

## **Central Bank of Nigeria's Cashless Policy and Fintech: Implications for Customer's Satisfaction in Nigeria**

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### **Abstract**

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This study examines if cashless policy has enhanced customer's satisfaction over the years of implementation. Questionnaires were administered to selected bankers and bank customers in FCT and Kaduna states of Nigeria to find perceptions of the two stakeholder groups regarding the subject matter. Three hypotheses formulated were tested using ANOVA. The paper reveals that the cashless banking initiative in Nigeria has significantly enhanced bank customer satisfaction; the implementation of the cashless banking structure in Nigeria has not led to a significant reduction in the level of cash fraud in Nigerian banks; and the adoption of a cashless economy practice in Nigeria has significantly improved the management of bank customer funds in terms of spending and saving. The paper, in particular, recommends that bank regulators constantly and widely cooperate with all key stakeholders in the system in the fight against cybercrime. This will make the electronic space safe and reliable for use in doing banking in Nigeria and beyond.

**Keywords:** *Cashless banking, Customer satisfaction, Payment channels, Fraud, Fund management*

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### **Background to the Study**

Nigerian banks are becoming total or partial automated in their operations and services to customers with the use of Fintech which became a necessity with the Central Bank of Nigeria introduction of cashless policy among others as part of the reforms of banks in Nigeria. A cashless economy means financial transactions electronically from anywhere with ease, without a visit to a physical bank hall all year round. Banks particularly, are very much concerned with cost and operational efficiency, given the struggle for a larger market share and broad asset base by the banks in the economy, the struggle resulting from keen competition among the banks. The struggle is very crucial at this time due to the low deposit inflow to banks because of the low-interest rates accruing to deposits and the single treasure account operate by federal government of Nigeria denied government savings. Fintech seems to have demonstrated that tussle for customers alone cannot sustain operational efficiency and guaranty customer's satisfaction for increase financial performance since the bottom line is profit, hence Fintech which has cost reduction as is advantage most not be a stand-alone, banks most rise up to the challenges of power failure, inconsistency in services of the on-line connectivity, and insecurity motivated by the activities of hackers and internet fraudsters so as to create customer's satisfaction.

Addressing these issues requires a substantial financial commitment which raises the cost of operations thereby reducing profitability and leading to poor financial performance. In Nigeria, more people are getting involved in financial activities with formal financial sectors of the economy, this indicates rising financial inclusion in the country which has been described as a significant challenge in the Nigerian financial sector. Increase in the number of account holders, but, the number of non-active or dormant account has been on the increase too moving from 27 million in 2012 to 30 million in 2017 (CBN, 2012). This will have serious implication for the measurement of customer's satisfaction for financial inclusion. Financial inclusion has been recognized as a very important factor for electronic payment adoption. Notable, it can be central for request of electronic payment adoption in any economy. Apart from mobile banking, all other electronic payment platforms require bank account in formal financial sector for smooth transactions. Therefore, to enhance any bank competitiveness and financial inclusion, customer's satisfaction must be seen at the fourth front of management decision making, that is the motivation for the study to provide valuable insight that will assist the federal government of Nigeria, Central, and Commercial banks to help the level of success of cashless policy in Nigeria.

Thus, the expectation of this technology-driven banking is very high, including goal attainment; customer satisfaction; and improved efficiency and effectiveness of operations amongst other benefits. These advantages are revealed with a high volume of turnover leading to high profitability to the banks, meaning high financial performance. The financial performance of banks has a correlation with the economic well-being of a nation and it is a function of the advancement and development of her banking sector. The banking sector is an indispensable part of any economy mediating to provides the bulk of the money supply, facilitate the flow of credits to the real sector of the economy. Adding to benefit of cashless banking, globally, COVID-19 continues and no economy is spared from the fall-out from the

COVID-19 outbreak, which saw the whole world in lockdown and limited physical appearance at various banking halls increasing various digital transactions. The COVID-19 outbreak help reveals that the world has evolved into a global village and the banking sector is not left out. Information communication technology (ICT) has increased the expansion of the banking networks and range of the services offered. Most of the banking transactions, such as electronic payments, loans, deposits, or securities have become highly dependent on information communication technology. Information technology has influenced all works of life, changing subsistence societies into modernized societies. The expanded use of the internet and information technology leads to innovative solutions that lead to cashless banking including the use of internet banking, POS Transactions, and mobile banking, the innovation provides better customer support, helping customers adheres to the world health organization (WHO) COVID 19 protocols. Due to technological advancement, the banking sector is able to attract more and more customers towards cashless banking that reduces the customer traffic in the banking hall. Based on mention benefits, the following research questions were raised. Is there any significant positive correlation between cashless policy and quality of services provided for customers' satisfaction? Does cashless policy influence customers' satisfaction? The findings of this study may also offer valuable insight to the researchers who are likely to use this research work as reference material in developing further investigations. It is expected that the findings of this study may add to the body of the existing works of literature.

## **Literature Review**

### **Conceptual Review**

Fintech channels recognised are mobile banking, internet banking, telephone banking and Point of Sales (POS). For this study, mobile banking, internet banking, telephone banking and Point of Sales (POS) are used to obtain the level of service provided for customer satisfaction.

- a) This involves the use of the mobile phones for the settlement of financial transactions. This is more or less a fund transfer process between customers with immediate availability of funds for the beneficiary. It uses card infrastructure for the movement of payment instructions as well as secure SMS messaging for confirmation of receipts to the beneficiary. It is very popular and exciting to the customers given the low infrastructure requirements and the rapidly increasing mobile phone penetration in the country. Services covered by this product include account inquiry; funds transfer; recharge phones; changing passwords and bill payments. Even though the product is exciting most customers are yet to fully buy into it in Nigeria hence both the apex bank and other banks still have a lot to do in terms of increasing awareness of the product to the saving populace in the country.
- b) PoS or PoP merchant locations where buyers use their cards through POS in order to make payments for purchases or services instead of using raw cash. A terminal or PoS or PoP is generally referred to as the hardware and software used for check out, the equivalent of an electronic cash register. A POS manages the selling process by a salesperson accessible interface. The system allows the creation and printing of receipts. However, most of these e-payment channels require customers to have an ATM/ Debit card (Oyetade and Ofoelue, 2012).

- c) Internet banking is an online banking, involving banking transaction on the internet (www) using computer or mobile phones without visiting the banking hall. Internet banking and mobile banking do not use electronic card for executing payment and final settlement of goods and services payment over the internet between the merchant and the customers (Siyanbola, 2013). Services rendered here include; balance transfer, change of pin, authorization of inter-branch money transfer, transaction alert (withdrawal or deposit) and enquiry (Adewuyi, 2011).

### **Customer Satisfaction**

Customer satisfaction in marketing is an emotional state resulting from a customer's interactions with a service provider over time (Okoye, 2013). Customer satisfaction is an evaluation between what was received and what was expected from the Customer point of view (Gustafsson, et al, 2005). Customer satisfaction is related to service quality, making organizations to continuously improve the quality of service delivery to attract and retain existing customers. Customer satisfaction is measured by customer loyalty and customer retention.

### **Empirical Reviews**

In Olannye, et al., (2017), they examine the relationship between electronic service delivery channels and customer retention in some selected banks in Asaba Metropolis of Delta State, Nigeria. They apply correlation and multiple regression analysis on sample of 235 employees from the banks from cross sectional survey design method. It was discovered from the study that point of sales service, online banking service and mobile banking have significant relationships with customer retention in the selected banks. In another perspective, Babatunde and Salawudeen (2017), assessed impact of electronic banking on customer's satisfaction in Nigeria using both descriptive and inferential statistics analyses. The study shows that e-banking facilitated efficiency, effectiveness and productivity of the banks in the country. Again, Adam, et al., (2018) examine the impact of e-banking and customer satisfaction using regression analysis. It reveals that internet banking services have a positive impact on customer satisfaction. On part of Hussein and Elyjoy (2018), Their result negate the results of (Ekanem, et al., 2017; Sadaf and Rahela 2017; Babatunde and Salawudeen 2017; Adam, et al., 2018; Olannye, et al., (2017), as they confirm that electronic banking has significant negative affect on bank's customer's satisfaction in Kenya banking industry due to high cost associated with cashless policy services. They use structured questionnaires on 56 employees of the commercial banks. Correlation and regression. Again, Iluno and Yakubu (2017), utilized both descriptive and regression analysis to examine the connection between E-commerce and customer satisfaction in Kaduna State Metropolis. They state that internet unreliability, inefficiency and security in the selected banks brought about a significant negative impact on customer satisfaction. Iluno, Farouk and Saheed (2018), focused their study in Kaduna state by investigating the impact of electronic banking on customers' satisfaction with the application of both quantitative and qualitative methods. It was discovered from the paper that electronic banking services and electronic banking products have a significant negative impact on the satisfaction of the customers of the banks in Kaduna State, Nigeria. However, the reviewed of the empirical literature so far established that the

studies on E-banking and customer's satisfaction in Nigeria are yet to reach a consensus about the nature of the relationship that exists between these variables. Hence, the relevance of this study.

**Methodology**

This study uses survey research design as it helps collect various views of the respondents on cashless policy and customer satisfaction in the Nigerian banking industry through questionnaire administration.

**Population of the Study and Sampling Techniques**

The target population of the study was all commercial banks adopting cashless policy in Nigeria. However, to conduct the study, commercial banks operating in Nigeria, have no complete data related with cashless policy service before 2015 especially data related with mobile banking service. Therefore, banks with organized cashless policy service report to CBN since 2015 are selected. Due to this reason, only about 11 banks from twenty-two commercial banks operating in Nigeria as at 2012 selected, the study used the Taro Yammane's formula to select given as:

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

Where:

- n*; is the sample size,
- e*; the level of significance
- N*; is the population which is 11 banks.

Using the formula, that is,  $n = \frac{11}{1+11(0.05^2)} = 10$

The selected banks were: Commercial bank of Nigeria, Access bank PLC, Eco Bank PLC, First City Monument Bank PLC, Union Bank PLC, United Bank of Africa (UBA), Fidelity bank, Stanbic IBTC Bank, Guaranty Trust Bank PLC, First Bank PLC and Zenith Bank PLC. Further, random sampling method was used to select a total of 306 customers from the ten (10) commercial banks in Abuja and Kaduna metropolis. Five questions were designed on each of the variable to help retired customer's responses using five point Likert Scale: Strongly Agree 5, Agree 4, Undecided 3, Disagree 2 and Strongly Disagree 1. The service of two research assistants was use to administered the instrument on respondents the process help data collection. The independent variable (cashless policy) was proxy with Point of Sales (POS) terminal, mobile banking and internet banking while the dependent variable (customer satisfaction) is measured using customer loyalty and customer retention as proxy. Data collected for the study was presented and analysed using Statistical Package for Social Sciences (SPSS 20) and the formulated hypotheses are tested using multiple regression analysis at 0.05 % level of significance. Brooks (2008) states the general multivariate regression model with K independent variables as:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki} + \varepsilon_i \quad (i = 1, 2, 3, \dots, n)$$

Where:

Y is the observation of the dependent variable  
 $X_1, \dots, X_{ki}$  are the observation of the independent variables;  
 $\beta_0, \dots, \beta_k$  are the regression coefficients;  
 $\varepsilon_i$  is the  $i$ th observation of the stochastic error term; and  
n is the number of observations.

Hence, the impact of cashless policy on customer satisfaction of can be modelled as:

$$CS = \beta_0 + \beta_1 POS_{i,t} + \beta_2 MOB_{i,t} + \beta_3 INTB_{i,t} + \epsilon_{i,t}$$

Where:

CS = Customers Satisfaction  
MB = Mobile Banking  
INTB = Internets Banking  
 $\beta_0$  = Constant term  
 $\beta_{1,2,3, \dots, 8}$  are parameters to be estimated  
 $\epsilon$  = is the error component for Bank  $i$  at time  $t$  assumed to have mean zero  $E[\epsilon_{i,t}] = 0$   
 $i$  = commercial banks  $i = 1 \dots 10$ ; and

$\beta_0$  and  $\mu$  are the constant and error term respectively.  $\beta_1, \beta_2,$  and  $\beta_3,$  are the coefficient of cashless policy on the customer satisfaction commercial banks in Nigeria. Apriori expectations are  $\beta_1$  to  $\beta_3 > 0$ . This implies the independent variables are expected to relate to the proxies for the dependent variables in the construct under the period observed

### Validity of the Instrument

Validity of the instrument is measure with factor analysis technique. Table 1 reveal that the Kaiser-Mayer-Olkin (KMO) test was 0.822, greater than the standard value of 0.60. The test reveals dispersion (normality) and the adequacy of the items measure in the factor analysis test. Bartlett's Test of Sphericity in Table 1 reveals significant level (significant at  $p < 0.05$ ), meaning the sample were adequate for factor analysis test. Measure of Sampling Adequacy (MSA) in Table 1 and the result of the anti-image correlation matrix are greater than the level of 0.50. Thus, factor analysis has shown that the 20 items used are significant for the analysis, all the items fulfilled the required conditions. The results of three tests (KMO, Bartlett's Test of Sphericity, and MSA) allowed factor analysis testing to be carried out.

**Table 1:** KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.822
Bartlett's Test of Sphericity	Df	20
	sig	.000

**Source:** SPSS 20

### Reliability of Instrument

Brooks, (2008) states to ensure consistency of the measurement instrument for reliability Cronbach's alpha is useful. To establish reliability, response to each of the statements were set on a 5 point Likert scale. A pilot study was conducted on fifty (50) respondents who are customers of other commercial banks in Abuja and Kaduna metropolis to test reliability of the instrument before it was used for final survey. Result of the reliability test in Table 2 indicates that all the constructs were consistent since they are above 0.70 threshold.

**Table 2:** Reliability Test

Variable	Cronbach's Alpha	Number of Items
Customer Satisfaction	0.798	10
POS	0.753	10
Mobile Banking	0.816	10
Internet Banking	0.836	10
Overall Reliability	0.813	40

**Source:** SPSS 20

### Discussion

The results in Table 3 reveals that the VIF value for all the estimated parameters were less than 4 and the tolerance values are more than 0.2 negating the rule of thumb meaning absence of multicollinearity among the independent variables of the study (POS, mobile banking and internet banking). This mean that each independent variables causes significant variation in the dependent variable and all the independent variables need to be included in the prediction model.

**Table 3:** Multicollinearity Test

	Multicollinearity Statistics	
	Tolerance	VIF
POS	.696	1.466
Mobile Banking	.731	1.420
Internet Banking	.946	1.111

**Source:** SPSS 20

The estimated model result reveal in Table 4 has  $R^2$  value of .816, meaning 81.6 % of the variation in the dependent variable is explained by the independent variables and other variables not included the model explained 19.4% variation in the model. Implying that the model has strong fit for prediction. Again, the R-value of .912 reveals high significant positive correlation between the dependent variable (customer satisfaction) and all independent variables. Furthermore, Durbin Watson (DW) test indicates minimal autocorrelation less than two with no effect on model output (DW value = 1.666). Using the rule of thumb of the variance inflation factor to interpret broad application is strictly accurate or reliable in every situation.

**Table 4:** Model Results

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of the Estimate	DW
1	.912 <sup>a</sup>	.816	.812	.38810	1.666

a. Predictors: (Constant), Internet banking, Mobile banking, POS b. Dependent variable: Customer Satisfaction

**Source:** SPSS 20

The post estimation test of ANOVA (F test) in Table 5 reveals the model has goodness of fit since none of the parameters was equal to zero and significant (F = 28.102,  $\rho < 0.05$ ). This result implies that the regression model is statistically significant, valid, and fit.

**Table 5:** Analysis of Variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	222.556	6	47.405	280.486	.000 <sup>b</sup>
Residual	82.583	606	.181		
Total	310.005	610			

**Source:** SPSS 20

The coefficient of regression in Table 6 indicates the result of the variables as follows: POS (t= 2.246, p=.112 > .05); Mobile Banking (t= 32.812, p = .000 < .05) and Internet Banking (t= 4.126, p = .000 < .05). The result showed that there is decrease in customer satisfaction by .022 as a result of POS while an increase in mobile banking will affect customer satisfaction by 72.6 % and an increase in use of internet banking leads to 33.7 % increase in customer satisfaction. The result further shows that mobile banking has a more significant effect on customers of commercial banks in Nigeria.

**Table 6** Regression Model

	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	t
(Constant)	.213	.127		1.671
POS	.022	.024	.012	2.246
Mobile Banking	.726	.035	.757	32.812
Internet Banking	.337	.033	.129	4.126

**Source:** SPSS 20

The result in Table 6 reveal that POS did not meet the a-priori expectations of significant positive effect on customer satisfaction in the Nigerian banking industry since the P-value is greater than 0.05 significant level, but, the MB and INTB meet the a-priori expectations of significant positive effect on customer satisfaction in the Nigerian banking industry since the P-value is less than 0.05 significant level.



**Table 7: Summary of Hypotheses Testing**

Hypothesis	Formulated	Result	Decision
H0 <sub>1</sub> :	POS do not have significant impact on customer satisfaction in Nigerian banking industry	.112 > .05	Accepted
H0 <sub>2</sub> :	Mobile banking does not have significant impact on customer satisfaction in Nigerian banking industry	0.000 < 0.05	Rejected
H0 <sub>3</sub> :	Internet banking do not have significant effect on customer satisfaction in Nigerian banking industry	0.000 < 0.05	Rejected

### **Findings of the Study**

The main purpose of the study is to examine the impact of cashless policy on customer satisfaction of commercial banks in Nigeria. The findings of the study showed that mobile banking and internet banking were the significant drivers of customer satisfaction of commercial banks in Nigeria. The findings agree with the study of Zainab, et al., (2019); Sujud and Hashem (2017); and Elias Girma (2019), that increased in MB enhanced customer satisfaction. The relationship was positive as expected and this positive relationship among MB, INTB and CS could be attributed to the fact that mobile banking can make basic financial services more accessible by minimizing time and distance to the nearest retail bank branches (Elias Girma (2019). While, POS do not have significant impact on customer satisfaction in Nigerian banking industry these maybe due high charges on the part POS operators in Nigeria, again, customers are not aware of the product and price so do not make usage of it in the banking industry as expected. The result on POS agrees with the study of Yaqub et al., (2013) the study concluded that despite benefits accrued to cashless banking there is need to create more awareness on usage of the products.

### **Conclusion and Recommendations**

The motivation of the cashless policy by the government was to reduce the use of cash in the country, increased tax collections, and ensures greater financial inclusion through customer satisfaction, on the part of commercial banks, it is expected to lower the operational cost and increase banks profitability. The findings of the study showed that mobile banking and internet banking were the significant drivers of customer satisfaction commercial banks in Nigeria. Hence, focusing and taking the necessary action on these indicators could further enhance customer satisfaction of commercial banks in Nigeria. Nevertheless, the much-anticipated benefits to the customers, economy and commercial banks have not been realized as such the study makes the following recommendations:

1. Mobile-Banking is one of the biggest social changes being witnessed by the current generation. It has eventually affected the modes of trade and payment systems keeping in mind the convenience, demands, and lifestyle of the current generation. However, the concept of mobile banking is still in the infant stage and yet unable to explore its potential in order to increase the customer satisfaction and financial performance of commercial banks in Nigeria. Thus, commercial banks should focus on communicating information that emphasises the relative advantage and usefulness of mobile banking compared to traditional banking of cash economy and should encourage their customers to transact via mobile banking in order to maximise the full effect of these innovations.

2. It is evident that the increase of the regularity of mobile users is cumulating at a very high speed but the regularity of bank account holders is very less. Therefore, mobile banking is a new technological platform for banks to increase financial inclusion. So, it is recommended that commercial banks should keep adopting and using mobile banking in their operations aggressively as a way of moving to a cashless economy which is a key driver towards achieving economic growth of a country because the number of people with access to a mobile handset is increasing every day.

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