



## Effect of Commercial Banks Charges on Customer Savings in Nigeria

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**Abstract.** This study examined the effect of commercial banks charges on customer savings in Nigeria within the period of 2006 to 2021 and the objectives are to ascertain the relationship between commercial banks SMS charges and customer savings, to evaluate the relationship between commercial banks ATM charges and customer savings, to critically access the relationship between commercial banks account maintenance charges and customer savings. The study made use of secondary data and the data gathered were analysed using e-views Statistical Package. The findings revealed that Commercial Bank SMS charges has a significant effect on Customer's savings, commercial banks ATM charges has a significant and positive relationship with commercial bank customer's savings, commercial banks account maintenance charges do not have a significant influence on customer's savings. The study therefore recommends that regulatory institutions, especially Central bank of Nigeria should intensify in monitoring of deposit money banks in the area of compliance with the extant rules and regulations about bank charges.

**Keywords:** Commercial Banks, Customer Savings, Intermediation, SMS Charges, ATM Charges, Account Maintenance Charges, Investment.

### 1. Introduction

Savings and investment are two major intermediate macroeconomic variables with a microeconomics foundation that plays a significant role in household income, price stability, employment generation, and ultimately sustainable growth. The insufficiency of domestic resources in developing countries is a common problem inhibiting domestic investment and

economic growth. While most developing countries' policymakers make an effort to attract foreign savings through unrestricted financial inflow, foreign capital's volatile nature has become an issue of concern for such policy. Pravakar and Ranjan (2013) have argued that domestic saving mobilization has remained a significant source of investment and income for developing countries. To this end, commercial banks or Other Depository Corporations (ODCs) are saddled with the responsibility of financial intermediation, which involves mobilizing funds from the surplus units (the savers) to the deficit units - the borrowers. Savings is the proportion of income not spent. Theoretically, saving is equal to investment; therefore, the amount of savings in a certain economy must be relatively high to facilitate investment. (Olusoji, 2003). And to efficiently mobilize savings, there must be substantial development in the financial sector and an increase in the populace's savings culture. Given the importance of savings to the growth and development of investment and employment generation, there is no gainsaying that there must be a saving culture among the populace for any nation to achieve substantial growth. (Olusoji, 2003). One of the hindrances to savings culture among the populace, as identified in the literature, is high and excess commercial bank charges on their customers. It is believed that high commercial bank charges erode the customers' income and discourages the customers from participating in the financial sector and save especially the operators of the informal economy (Tonuchi, 2020). The high commercial bank charges are one of the major causes of poverty (by inhibiting savings and investment), which leads to the downturn of economic activities.

Over the years, there have been various complaints by Nigerian commercial bank customers on indiscriminate and excessive bank charges on their banks' accounts. (Oladeinde, 2019). reported that such excess and indiscriminate charges on bank customers such as withdrawal limits discourages commercial bank customers from accessing banking services especially people within informal sector and low income earners. These ugly situations have led to the closure/dormant operations of many accounts in Nigeria. (Oladeinde, 2019). Olufemi (2018) shared a similar view when the author argued that most commercial bank customers took to social media to declare that they are either closing their bank account or switching to another commercial bank primarily due to excess or unexplained charges. Some informal sector participants noted that they decline to have a formal bank account or have closed their bank account because of banks' high charges without adequate services. Despite the social media protest in 2017-2019, indiscriminate bank charges continued in Nigeria commercial banks (Nimot, 2020). This reinvigorates the slogan, "end excess bank charges," in 2020 at the heat of the coronavirus when some commercial bank customers took to social media to complain of excessive banks' charges. According to Nimot (2020), commercial bank customers expressed their disappointment and grievances towards Nigerian banks over excessive and repeated, and doubled charges deducted from their savings accounts. Given the importance of customers' savings on investment and economic growth and continuous trust in the financial system to handle their finance, policymakers like the Nigeria Senate has overtime waded into the issue (Chidi, 2020). The Nigeria senate noted that such indiscriminate and excessive charge on financial institution customers might hinder the country's financial inclusion strategy that is making significant progress. As such, the chamber set a panel to investigate the issue (Chidi, 2020). The Nigeria Senate is not the only key stakeholder that has made a significant effort to address the situation. The Central Bank of Nigeria, the major regulator of a financial institution in Nigeria, has over the years developed policies and guidelines to curtail excessive commercial bank charges in response to complaints by the customers.

The significance of the capital market, especially commercial banks as agents of intermediation cannot be over emphasized. As critical role-players in the economy, they mobilize deposits from surplus units and lend to deficit units. They attract deposits at lower cost and lend at a premium in order to advance their profit motives. In the process, they contribute to the development of the economy as they facilitate the

national payment system, advance loans to major economic players who then use the funds for infrastructure development, for job creation and other economic activities that benefit the society at large. As business units, commercial banks are also expected to grow their profits consistently as the investors into these banks look for higher returns on their investments. Despite the good aspect of commercial banks in Nigeria, bank charges by commercial banks reduce the level of customer savings in Nigeria. These charges may take many forms including but not limited to monthly charges for the provision of an account, charges for a specific transaction (other than overdraft limit excesses), interest in respect of overdrafts (whether authorized or unauthorized by the bank) and charges for exceeding authorized overdraft limits, or making payments (or attempting to make payments) where no authorized overdrafts exists. It is very obvious the way commercial bank customers in Nigeria are switching from one bank to the other seeking for a bank with lower bank charges. Commercial Bank charges in Nigeria have left Nigerians unsatisfied with the services offered. However, the high level of illiteracy among Nigerians contributes to the bank charges meted on them. In the sense that, Nigerians unknowingly accept to some terms without a clear understanding of its implication. For instance, some commercial bank customers subscribe for some alerts (credit, debit and ATM alerts) without the knowledge that it will be deducted from their accounts. In addition, customers are not well enlightened about the services of the bank and what follows, and this poses a problem at the end of the day. Evidence suggests that the introduction of commercial banks charges has led to banks losing patronage to and the emergence of non banking sector financial institutions. This has put pressure on commercial banks to review their bank charges downwards as they are perceived as being steep by a number of constituencies within the South African economy. Growing consumerism, the enactment of new legislation in support of the consumer and intense pressure from other stake holders mean that the issue of bank charges and their impact on relationships and on the role of banks as intermediators can no longer be ignored. This paper investigates the impact of commercial bank charges on the relationship of banks and their clients. Commercial Banks are an important component of any economy. According to Mayer et al. (1981) banks "our most important institutions as they create the bulk of our money stock and have such a wide range of activities; they are department stores of financial finance" (Mayer et al., 1981), and therefore play a major role in lives. The behavior of commercial banks is relevant for monetary policy

which in turn has an influence on the performance of the economy and an indirect influence on lives. At personal level the public may be affected by the behavior of banks in one way or another as either, borrowers, depositors or consumers of other banking services. In the realm of financial intermediation, Diamond (1984) postulates that banks play a special role of providing liquidity and financing investment projects of borrowers which capital markets would not be able to do efficiently. It is in this respect that banks are therefore regarded as the primary conduit between savers and borrowers for intermediation purposes and as such, this study tends to investigate whether commercial bank charges, based on customers' perceptions, are a key determinant to the rate of savings.

The main objective of this study is to investigate the effect of commercial bank charges on customer's savings in Nigeria. Specifically, the study aimed to ascertain the relationship between commercial banks SMS charges and customer savings, the study aimed to evaluate the relationship between commercial banks ATM charges and customer savings, also, the study intend to critically access the relationship between commercial banks account maintenance charges and customer savings. Questions that have been formulated to guide this study state that; what are the Relationship between commercial banks SMS charges and customer savings? What are the Relationship between commercial banks ATM charges and customer savings? What are the Relationship between commercial banks account maintenance charges and customer savings? The hypotheses of this study is stated in a null form and it states that is no significant relationship between commercial banks SMS charges and customer savings, there is no significant relationship between commercial banks ATM charges and customer savings, there is no significant relationship between commercial banks account maintenance charges and customer savings.

This research is highly essential because it will be extremely useful for policy makers, especially those involved in the development of Nigeria's economic program. This will help raise the awareness of the masses about the different commercial bank charges and the reasons for these fees and help the public to identify unfair fees. This will help them to choose the appropriate policy in the area of macroeconomic policy management, especially those that have an impact on savings in Nigeria. In addition, the results and suggestions of this research work will create greater awareness in the financial sector or sectors to appreciate the impact of the Confederation.

Government of Nigeria, through the Central Bank of Nigeria and the Federal Ministry of Finance, to improve its policy, which had an impact on the savings achieved in recent years. Finally, this study will contribute modestly to broadening students' knowledge of the practical and real situation of theories they learn in the classroom.

## 2. Literature Review

### 2.1 Commercial Bank Charges in Nigeria

Banks performs traditional financial intermediation functions through acceptance of deposits from surplus unit of financial market; by offering deposit products such as current, savings and other modified deposit acceptance products and supply of funds to the deficit unit of financial market, by offering loan products such as long, medium and short-term (e.g. Overdraft credit) loans. Beyond the traditional products, banks offer other products such as buying and selling of foreign exchange for customers, electronic banking (electronic fund transfer, Internet banking, mobile telephone banking, etc), revenue collection services, Automatic Teller Machine (ATM) service and other non-core banking services, such as business advisory service. All these products are offered by banks to satisfy their various customers and at regulated costs. Since banking business, being profit-oriented one, banks are allowed to take charges in form of fees, interests and commissions for the services rendered to the customers. These charges are regulated by the Central Bank of Nigeria, being the authorised regulating institution.

The policy document tagged "Guide to Charges by Banks and Other Financial Institutions" provides a basis for the application of charges on various products and services offered by banks and Other Financial Institutions (OFIs) in Nigeria to their customers. The affected banks and other financial institutions are all categories of banks and other financial institutions in Nigeria supervised by CBN (Central Bank of Nigeria, 2017).

Commercial Bank charges are classified mainly by the document into the following categories along the lines of services or products offered to customers:

**i. Interest charges:** these include interest on loan, overdrafts and other credit facilities. It also includes interest payable on deposit and other investments. The document stipulates some interest charges and payments as negotiable, the CBN therefore, provides thus; "Where a charge is stipulated as "negotiable",

banks and OFIs are required to draw the attention of customers to their rights to negotiate and the two parties are required to mutually agree on the applicable interest and/or charge via a verifiable means". In this wise, the interests of commercial bank's customers are provided for. However, the question is whether customers take advantage of this provision when dealing with their banks.

**ii. Fees, commissions and discounts:** these include fee income related to credits and advances ( e.g management, advisory and other credit-related fees), issuance of bonds, fees and charges from international trade services., commissions on foreign exchange transactions, discounts on bills and other treasury services, and

**iii. Other Bank Charges:** These days due to the level of customers' sophistication and increased demands for advanced services facilitated by modern technologies, demands for quick service delivery and ease of access to banks' services, banks are deploying various technology-driven and specialized services to meet these and other customers' expectations.

## 2.2 Savings and Savings Mobilization

Savings is an attitude of refraining from consumption or what may be called a deferred consumption; they may be in cash or physical products which may have been set aside for future use. Therefore, savings mobilization is a way to keep some money or physical product to generate investment opportunities (Mpuga, 1999). According to Keynes, it is the left over when the cost of a person's consumer expenditure is subtracted from his amount of income.

Savings is fundamental to sustainable economic development globally. Savings are by far the most frequent source of funding to microfinance startup and expansion. They also enable households to build for the future and better prepare for unexpected emergencies. The profit from savings mobilization by Woccu credit union in Latin America has demonstrated that lower income people will substantially increase their savings deposit when provided with convenient service, market returns, and security for their savings. The millions of people throughout the region lack access to safe, reliable and comfortable savings services.

Issue of domestic savings mobilization for development purposes has been recognized by researchers. According to United Nations (1951), the primary source of increased local capital formation must be increased savings, and as such, there should be an extension of savings institutions and measures

which involve taxation and evaluating capital transfer from unproductive to productive ends. People in rural and other low-income communities need adequate guidance and encouragement before embarking on savings. In rural communities, savings are made through traditional credit rotation groups, or purchase of domestic animals (goats, pigs, chickens or cows).

Every micro-enterprise can be lifted through the inflow of capital or funds which may be owner's money or a loan. When a loan is used, it is someone else who has done the saving. Micro enterprises, like other businesses, convert savings into investment, in the generation of wealth.

## 2.3 Dual Entitlement Theory (1986)

Kahneman, Knetsch, and Thaler (1986a,b) in two influential papers proposed "dual entitlement" (DE) as the dominant norm of price fairness. They stated that buyers and sellers recognize each other's entitlement according to the terms of some reference transaction: buyers to a reference price, sellers to a reference profit. Consumers use reference price as an anchor point to evaluate own gains and losses, and they use their knowledge about the firm's reference profit to evaluate the gains and losses of the transaction counterpart. According to the DE principle, a price increase, which violates the buyer's entitlement to the reference price, will be considered acceptable only if it perceived to be necessary to protect the seller's reference profit. This implies that a price increase that increases the seller's profit beyond its reference entitlement will be deemed unfair. According to the DE principle, it is considered fair if the company completely compensates its cost increase. It is also consistent with fairness norms not to pass cost decreases to the customer since in this case, the seller's profit increases without violating the buyer's reference price entitlement. (Novoseltsev and Warlop, 2002).

The most interesting aspect of the DE principle is its claim that the seller's profit entitlement takes precedence over the buyer's price entitlement whenever both are threatened. This implies that it is consistent with community norms of fairness for cost increases to be passed on to consumers in the form of higher prices, in order to protect the seller's reference profit. Moreover, the DE principle effectively implies that the supplier is allowed to increase its profits when there are cost reductions. In other words, "it is fair for prices and profits to only ever increase because it is consistent with this norm of fairness for sellers to pass on cost increases and not cost decreases" (Kalapurakal et.al. 1991).

Several empirical works attempt to elaborate the original findings of KKT. Some research has found support for the role of reference profit in the perception of fairness (Kachelmeier et.al, 1991; Campbell 1999). Those findings report that price changes are consistently considered unfair when subjects attributed the price increase to a firm's attempt to take advantage of sudden demand increase (Kalapurakal et.al, 1991; Kachelmeier et.al. 1991; Piron and Fernandez, 1995). Campbell (1999) demonstrated that the inferred motive of the price change, as well as inferred relative profit, also provides a causal explanation of perceived price unfairness. In addition, she found that the firm's reputation can influence the inferred motive, thereby altering perceptions of price unfairness.

### 2.4 Relative Income Hypothesis

James Duesenberry developed the hypothesis in 1949. The theory states that an individual's attitude to consumption and saving is dictated more by his income in relation to the income of his counterparts living in the same environment with him. The theory stipulates that individuals are less concerned with their absolute level of consumption than with their relative level- the idea of "keeping up with the Joneses." In another way round, the hypothesis maintains that the present utilization of an individual is not influenced merely by the current levels of absolute and relative income, but also by levels of consumption attained in the past period. Once a household reaches a certain level of consumption it is challenging to reduce. The aggregate ratio of consumption to income is assumed to depend on the level of present income relative to past maximum income.

## 3. Research Design

This ex-post facto research design was adopted in this study. The nature of the study influenced the choice of design. The ex-post research design is appropriate for studies focusing on events that have already occurred and whose results cannot be influenced or controlled by the research. The design is also critical to explaining the phenomenon of possible cause and effect relationship.

### 3.1 Sources of Data Collection

This research work makes use of Secondary data analysis which was extracted from the National Bureau of Statistics and Central Bank statistical bulletin. E - Views was used to analyse the results and the multiple linear regression model was used to

present the result. The period under investigation is from 2006 – 2021 and this shows how resent the data gotten and analyzed to achieve the purpose of the study.

### 3.2 Model Estimation Techniques

The method that was used in the presentation of data in this study is regression analysis. The E-Views 10 econometric statistical software was used, containing all the necessary and important statistical techniques for data analysis. For testing the hypotheses, a regression analysis that measures the degree of effect between variables was used to analyze the annual reports' data. The model specification used was analysed starting from the descriptive analysis, the unit root test using the ADF technique to ascertain the stationarity of the data while Johansen Co-integration analysis was also employed to determine the existence of long run relationship followed by the regression result using the ordinary least square (OLS) estimation technique for multiple regression.

### 3.3 Statistical Criteria

Statistical criteria such as the t-statistics, f-statistics and coefficient of determination ( $R^2$ ) are used for evaluation.

**T-Statistics:** is used to test the significant of the variables in the model, the t-statistics can be significant or otherwise at 1 percent or 5 percent or 10 percent confidence level.

**F-Statistics:** is used to determine the overall significant of the regression model i.e. to determine the extent to which the variation in the dependent variable can be attributed to changes in the explanatory variables.

**The coefficient of determination ( $R^2$ ):** is used to determine the fitness of the model. A high coefficient of determination signifies that the regression model is statistically significant, meaning that there is high relationship between the dependent variable and independent variables.

**Durbin-watson:** is a test statistic used as a detecting mechanism for auto-correlation in the estimated parameter (or residuals i.e. predicted errors) which is a common phenomenon in most economics variables. Auto correlation is a peculiar case associated with correlation. It is the relationship between two or more different variables but between the successive values (time lags) of the variables. It was developed by Dublin and Watson (1950, 1951).

### Model Specification

The following composite model is expressed in achieving the objectives of the study;

Customer’s savings =  $f$  (Bank charges)  
 .....eq1  
 $CUS = \beta_0 + \beta_1(SMS) + \beta_2 (ATM) + \beta_3 (AMC) + \mu$   
 .....eq2

Where:  
 Customer’s savings is measured by CUS  
 Commercial Bank charges by SMS, ATM and AMC  
 Where;  
 CUS = Customer’s savings  
 SMS = Commercial Bank SMS charges  
 ATM = Commercial Bank ATM charges  
 AMC = Commercial Bank Account Maintenance charges  
 $\beta_0$ = Intercept of the slope  
 $\beta_1$ - $\beta_3$ = Coefficients of the dimensions of industrial output  
 $\mu$ = error term

The study examines the effect of commercial bank charges on customer savings in Nigeria from 2006 to

2021. The study carried out a multiple regression method of estimation. The statistical package e-view10 was used to conduct all the various analyses and tests. The first step adopted was to analyze the descriptive survey of the variables after which the stationarity test using augmented dickey fuller was performed on the variables before carrying out the regression analysis using ordinary least square.

**4. Results**

**4.1 Descriptive Statistics**

The descriptive analysis employed in this study is the summary of statistics table. This includes the mean and the standard deviation of the distribution and other summary measures of the distribution.

**Table 4.1:** Descriptive Statistics test

|              | CUS      | ATM      | AMC      | SMS      |
|--------------|----------|----------|----------|----------|
| Mean         | 3.73E+08 | 289757.7 | 25575124 | 6.02E+08 |
| Median       | 3.71E+08 | 69023.93 | 9774399. | 5.12E+08 |
| Maximum      | 6.37E+08 | 907654.6 | 70654324 | 9.80E+08 |
| Minimum      | 1.29E+08 | 59929.89 | 2276464. | 2.95E+08 |
| Std. Dev.    | 1.63E+08 | 344165.5 | 25595323 | 2.61E+08 |
| Skewness     | 0.129174 | 0.902658 | 0.799294 | 0.355304 |
| Kurtosis     | 1.936752 | 1.951043 | 1.934056 | 1.491559 |
| Jarque-Bera  | 0.798159 | 2.906318 | 2.461148 | 1.853572 |
| Probability  | 0.670937 | 0.233830 | 0.292125 | 0.395824 |
| Sum          | 5.97E+09 | 4636124. | 4.09E+08 | 9.63E+09 |
| Sum Sq. Dev. | 3.97E+17 | 1.78E+12 | 9.83E+15 | 1.02E+18 |
| Observations | 16       | 16       | 16       | 16       |

*Source: Author’s Computation 2022, using E-views10*

The table above presents the characteristics of the distribution of the variables; the test statistic measures the difference of the Skewness (coefficient of symmetry) and the Kurtosis (coefficient of flatness) of the series with those from the normal distribution. Skewness is a measure of asymmetry of the distribution of the series around its mean. The result of the skewness shows that all of the variables; (SMS) Commercial Bank SMS charges, (ATM) Commercial Bank ATM charges, (AMC) Commercial Bank Account Maintenance charges and (CUS) Customer’s savings are positively skewed, implying that those variables have long right tails. Regarding the minimum and maximum level, mean and the standard deviation of the variables, (CUS) Customer’s savings ranges from 6.37E+08 to 1.29E+08with an average value of 3.73E+08and a

standard deviation of 1.63E+08, (SMS) Commercial Bank SMS charges ranges from 2.95E+08 to 9.80E+08with an average value of 6.02E+08and a standard deviation of 2.61E+08, (ATM) Commercial Bank ATM charges also ranges from 59929.89to 907654.6with an average value of 289757.7and a standard deviation of 344165.5and finally, (AMC) Commercial Bank Account Maintenance charges ranges from 2276464 to70654324with an average value of 25575124 and a standard deviation of 25595323 . And also the Jarque-Bera statistic measures if the series is normally distributed or not and with the probability values of all the series greater than 0.05, we therefore accept the null hypothesis that the variables are normally distributed at 1%, 5% and 10%.

**Testing and Interpretation of Stationarity Tests**

The stationarity test is to test the times series variables and to affirm the stationarity level of the variables. Therefore, using non-stationary variables in the model lead to spurious regression which cannot

be used for precise prediction. Hence, our first step is to examine the characteristics of the time series data used for estimation of the model to determine whether the variables have unit roots, that is, whether it is stationary and the order of integration.

**Table 4.2:** Augmented- Dickey Fuller (ADF) Test

| VARIABLE | ADF TEST STATISTICS | CRITICAL VALUES |           |           | LEVEL OF INTEGRATION |
|----------|---------------------|-----------------|-----------|-----------|----------------------|
|          |                     | 1%              | 5%        | 10%       |                      |
| CUS      | -5.889156           | -3.033476       | -4.541245 | -3.380555 | <b>1(0)</b>          |
| SMS      | -4.070464           | -3.423637       | -3.984991 | -3.120686 | <b>1(0)</b>          |
| ATM      | -4.931737           | -3.423637       | -3.984991 | -3.120686 | <b>1(0)</b>          |
| AMC      | -3.342417           | -2.423637       | -2.984991 | -3.120686 | <b>1(0)</b>          |

Source: Author’s Computation 2022, using E-views10

The result above was used to ascertain whether mean reversion is a characteristic of each variable using Augmented Dickey-Fuller (ADF). After the Augmented Dickey-Fuller (ADF) test was conducted, It was discovered that all the variables (CUS) Customer’s savings, (SMS) Commercial Bank SMS charges, (ATM) Commercial Bank ATM charges and (AMC) Commercial Bank Account Maintenance charges were stationary at levels which implies that the variables became stationary at order I(0). The presence of stationarity in the data implies that there might be an existence of a long run relationship among the variables. And as such, the ordinary least squares method of estimation technique is used.

**Hypotheses Testing using Regression Analysis**

**Table 4.4: Regression Analysis**

Dependent Variable: CUS  
 Method: Least Squares  
 Date: 09/12/22 Time: 08:21  
 Sample: 2006 2021  
 Included observations: 16

| Variable           | Coefficient | Std. Error            | t-Statistic | Prob.    |
|--------------------|-------------|-----------------------|-------------|----------|
| ATM                | 439.1801    | 590.6450              | 2.743560    | 0.0315   |
| AMC                | -9.406847   | 11.63371              | -0.808585   | 0.4345   |
| SMS                | -0.545507   | 0.593370              | -2.919337   | 0.0260   |
| C                  | 1.58E+08    | 2.09E+08              | 0.754505    | 0.4651   |
| R-squared          | 0.833230    | Mean dependent var    |             | 3.73E+08 |
| Adjusted R-squared | 0.793462    | S.D. dependent var    |             | 1.63E+08 |
| S.E. of regression | 1.69E+08    | Akaike info criterion |             | 40.94545 |
| Sum squared resid  | 3.44E+17    | Schwarz criterion     |             | 41.13859 |
| Log likelihood     | -323.5636   | Hannan-Quinn criter.  |             | 40.95534 |
| F-statistic        | 0.614835    | Durbin-Watson stat    |             | 1.573455 |
| Prob(F-statistic)  | 0.008414    |                       |             |          |

The result above indicates the R-squared of 83.3230 percent showing that the model has a moderate coefficient of determination. The R-square reports that the variables can explain about. 83.3230 (83) percent of total variation in (CUS) Customer’s savings, a high R-squared indicates a high level of fitness as the fitness of every regression result is based on its R-squared. The Adjusted R-squared

shows that asymptotically, that the variables can explain approximately 79.3462 (80) percent of total variation. The DW statistics is used to test for the serial correlation in the residuals of the model, the calculated DW is 1.573455 which indicate a positive autocorrelation. The F-statistics shows that equation or model employed is statistically significant at a value of 0.614835 with p-value (significant F=

0.008414) which means that the relationship between (CUS) Customer's savings and the independent variables (SMS) Commercial Bank SMS charges, (ATM) Commercial Bank ATM charges and (AMC) Commercial Bank Account Maintenance charges at sig  $f < 0.0500$ ) is statistically significant.

**Hypotheses 1: There is no significant relationship between commercial banks SMS charges and customer savings.**

The result of the analysis shows a t-statistics value of -2.919337 and a p value of 0.0260 and as such, the t-statistics indicate the rate at which (SMS) Commercial Bank SMS charges has influenced the Customer's savings and a negative coefficient value and as such, the result shows that when there is increased rate of Commercial Bank SMS charges, it indirectly influences the rate of Customer's savings.

Considering the significance of the model, at 5% (0.05) significant level, and going by the rule of rejecting the null hypotheses H0 and accepting the alternate hypotheses H1. If the P value is lower than the significance level (i.e  $p < 0.05$ ), reject the null hypotheses (H0) and accept the alternative hypotheses(H1). If the p value is equal or greater than the significance level (i.e.  $> 0.05$ ) accept the null hypotheses (H0) and reject the alternative hypotheses (H1). To this end, the analysis above indicates that p-value of Commercial Bank SMS charges is less than 0.05 (i.e  $0.0260 < 0.05$ ) and therefore, we reject the null hypotheses (H0) and accept the alternate hypotheses (H1). At this juncture, the study indicates that Commercial Bank SMS charges has a significant effect on Customer's savings.

**Hypotheses 2: There is no significant relationship between commercial banks ATM charges and customer savings.**

The result of the analysis shows a t-statistics value of 2.743560 and a p value of 0.0315 and as such, the t-statistics indicate the rate at which the commercial banks ATM charges has influenced customer's savings and a positive coefficient value and as such, the result shows that when there is increased rate of commercial banks ATM charges, it positively influences customer's savings.

Considering the significance of the model, at 5% (0.05) significant level, and going by the rule of rejecting the null hypotheses H0 and accepting the alternate hypotheses H1. If the P value is lower than the significance level (i.e  $p < 0.05$ ), reject the null hypotheses (H0) and accept the alternative hypotheses(H1). If the p value is equal or greater than the significance level (i.e.  $> 0.05$ ) accept the null hypotheses (H0) and reject the alternative hypotheses(H1). To this end, the analysis above

indicates that p-value of ATM is less than 0.05 (i.e  $0.0315 < 0.05$ ) and therefore, we reject the null hypotheses (H0) and accept the alternate hypotheses (H1). At this juncture, the study indicates that commercial banks ATM charges has a significant and positive relationship with commercial bank customer's savings

**Hypotheses 3: There is no significant relationship between commercial banks account maintenance charges and customer savings.**

The result of the analysis shows a t statistics value of -0.808585 and a p value of 0.4345 the t-statistics indicate the rate at which commercial banks account maintenance charges has influenced customer's savings and a negative coefficient value and as such, the result shows that the higher the rate of commercial banks account maintenance charges, it indirectly influences the rate of customer's savings.

Considering the significance of the model, at 5% (0.05) significant level, and going by the rule of rejecting the null hypotheses H0 and accepting the alternate hypotheses H1. If the P value is lower than the significance level (i.e  $p < 0.05$ ), reject the null hypotheses (H0) and accept the alternative hypotheses(H1). If the p value is equal or greater than the significance level (i.e.  $> 0.05$ ) accept the null hypotheses (H0) and reject the alternative hypotheses (H1). To this end, the analysis above indicates that p value of AMC is greater than 0.05 (i.e  $0.4345 > 0.05$ ) and therefore, we accept the null hypotheses (H0) and reject the alternate hypotheses (H1). And as such, does not meet 1%, 5% and 10% confidence level. At this juncture, the study indicates that commercial banks account maintenance charges does not have a significant influence on customer's savings.

**5. Discussion of Finding**

The above study examined the research objectives using regression statistical analysis. The finding from the above revealed that (SMS) Commercial Bank SMS charges and (ATM) Commercial Bank ATM charges are significant with the figures -2.919337 and 2.743560 respectively with (AMC) Commercial Bank Account Maintenance charges not being significant with figure -0.808585. And the result indicate that an indirect relationship exists between the dependent variable Customer's savings (CUS) and the independent variables (SMS) Commercial Bank SMS charges and (AMC) Commercial Bank Account Maintenance charges and a direct relationship with(ATM) Commercial Bank ATM charges. From objective one, the analysis above indicates that p-value of Commercial Bank SMS charges is less than 0.05 (i.e  $0.0260 < 0.05$ ) and

therefore, we reject the null hypotheses (H0) and accept the alternate hypotheses (H1). At this juncture, the study indicates that Commercial Bank SMS charges has a significant effect on Customer's savings.

From objective two, the analysis above indicates that p-value of ATM is less than 0.05 (i.e  $0.0315 < 0.05$ ) and therefore, we reject the null hypotheses (H0) and accept the alternate hypotheses (H1). At this juncture, the study indicates that commercial banks ATM charges has a significant and positive relationship with commercial bank customer's savings

From objective three, the analysis above indicates that p value of AMC is greater than 0.05 (i.e  $0.4345 > 0.05$ ) and therefore, we accept the null hypotheses (H0) and reject the alternate hypotheses (H1). And as such, does not meet 1%, 5% and 10% confidence level. At this juncture, the study indicates that commercial banks account maintenance charges do not have a significant influence on customer's savings.

## 6. Conclusion

In this research work, The Ordinary Least square Estimation technique was employed to effectively analyze the concept effect of commercial bank charges on customer's savings in Nigeria.

Thus, the study concludes that (SMS) Commercial Bank SMS charges and (ATM) Commercial Bank ATM charges are significant with the figures - 2.919337 and 2.743560 respectively with (AMC) Commercial Bank Account Maintenance charges and not being significant with figure -0.808585. And the result indicate that an indirect relationship exists between the dependent variable Customer's savings (CUS) and the independent variables (SMS) Commercial Bank SMS charges and (AMC) Commercial Bank Account Maintenance charges and a direct relationship with(ATM) Commercial Bank ATM charges and as such, the study concludes that commercial banks account maintenance charges do not have a significant influence on customer's savings.

## 7. Recommendations

Based on the findings of this study, the following recommendations were given as follows:

- The regulatory institutions, especially, Central bank of Nigeria (CBN), should intensify monitoring of deposit banks in the area of compliance with the extant rules and regulations about bank charges.

- Central Bank of Nigeria (CBN) should specify charges for each e-channel of transaction and ensure strict compliance through supervision and punishment of erring banks.
- Managers of deposit money banks should, in addition to other factors, pay attention to dimensions of bank charges when considering customers' satisfaction.
- Consumers societies should raise their voice against high, multiple and unexplained charges against consumers when making transactions.

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**Appendixes**

|              | CUS      | ATM      | AMC      | SMS      |
|--------------|----------|----------|----------|----------|
| Mean         | 3.73E+08 | 289757.7 | 25575124 | 6.02E+08 |
| Median       | 3.71E+08 | 69023.93 | 9774399. | 5.12E+08 |
| Maximum      | 6.37E+08 | 907654.6 | 70654324 | 9.80E+08 |
| Minimum      | 1.29E+08 | 59929.89 | 2276464. | 2.95E+08 |
| Std. Dev.    | 1.63E+08 | 344165.5 | 25595323 | 2.61E+08 |
| Skewness     | 0.129174 | 0.902658 | 0.799294 | 0.355304 |
| Kurtosis     | 1.936752 | 1.951043 | 1.934056 | 1.491559 |
| Jarque-Bera  | 0.798159 | 2.906318 | 2.461148 | 1.853572 |
| Probability  | 0.670937 | 0.233830 | 0.292125 | 0.395824 |
| Sum          | 5.97E+09 | 4636124. | 4.09E+08 | 9.63E+09 |
| Sum Sq. Dev. | 3.97E+17 | 1.78E+12 | 9.83E+15 | 1.02E+18 |
| Observations | 16       | 16       | 16       | 16       |

Dependent Variable: CUS  
 Method: Least Squares  
 Date: 09/12/22 Time: 08:21  
 Sample: 2006 2021  
 Included observations: 16

| Variable           | Coefficient | Std. Error            | t-Statistic | Prob.    |
|--------------------|-------------|-----------------------|-------------|----------|
| ATM                | 439.1801    | 590.6450              | 2.743560    | 0.0315   |
| AMC                | -9.406847   | 11.63371              | -0.808585   | 0.4345   |
| SMS                | -0.545507   | 0.593370              | -2.919337   | 0.0260   |
| C                  | 1.58E+08    | 2.09E+08              | 0.754505    | 0.4651   |
| R-squared          | 0.833230    | Mean dependent var    |             | 3.73E+08 |
| Adjusted R-squared | 0.793462    | S.D. dependent var    |             | 1.63E+08 |
| S.E. of regression | 1.69E+08    | Akaike info criterion |             | 40.94545 |
| Sum squared resid  | 3.44E+17    | Schwarz criterion     |             | 41.13859 |
| Log likelihood     | -323.5636   | Hannan-Quinn criter.  |             | 40.95534 |
| F-statistic        | 0.614835    | Durbin-Watson stat    |             | 1.573455 |
| Prob(F-statistic)  | 0.008414    |                       |             |          |

| YEAR | CUS            | SMS         | ATM         | AMC         |
|------|----------------|-------------|-------------|-------------|
|      | Billion (#)    | Million (#) | Million (#) | Million (#) |
| 2006 | 17,396,369,000 | 2,513,154   | 1,290,989   | 1,006,464   |
| 2007 | 26,935,543,000 | 2,954,724   | 1,321,872   | 1,100,473   |
| 2008 | 41,181,728,000 | 4,069,140   | 2,715,279   | 1,267,436   |
| 2009 | 57,635,112,000 | 4,365,748   | 3,202,393   | 1,381,361   |
| 2010 | 59,542,605,000 | 5,908,934   | 3,793,124   | 1,688,247   |
| 2011 | 65,319,130,100 | 6,753,154   | 3,992,989   | 2,276,464   |
| 2012 | 68,411,842,703 | 6,916,724   | 4,321,872   | 2,500,473   |
| 2013 | 72,208,174,234 | 7,269,140   | 4,715,279   | 2,767,436   |
| 2014 | 75,337,209,334 | 7,695,748   | 4,902,393   | 2,981,361   |
| 2015 | 81,637,152,036 | 8,238,934   | 5,193,124   | 3,218,247   |
| 2016 | 86,146,267,151 | 8,549,099   | 5,787,882   | 3,891,097   |
| 2017 | 88,295,890,163 | 8,755,307   | 5,997,659   | 4,115,901   |
| 2018 | 92,438,614,185 | 8,988,922   | 6,187,596   | 4,361,900   |
| 2019 | 94,382,845,859 | 9,433,479   | 6,568,658   | 4,517,897   |
| 2020 | 95,482,845,786 | 9,588,379   | 6,906,858   | 4,167,897   |
| 2021 | 98,534,198,778 | 9,898,545   | 7,076,546   | 4,654,324   |

Source; Nigeria Bureau of Statistics (NBS)