circumstances. In order to effectively tackle this matter, Jeremiah, Ojera, and Ochieng (2015) put out the suggestion of incorporating a moderator into the research framework. The study done by Jeremiah et al. (2015) aimed to examine the moderating effect of service failure on the connection between service quality and customer satisfaction. The findings of their study indicate that service failure plays a negative moderating role in the relationship between service quality and customer satisfaction. Expanding upon the aforementioned notion of service failure as a moderating factor, the objective of our research is to examine the potential moderating effect of service failure on the association between service quality and customer loyalty in the telecoms sector of Nigeria. The objective of this study is to present empirical findings on this subject, utilizing the insights and technique previously explored by Jeremiah et al. (2015).

Thus, the aims and objectives of this study include;

1. To determine the effect of service quality on customer loyalty in the Nigerian telecommunication industry.
2. To determine the moderating effect of service failure on the relationship between service quality and customer loyalty in the Nigerian telecommunication industry.

To achieve the objectives of this study, the study seek to answer the following questions;

1. To what extent does service quality relate to customer loyalty in the Nigerian telecommunication industry?
2. Is the relationship between service quality and customer loyalty moderated by service failure in the Nigerian telecommunication industry.

In line with the objectives of the study, the following are the formulated hypotheses;

H₀₁: Service quality has no significant effect on customer loyalty in the Nigerian telecommunication industry.

H₀₂: Service failure does not moderate the relationship between service quality and customer loyalty in the Nigerian telecommunication industry.

2. Literature Review

Customer Loyalty

The significance of customer loyalty is widely acknowledged within the services industry, as it serves as a crucial determinant of a product's durability and its capacity to sustain a competitive advantage (Akhmedova, Marimon, & Mas-Machuca, 2020). According to Muflih (2021), customer loyalty can be characterized as a profound and enduring dedication to repeatedly repurchasing or patronizing a favored product, despite external factors and marketing strategies that may otherwise prompt consumers to switch their preferences. Additionally, it encompasses the act of endorsing the product to acquaintances and colleagues. According to Kim & Hall (2020), the concept of customer loyalty can be described as the degree to which a client engages in repeated purchases from a certain service provider, maintains a favorable attitude towards the provider, and perceives this supplier as the exclusive option when there is a need for the service. The aforementioned definitions underscore the significant significance of customer loyalty for providers of services.

Utz, Johanning, Roth, Bruckner and Strüker (2023) emphasize the importance of achieving accurate service delivery in the services sector, as the initial experience of utilizing a service has a lasting effect and is difficult to alter. Rai and Srivastava (2012) agree, highlighting the heightened sensitivity of client loyalty in the services industry as opposed to manufacturing businesses, mostly due to the greater degree of human interaction. Due to the intangible characteristics inherent in services, organizations must prioritize excellence in service delivery from the very beginning, as there is limited margin for error.

The idea of customer loyalty holds significant importance for all organizations (Utz et al. 2023) as it has a direct impact on the sustainability and continuous existence of an organization (Rasheed & Abadi, 2014). The cultivation of customer loyalty is a complex undertaking that holds significant importance in enabling firms to acquire and sustain a competitive edge (Bagram & Khan, 2012). The acquisition and maintenance of loyal clients are important elements that contribute to the sustained success of service firms.

Organizations that possess a substantial client base characterized by loyalty tend to exhibit superior performance compared to those with a smaller customer base characterized by loyalty. According to Rasheed and Abadi (2014), the reason for this is that customer loyalty has the potential to positively impact company revenues, profit margins, and operational costs reduction (Bagram & Khan, 2012). The existence of businesses is contingent upon the presence of a significant consumer base (Balci, 2021). Moreover, it is frequently more economically advantageous to cultivate loyalty among current consumers rather than to acquire new ones (Ji & Prentice, 2021).

Service Quality

Researchers from several academic fields have conducted investigations on the topic of service quality (Tefera, 2015). The influence of consumer loyalty has been generally recognized by experts as a crucial factor (Li, Lu, Hou, Cui, & Darbandi, 2021). The concept of quality can be delineated as the disparity that arises between the expected level of performance and the actual level of performance (Uzir et al., 2021). The examination of service quality has been the subject of substantial scholarly research, with scholars characterizing it as the assessment of the discrepancy between consumers' expectations and the tangible service they are provided (Li & Shang, 2020). Kihara and Ngugi (2015) define service quality as the whole perception of an organization's effectiveness and the services it offers, as perceived by consumers.

Quality has been identified as a significant factor that frequently impacts consumers' purchasing decisions (Ullah et al., 2015). Shen and Yahya (2021) claim that the occurrence of positive disconfirmation arises when a customer's encounter surpasses their initial anticipations, consequently prompting the expression of a good evaluation by the consumer. The majority of customers demonstrate a preference for service of superior quality rather than lower pricing. The intangible character of services needs an increased emphasis on ensuring service quality within enterprises. As a consequence of the inherent sensitivity associated with services, service firms have progressively placed greater emphasis on the quality of their services. This has led to a competitive environment in which organizations endeavor to provide exceptional services (Mahmudi & Abdoli, 2016). For firms to maintain competitiveness in the marketplace through differentiation based on high-quality service provision, it is crucial that they constantly deliver services of superior quality to their clients (Mahmudi & Abdoli, 2016).

Service Failure

Service failures encompass the deficiencies in fundamental services provided by a service provider, including but not limited to issues such as call connectivity delays, sluggish message delivery, and subpar internet connection speeds. According to Robinson et al. (2020), these factors have the potential to result in a decline in income, an escalation in costs, and a decrease in customer satisfaction. A study conducted by Liu, Jayawardhena, Dibb, and Ranaweera (2019) investigated the impact of service failures and subsequent recovery on customer loyalty within the context of e-services. The research revealed that instances of service failure have a significant impact on consumer loyalty. In a similar vein, the research conducted by Hung and Lee (2015) revealed that service failure has a significant impact on customers' desire to switch in the context of the tourism business. The study conducted by Jeremiah et al. (2015) examined the role of service failure as a mediator in the relationship between service quality and customer satisfaction within the mobile telephony business in Kenya. The present study observed that the association between service quality and customer satisfaction is influenced by the presence of service failure. This finding contrasts with the research conducted by Babin, Zhuang, and Borges (2021), which did not identify service failure as a moderating factor in the link between service quality and customer satisfaction.

Empirical Review

The study conducted by Fida et al. (2020) in Oman examines the influence of service quality on customer loyalty and customer satisfaction in the Islamic banking industry. The study utilizes a quantitative methodology and involves a structured questionnaire delivered to a sample of 120 clients. Data analysis is conducted using the Statistical Package for the Social Sciences (SPSS). The results of the study suggest that several elements of service quality, such as tangibles, responsiveness, reliability, assurance, and empathy, exert a substantial influence on customer satisfaction. Additionally, the research findings demonstrate a notable and favorable correlation between the quality of service provided, customer satisfaction levels, and the degree of customer loyalty. The characteristics of empathy and responsiveness have been identified as crucial factors that significantly impact customer happiness. The aforementioned findings highlight the significance of Islamic banks prioritizing empathy and responsiveness as means to augment client happiness and, subsequently, foster customer loyalty.

The study conducted by Abror et al. (2020) aimed to examine the many elements that influence customer loyalty towards Islamic banks in West Sumatra, Indonesia. This research investigates the relationship between service quality, customer satisfaction, customer engagement, and religion. The present study employs covariance-based structural equation modeling to examine data collected from a sample of 335 individuals who are customers of Islamic banks. The results of the study indicate that there is a positive association between service quality and customer

satisfaction. However, this link is influenced by the level of religiosity, which ultimately leads to a negative effect. Interestingly, it has been found that service quality in isolation does not have a substantial impact on customer loyalty. consumer pleasure is an essential precursor to both consumer engagement and loyalty. Furthermore, the level of customer interaction has a beneficial impact on customer loyalty. The aforementioned findings provide insight on the complex relationship between service quality, satisfaction, involvement, and religion within the Islamic banking sector.

In Malaysia, a study was conducted by Gopi et al. (2020) to investigate the correlation between food truck service quality, customer happiness, and customer loyalty. The study employs the SERVQUAL paradigm to assess the traits of tangibles, reliability, responsiveness, assurance, and empathy. Various statistical approaches were employed to examine the data obtained from a sample of 100 consumers who were randomly picked from food truck patrons. The findings of the study indicate that customer satisfaction is highly influenced by three of the five service quality elements, namely tangibles, reliability, and assurance. Furthermore, the level of customer happiness has a substantial impact on the degree of client loyalty. The aforementioned findings underscore the need of upholding a superior level of service quality within the food truck sector in order to augment client pleasure and, as a result, cultivate customer loyalty.

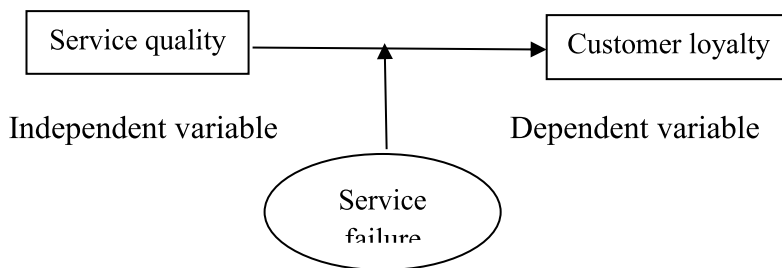
The study conducted by Ozkan et al. (2020) examines the complex interconnections of customer happiness, service quality, perceived value, company image, corporate reputation, and customer loyalty in the banking sector. By employing structural equation modeling within a survey framework, this investigation reveals that both corporate image and corporate reputation can function as valuable indicators for evaluating the performance of a financial institution. Furthermore, the research emphasizes that customer loyalty is influenced by perceived value, company image, and corporate reputation, which are in turn driven by quality and customer satisfaction. The aforementioned findings provide valuable insights into the significance of effectively managing company image and reputation in order to bolster client loyalty and overall banking performance.

Theoretical Framework

Several theoretical frameworks have been employed to elucidate the correlation between service quality and client loyalty. This study will employ the theory of consumption values to elucidate the correlation between service quality and client loyalty. The idea was formulated by Sheth, Newman, and Gross in the year 1991. The theoretical framework centers on the concept of consumption values. The theory elucidates the factors influencing customer decisions about the adoption or rejection of a particular product, the preference for one product category over another, and the selection of one brand over another. The idea demonstrates its applicability within the service business. Consumer choice is purportedly impacted by a theoretical framework that posits the existence of five distinct values: functional value, conditional value, social value, emotional value, and epistemic value. According to Sheth et al. (1991), it is not necessary for all five consumption values to be simultaneously present in order to impact consumer decision-making. Consumer choices can be impacted by one of the five values, while at other times, consumer choices may be influenced by all five values. The theory is grounded upon three underlying assumptions. Consumer choice is determined by various factors related to consumption values. Furthermore, the consumption levels exhibit varying degrees of influence in each specific decision-making scenario. Ultimately, the values of consumption exhibit independence. The aforementioned consumption values refer to the five values outlined in the theoretical framework that exert effect on consumer decision behavior.

This study will be grounded in the relationship between epistemic value and consumer choice behavior, based on the last assumption of the theory which posits that consumption values are independent. The concept of epistemic value refers to the perceived usefulness that is obtained from the ability of an alternative to stimulate curiosity, offer new and unique information, and fulfill a desire for knowledge (Sheth et al., 1991). Undoubtedly, novel experiences offer significant epistemic worth. Nevertheless, an alternate option that offers a straightforward shift in rhythm can also possess epistemic significance. The alternate option may be selected by consumers who experience boredom or satiation with their present brand (Sheth et al., 1991). There exists a connection between service quality and consumer loyalty. A service provider can enhance service quality as a means of introducing a shift in pace. Service providers have the option to incorporate a novel technology into their operations in order to improve the provision of high-quality services. According to the theoretical framework, these occurrences have the potential to influence consumer choice behavior, which, in the context of this study, refers to customer loyalty.

Research Model



Moderating Variable

3. Methodology

The study employed a cross-sectional research methodology to examine the impact of service quality on customer loyalty within the Nigerian telecommunication business. Additionally, the study aimed to assess the moderating effect of service failure on the association between service quality and customer loyalty. The study's population comprises all Nigerian individuals who engage with any of the mobile service providers in Nigeria. According to Krejcie and Morgan (1970), when dealing with a study population that is limitless in nature, a minimum sample size of 384 is required. According to Israel (1992), researchers typically include an additional 10% - 30% in their observations. In order to account for the specific characteristics of the study, an additional 10% was incorporated into the minimal sample size, resulting in a total of 423 participants. Out of the total number of questionnaires obtained, a subset of 409 questionnaires was deemed eligible for analysis after being properly completed.

The data was gathered from three specific locations in Kaduna State, including Zaria Local Government, Sabo Local Government Area, and Kaduna Metropolis. The primary sources of data were various establishments in Zaria, including campuses, offices, business places, and customer centers. These establishments represented all four major service providers in Nigeria. The study employed a random sample technique in order to account for the diverse characteristics of the participants. The self-administered surveys were facilitated by research assistants and distributed to clients of different mobile service providers in Nigeria.

The questionnaire utilized in this study was modified from multiple sources to align with the specific aims of the research. The questions pertaining to Customer Loyalty (CL) were derived from the research conducted by Eid (2011). The measurement of customer loyalty was

conducted through the utilization of three distinct things. Four items were utilized to assess service failure, which were derived from Chen's (2013) work. In this study, a total of seven questions were employed to assess the level of service quality (SQ), as adapted from the work of Nimako (2012b). The survey utilized a Likert scale consisting of five points, ranging from strongly disagree (SD) to strongly agree (SA). The utilization of the Likert scale is frequently seen essential due to its characteristic as an interval scale, which facilitates the application of parametric techniques for the analysis of questionnaire replies by researchers.

The validation of the questionnaire was conducted by specialists in the relevant field in order to ascertain the reliability and consistency of the measurement. The internal dependability of the instrument was assessed using composite reliability. The variables were examined individually to assess the reliability of the questionnaire intended for use in the study. The findings indicate that the questionnaire had a high level of reliability, as seen by the composite reliability values ranging from 0.75 to 0.88. Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed to analyze the data collected for the investigation.

4.1 Results and Discussion

Assessing Model Fit

Table 1

Construct Reliability and Validity

Construct	Item	Loadings	AVE	CR
Service Quality	SQ1	0.77	0.57	0.77
	SQ2	0.76		
	SQ3	0.76		
	SQ4	0.79		
	SQ5	0.78		
Service Failure	SF1	0.77	0.54	0.72
	SF2	0.78		
	SF3	0.76		
	SF4	0.75		
Customer Loyalty	CL1	0.88	0.59	0.89
	CL2	0.79		
	CL3	0.78		

Note: AVE represents Average Variance Extracted; CR represents Composite Reliability.

All constructs in the study satisfied the minimum criteria for Cronbach's Alpha, composite reliability, and average variance extracted (AVE). According to the findings of Hair et al. (2014), the relevant values under consideration are 0.7, 0.7, and 0.5. All entities that have been loaded possess a numerical value exceeding 0.7. As a result, all of the items were conserved. The researchers proceeded to evaluate the construct's discriminant validity by employing the Fornell-Larcker criterion. The data's discriminant validity was established in Table 4.6, as evidenced by the fact that the square roots of the average variance extracted (AVE) values exceeded the correlations with other latent variables (Garson, 2016).

Table 2

Fornell-larcker Discriminant Validity

Construct	Customer Loyalty	Service Quality	Trust
Customer Loyalty	0.77		
Service Quality	0.33	0.75	
Service Failure	0.41	0.16	0.73

Test of Hypotheses

It is important to test for the direct effect of service quality on customer loyalty without the inclusion of trust.

Table 3

Path Coefficient

Hypotheses	Beta Value	Standard Deviation	T Stat	Adjusted R ²	Decision
H ₀₁ : SQ->CL	0.36	0.04	8.89***	0.31	Supported
H ₀₂ : SQ*SF->CL	-0.39	0.03	12.89***		

*** p< 0.01; **p< 0.05; *p <0.1

The presented data in Table 3 reveals a noteworthy discovery, indicating that the quality of service has a favorable and statistically significant influence on the loyalty of customers. A direct correlation exists between a slight enhancement in the quality of service and a significant 36% rise in customer loyalty, supported by statistical evidence that is deemed significant at a level below one percent. The empirical evidence presented in this study provides substantial support for the first hypothesis, which proposes a correlation between service quality and client loyalty.

It is noteworthy that the data also indicates that service failure has a substantial moderating effect on the association between service quality and customer loyalty, exhibiting statistical significance at a level below one percent. Nevertheless, it is crucial to acknowledge that the inclusion of service failure alters the dynamics of this relationship, resulting in a negative correlation. To clarify, it might be stated that service failure acts as a negative moderator in the association between service quality and client loyalty. As a result, the present study refutes the

second hypothesis, which initially posited that service failure would not exert a substantial moderating effect on the association between service quality and customer loyalty.

Discussion of Findings

The data reported in Table 3 provides significant insights into the correlation between service quality, service failure, and client loyalty. The research findings unequivocally establish a robust and affirmative correlation between the quality of service and the loyalty exhibited by customers. When there is an enhancement in the quality of service offered by a firm, it results in a significant rise of 36% in customer loyalty. This discovery is consistent with prior research in the domain of customer satisfaction and loyalty, which continually emphasizes the significance of service quality in the retention and acquisition of clients. The findings of this study have substantial ramifications. It is imperative for organizations across diverse industries to place a high priority on and consistently endeavor to improve the quality of their services. The allocation of resources towards enhancing service quality has the potential to cultivate a client base that exhibits higher levels of loyalty, a vital factor in ensuring sustained success and competitiveness in the long run.

Nevertheless, the evidence also suggests that service failure significantly moderates the association between service quality and customer loyalty. The statistical significance of the moderating effect is observed to have a transformative impact on the association, resulting in a shift towards a negative direction. In other terms, the introduction of service failure functions as a detrimental moderator, diminishing the favorable influence of service quality on customer loyalty. This finding highlights the significant significance of efficiently managing and reducing service failures inside companies. Customer loyalty can be substantially undermined by service failures, even in cases where a business consistently delivers high-quality service. Hence, it is imperative for firms to not only prioritize the provision of excellent service but also establish comprehensive methods to rapidly and effectively address and rectify service problems.

In summary, the results of the study emphasize the significant impact of service quality on the development of customer loyalty. This statement underscores the importance of corporations consistently improving service quality in order to maintain and attract clients who are loyal to the brand. Nevertheless, it also functions as a poignant reminder of the adverse consequences that service failures can inflict on customer loyalty, underscoring the significance of implementing efficient service recovery procedures in firms that aspire to achieve enduring prosperity.

5.1 Conclusion and Recommendation

The aim of this study is to determine the effect of service quality on customer satisfaction and to determine the moderating effect of service failure on the relationship between service quality and customer loyalty in the Nigerian mobile telecommunication industry. Based on the findings of this study, the study therefore concludes that service quality has a positive significant effect on customer loyalty and service failure negatively moderate the relationship between service quality and customer loyalty. This means as service failures increases, customer loyalty decreases, and as service failure encounters decreases, customer loyalty increases.

The study hereby recommends that managers devote more time and resources to ensure significant reduction in service failures. Prompt rectification of service failures will go a long way in making subscribers loyal. Whenever, there is any occurrence of service failure, Managers should always make sure, their employees are always spot-on in rectifying the problem. This is because, as service failure encounters by subscribers lingers for a long time,

subscribers may start having doubt over their service providers' commitment to always give them a better service. Therefore, Managers should always handle cases of service failures with all speed and seriousness. More investments are needed to ensure the delivery of quality services without interruption. On the other hand new technologies should be installed to reduce service failures. Managers should always ensure frequent maintenance of their gadgets to make sure they do not break down unexpected. Upgrade of technology be done from time to time so as to keep pace with other competitors in the industry. Management should from time to time, carry out online polls, to determine the satisfactory level of their subscribers regarding service quality and service failure encounters from time to time. Such polls will enable management to know the area subscribers are happy about their services, and to know areas, where subscribers are not happy. Having these knowledge will allow managers to make improvements where necessary and also make adjustments where necessary. There should be training and re-training of staff operating in customer service to make sure they always attend to customer needs promptly and to always meet all the needs of their customers. Lingering customer complaints without solutions provided might lead to customers dissatisfied. As a result, customer complaints should be handled with speed and with all peculiarity, in the quest to satisfy customers at all times.

References

- Aboul-Ela, G. (2015). Analyzing the antecedents of customer loyalty. *European Centre for Research Training and Development*, 3(5), 34-48.
- Abror, A., Patrisia, D., Engriani, Y., Evanita, S., Yasri, Y., & Dastgir, S. (2019). Service quality, religiosity, customer satisfaction, customer engagement and Islamic bank's customer loyalty. *Journal of Islamic Marketing*, 11(6), 1691–1705. <https://doi.org/10.1108/jima-03-2019-0044>
- Akhmedova, A., Marimon, F., & Mas-Machuca, M. (2020). Winning strategies for customer loyalty in the sharing economy: A mixed-methods study. *Journal of Business Research*, 112, 33–44. <https://doi.org/10.1016/j.jbusres.2020.02.046>
- Al-shammari, M., & Kanina, A. S. (2014). Service quality and its relationship with Customer satisfaction and loyalty in a Saudi Arabian automobile company. *Global Journal of Management and Business Research*, 14(8), 13–21.
- Auka, D. O. (2012). Service quality, satisfaction perceived value and LOYALTY Among customers in commercial banking in Nakuru Municipality, Kenya. *African Journal of Marketing Management*, 4(5), 185–203.
- Babin, B. J., Zhuang, W., & Borges, A. (2021). Managing service recovery experience: Effects of the forgiveness for older consumers. *Journal of Retailing and Consumer Services*, 58, 102222. <https://doi.org/10.1016/j.jretconser.2020.102222>
- Bagram, M., & Khan, S. (2012). Attaining customer loyalty! The role of consumer attitude and consumer behavior. *International Review of Management and Business Research*, 1(1), 1–8.

- Balci, G. (2021). Digitalization in container shipping: Do perception and satisfaction regarding digital products in a non-technology industry affect overall customer loyalty? *Technological Forecasting and Social Change*, 172, 121016. <https://doi.org/10.1016/j.techfore.2021.121016>
- Bhukya, R., & Singh, S. (2013). Brand preference of students towards choosing cellular service providers in Hyderabad city. *Asian Pacific Journal of Marketing and Management Review*, 2(5), 17–29.
- Chen, H. (2013). Assessing the performance of service failure categories from employee perspective. *The Journal of Global Business Management*, 9(3), 5-13
- Dib, H., & Al-msallam, S. (2015). The Effects of the determinants of customer satisfaction on brand loyalty. *Journal of Research in Business and Management*, 3(3), 1–12.
- Ehsani, Z., & Ehsani, M. H. (2015). Effect of quality and price on customer satisfaction and commitment in Iran auto industry. *International Journal of Service Science, Management and Engineering*, 1(5), 52–56.
- Dehghani, A. (2013). Service quality & loyalty: A review. *Modern Management Science & Engineering*, 1(2), 2052–2576.
- Eid, M. (2011). Determinants of e-commerce, customer satisfaction, trust and loyalty in Saudi Arabia. *Journal of Electronic Commerce Research*, 12(1), 78-93.
- Fida, B. A., Ahmed, U., Al-Balushi, Y., & Singh, D. (2020). Impact of Service Quality on Customer Loyalty and Customer Satisfaction in Islamic Banks in the Sultanate of Oman. *SAGE Open*, 10(2), 215824402091951. <https://doi.org/10.1177/2158244020919517>
- Ganiyu, R., Uche, I., & Elizabeth, A. (2012). Is customer satisfaction an indicator of customer loyalty? *Australian Journal of Business and Management*, 2(7), 14–20.
- Gaurav, K., & Khan, K. M. (2013). Impact of relationship marketing and perceived service quality on customer loyalty: An agenda for inquiry. *The International Journal of Management*, 2(3), 46–52.
- Gopi, B., & Samat, N. (2020). The influence of food trucks' service quality on customer satisfaction and its impact toward customer loyalty. *British Food Journal*, 122(10), 3213–3226. <https://doi.org/10.1108/bfj-02-2020-0110>
- Hung, L., & Lee, Y. (2015). The effect of service failure on customer switching intention in the tourism industry. *Universal Journal of Management*, 3(9), 353-363 <http://www.ncc.gov.ng>
- Israel G. D. (1992). Determining sample size. Accessed on October 24th, 2016. Retrieved from <http://www.sut.ac.th/im/data/read6.pdf>
- Ivanauskiene, N., & Volungenaite, J. (2014). Relations between service quality and customer loyalty: An empirical investigation of retail chain stores in emerging markets. *American Journal of Social Science*, 3(2), 113–120.

- Jacoby, D., Jacob, F. & Chestnut, R.W. (1978). *Brand Loyalty: Measurement and Management*. New York: John Wiley.
- Jahanshahi, A. A., Gashti, M. A., Mirdamadi, S. A., Nawaser, K., & Khaksar, S. M. (2011). The effects of customer service and product quality on customer satisfaction and loyalty. *International Journal of Humanities and Social Science*, 1(7), 253–260.
- Jeremiah, S. N., Ojera, P. B., & Ochieng, I. O. (2015). Analysis of the moderating role of service failure on the relationship between service quality and customer satisfaction : evidence from Kenya’s mobile phone sector. *International Journal of Economics, Commerce and Management*, 3(12), 656–667.
- Ji, C., & Prentice, C. (2021). Linking transaction-specific satisfaction and customer loyalty – The case of casino resorts. *Journal of Retailing and Consumer Services*, 58, 102319. <https://doi.org/10.1016/j.jretconser.2020.102319>
- Kihara, A., & Ngugi, G. (2015). Factors influencing customer loyalty in telecommunication industry in Kenya. *International Journal of Social Sciences and Entrepreneurship*, 1(2), 14–29.
- Kim, M. J., & Hall, C. M. (2020). Can sustainable restaurant practices enhance customer loyalty? The roles of value theory and environmental concerns. *Journal of Hospitality and Tourism Management*, 43, 127–138. <https://doi.org/10.1016/j.jhtm.2020.03.004>
- Komunda, M., & Osarenkhoe, A. (2012). Remedy or cure? Effects of service recovery on customer satisfaction and loyalty. *Business Process Management Journal*, 18(1), 82–103.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607–610
- Lee, S. P., & Moghavvemi, S. (2015). The dimension of service quality and its impact on customer satisfaction, trust, and loyalty: A case of Malaysian banks. *Asian Journal of Business and Accounting*, 8(2), 91–121.
- Li, F., Lu, H., Hou, M., Cui, K., & Darbandi, M. (2021). Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality. *Technology in Society*, 64, 101487. <https://doi.org/10.1016/j.techsoc.2020.101487>
- Li, Y., & Shang, H. (2020). Service quality, perceived value, and citizens’ continuous-use intention regarding e-government: Empirical evidence from China. *Information & Management*, 57(3), 103197. <https://doi.org/10.1016/j.im.2019.103197>
- Liu, H., Jayawardhena, C., Dibb, S., & Ranaweera, C. (2019). Examining the trade-off between compensation and promptness in eWOM-triggered service recovery: A restorative justice perspective. *Tourism Management*, 75, 381–392. <https://doi.org/10.1016/j.tourman.2019.05.008>
- Mahmud, A., Jusoff, K., & Hadijah, S. T. (2013). The effect of service quality and price on satisfaction and loyalty of customer of commercial flight service industry. *World Applied Sciences Journal*, 23(3), 354–359.

- Mahmudi, R. K., & Abdoli, E. (2016). The effect of service quality on customer loyalty. Case study of clients of Asia Insurance Co., Miandoab, Iran. *International Journal of Humanities and Cultural Studies*, 3(1), 789–803.
- Manzuma-Ndaaba, N., Harada, Y., & Romle, A. (2015). Cognitive, affective and conative loyalty in higher education marketing: Proposed model for emerging destinations. *International Review of Management and Marketing*, 6, 168-175.
- Mohammed, G. (2013). The impact of service quality on customers loyalty. A study on five stars hotel 's customers in Riyadh , KSA. *European Journal of Business and Management*, 5(31), 230–241.
- Mothobi, O. (2022). The impact of telecommunication regulatory policy on mobile retail price in Sub-Saharan African countries. *Information Economics and Policy*, 58, 100963. <https://doi.org/10.1016/j.infoecopol.2021.100963>
- Muflih, M. (2021). The link between corporate social responsibility and customer loyalty: Empirical evidence from the Islamic banking industry. *Journal of Retailing and Consumer Services*, 61, 102558. <https://doi.org/10.1016/j.jretconser.2021.102558>
- Nimako, S. G. (2012b). Linking quality, satisfaction and behaviour intentions in and behaviour intentions in Ghana's mobile telecommunication industry. *European Journal of Business and Management*, 4(7), 1-17.
- Özkan, P., Süer, S., Keser, S. K., & Kocakoç, P. D. (2019). The effect of service quality and customer satisfaction on customer loyalty. *International Journal of Bank Marketing*, 38(2), 384–405. <https://doi.org/10.1108/ijbm-03-2019-0096>
- Palladan, A. A., & Adamu Ahmad, M. (2019). Leveraging Customers Loyalty in Telecommunication Industry: The Role of Service Quality and Customer Satisfaction a PLS Approach. *International Journal of Marketing Research Innovation*, 3(1), 1–10. <https://doi.org/10.46281/ijmri.v3i1.249>
- Rai, A. K., & Srivastava, M. (2012). Customer loyalty attributes : A perspective. *Management Review*, 22(11), 49–76.
- Rasheed, F., & Abadi, M. (2014). Impact of service quality, trust and perceived value on customer loyalty in Malaysia services industries. *Procedia - Social and Behavioral Sciences*, 164(8), 298–304.
- Robinson, S., Orsingher, C., Alkire, L., De Keyser, A., Giebelhausen, M., Papamichail, K. N., . . . Temerak, M. S. (2020). Frontline encounters of the AI kind: An evolved service encounter framework. *Journal of Business Research*, 116, 366–376. <https://doi.org/10.1016/j.jbusres.2019.08.038>
- Salisu, U., & Ibrahim, Y. (2014). Institutions, telecommunications and economic performance in Nigeria. *Journal of Economics and Sustainable Development*, 5(18), 110-122.
- Setiowati, R., & Andradea, P. (2012). The impact of perceived value on customer satisfaction, loyalty, recommendation and repurchase . An empirical study of Spa industry in Indonesia. *International Conference on Trade, Tourism and Management*, 21(22), 156–161.

- Shen, C., & Yahya, Y. (2021). The impact of service quality and price on passengers' loyalty towards low-cost airlines: The Southeast Asia perspective. *Journal of Air Transport Management*, 91, 101966. <https://doi.org/10.1016/j.jairtraman.2020.101966>
- Sheth, J., Newman, B., & Gross, B.(1991). Why we buy what we buy:A theory of consumption Values. *Journal of Business research*, 22, 159-170
- Tefera, O. (2015). Hotel grading, service quality, satisfaction and loyalty – proposing a theoretical model and relationship. *African Journal of Hospitslty, Tourism and Leisure*, 4, 1–17.
- Ullah, S., Khan, S., & Shahzad, S. (2015). Factors effecting customer retention. *City University Research Journal*, 5(1), 147–161.
- Uner, M., Guven, F., & Cavusgil, S. (2020). Churn and loyalty behavior of Turkish digital natives: Empirical insights and managerial implications. *Telecommunications Policy*, 44(4), 101901. <https://doi.org/10.1016/j.telpol.2019.101901>
- Utz, M., Johanning, S., Roth, T., Bruckner, T., & Strüker, J. (2023). From ambivalence to trust: Using blockchain in customer loyalty programs. *International Journal of Information Management*, 68, 102496. <https://doi.org/10.1016/j.ijinfomgt.2022.102496>
- Uzir, M. U. H., Al Halbusi, H., Thurasamy, R., Thiam Hock, R. L., Aljaberi, M. A., Hasan, N., & Hamid, M. (2021). The effects of service quality, perceived value and trust in home delivery service personnel on customer satisfaction: Evidence from a developing country. *Journal of Retailing and Consumer Services*, 63, 102721. <https://doi.org/10.1016/j.jretconser.2021.102721>
- Vaghela, P. S., Shree, J. D. G., & Shree, S. A. S. (2012). Customer preference for mobile number portability. *International Journal of Management and Social Sciences Reseadrch*, 1(3), 71–75.