

## Technological Innovations and Corporate Performance of Deposit Money Banks in Nigeria

Sani Rufai Abdullahi<sup>1</sup>  
Friday Audu<sup>1</sup>  
Ojochogwu David Odobi<sup>1\*</sup>  
Rahanatu Ahuoiza<sup>1</sup>  
Hajarat Sadiq<sup>2</sup>

<sup>1</sup>*Department of Accounting, Prince Abubakar Audu University, Anyigba, Kogi State, Nigeria*

<sup>2</sup>*Department of Business Administration, Prince Abubakar Audu University, Anyigba, Kogi State, Nigeria*

\*Correspondence Email : [davidodobi4u@gmail.com](mailto:davidodobi4u@gmail.com)

<https://doi.org/10.33003/fujafr-2025.v3i1.166.148-159>

### Abstract

To remain competitive and profitable, deposit money banks need to design, develop, and adopt new processes, products, and technology that ensure greater efficiency and performance. Thus, this study investigates the relationship between technological innovations and corporate performance of deposit money banks in Nigeria. The specific objectives were to determine the effect of automated teller machines (ATM), point of sales (POS), mobile banking (MB), and internet banking (IB) on the corporate performance of deposit money banks in Nigeria measured by Earnings Per Share (EPS). The total population of the study consists of the 33 deposit money banks licensed by the Central Bank of Nigeria (CBN) as of 31st December 2022. The study formulated four hypotheses and used ordinary least square regression to analyze the data extracted from the annual publication of Central Bank of Nigeria and audited reports and accounts of deposit money banks for the period 2012 to 2022. The study found that automated teller machine (ATM), point of sales (POS) and mobile banking (MB) have significant and positive effect on earnings per share (EPS) of deposit money banks in Nigeria while internet banking (IB) has an insignificant negative relationship with earnings per share (EPS) of deposit money banks in Nigeria. The study recommends among others that the management of deposit money banks in Nigeria should expand the number of ATM and POS outlets even as they expanded their bank branches and minimize their investment on internet banking as its operation do not contribute positively to corporate performance.

**Keywords:** Automated Teller Machine, Point of Sales (POS), Mobile Banking, Internet Banking, Earnings per Share.

### 1. Introduction

The development of technology has undoubtedly helped people throughout the world to complete many jobs most efficiently and effectively. Therefore, it is not an overstatement to say that in the present world, technological innovations that brought about a transition from a primitive banking system to a more sophisticated financial operation have made banking transactions more convenient, comfortable, cost-effective, and most importantly, more profitable (John et al., 2020).

Innovation is the use of novel solutions to address both newly identified and long-standing market needs. This can be accomplished through new effective products, processes, services, technologies, or ideas that are readily available to markets, governments, and society (BCG, 2009). According to Arthur (2017), technological innovation is the process of developing new financial products, services, or procedures. Ignazio (2007) in his work described technological innovations as the development of new financial products, new ways of delivering already existing financial services, or new financial services with new processes. Technological innovations provide customers with the opportunity to access their

accounts and transact whatever business is on the account within a given period. Automated Teller Machines (ATMs), Electronic Point of Sales (POS), Mobile Banking (MB), Internet Banking (IB), Nigerian Electronic Fund Transfer (NEFT), and Inter-Bank Settlement System (NIBSS), among others, are all examples of how technology has changed traditional banking into a more advanced banking system. For example, Opening and operating accounts can now be done without visiting a bank or physically interacting with human beings from the comfort of your office, bedroom, or even while in transit! It is pertinent to note that banks must continuously design, develop, and adopt new procedures and technology to stay competitive in the market.

The core of a company's managerial function is corporate performance. Njogu (2019) identified corporate performance as the measure of outcomes in meeting the goals of an organization. According to Babatayo (2022), Corporate performance is the measurement of the objectives intended to be achieved by the organizations through profit maximization. A business organization embarks on innovation and decisions on investment to ensure that the company's performance over the period is good and shareholders maximize their returns overtime (Abdullahi, 2013). Corporate performance is a medium that can be used to compare similar firms across the same industry or to compare industries or sectors. It has been evaluated using various measures and these have evolved overtime. Some of these measures according to Akani and Tony- Obiosa (2020) are retain earnings, increase in total assets, and increase in the market size of the companies. Some of the ratios used to measure the level of performance include Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Earnings per share (EPS), and any market value ratio that is generally accepted (Asidok & Michael, 2018).

Banking industry has been transformed by technology, and the clients are more satisfied than before through e-transactions thereby, generating more income for banks in Nigeria and other parts of the world. However, this development witnessed so far in the technology reformation of the banking system in Nigeria has its other side of the coin. Banks in Nigeria are still plagued with some challenges such as network failure, inadequate awareness and acceptability of available e-banking products and services, loss of jobs because of technological advancement occasioned by electronic banking, among others. These challenges point to the fact that no developmental initiative is perfect, especially when the objective is to make life better for the people by promoting efficient service delivery.

There have been a lot of scholarly works on the effect of technological innovations on corporate performance of deposit money banks, such studies include Hiyam and Boutheina (2017), Sarah (2017), Andinet and Aashka (2022), and Nasamu (2020). These studies were all conducted in Lebanon, Ethiopia, and Kenya except Nasamu (2020) which was conducted in Nigeria. Findings from these studies cannot be completely applied to Nigeria economy given the disparities in economies and market structure. These studies used only Return on Assets (ROA) as a proxy for measuring corporate performance. John et al. (2020); Henry and Ruth (2020) investigated the relationship between technological innovations and financial performance of deposit money banks in Nigeria using Return on Equity (ROE) as a proxy for measuring financial performance while Benedicta and Godwin (2022) used both Return on Asset (ROA) and Return on Equity (ROE) as proxies in measuring financial performance. None of these studies mentioned above considered the use of Earnings per share (EPS) to measure performance. Earnings per share is a tool used by market participants to gauge the profitability of a company before buying shares. Shareholders are interested in the financial performance of their company because it is at the core of meeting their needs. (Adigun & Okedigba, 2017).

However, only a few of the works reviewed on technological innovations and Earnings per share such as Aisha et al. (2022); and Babatayo et al. (2022) were not current enough to include 2022 data in their studies which this study covers.

The broad objective of the study is to examine the relationship between technological innovations and corporate performance of Deposit Money Banks in Nigeria while the specific objectives are to examine the effect of Automated Teller Machines (ATM), Point of Sales (POS), Mobile Banking and Internet Banking on the corporate performance of Deposit Money Banks in Nigeria.

## 2. Literature Review and Hypotheses Development

### *Diffusion Innovation Theory*

The underpinning theory of this study is the diffusion innovation theory developed by Rogers in 1995 which explains how societal acceptance of financial innovations works. Rodgers (1962, 1995) explained how financial innovations and ideas were disseminated among the people via market, non-market, or purely organizational means. He believed that the diffusion process is how inventions spread from one person or thing to another. The diffusion of innovation hypothesis developed by Rogers in 1995 explains how societal acceptance of financial innovations works. As a result, people in society tend to adopt innovation to make wise decisions. Innovations are essential to achieving development and sustainability; thus, businesses should adopt them to improve their financial performance. In addition, Tidd (2006) believed that new financial innovation spreads to rival businesses through technical advancement and the network effect.

The idea goes on to claim that not all people and businesses accept new technology or products at the same time, rather that adoption spreads over time and that marketing efforts are made to increase market share after a product has been introduced. This hypothesis is pertinent to the study since an organization's financial performance is directly related to how widely innovations are accepted and adopted by society. To attain financial inclusion and, eventually, profit maximization, deposit money banks in Nigeria must work hard to raise strong awareness about the acceptability of their financial innovation products.

### *Empirical Review*

Aisha et al. (2022) examined the impact of digital financial services on the financial performance of commercial banks in Nigeria. The specific objectives were to examine the impact of Automated Teller Machine (ATM) transaction volume and the influence of Point of Sale (POS) adoption on earnings per share of the quoted commercial banks in Nigeria. The population of the study is all the thirteen (13) licensed commercial banks that are listed on the Nigeria Exchange Group. The data was collected from the annual report of target banks and the Central Bank of Nigeria from 2012 to 2020. The study adopts an ex-post facto research design and uses both descriptive and inferential statistics in analyzing the data. Apart from the time gap, the period covered by this study (8 years) is not sufficient to get a robust and reliable result.

Babatayo et al. (2022) investigated the relationship between Financial Innovation and earnings per share of listed deposit money banks in Nigeria. The specific objectives were to determine how Automated Teller Machines, Internet Banking, Agent POS Banking, Mobile Banking, and Real Time Gross Transfer Settlement affect earnings per share of listed deposit money banks in Nigeria. The study population consisted of thirteen (13) listed deposit money banks (DMBs) in Nigeria as of 31st December 2020. The

study adopted an ex-post facto research design. The period of study covered eleven (11) years, covering 2010-2020. Secondary data was sourced from the published annual reports of the DMBs and the National Bureau of Statistics (NBS). The study employed descriptive and inferential (multiple regression) statistics to analyze the data at a 5% level of significance. The data for this study is not current as it ends in 2020.

Benedicta and Godwin (2022) examined the relationship between the COVID-19 pandemic: financial disruptive innovations and the performance of deposit money banks in Nigeria for the duration of 2000-2020 (21 years). The specific objectives of this study were to determine the effect of Automated Teller Machines (ATM), Point of Sales (POS), Internet Banking (INTB), and Mobile Banking (MB) on the performance of deposit money banks in Nigeria {proxied with ROE & EPS}. Secondary sources of data were collected from the CBN Supervisory Annual Report, CBN Statistical Bulletin, and Nigeria Deposit Insurance Corporation (NDIC) annual reports for the period 2001-2021. The data set was described using descriptive statistics and the unit root test was conducted to ascertain if the data were stationary to have accurate regression results. The correlation analysis was used to ascertain the co-movement of the independent variables to the dependent variable while the Multiple Regression analysis was employed with the aid of E-VIEW version 9.0 to test the research hypotheses raised. The data used for this study do not include 2022 data which makes the work not to be current.

Aisha et al. (2022) investigated the impact of Digital Financial Services on the financial performance of commercial banks in Nigeria. The specific aim of the study was to see if there is a link between financial performance as assessed by banks' earnings-per-share (EPS), and the volume of ATM and POS transactions as a proxy for digital financial services (DFS). Secondary data were collected from the annual report of target banks and the Central Bank of Nigeria from 2012 to 2020. The study used both descriptive and inferential statistics in analyzing the data. The population of the study was not clearly stated in this work. Michael et al. (2020) carried out a study on the effect of electronic banking on bank performance in Nigeria. The specific objectives were to determine how Automated Teller Machines, Internet Banking, and Mobile Banking affect the corporate performance of listed deposit money banks in Nigeria. Secondary data were derived from the audited annual financial statement of the deposit money banks listed on the Nigerian Stock Exchange for the period 2008–2017. The data used for the study were not current up to 2022, hence, results and recommendations may not be dependable.

Nasamu (2020) examined the effect of technological innovations on the financial performance of listed commercial banks in Nigeria. The specific objectives of this study were to identify the extent to which Automated Teller Machines (ATM), Mobile Banking, and Internet Banking contribute to the financial performance of Listed Commercial Banks in Nigeria. The target population of the study were all the listed Commercial Banks in Nigeria. Secondary data extracted from the annual financial reports were collected from all listed Commercial Banks in Nigeria between the periods 2008 to 2019. Multiple regression analysis was used to establish the relationship between technological innovations and financial performance. The data used for the study were not current up to 2022, hence, results and recommendations may not be dependable.

Henry and Ruth (2020) examined the effect of financial innovation on the profitability of deposit money banks in Nigeria. The specific objectives were to examine the effect of automated teller machines, electronic fund transfer, internet banking, mobile banking, and investment in information communication technology on the return on equity of deposit money banks. However, the sample size consists of the fifteen (14) quoted commercial banks in the Nigerian stock exchange (now Nigeria

Exchange Group). Panel data regression was used to analyze the secondary data. The period and time covered by this study were not clearly stated, hence, comparison with other studies will be difficult.

Njoki et al. (2020) researched technological banking innovations and financial inclusion by commercial banks in Nairobi County, Kenya. The specific objectives were to establish a relationship between mobile banking, agency banking, electronic banking outlets, internet banking, and financial inclusion by commercial banks in Nairobi County Kenya. For this investigation, the target population included all the 42 registered commercial banks operating in Nairobi County, Kenya in the year 2016. A purposive sampling technique was used to determine the sample size. Thirteen (13) selected banks that had successfully implemented technological banking innovations in Nairobi County were purposively sampled for the study. Both primary and secondary data were used in this study. Primary data were collected using questionnaires while secondary data were obtained from the Central Bank of Kenya, Kenya National Bureau of Statistics, and the Banking survey manuals for the period between 2011 and 2016. Questionnaires were administered to randomly selected respondents. The confirmatory test for multicollinearity was done using the Variance Inflation Factor. Data were analyzed using correlation, Goodness of Fit, analysis of variance, F statistic/significance of the study variables, and regression of coefficients which were used to draw inferences on the relationship between the study variables. The study was conducted in Kenya and not in Nigeria, and as such; its recommendations may not be completely adopted in Nigeria due to disparity in economies.

Sarah (2017) appraised the effect of financial innovations on the financial performance of commercial banks in Kenya. The specific objectives of the study were to determine the effect of electronic fund transfers, mobile banking, and internet banking on the financial performance of commercial banks in Kenya. This study had a target population of an aggregate of all the commercial banks that are licensed and regulated by the Central Bank of Kenya with a sample of twelve commercial banks. Secondary data for the period of seven years (2009-2015) were sourced from the Central Bank of Kenya's National Payments Statistics supervisory reports and bank annual reports. Data was analyzed using STATA. A multiple regression model was used to establish a relationship between financial innovations and the Return on Assets of commercial banks. The result of this study suffers from time and geographical gaps.

### 3. Methodology

#### Research Design

This study adopts an *ex-post facto* research design which has a desirable feature of high verifiability as the data used were historical. The population of this study consist of all the Deposit Money banks licensed, regulated, and supervised by the Central Bank of Nigeria as of 31st December 2022. The sample size of the study is the same as the population. It consists of the thirty-three (33) Deposit Money banks licensed and supervised by the Central Bank of Nigeria as of 31st December 2022. As such, the study adopts a census approach to study all the Deposit Money banks licensed and supervised by the Central Bank of Nigeria as of 31st December 2022. For this study, data were collected from secondary sources and obtained specifically from the Central Bank of Nigeria's annual report and audited reports and accounts of the Deposit Money Banks (DMBs) in Nigeria for eleven years (2012-2022). In this study, a time series statistical technique was used for data analysis, while dataset was analyzed using pooled Ordinary Least Square (OLS) Multiple regression method due to the nature and structure of the available data. The data, which was sourced solely from the Statistical Bulletin of the Central Bank of Nigeria (CBN), is aggregated and macroeconomic in nature rather than firm-level or individual-level data typically required for panel regression. The computer statistical software E-VIEW 9.0 was used to do

multiple regression analysis through the regression model. The specified model for this study displays a functional relationship represented in the equations. The independent variables namely: Automated Teller Machine (ATM), Point of Sales (POS), Mobile Banking (MB), and Internet Banking (IB) were regressed against Earnings per Share (EPS) which measures the corporate performance of Deposit Money Banks.

The linear equation as used by Manaf et al. (2021) is shown below:

$$EPS = f(ATM + POS + MB + IB).$$

Representing the above linear equation in its econometric form, it becomes:

$$EPS_{it} = \beta_0 + \beta_1ATM_t + \beta_2POS_t + \beta_3MB_t + \beta_4IB_t + \mu_t \dots\dots\dots (1)$$

Where:

EPS = a predictor representing Earnings per share

$f$  = represent a functional relationship.

$t$  = represents Time/Periods.

$\beta_0$  = a constant term.

$\beta_1 - \beta_4$  = Coefficients of the independent variables.

ATM = Automated Teller Machine

POS = Point of Sales

MB = Mobile Banking

IB = Internet Banking

$\mu$  = representing the error term (effect of the uncaptured variables)

A-priori expectations: ATM, POS, MB, IB > 0

**Variable Measurement and Justification**

**Table 1: Variable Measurement**

Variable	Acronym	Variable	Measurement	Justification
Earnings per share	EPS	Dependent	(Net Income - Dividend on Preferred stock) / Average Outstanding shares	Babatayo et al. (2022), Michael et al. (2020) and Ceylan et al. (2018).
Automated Teller Machine	ATM	Independent	Value of ATM	Olewale et al. (2023), Aisha et al. (2022) and Samuel & Kepha (2021).
Point of Sales	POS	Independent	Value of POS	John et al. (2020), Aisha et al. (2022), Benedicta & Godwin (2022).
Mobile Banking	MB	Independent	Value of MB	Michael et al. (2020), Nasamu (2020), Ezekiel & Aketch (2020).
Internet Banking	IB	Independence	Value of IB	Chigozie & Chinedu (2022), Rangarirai et al. (2022).

**Source:** Researcher’s Compilation, 2023.

#### 4. Results and Discussion

##### *Descriptive Statistics*

Table 2 below shows the summarized description of the variables of the study which establishes the standard deviation and the means of the data.

**Table 2: Descriptive Statistics**

	EPS	ATM	POS	MB	IB
Mean	744.890	9269.182	87847.99	165425.8	123901.1
Median	1008.700	6312.000	24455.00	31509.00	52743.00
Maximum	1392.610	32643.00	448312.0	783860.0	478140.0
Minimum	-1067.230	1984.000	759.000	756.900	63.7000
Std. Dev.	721.220	9488.401	149917.5	254743.1	167616.5
Skewness	-1.626	1.635	1.698	1.513	1.357
Kurtosis	4.693	4.427	4.291	4.098	3.277
Jarque-Bera	6.159	5.837	6.048	4.750	3.412
Probability	0.046	0.054	0.049	0.093	0.182
Sum	8193.790	101961.0	966327.9	1819684.	1362912.
Sum Sq. Dev.	5201591.	9.00E+08	2.25E+11	6.49E+11	2.81E+11
Observations	11	11	11	11	11

Source: E-view Software, 2023.

##### *Autocorrelation Test*

Table 3 below shows the result of the Breusch-Godfrey LM test statistics for determining the presence of autocorrelation within the model. The decision rule is that a model with a p-value lower than 0.05 has autocorrelation problems, while any model with a p-value higher than 0.05 has no autocorrelation problems. The table also shows the result of the heteroskedasticity test conducted with the aid of the Breusch-Pagan-Godfrey method to determine the stability or stationarity of the residual variance in the model. The decision rule is to accept the presence of heteroskedasticity if the p-value is lower than or equal to 0.05 or reject the presence of heteroskedasticity if the p-value is higher than 0.05.

**Table 3: Breusch-Godfrey Serial Correlation LM Test:**

F-statistic	6.045442	Prob. F(2,4)	0.0618
F-statistic	1.415261	Prob. F(4,6)	0.3346

From table 3 above, a p-value of 0.0618 is higher than the critical value of 0.05 indicating that based on the decision rule, serial or autocorrelation is not a problem in this model. The model also has a p-value of 0.3346 which is higher than 0.05 indicating that heteroskedasticity does not constitute a problem in this model.

##### *Correlation Test*

Table 4 below is the output of the correlation test conducted to determine the multicollinearity between any two independent variables in the model. The decision rule, according to Hair et al. (2005) is that any

model with a pair or more independent variables that correlate above 0.85 has a multicollinearity problem, while, if no pair of the independent variables correlate above the stated threshold, then, the model is free of a multicollinearity problem.

**Table 4: Correlation Test**

	EPS	ATM	POS	MB	IB
EPS	1.000				
ATM	0.495	1.000			
POS	-0.795	-0.282	1.000		
MB	-0.218	0.551	0.500	1.000	
IB	0.260	0.340	-0.221	-0.142	1.000

**Source:** E-Views software, 2023.

From table 4 above, no pair of the independent variables correlate above 0.85 as the highest correlation is between ATM and MB at 0.5516. ATM and POS correlate negatively at -0.2829 indicating that as the patronage for ATM rises, the tendency is that the patronage for POS declines. Similarly, IB and MB have a negative correlation of - 0.1422 which confirms that the use of IB and MB are mutually exclusive. In summary, these results imply that multicollinearity, based on the decision rule, does not constitute a problem in the model.

### *Model Regression Analysis*

Table 5 below presents the results of the regression analysis of this study which were used to test hypotheses i- iv.

**Table 5: Model Regression Analysis**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ATM	0.212	0.099	2.15	0.041
POS	0.233	0.068	3.420	0.000
MB	0.227	0.101	2.251	0.032
IB	-0.000	0.001	-0.133	0.899
C	800.5	305.8	2.617	0.040
R-squared				0.716
Adjusted R-squared				0.526
F-statistics				3.777
Prob -F-statistics				0.002

**Source:** E-Views software, 2023.

Results from Table 5 above reveal that the coefficient of the Adjusted R-squared = 0.5263 indicates that the proxies of the independent variable namely ATM, POS MB, and IB have an approximately 53% combine effect in the variation seen in the corporate performance of the Deposit Money Banks in Nigeria for the period covered by this study. This implies that technological innovations is one major contributor to the performance of deposit money banks in Nigeria. The remaining 43% must have been accounted for by other factors not captured in this study. The *f*-statistics probability (0.0022) indicates that the model is fit and admissible for decision-making.

### *Discussion of Findings*

Table 5 above reveals that Automated Teller Machine (ATM) has a significant positive effect on Earnings per share (EPS) which measures the performance of deposit money banks in Nigeria from 2012-2022 with a coefficient of 0.21 and z-value of 2.15, such that a unit increase in ATM value leads to a 0.21 unit increase in corporate performance of Deposit Money Banks in Nigeria. This indicates that the deployment and utilization of ATMs contributes meaningfully to the corporate performance and shareholder value of banks. ATMs enhance customer convenience, reduce transaction costs, and improve operational efficiency, which in turn positively impact earnings and overall financial performance. This finding is in line with the prior expectation of the researcher because an increase in Automated Teller Machine operation in different branches of banks leads to an increase in financial transactions (Cash withdrawal, cash transfer, payment of bills, etc.) which has a positive effect on the corporate performance of deposit money banks in Nigeria. The finding is also in agreement with diffusion innovation theory which explains how societal acceptance of ATM cards through strong awareness leads to an increase in ATM operation in deposit money banks in Nigeria. In another development, the findings of this study tallies with those of Aisha *et al.* (2022), Babatayo *et al.* (2022), and Ceylan *et al.* (2018) whose work revealed that ATM has a significant effect on corporate Performance. The finding, however, is in contrast with that of Michael *et al.* (2020), and Henry and Ruth (2020) who observed that ATM has an insignificant effect on corporate Performance.

Table 5 above also indicates that Point of Sales (POS) has a significant positive effect on Earnings Per Share which measures the corporate Performance of deposit money banks in Nigeria from 2012-2022 with a coefficient of 0.23 and z-value of 3.419856, such that a unit increase in the value of POS brings about a 0.23 unit improvement in corporate Performance of Deposit Money Banks in Nigeria. This shows that the adoption and expansion of POS services contribute positively to the profitability of these banks. The increased use of POS channels enhances transaction volume, promotes cashless banking, reduces operational costs, and strengthens customer engagement, all of which lead to improved earnings and value for shareholders. This finding is in agreement with the a-priori expectation of the researcher because an increase in POS terminals to individuals and vendors leads to an increase in financial transactions (Cash withdrawal, cash deposit, cash transfer, payment of bills, etc) which has a positive effect on the corporate performance of deposit money banks in Nigeria. The finding is also in line with diffusion innovation theory which explains how societal acceptance of POS terminals for their daily cash transactions through strong awareness leads to an increase in POS operation in deposit money banks in Nigeria. The findings of this study are in tandem with those of Aisha *et al.* (2022), Benedicta and Godwin (2022), and Babatayo *et al.* (2022) who reported that POS transactions have a significant effect on corporate Performance. However, no work contradicts the result of this study based on the amount of literature and scholarly work reviewed by the researcher.

Table 5 above further reveals that Mobile Banking (MB) has a significant positive effect on Earnings Per Share which measures the corporate Performance of deposit money banks in Nigeria from 2012 to 2022 with a coefficient of 0.227 and z-value of 2.251, such that a unit increase in the value MB brings about 0.227 unit improvement in corporate Performance of Deposit Money Banks in Nigeria. This implies that the adoption and effective utilization of mobile banking services enhances the profitability of banks by increasing transaction efficiency, broadening customer reach, and reducing operational costs. The convenience and accessibility offered by mobile banking platforms have also led to increased customer engagement, contributing to higher revenue generation and improved shareholder value. This finding is in line with the a-priori expectation of the researcher and diffusion innovation theory because an increase in Mobile Banking operation in different branches of banks leads to an increase in financial transactions

(cash transfer, payment of bills, etc.) which have a positive effect on the corporate performance of deposit money banks in Nigeria. This finding is in line with those of Babatayo et al. (2022), and Sarah M. (2017). Meanwhile, the finding is in contrast with those of Michael *et al.* (2020), and Benedicta and Godwin (2022) who observed that MB has a negative effect on corporate Performance.

Table 5 above also indicates that Internet Banking (IB) has a negative effect on Earnings Per Share which measures the corporate Performance of deposit money banks in Nigeria from 2012 to 2022 with a coefficient of -0.000 and z-value of -0.133, such that a unit increase in the value of IB brings about a slide reduction in corporate Performance of Deposit Money Banks in Nigeria. This suggests that while internet banking may slightly reduce profitability, the impact is not statistically significant. Possible reasons may include underutilization of internet banking platforms, high maintenance and infrastructure costs, or customer preference for alternative digital channels such as mobile banking and POS. This finding is not in agreement with the a-priori expectation of the researcher because an increase in Internet Banking operations has no positive effect on the corporate performance of deposit money banks in Nigeria. The study is equally not in line with diffusion innovation theory due to the lack of wider acceptance of Internet Banking. This finding agrees with that of Michael et al. (2020). Meanwhile, the findings are in contrast with those of Babatayo et al. (2022) and Ceylan et al. (2018) who observed that IB has a positive and significant effect on corporate performance

### Summary of Findings

The results of the hypotheses testing are summarized in Table 7 below.

Hypothesis	Statement	Decision
Ho <sub>1</sub> :	Automated Teller Machine (ATM) has no significant effect on the financial performance of Deposit Money Banks in Nigeria.	Rejected
Ho <sub>2</sub> :	Point Of Sales (POS) has no significant effect on financial performance of Deposit Money Banks in Nigeria.	Rejected
Ho <sub>3</sub> :	Mobile Banking (MB) has no significant effect on the financial performance of Deposit Money Banks in Nigeria.	Rejected.
Ho <sub>4</sub> :	Internet Banking (IB) has no significant effect on the financial performance of Deposit Money Banks in Nigeria.	Accepted

## 5. Conclusion and Recommendations

This study concludes that ATM has a significant impact on the corporate performance of deposit money banks in Nigeria because of its convenience and accessibility to customers. Banks will have higher performance when Automated Teller Machines are spread over all their branches. The use of POS terminal which helps to handle card payments at retail venues contributes positively to corporate performance of deposit money banks in Nigeria because it saves customers time and energy in travelling to branches or ATMs for cash withdrawals which can be channeled into other productive services. Mobile banking which promotes financial and banking services with the help of mobile telecommunication devices has a significant positive relationship with the corporate performance of deposit money banks in Nigeria. This may not be unconnected with the flexibility of operations which enables a customer to carry out financial transactions in the comfort of his room. Internet Banking (IB) has a negative and insignificant effect on the corporate performance of Deposit Money Banks in Nigeria. This is because other technological innovations are more acceptable than it. Based on the findings of this study, the following recommendations are made:

- i. Management of Deposit Money Banks in Nigeria should continue to invest in expanding and upgrading their ATM infrastructure. Efforts should be made to improve ATM reliability, security, and accessibility to encourage higher usage.
- ii. Banks should transform banking services by adapting strongly to POS operations as a way of providing jobs and increasing financial performance especially in rural areas where there are no banks.
- iii. Deposit money banks in Nigeria should continue to invest in the development and enhancement of mobile banking platforms and promote awareness and digital literacy to encourage greater adoption among customers.
- iv. Deposit Money Banks in Nigeria should evaluate the cost-effectiveness of their internet banking infrastructure and explore integration with other digital channels to create a seamless multichannel banking experience.

---

### References

- Abdullahi, S. R. (2013). Efficacy of credit risk management on the performance of banks in Nigeria A study of Union Bank PLC (2006-2010). *Global Journal of Management and Business Research*, 13 (4), 1-12.
- Aisha, I., Uche, U., & Umar, A. I. (2022). Impact of digital financial services on the financial performance of commercial banks in Nigeria. *International Journal of Economics and Management Systems*, 7, 300-307
- Akani, H. W., & Tony-Obiosa, R. L. (2020). Effects of financial innovations on the profitability of deposit money banks in Nigeria. *European Journal of Accounting and Finance Research*, 8(1), 52-73.
- Akintoye, I. R. (2006). *Investment decision concept analysis and management (Revised ed.)*. Unique Educational Publishers.
- Aondoaka, K. (2015). Impact of sustainability reporting on corporate performance of selected quoted companies in Nigeria. *Univeristy of Nigeria, Nsukka Journal*, 5(3), 141-160
- Arthur, K. N. A. (2017). Financial innovation and its governance: Cases of two major innovations in the financial sector. *Financial Innovation*, 3(1), 1-12
- Asidok, N. O., & Michael, A. A. (2018). Mobile banking transactions and bank profitability in Nigeria. *International Journal of Economics, Commerce and Management*, 6(6), 5-9.
- Audu, F., Uba, H. O., & Ekpa, F. (2022). Board characteristics and firm performance of selected insurance companies listed in Nigerian exchange group: A dual model approach. *Journal of Global Accounting*, 8(1), 82-97.
- Babatayo, K. O., Ogundajo, G., & Siyanbola, T. (2022). Financial innovation and earnings per share of listed deposit money banks in Nigeria. *International Journal of Innovative Research and Development*, 11(4), 19-34.
- Benedicta, O., & Godwin, O. (2022). COVID-19 pandemic: financial disruptive innovations and performance of deposit money banks in Nigeria for the duration of 2000-2020. *Finance and Accounting Research Journal*, 4(4), 129-143.
- Boston Consulting Group - BCG (2009) BCG Innovation 2009 Report.
- Ceylan, M., Emre, F., & Asli, S. (2018). Impact of Internet banking on the financial performance of Turkish banks. *International Journal of Intellectual Discourse (IJID)* 4(3), 279-298.
- Cumming, D. (2008). Contracts and exits in venture capital finance. *Review of Financial Studies* 5(2), 76-89.
- Davila, A., Epstein, M. & Stretton, B. (2010). Do Internet activities add value? Evidence from traditional banks. *Journal of Financial Services Research*, 4 (6), 105-120.

- Drucker, P. (2013). Empirical studies of innovation activity. *Interdisciplinary Journal of Contemporary Research in Business*, 4(1), 2162-3082.
- Ejike, S. I. (2018). Effect of bank Innovation on the financial performance of commercial banks in Nigeria. *European Journal of Accounting, Finance and Investment*, 4(7), 242-260.
- Fernandez-Feijoo, B., Romero, S., & Ruiz, S. (2021). Does board gender composition affect corporate social responsibility reporting? *International Journal of Business and Social Science*,
- Henry, W.A., & Ruth, L.T. (2020). Effect of financial innovation on the profitability of deposit money banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 8 (1), 52-73.
- Hirschey, M., & Nofsinger, J. (2008). *Investment analysis and behaviour (international Student ed.)*. McGraw-Hill Irwin Companies Inc.
- Ignazio, V. (2007). Financial deepening and monetary policy transmission mechanism. BIS
- Joseph, O., & Richard, P. (2015). The impact of banking innovation on the financial performance of the banking sector in Nigeria. *Department of Economics and Statistics, University of Benin Nigeria*, 7(3), 700-710.
- Manaf, S. N. A., Kamshor, K. H. A., & Salleh, W. A. (2021). Determinants of profitability on listed telecommunications service providers companies: Evidence in Bursa Malaysia. *Journal of Research in Business and Management*, 9(1), 22-28.
- Nasamu, G. (2020). Technology innovations on the financial performance of listed commercial banks in Nigeria. *Journal of Environmental Design and Constructions Management*, 20 (4), 30-42.
- Njoki, G. W., Jeremiah, K., & Gerald, A. (2020). Technological banking innovations and financial inclusion by commercial banks in Nairobi County, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 1(1), 1-27.
- Nkemi, I. S., & Akujinma, A. F. (2017). Financial innovation and efficiency in the banking subsector: The case of depositing money banks and selected instruments of electronic banking (2006-2014). *Asian Journal of Economics, Business and Accounting*, 2(1), 1-12.
- Obaje, F.O., Abdullahi, S. R., & Ude, A. O. (2021). Moderating the effect of firm size on the relationship between board structure and firm financial Performance. *Journal of Good Governance and Sustainable Development in Africa (JGGSDA)*, 6 (3), 97-117.
- Ojukwu, R. M., & Sujuyigbe, A. S. (2016). The impact of electronic banking on human resources performance in the Nigerian banking industry. *International Journal of Economic Research*, 2, 61-69.
- Olowe, R. A. (2017). *Financial management: Concepts, financial system and business finance* (4th ed.). Jones Nigeria Limited.
- Peteraf, A., & Bergen, M. (2003). Scanning dynamic competitive landscapes: A market based and resource-based framework. *Strategic Management Journal*, 24, 309-323.
- Salami, S. A., Akande, F. I., & Alalade, Y. S. (2022). Determinants of technological innovation adoption and banking operations of selected deposit money banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*. 10 (1), 400-412.
- Sarah M. (2017). *Effect of financial innovations on the financial performance of commercial banks in Kenya*. M, Sc thesis, CKA University.
- Schumpeter, J. A. (1928). The instability of capitalism. *The Economic Journal*,
- Siyanbola, T. T. (2013). The effect of cashless banking on the Nigerian economy. *Canadian Journal of Accounting and Finance*, 9-19.
- Tufano, P. (2003). Financial innovation in George Constantinidis, Milton Harris, & Rene Stulz (Eds). *Handbook of the Economics of Finance*, 1A, 307-336.
- Vafaei, A., Ahmed, K., & Martha, P. (2015). Board diversity and financial performance in the top 500 Australian firms. *Australian Accounting Review*, 25(4), 413-427.