

**Impact of customer support and customer technology adoption on Customers
Loyalty in the Nigerian Banking Industry**

Lawan Garba

¹Dept. of Accounting and Finance, Faculty of Management Sciences,
Abubakar Tafawa Balewa University Bauchi – Nigeria. (Orcid ID: <https://orcid.org/0009-0009-0380-0816>).

Author's Mail Id: garbalawan91@gmail.com, *Tel* +2347036832025, +2348143691854.

Abstract - The study examined impact of customer support and customer technology adoption on customer's loyalty in the Nigerian banking industry. Its aim was to assess the level of relationship between customer support and customer technology adoption and customer loyalty in the Nigerian banking industry. In line with the objective of the study, two null hypotheses were formulated to guide the research. The theoretical foundation of the study was based on Rogers innovation diffusion theory and technology acceptance model (TAM) theories. The study adopted cross-sectional survey research design. The population size was drawn from the customers of eight (8) banks with international authorization in Bauchi State, Nigeria. A sample size of 384 customers was obtained using Krejcie and Morgan (1970) formula. A convenience sampling technique was further utilized in picking the respondents. A questionnaire of five point likert scale was used in data collection. Data were analyzed using descriptive and inferential statistics via Statistical Package for Social Science (SPSS) version 23.0, while multiple regression coefficients were employed in testing the hypotheses formulated for the study. All the null hypotheses were rejected. The research therefore revealed that; a significant relationship exist between customer support and customer loyalty in the Nigerian banking industry, as well that there is a significant relationship exist between customer technology adoption and customer loyalty in the Nigerian banking industry. It was concluded that customer support and customer technology adoption have help to improved customer loyalty in the Nigerian banking industry. It was therefore recommended amongst others that, banking industry should develop their technology by making it more interactive, online banking should be made easier for customers to make use of, and that more awareness should be given to customers on the need for e-banking.

Keyword: Customer Support; Customer Technology Adoption; Customers Loyalty; Banking Industry; Nigeria.

Introduction

It is understood that the goal of any organization is to meet the needs and demands of its stakeholders. Customers are considered one of the most important stakeholders in any business because they are unlikely to succeed without them. Understanding consumer behavior can greatly help ensure effective customer profit marketing policies and ultimately promote a positive customer attitude towards the business. Especially because the customers behavioral intention is a powerful indicator of actual behavior [1].

As Ignou explains, with the advent of recent technologies, the ever-evolving behavior of customers in 2020 has dramatically changed the needs, preferences, requirements and expectations of all industries exponentially. Banks are no exception. Today's customers want first-class services from financial institutions and service providers, including uninterrupted and seamless access to their bank accounts. In the wave of online shopping, payment is the focus of all activities that customers seek a seamless experience, from e-commerce beginners to online shopping. New trends

in the Internet of Things, cloud computing, biometrics, ubiquitous artificial intelligence, and machine learning. Affects how customers interact with service providers [2].

Effective e-service excellent in banking is one of the maximum crucial approaches to maintain clients coming lower back regardless of the hurdles within side the Nigeria banking quarter. The techniques to hold clients self-belief consists of responding to clients` proceedings in a radical and well-timed way and interacting with clients through head to head meeting, telephone, mail, fax and email. This big contribution of the offerings enterprise and mainly the banking quarter in Nigeria warrant research a good way to beautify the quarter`s non-stop boom in an effort to sooner or later bring about the higher overall performance of the economy. However, it is far crucial to notice that one of the approaches through which banks can meet the expectancies in their clients who are the anchor of the banks` enterprise is through the information of the clients` behavior [3].

Statement of the Problem

Customers want efficient, fast and convenient service. Customers want a bank that meets their specific needs (personalized banking) and provides services that support their business goals, which has grown several electronic service channels and creating of digital banking platforms to serve customers better. Though digital banking platforms (for example mobile apps and software) are adopted by all banks but customers want a better interactive platforms that will make them have access to banking services 24/7 [4]. Despite the use of various electronic banking channels, the use of better interactive platform like interactive teller machines (ITM) which provides a proven efficiency alongside an improved customer service are limited. Moreover, banks customers are sometimes frustrated while expecting an immediate response to their request from the bank, this a times is as a result of network or the ineffective use of the electronic banking platform. This sometimes demeans the customers and makes them lose their loyalty to the bank [5].

Customers expect banking services that would integrate them with their real needs, so banks must ensure that they keep supporting their customers to attain their needs and goal for them to maintain their loyalty. In most cases, banks are only concerned with their own benefit in the expense of customers goal and this discourage customers from banking with such banks when they realized that their banks are not giving them the required support [6].

Research Questions

In this section of the study, the following research questions were derived;

1. To what extent does customer support influence customer loyalty in the banking industry Bauchi, Nigeria?
2. To what extent does customer technology adoption influence customer loyalty in the banking industry Bauchi, Nigeria?

Objective of the Study

This study focuses on determining the relationship between interactivity, customer support and customer technology adoption on customers loyalty in the Nigerian banking industry.

Hence, the objectives of the study are as follows:

1. To evaluate the relationship between customer support and customer loyalty in the banking industry Bauchi, Nigeria.
2. To determine the impact of customer technology adoption on customer loyalty in the banking industry Bauchi, Nigeria.

Statement of Hypotheses

Derived for the study are the following null hypotheses;

H0₁: There is no significant relationship between customer support and customer loyalty in the banking industry Bauchi, Nigeria.

H0₂: There is no significant relationship between customer technology adoption and customer loyalty in the banking industry Bauchi, Nigeria.

Related Work

The premise of e-service quality as the competitive edge in gaining market leadership has gained significant attention from both practitioners and scholars. The banking industry, in particular, recognized the need not only to attract customer but also to maintain a long-term relationship with customers in order to create a competitive edge in an ever-growing business environment[27]. This aspect of the study covers the review and discussion of published researched materials relating to e-service quality and customer loyalty. The review of literature in this study will include an emphasis on the conceptual, empirical, theoretical foundation and conceptual framework carried out on e-service quality and customer loyalty in the field of customer relationship marketing [26].

3. Theory/Calculation

This study is anchored on two theories namely; Rogers Innovation Diffusion Theory and Technology Acceptance Model (TAM)

Rogers innovation diffusion theory is one of the most popular theories for studying adoption of information technologies (IT) and understanding how IT innovations spread within and between communities. According to this theory, innovation is an idea, process, or a technology that is perceived as new or unfamiliar to individuals within a particular area or social system [7].

Technology acceptance model (TAM) is a theory majorly used in the field of information system. It focuses on modeling computer users and showing them on how they can accept and adopt a new technology. It was designed to predict the technology adoption decisions of users. Technology acceptance model is usually used to predict. It indicates that there are only two components that determine the users' acceptance of a computer system [8].

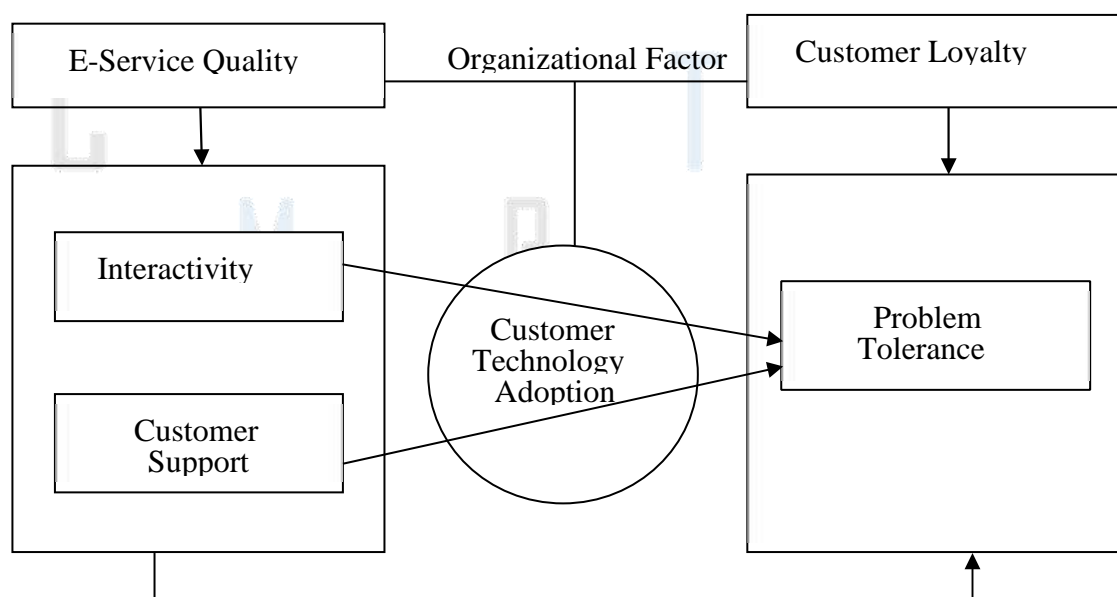


Figure 1: Conceptual Framework of e-service quality and customer loyalty of deposit money bank in Nigeria.

Source: Osagie and Geraldine, (2020).

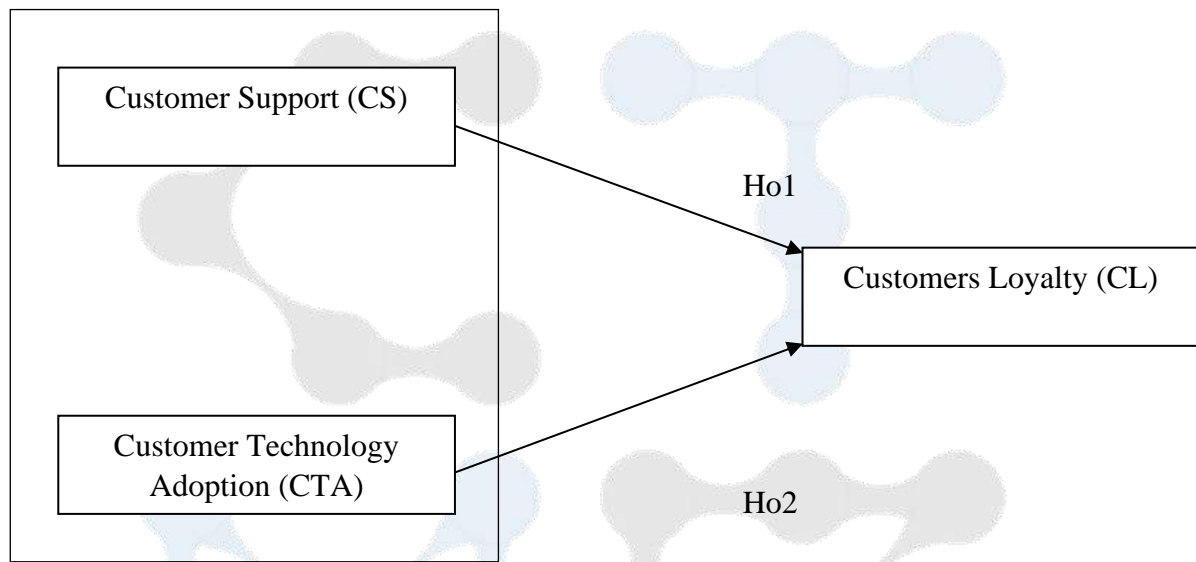


Figure 2: Conceptual Framework impact of customer support and customer technology adoption on customers loyalty in the Nigerian banking industry.

Measurement of Customer Support and Customer Technology Adoption

Customer Support

Customers are the heart of every successful business and therefore businesses need to be more concentrated on customers than more ever. Except those who donate blood voluntarily, one is either selling a service or a product for a living. Politicians, bankers, clerks, messengers, bus conductors, ticket agents, market women and everyone who provides a trade or service has a customer. According to [6], Customer support service is a series of activities designed to enhance the level of customer satisfaction, that is, the feeling that a product or service has met the customer expectation. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organizations products. In today's business world customer support has become one of significant function for every company either it is manufacturing or service based [29].

How Some of the main challenges in customer service in banking includes a poor data base, management of customers, illiteracy level of the majority of customers, lack of adequate infrastructure and technology on which customer satisfaction depends on like electricity (for ATM operations) and low level of internet penetration. The importance of technology in banking became

obvious when developed countries that had involved IT in its banking operations managed to reduce their costs of operations [4].

a. Customer Technology Adoption

Technological developments have removed repetitive, time consuming tasks, reduced human error and extended access to banking related facilities. Technology also provides customer information that it would be much more expensive to provide on a person to person basis. Telephone banking facilities allow non-cash transactions to be carried out which would have required a visit to a branch earlier [13].

Measurement of Customer Loyalty

Customer Loyalty

Customer loyalty is defined as customers repeated patronage over a certain period of time. Also defined service loyalty as the degree to which a customer exhibits repeat purchasing behavior from a service provider, possesses a positive attitudinal disposition toward the provider and considers using only this provider when a need for this service arises [14]. Customer loyalty can be defined as the closest step to the repurchasing behavior of customers. Customer loyalty has usually been referred to as a consequence of all the experiences that a customer has with a service/product provider. Customer loyalty as a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same brand or same brand set purchasing despite situation influences and marketing efforts having the potential to cause switching behaviors [5].

4. Experimental Method/Procedure/Design

The study adopted a cross-sectional survey research design because it relies on a sample of elements from the population of interest measured at a single point. The population was drawn from e-banking customers of quoted deposit money banks with international authorization in Nigeria because of their involvement in e-service banking. Although the study is for the whole banking industry, only customers of eight (8) banks with international authorization in Bauchi State, Nigeria, were adopted [15]. The period of this study was between 2021 to 2023. The target population of the bank customers under review in Bauchi state, Nigeria is over 4,000,000 [15]. Bauchi State serves as an ideal location for studying the impact of e-service quality on customer's loyalty in the Nigerian banking industry due to its geographic representation, diverse customer's base, varied banking landscape, socioeconomic factors, and potential for research generalization. Therefore, Krejcie and Morgan (1970) formula was used to determine the sample size of 384, confidence level typically allows researchers to specify a desired level of confidence, if you choose a high confidence level, such as 95% or 99%, your sample size may need to be larger to ensure that the results are significant while margin of error also plays a crucial role, if you require a smaller margin of error, your sample size will need to increase to achieve the desired precision in your estimates [3]. The source of data is primary while the instrument of the study was the questionnaire. The instrument was checked for reliability and validity. The Cronbach alpha regression coefficient is averagely 0.880 which established the internal consistency of the instrument. Four experts validated the research instrument which enabled the researchers to proceed for the main survey. Multiple regression coefficients were used in testing the hypotheses formulated for the study at 0.05 level of significance. Multiple regression coefficients

were used to test the hypotheses. The decision rule is to reject null hypothesis if the p-value is less than 0.05 whereas, if the p-value is greater than 5%, null hypothesis is supported and accepted [30].

5. Results and Discussion

The demographic information of the respondents was collected. The frequency and percentage analysis were carried out and the results presented to explore the respondents' profile. A total of Three hundred and eighty four (384) set of questionnaires were administered and three hundred and fifty-six (356) responses were received. **Gender** shows that 63.5% representing 226 respondents are male and 36.5% representing 130 respondents are female. **Marital Status** shows that 55.3% representing 197 respondents are married, while 44.7% representing 159 of the respondents are single. **Age** shows that 37.1% representing 132 respondents are 18-30 years, 37.9% representing 135 respondents are 31-40 years, 14.3% representing 51 respondents are 41-50 years, and 10.7% representing 38 respondents are above 50 yrs. **Level of Education** shows that 53.1% representing 189 respondents are First degree level of education, 5.6% representing 20 respondents Masters Level of education, 1.4% representing 5 respondents are PhD holders level of education, 39.9% representing 142 respondents are others level of education. **List of Banks with International Authorization in Nigeria** shows that 12.9% representing 46 respondents are access bank, 11.8% representing 42 respondents are fidelity bank, 12.6% representing 45 respondents are first bank, 12.1% representing 43 respondents are guaranty trust bank, 13.5% representing 48 respondents are union bank, 11.8% representing 42 respondents are united bank of Africa, while 11.8% representing 42 respondents are zenith bank.

Regression Analysis

The section captured the model summary and ANOVA of the impact of e-service quality on customer's loyalty in the Nigerian banking industry with the e-service quality provided in the Nigerian banking industry.

The table below shows the summary of the findings.

Table 6: Model Summary and ANOVA

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	F	Sig.
1	.473 ^a	.224	.215		.42764	25.339	.000 ^b

a. Dependent variable: Customer Trust

Table 6 shows the multiple linear regression analysis which was calculated to predict the impact of e-service quality on customer's loyalty in the Nigerian banking industry with the e-service quality provided in the Nigerian banking industry. The model produces R value of .473 and R square value of .224 with F statistics of 25.339 which shows a highly significant value of .000 which means that P is less than 0.05 which really means ($P < 0.0005$). This study reveal that the model as a whole predict about 47.3 percent of variance in customer trust. The table also present the goodness fit of the model which shows that the model produces a moderate R value with a P value of .000.

From the model summary, the R value 0.473 which indicate that, 47.3% of variation in the dependent variable (customer trust) is caused by the explanatory variable (customer Support and

THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

VOLUME-3, ISSUE-5

customer technology adoption) included in the mode summary. Whereas the remaining 52.7% are explain by other variable that are not included in the model but also impact the dependent variable. By implication, the model is fit for the research, since the R value is close to 1 which indicate the fitness to the model, because the result is showing that 47.3% variation in model is explain by explanatory variables

Table 7: Coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.419	.269		5.269	.000
	Customer Support	.098	.051	.104	1.933	.004
	Customer Technology Adoption	.173	.053	.172	3.231	.001

a. Dependent Variable: Customer Trust

The table 7 above shows the coefficient table for the regression model analysis. The table shows the degree of impact of e-service quality on customer's loyalty in the Nigerian banking industry. It reveals that customer support and customer technology adoption. Customer technology adoption has impact on customer trust with beta value of .172, while customer support has less impact on customer trust with beta value of .104.

Test of Hypotheses

H0₁: There is no significant relationship between customer support and customer trust in the Nigerian banking industry.

The results concerning the Beta value of customer support is 0.104 which indicate its contribution to the dependent variable customer trust with probability value showing the significant value of 0.004 is less than 0.05 therefore, the alternate hypothesis which state that, there is significant impact of customer support on customer's trust is accepted. As such the null state that there is not significant impact between customer support and customer's trust should be rejected. It can be concluded that the customer support contributed lesser contribution to the customer trust.

H0₂: There is no significant relationship between customer technology adoptions on customer trust in the Nigerian banking industry.

Similarly, the results concerning the Beta value representing customer technology adoption is 0.172, which indicate high contribution to the dependent variable customer trust which is 0.001, is less than the P value 0.05. Therefore, the alternative hypothesis was accepted and null hypothesis that state that there is not significant impact between customer technology adoption and customer trust should be rejected. It is concluded that, customer technology adoption has significant impact on customer's trust in Nigeria. In view of the findings, it can be said that hypothesis number three, which initially stated that the customer technology adoption has no impact on customer's trust is hereby rejected.

Discussion of Results

The findings were discussed based on the order of the research questions as follows.

As observed from Table 6 and 7, the findings reveal positive and significant R value statistics at 5% levels of significance in all the models, this indicates that the models are statistically fit to predict customer's loyalty in the Nigerian banking industry by technology. Meaning that, the variables used in the study are appropriate to predict the dependent variable. Furthermore, technology indicators explained 47.3% of the variation in the models. Looking at the contribution of each of the e-service quality indicator in the model.

The finding shows that customer support has a positive impact but statistically significant influence on customer trust with coefficients value of 0.104 and probability value of 0.004, which is below the 5% level of significance. The results are not in accordance with what was earlier expected going by the hypotheses statement in chapter one. This finding is in line with the results of [18], [19], [20] and [3], who discovered that customer support, has a positive significant influence on customer trust. This observation disagrees with the study of [22], [33] and [21].

The findings also showed that customer technology adoption has a positive and significant influence on the customer trust in the Nigerian banking industry where the customer loyalty measured by customer trust for the study period. This is because the probability values for depicted in table under the robust standard error are all less than 5% level of significance, as can be seen 0.001. The result is agreement with the prior studies such as [23], [24], Osagie & [3], that found a positive significant influence of customer trust. The results are not in accordance with what was earlier expected going by the hypotheses statement in chapter one. The result is in disagreement with the prior studies such as [25] in their study.

6. Conclusion and Future Scope

This research was conducted to investigate the impact of e-service quality on customer's loyalty in the Nigerian banking industry. The study is divided into five (5) chapters. The first chapter discussed the background issues which led to developing three (3) objectives and formulating three (3) hypotheses for the research with a scope covering 2021 to 2023. The review of literature on the impact of e-service quality on customer's loyalty in the Nigerian banking industry was carried out. The result of the descriptive statistics and inferential statistics were presented, analyzed and discussed in chapter four.

Conclusion

It can be concluded that the customer support contributed lesser contribution to the customer trust. The results are not in accordance with what was earlier expected going by the hypothesis statement in chapter one.

Finally, it is concluded that, customer technology adoption has significant impact on customer's trust in Nigeria. In view of the findings, it can be said that hypothesis number three, which initially stated that the customer technology adoption has no impact on customer's trust is hereby rejected. This implies that, the finding contradicts the null hypothesis earlier stated in chapter one, in this case, the null hypothesis is rejected.

Recommendations

In line with the findings of the study, the following recommendations are made:

1. Online banking should be made easier for customers to make use of, and that more awareness should be given to customers on the need for e-banking.
2. Banks should work towards getting customers maximum trust through electronic service delivery as this will help to get customer trust and loyalty.

Suggested Areas for further research

The following research areas are hereby recommended:

i. The study covered only banks with international authorization in Nigeria for the period of 2021 to 2023. Therefore, there is need for further research using other banks and more period coverage in Nigeria.

ii. Researchers in the area can carry out similar studies using other customers loyalty measures such as commitment as their dependent variables to assist in providing a clear guidance to the Nigerian banking industry in providing appropriate e-service quality that could optimize the value of a bank as most of the previous studies have been based on evidence from foreign countries.

iii. There is need to expand the scope of this study in future research to cover other geographical zones in Nigeria in order to broaden the frontier of knowledge since the survey was done in Bauchi state of Nigeria.

Contribution to knowledge

The findings of the study have theoretical framework, practical, policy and managerial implications. The strong significant contributions of the study constructs have provided an opportunity for proper decisions making by the bank executives and managers. It would enable the managers to make strategies policies for better customers' loyalty. Practitioners and other stakeholders will use the findings from this study to communicate the benefits associated e-service quality for improved customer loyalty and patronage.

Conflict of Interest

This distinct replica has not been distributed and is not being considered for publication elsewhere. As a result, there are no conflicts of interest to disclose.

Funding Source

This study received no external funding.

Authors' Contributions Statement: The author contributed to this inquire approximately work. They all examined and confirmed the extreme adjustment of the first duplicate.

Acknowledgments

I thank and give all the glory to God. I also acknowledged and expressed a propound gratitude to the entire staffs of Accounting and Finance, Management Sciences, ATBU, Bauchi and my family for their encouragement toward the success of this study.

References

- [1] Kumari, K., & Yadav, S., "Linear regression analysis study", *International Journal of the practice of Cardiovascular Sciences*, Vol.4, Issue.1, pp. 33-42, 2018.
- [2] Central Bank of Nigeria, "Annual report and financial statements for the year ended 31st December 2018", *Journal of Management and Sustainability*, Vol.2, Issue.3, pp. 25-33, 2018.
- [3] Bouchrika I., "Types of Research Design: Perspective and Methodological Approaches", *International Journal of Management and Sustainability research*, Vol.4, Issue.2, pp. 52-63, 2014.
- [4] Laforet, S., & Li, X., "Consumers' attitudes towards online and mobile banking in China" *International Journal of Bank Marketing*, Vol.23, Issue.5, pp. 362-380, 2015.
- [5] Uwabor O. L., & Ugwuonah G., "E-service quality and customer loyalty in deposit money banks in Nigeria", *European Journal of Business and Management*, Vol.12, Issue.21, pp. 2222-2839, 2020.

VOLUME-3, ISSUE-5

- [6] Ignou, S., "E-service quality in banking industry-A review", *Global Journal of Enterprise Information System*, Vol.12, Issue.12, pp. 0975-1432, 2020.
- [7] Osagie L. U., & Geraldine U., "E-service quality and customer loyalty in deposit money banks in Nigeria", *European Journal of Business Management*, Vol.12, Issue.21, pp. 2222-2839, 2020.
- [8] David, A., "Problems affecting digital banking in Nigeria", *Journal of Asia Pacific Management Review*, Vol.6, Issue.1, pp. 34-40, 2018.
- [9] Farrell, S., "Key benefits of interactive teller machines", *European Journal of Business and Management*, Vol.4, Issue.18, pp. 127-137, 2019.
- [10] Anton, J., "Customer relationship management: Making hard decisions with soft numbers, Upper Saddle River, Prentice-Hall" *Journal of management sciences*, Vol.13, Issue.9, pp. 30-43, 2017.
- [11] Fornell, C., "A national customer satisfaction barometer: The Swedish experience". *International Journal of Marketing*, Vol.10, Issue.9, pp. 56-62, 2019.
- [12] Central Bank of Nigeria, "List of deposit money banks and financial holding companies operating in Nigeria" *International Journal of Management Information Development Studies*, Vol.3, Issue.3, pp. 403-423, 2017.
- [13] Okafor, E. E., "Reforms in the Nigerian Banking Sector and Strategies for Managing Human Resources Challenges", *European Journal of Business and Management*, Vol.5, Issue.18, pp. 127-137, 2013.
- [14] Masika, E. J., "Effect of service quality management and customer loyalty on customer loyalty", A case of NSSF, Tanga City. MBA Dissertation, Mzumbe University. pp. 1-98, 2018.
- [15] Uwabor, O., L. Anetoh, J., C. Ugwuonah, G., E. & Ezenta, O., N., "E-Service Quality and Customer Satisfaction in Deposit Money Banks", *International Journal of Marketing and Communication Studies*, Vol.5, Issue.1, pp. 2695-2173, 2021.
- [16] Bowen, J. T., & Chen, S. L., "The relationship between customer loyalty and customer satisfaction", *International Journal of Contemporary Hospitality Management*, Vol.13, Issue.5, pp. 213-219, 2021.
- [17] Shih, Y., & Fang, K., "The use of the decomposed theory of planned behaviour to study internet banking in Taiwan", *Internet Research Electronic Network Application Policy*, Vol.14, Issue.3, pp. 213-223, 2017.
- [18] Bevans, R., "An introduction of multiple linear regressions", *International Journal of Information Development*, Vol.33, Issue.3, pp. 30-44, 2016.
- [19] Zairi, A., "Global benchmarking for internet and E-commerce applications" *Journal of Information Development*, Vol.33, Issue.3, pp. 303-323, 2018.
- [20] Uwabor, O., L. Anetoh, J., C. Ugwuonah, G., E. & Ezenta, O., N., "E-Service Quality and Customer Satisfaction in Deposit Money Banks", *International Journal of Marketing and Communication Studies*, Vol.5, Issue.1, pp. 2695-2173, 2021.
- [21] Shih, Y., & Fang, K., "The use of the decomposed theory of planned behaviour to study internet banking in Taiwan", *Internet Research Electronic Network Application Policy*, Vol.14, Issue.3, pp. 213-223, 2017.