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DIGITAL PAYMENT PLATFORMS AND FINANCIAL PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT: *This study examines the impact of digital payment platforms on the financial performance of Nigerian deposit money banks from 2009 to 2023. Using an ex-post facto design, it analyzed secondary data from ten banks, focusing on Automated Teller Machines (ATM), Point of Sale (POS), Web Pay, and Mobile Pay as proxies for digital payment platforms, with the Price Earning (P/E) ratio representing financial performance. Data was sourced from the Nigerian Exchange Group, the Central Bank of Nigeria, and bank financial reports and then analyzed using the Autoregressive Distributed Lag (ARDL) model . Findings revealed that ATM and Web Pay had a negative and significant impact on financial performance, likely due to high operational costs and cybersecurity risks. POS and Mobile Pay had no significant effect, indicating a limited direct contribution to the performance of deposit money banks in Nigeria. The study recommends cost reduction and enhanced cybersecurity for ATM and Web Pay, while expanding POS and Mobile Pay infrastructure to reach underserved populations.*

KEYWORDS: Automated Teller Machine, Digital Payment Platform, Mobile Pay, Financial Performance, Point of Sale, Price Earning Ratio, Web pay.

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INTRODUCTION

Digital technologies have transformed and reshaped the way in which financial institutions operate and deliver their services all over the world. Technology today is changing at a rapid pace, enabling faster change and progress, causing an acceleration of the rate of change. (Oluwajuwon et al., 2024). Banking industries around the world are increasingly becoming more connected to information technology infrastructure, making banking operations, services, and commercial activities more accessible, faster, more efficient, and more effective for individuals and businesses alike (Isa-Olatinwo et al., 2022). Modern banking is no longer driven by physical branch networks but by digital networks, made possible by development in information and communication technology, which made financial services innovation and development of digital banking possible (Adesina & Nwidobie, 2022). Traditional banks around the world are facing increased competition due to financial technology companies in the market and the implementation of technological innovations by existing banks (Potapova & Mukhanova, 2022). The rise in internet access in the 21st century has transformed banking. This has led to online banking, mobile banking and Fintech innovations. In the late 1990s, African banks began to establish an online presence. Currently, there is rapid growth of financial technology companies across Africa, which has led to innovation in the financial service sector. Technological innovations and electronically based systems in the banks in West Africa have gotten more and more popular and attractive across the globe. This is evident in the ever-rising and constant increase in transactions consummated via e-channels and the continuous investment of huge sums in technological innovations such as Automated Teller Machine(ATM) and payment systems (Enoruwa et *al.*, 2023).

Many Nigerian banks have streamlined their operations by investing in automation to enhance performance and build a competitive advantage as the environmental terrain is becoming more challenging to navigate, which needs technology adoption (Momoh-Musa & Ironkwe, 2021). In Nigeria, the 1990s to early 2000s witnessed the introduction of Automated Teller Machines (ATMs), which marked the beginning of a transition towards more automated banking services. The Central Bank of Nigeria (CBN) facilitated the digital banking experience by formulating enabling policies for implementation. Agent banking is one of the major strategies the CBN introduced into the economy. The CBN uses this channel to ensure banking services are provided at retail stores, petrol stations and major event centers through Point of Sale (POS) terminals, internet transfer and mobile conventional services such as mobile banking intermediary virtual money accounts (Akinrinola & Folorunso, 2022). The performance of deposit money banks is crucial to the development of the economy. The evolution of digital banking has fundamentally transformed the performance of banks worldwide, including in Africa and Nigeria specifically. The bank's financial performance serves as a barometer for how effectively it can manage and control its own resources. It speaks of achieving the company's financial objectives within a given time frame, including the collection and distribution of funds (Ademola et al., 2024).

The study focuses on understanding the relationship between the adoption of digital payment platforms and the financial performance of the deposit money banks in Nigeria . It considers market-based performance of the bank by providing insights into how the market perceives the value and growth potential of banks leveraging digital transformation, investor sentiments towards innovation and profitability and earnings growth.

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Statement of the problem

Nigeria's banking sector is experiencing a profound transformation powered by advancements in digital technology. However, despite the swift adoption of digital banking solutions, significant challenges persist that could impact the financial performance of deposit money banks. One of the challenges is the varying speed at which banks innovate their service offerings, such as the deployment of Automated Teller Machines, Point of Sales terminals, Web Pay and Mobile Pay infrastructures. Although many banks have made substantial investments in digital platforms, the degree to which these investments enhance performance metrics needs to be sufficiently explored.

Analyzing the impact of Automated Teller Machine (ATM) transactions on the financial performance of deposit money banks in Nigeria will go a long way in understanding how ATM usage is influencing the financial performance of banks. ATMs changed the business model of the banking sector; their incorporation into the market went from being a competitive advantage in its early years to a minimum requirement for competition among retail banks. As a result, ATMs have become an essential service that other banks can easily replicate (González et al., 2022). Analyzing the influence of ATM transactions on earnings—and consequently, the P/E ratio—can offer investors and stakeholders key insights into the success of a bank's digital strategy. Analyzing how POS transactions impact earnings of banks will provide insights into how banks can leverage digital payment channels to improve profitability and, consequently, their valuation from investors perspective. POS transactions reduce the need for physical cash handling and in-branch transactions, thereby lowering operational costs. The study based on the understanding of this dynamic will help to determine whether such cost efficiencies translate into higher net earnings, which directly impact the P/E ratio.

By analyzing the impact of Web Pay transactions on the financial performance of deposit money banks in Nigeria, this study assessed how these transactions contribute to earnings growth, which in turn affects the P/E ratio—a critical indicator of performance and valuation. Assessing the significance of Mobile Pay transactions on the financial performance of deposit money banks in Nigeria will provide insights into how the growing trends in mobile pay transactions influence the P/E ratio, which is a key measure of financial performance and market valuation. Cho et *al.* (2023) stated that it is necessary to investigate how a bank's profit structure has changed during the spread of mobile banking services.

Objectives of the Study

The main objective of the study is to assess the influence of digital payment platforms on the financial performance of the deposit money banks in Nigeria.

The specific objectives of the study are as follows:

a) To examine the effect of Automated Teller Machine (ATM) transactions on the financial performance of deposit money banks in Nigeria.

b) To examine the effect of Point of Sales (POS) transactions on the financial performance of deposit money banks in Nigeria.

c) To examine the effect of Web Pay transactions on the financial performance of deposit money banks in Nigeria.

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d) To examine the effect of Mobile Pay transactions on the financial performance of deposit money banks in Nigeria.

Research Questions

The following research questions will be answered during the research:

a) What is the effect of Automated Teller Machine (ATM) transactions on the financial performance of deposit money banks in Nigeria?

b) To what extent do Point of Sales (POS) transactions affect the financial performance of deposit money banks in Nigeria?

c) How do Web Pay transactions affect the financial performance of deposit money banks in Nigeria?

d) What is the effect of Mobile Pay transactions on the financial performance of deposit money banks in Nigeria?

Research Hypotheses

The following are the hypotheses of the study:

a) **H_{01}:** Automated Teller Machine (ATM) transactions have no significant effect on the Price Earning ratio of deposit money banks in Nigeria.

b) **H_{02}:** Point of Sales (POS) transactions do not have a significant effect on the Price Earning ratio of deposit money banks in Nigeria.

c) **H_{03}:** Web Pay transactions have no significant effect on the Price Earning ratio of deposit money banks in Nigeria.

d) **H_{04} :** Mobile Pay transactions have no significant effect on the Price Earning ratio of deposit money banks in Nigeria.

Significance of the Study

The significance of this study can be viewed from the following perspectives:

Significance to banking industry professionals—The research findings will guide banking industry professionals in strategic decisions on technology investments, improving operational efficiency, and enhancing customer satisfaction. Insights from the study will assist Information Technology (IT) and digital transformation teams in the development and deployment of digital banking solutions.

Significance to investors and financial analysts—Current and potential investors in banks can gain an understanding of how digital payment platforms impact the profitability and market valuation of banks, thereby helping them make more informed investment decisions. Financial analysts can use the research to predict trends in the banking sector and assess the competitive positioning of banks based on their digital strategies.

Significance to researchers and academia— Academics in the fields of finance, banking, and information technology will find this research valuable as it contributes to the existing body of

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knowledge regarding digital transformation in the banking sector. Researchers may use the findings to explore further studies related to digital banking, performance metrics, and comparative analyses with other regions or sectors.

Significance to policymakers and regulators— Government officials and regulatory bodies overseeing the banking sector can leverage this research to gain insights into how digital payment platforms impact financial stability, consumer protection, and regulatory compliance. The findings can inform the development of policies that promote innovation while maintaining a secure and resilient banking environment.

Significance to technology providers and consultants— Technology solution providers, including fintech firms, software developers, and IT consultants, will find this research valuable as it identifies areas where banks aim to enhance their operations through digital innovation. By understanding these needs, technology providers can customize their solutions to better align with the evolving demands of the banking sector.

LITERATURE REVIEW

Conceptual Review

This review aims to conceptualize the relationship between digital payment platforms enabled by digital evolution and the financial performance of deposit money banks in Nigeria. Financial performance of banks could be ascertained by the level of digital adoption, such as Automated Teller Machines, Point of Sales terminals, Web Pay and Mobile Pay. The financial health of banks can be assessed using a range of financial metrics and ratios. These metrics offer valuable insights into various aspects of a bank's financial performance, including its ability to generate profits, manage liquidity, maintain solvency, and deliver strong market performance.

Digital payment platforms are technology-driven systems or online infrastructures that enable the electronic transfer of money among individuals, businesses, and financial institutions, eliminating the need for physical cash. These platforms support real-time or almost real-time transactions across various devices, including smartphones, computers, point-of-sale (POS) terminals, and Automated Teller Machines (ATMs). Digital evolution directly led to the emergence and growth of digital payment platforms. Digital transformation describes the changes and developments that affect the activities, processes, skills, and especially the organizational culture of companies through digital technologies (Mahboub & Sadok, 2024).

Depositing money in banks serves as a crucial link between savers and borrowers, supporting economic growth and stability. Because of the crucial role that banks play in driving economic growth, a healthy financial performance of banks is indicative of a healthy economy as a whole (Amelia & Hadi, 2024). Deposit money banks (DMBs) are thus expected to judiciously manage depositors' funds to generate profits and create substantial asset portfolios, ensuring operational continuity. Their profitability stems from their adeptness in financial intermediation and the provision of advisory services to clients (Efemena & Augustine, 2024).

The price-earnings ratio is a comparison between the market rates per stock and EPS. Stakeholders use this analysis to see the company make future profits (Rahmawati & Hadian,

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2022). It provides insights into how the market perceives the bank's profitability and future growth potential. It reflects aspects such as investor confidence, growth potential, earnings quality, and industry standing, making it a vital tool for assessing the bank's performance from a shareholder and market perspective.

The variables used for the study were digital payment platforms (independent variable) proxied by Automated Teller Machine, Point of Sales, Web Pay and Mobile pay while the dependent variable was financial performance, which was proxied by Price Earning ratio. The variables and their relationships are presented diagrammatically in figure 1 below.

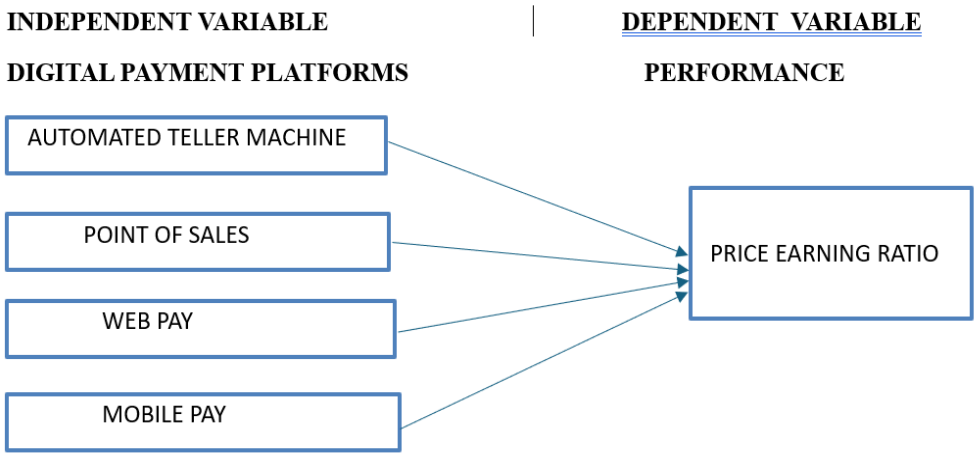

Fig. 1. Conceptual Framework of Variables

Source: Researcher's conceptualization (2025)

Theoretical Review

This study was grounded on the Technology Acceptance Model. This theory, as introduced by Fred Davis (1985), provides insights into the cognitive and affective processes underlying user acceptance of information technology. It has been instrumental in explaining user behavior and adoption of various technologies, from computer systems and software applications to cutting-edge digital innovations. The theory, which is otherwise called the technology acceptance model (TAM), has proven to be a powerful model that provides insights as to the ease with which users accept and adopt technology for their individual and organizational use (Awoniyi, 2022). Fred Davis's argument for TAM is based on the assumption that users are rational decision-makers who evaluate information systems based on their perceived usefulness and ease of use. He argues that when users perceive a system as useful and easy to use, they are more likely to have a positive attitude toward using it, which in turn increases their intention to use it.

This study is also connected to the Diffusion of Innovation (DOI) Theory, which was introduced by Everett M. Rogers in 1962. It provides a framework for understanding the dissemination and adoption of new ideas, technologies, and innovations within social systems. This theory elucidates the dynamic process by which innovations are communicated and spread among members of a social system, ultimately influencing their adoption or rejection. Menzli

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et *al*. (2022) stated that the DOI model was one of the most used models to analyze the process of communicating any innovation through a system' members. It focused on explaining post-adoption determinants of innovation. Adopter categories were identified as innovators (2.5%), early adopters (13.5%) , early majority (34%), late majority (34%) and laggards (16%). The Diffusion of innovation theory provides valuable insights into the adoption of digital banking tools in Nigeria, allowing banks to analyze the factors influencing adoption and tailor strategies to promote widespread acceptance. By leveraging this framework, banks can develop effective approaches to accelerate the diffusion of digital innovations, ultimately bridging the gap between traditional and digital banking.

The study is further linked to the Disruptive Innovation Theory which was developed by Clayton M. Christensen (1997) and explains how simpler, more affordable, and accessible innovations can initially target niche markets and eventually disrupt established players in an industry. This typically occurs when the new entrants target overlooked segments of the market, offering simpler, cheaper, or more convenient products or services that eventually improve over time. Disruptive innovation occurs when a small company enters into a market with fewer resources at the bottom market but slowly rises to the top market and eventually controls the market (Otike et al., 2022). Disruptive innovations start by serving overlooked or underserved customer segments. Over time, as the innovation improves, it captures mainstream markets, displacing established firms. Disruptive innovation theory is particularly relevant in understanding how digital technologies are reshaping the Nigerian banking sector. Disruptive innovations in Nigeria's financial sector include financial technology companies that provide services like mobile payments, online lending, and blockchain. These innovations cater initially to underserved market segments, enabling them to gain traction against traditional banks.

Empirical Review

Arilesere et al. (2021) investigated digital electronic payment techniques as a financial technological innovation and its impact on banks performance in Nigeria. The study adopted an ex-post-facto research type with a time series collected on a quarterly basis covering a period from 2009 to 2020. Entirety of the study was 21 deposit money banks quoted on the Nigerian Stock Exchange. Data collected were obtained from the Central Bank of Nigeria (CBN) Statistical bulletin and analyzed with the Error Correction Model (ECM). The study revealed that digital payment by way of mobile banking; automated teller machine and internet banking has significant influence and is positively related to bank financial performance measured by Return on Assets. A review of electronic banking adoption and performance of deposit money banks in Nigeria (Mboto et al., 2023) was conducted. The study used ATM, Internet banking, POS and mobile banking as proxies of electronic banking adoption, while Return on assets (ROA) was used to proxy bank performance. The study adopted a descriptive research design and relied on secondary data. Data were sourced from the CBN Financial Report, 2021. Panel data analysis was adopted in this study. The study revealed that ATMs, internet banking, POS and mobile banking have a positive effect on the performance of deposit money banks. The study therefore concluded that adoption of e-banking technologies enhances performance improvement of deposit money banks. Muttai *et al.* (2023) evaluated the impact that financial technology had on the financial performance of commercial banks in Kenya. Independent variables were Mobile banking, Internet banking, Agency banking and ATM banking while the dependent variable was Return on Assets. A panel longitudinal research methodology was used for the research. The study was a census. Secondary information was gathered on an annual basis, and it covered a span of ten years (January 2012 to December 2021). The data

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was evaluated making use of descriptive statistics as well as inferential statistics entailing correlation and panel multiple linear regression analysis. The research conclusions revealed that financial technology fairly explains financial performance and it was revealed that the financial technology is sufficient in predicting financial performance.

Hussain (2024) analyzed the impact of digital banking on Pakistani commercial banks' financial performance. A quantitative approach was utilized. There were 200 responders from Pakistani commercial banks. The study employed multiple regression analysis. According to this research, Pakistani commercial banks' growing profitability was mostly because of an increase in digital customer deposits made through digital banking platforms. The research indicated that there was a rising trend in the ratio of digital transactions to total assets. The research findings indicated that an increase in online banking transactions was favorably and strongly correlated with profitability. The review of Electronic Banking and Performance of the Banking Sub-sector in Nigeria, 2009-2021 (Mpieri et al., 2024), was done. The specific objectives of the study were to determine the relationship between transactions made via mobile pay, automated teller machine, point-of-sale, web pay, electronic banking penetration rate and return on assets of banks in Nigeria. Five banks were selected for the study and these banks were selected based on their gross earnings and ranked as the top 5 banks in Nigeria. The data on electronic banking transactions were sourced from the Central Bank of Nigeria Statistical Bulletin, while the performance indicator of the banks (ROA) was sourced from the Annual Audited Financial Statements of the various banks. The data were analyzed using the Panel Random Effect model technique due to the cross-sectional nature of the data. The conclusion from the findings was that electronic banking services have increasingly enhanced the performance (ROA) of banks in Nigeria most especially mobile and ATM banking channels.

Gaps in the Study

Despite the growing body of research on digital payment platforms and their impact on the performance of deposit money banks, a significant gap exists in the choice of performance metrics used in these studies. Most previous researchers have focused on conventional financial performance indicators such as return on assets (ROA) and return on equity (ROE). While these metrics provide valuable insights, they fail to capture the market-based valuation perspective of performance. The Price-Earnings (P/E) Ratio, which reflects investors' expectations of a firm's future earnings potential relative to its current earnings, is a critical metric that remains underexplored in the context of digital evolution. This oversight limits the understanding of how digital payment platforms influence market valuation and investor confidence in deposit money banks. The lack of research focusing on the P/E ratio in relation to digital payment platforms presents an opportunity to fill this gap. By integrating the P/E ratio into the analysis, this study aims to offer a better understanding of how digital payment platforms correlate with the market performance of banks, thereby contributing valuable insights to both academic literature and banking practice in Nigeria.

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METHODOLOGY

Data Source and Description

The research assesses the influence of digital payment platforms on the performance of deposit money banks in Nigeria. The research analyzed the impact of Automated Teller Machines, Point of Sales, Web Pay and Mobile Pay on the Price Earning ratio of the deposit money banks. Ex-post facto research design was adopted in this study. Purposive sampling technique was used to select a sample size of 10 out of a population of 38 deposit money banks. The main source of data collection in this study was secondary and quantitative data. The data were obtained from the Nigerian Exchange Group, Central Bank of Nigeria Statistical Bulletins, African financials site and annual financial reports of the banks during the fifteen-year (15) period covered by the study (2009-2023). Descriptive and inferential statistics were used to analyze the data collected. Autoregressive Distributed Lag was employed to assess the influence of digital payment platforms on the performance of the deposit money banks in Nigeria. The Root Test was conducted to test for stationarity of the variables. Analysis of the data collected was conducted with the help of EViews 13 Statistical software.

Model Specification

This study adapted the model used by Olofin et al. (2024) in the research titled "Financial Innovations and Financial Performance of Listed Deposit Money Banks in Nigeria" and modified it by introducing the Price Earning ratio as the dependent variable instead of Return on Equity used in that study. The model used for this research has a dependent variable (performance) measured by Price Earning ratio and independent variables ATM, POS,WP and MP which represent Automated Teller Machine, Point of Sales , Web Pay and Mobile Pay respectively.

The economic model of the study is stated as;

PE =f (ATM,POS,WP,MP)

Where:

PE= Price Earning ratio

ATM= Automated Teller Machine

POS=Point of Sales

WP= Web Pay

MP= Mobile Pay

The model is stated econometrically as;

$PE_{it} = \beta 0 + \beta 1ATM_{it} + \beta 2POS_{it} + \beta 3WP_{it} + \beta 4MP_{it} + \varepsilon_{it}$

Where

$\beta 0$ = Unknown constant to be estimated

$\beta 1, \beta 2, \beta 3, \beta 4$ =Unknown Coefficient to be estimated

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ε = stochastic error

The model is log linearized by;

$LPE_{it} = \beta 0 + \beta 1 LATM_{it} + \beta 2 LPOS_{it} + \beta 3 LWP_{it} + \beta 4 LMP_{it} + \varepsilon_{it}$

DATA ANALYSIS AND DISCUSSION OF FINDINGS

Table 1: Descriptive Statistics of Variables

	LP/E	LATM	LPOS	LWEB PAY	LMOBILE PAY
Mean	0.762541	8.723507	7.830867	7.735633	7.750147
Median	0.743450	8.771000	7.804200	7.148900	7.672600
Maximum	2.719300	9.282000	9.993300	10.33750	9.720900
Minimum	-0.530800	7.779100	5.963000	6.204400	6.063200
Std. Dev.	0.456625	0.405911	1.285630	1.508917	1.111492
Skewness	0.667529	-0.771748	0.064409	0.728042	0.104532
Kurtosis	5.400956	3.053037	1.786841	1.900418	1.916723
Jarque-Bera	47.16854	14.90747	9.302177	20.80790	7.607478
Probability	0.000000	0.000579	0.009551	0.000030	0.022287
Sum	114.3811	1308.526	1174.630	1160.345	1162.522
Sum Sq. Dev.	31.06739	24.54984	246.2738	339.2476	184.0767
Observations	**150**	**150**	**150**	**150**	**150**

Source: *Author's Computation (2025) E-View 13*

The results in Table 1 show the descriptive analysis of the variables used in the study. The result shows that ATM transactions have the highest mean and the lowest standard deviation, implying that this channel is widely adopted and uniformly used across banks. However, its negative skewness suggests that some banks rely less on ATM transactions, which may limit their contribution to improving performance. On the other hand, Web Pay, POS and Mobile Pay exhibit high variability. The Jarque-Bera test results confirm that none of the variables follow a normal distribution, as all probability values are below 0.05

Unit Root Test

Table 2: Levin, Lin & Chu t* Unit Root Test

Variables	Level	Prob.	First Level	Prob.	Stationarity
LOG P/E	-6.26773	0.0000	-	-	I(0)
LOG ATM	-4.50260	0.0000	-15.1699	0.0000	I(1)
LOG POS	2.32617	0.9900	-11.6229	0.0000	I(1)
LOG Web Pay	4.34892	1.0000	-9.38539	0.0000	I(1)
LOG Mobile Pay	2.56692	0.9949	-2.97347	0.0015	I(1)

Source: *Author's Computation (2025) E-View 13*

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Table 2 showed the results of all the specified variables in Levin, Lin & Chu t* unit root statistics and it revealed that one variable was stationary at level, while the remaining were stationary at first difference, as the obtained probability value at level are less than the 5% threshold adopted in this study

Panel Cointegration Test

Table 3: Panel Cointegration Test

Sample: T = 15 (2009 to 2023), N = 10

Kao Residual Cointegration Test

	t-Statistic	Prob.
ADF	-5.721421	0.0000
Residual variance	0.200297	
HAC variance	0.093535	

Source: *Author's Computation (2025) E-View 13*

The result of Table 3 shows that the ADF t-statistic of -5.721421 is highly negative, and the p-value of 0.0000 is significant at the 5% level ($p < 0.05$). This indicates strong evidence of cointegration among the variables. In other words, there is a stable long-term relationship between digital payment platforms and the performance (measured by the Price Earnings ratio) of deposit money banks.

Table 4: Autoregressive Distributed Lag (ARDL) Long Run Test Result

Dependent Variable: D(LP/E)
Method: ARDL

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
	Long-Run Equation			
LATM	-0.311897	0.137737	-2.264445	0.0261
LPOS	0.045537	0.109287	0.416671	0.6780
LWEB PAY	-0.092465	0.030569	-3.024852	0.0033
LMOBILE PAY	0.127649	0.118427	1.077869	0.2841

Source: *Author's Computation (2025) E-View 13*

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The result from Table 4 shows that ATM transactions have a negative and statistically significant impact on the P/E ratio. Web Pay also exhibits a negative and significant relationship with the P/E ratio. In contrast, POS transactions show a positive but statistically insignificant relationship with the P/E ratio. Similarly, Mobile Pay has a positive but insignificant effect.

FINDINGS

The findings from the analysis reveal critical insights into the relationship between the Price-Earnings (P/E) ratio and digital payment platforms (ATM, POS, Web Pay, and Mobile the Price-Earnings suggest that while some digital payment platforms significantly influence bank profitability, others exhibit limited or no impact over time.

ATM transactions show a negative and statistically significant effect on the P/E ratio (coefficient = -0.3119, p = 0.0261). This indicates that as ATM usage increases, bank profitability declines, possibly due to high maintenance costs and operational inefficiencies. This finding aligns with Giannetti (2023), who argues that the cost of ATM maintenance reduces profitability, but contrasts with Al-Qaraleh (2023), who found that ATM expansion boosts bank revenue through increased transaction volumes.

On the other hand, POS transactions exhibit a positive but statistically insignificant effect on the P/E ratio (coefficient = 0.0455, p = 0.6780) . This suggests that while POS transactions enhance customer access, their contribution to bank profitability remains minimal. This finding supports Freihat (2019), who highlights the marginal financial impact of POS services, yet it conflicts with Mwai (2014), who argues that POS adoption significantly improves bank earnings through increased customer outreach.

Web Pay has a negative and statistically significant effect (coefficient = -0.0925, p = 0.0033), suggesting that increased web payment transactions reduce the P/E ratio. This may reflect the high cost of digital infrastructure and cybersecurity measures. This aligns with Adewuyi et al. (2020), who found that infrastructure costs reduce overall gains of Web Pay in bank performance. Conversely, Olufemi (2021) argues that continuous investment in digital platforms fosters sustained financial growth.

Lastly, Mobile Pay exhibits a positive but not significant impact on the LP/E ratio (coefficient = 0.1276, p = 0.2841). This implies that increased mobile payment adoption does not directly affect bank profitability. This result is consistent with Akinyele et al. (2021), who argue that mobile payments, despite their convenience, yield low revenue for banks due to minimal service fees. However, it contrasts with Eze and Nwankwo (2022), who claim that mobile payment innovations enhance customer loyalty and long-term profitability.

Overall, the findings indicate that digital payment platforms have varied effects on the P/E ratio of banks. While ATM and Web Pay impose financial costs over time, POS and Mobile Pay show limited profitability impact. This underscores the need for banks to strategically manage digital payment platforms to maximize long-term financial performance while controlling operational costs.

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CONCLUSION AND RECOMMENDATION

The study underscores that not all digital payment platforms uniformly enhance financial performance as measured by the P/E ratio. Certain digital platforms like Web Pay and ATM may impose costs that outweigh their benefits. Conversely, the non-significance of POS and Mobile Pay signals untapped potential or the need for complementary strategies such as customer education and infrastructure upgrades to unlock value. Deposit money banks in Nigeria should adopt a strategic approach to digital transformation, carefully evaluating the long-term financial implications of each digital platform to optimize investor value and market performance.

Based on the findings, the study recommends that deposit money banks should invest in cost-effective technologies and infrastructure upgrades to reduce the operational costs and enhance cybersecurity in the deployment of ATM and Web Pay platforms, as these platforms were found to have a negative long-run impact on bank performance. Banks should prioritize expanding and enhancing POS and Mobile Pay infrastructure in underserved rural and semi-urban markets to facilitate greater transaction volumes and encourage broader customer adoption. The deposit money bank should conduct periodic evaluations of their digital payment strategies to assess their financial impact

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