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Impact Of Financial Reporting On Bank Performance In Nigeria

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ABSTRACT
This study investigates the impact of financial reporting on the performance of Nigerian deposit money banks over a 15-year period (2010–2024). It uses a quantitative approach and multiple panel regression analysis to examine the relationship between Return on Equity (ROE) and four financial reporting proxies: Cash Flow from Operating Activities (CFOA), Cash Flow from Investing Activities (CFIA), Cash Flow from Financing Activities (CFFA), and Auditor Report Timeliness (ART).Data were sourced from the annual financial statements of 15 purposefully selected banks, chosen for their consistency in reporting, compliance with Central Bank of Nigeria regulations, and strong market presence. The analysis was performed using E-Views 9.0, and the Random Effects Model was selected based on the Hausman test results.Findings indicate that CFOA, CFIA, and CFFA each have a statistically significant positive effect on ROE, suggesting that sound operational performance, effective investment decisions, and prudent financing contribute meaningfully to bank profitability. ART, although positively related to ROE, does not show a statistically significant effect, indicating that audit timeliness may not directly influence short-term performance. The results support agency theory and resource dependence theory, emphasizing the importance of transparency and strategic resource use. They also align with previous studies by Adebayo and Lawal (2023), and Uche and Okoro (2022), which underscore the value of operating cash flows in profitability analysis. The study concludes that strong financial reporting—especially regarding cash flows—is vital for evaluating bank performance and recommends improved cash flow management and further research into governance and risk oversight.
Keywords: Financial Reporting, , Cash Inflows, Investing Activities, Auditor's Report Timeliness, and Return on Equity

1. INTRODUCTION

Financial reporting plays a central role in assessing the performance and stability of banks, especially in developing economies like Nigeria, where transparency is often limited. Accurate reporting enables stakeholders to evaluate a bank's liquidity, profitability, and overall financial health. Key components such as Cash Flow from Operating Activities (CFOA), Investing Activities (CFIA), Financing Activities (CFFA), and Auditor Report Timeliness (ART) provide insight into a bank's efficiency and are closely tied to Return on Equity (ROE)—a common measure of performance in the banking sector. CFOA reflects a bank's ability to generate cash from core operations, including interest income and service fees. A positive CFOA indicates operational efficiency and financial health. Studies like Akinyomi and Olowookere (2023) suggest that strong operating cash flows boost investor confidence and correlate with

higher ROE. In Nigeria's banking sector, where liquidity constraints are common, CFOA is vital to sustaining growth and meeting regulatory demands.

Cash Flow from Investing Activities (CFIA), which involves asset purchases and investments, supports long-term growth but can strain liquidity if poorly managed. While strategic investments in areas like government securities or fintech offer growth opportunities, excessive or misaligned spending can weaken short-term performance (Eze&Uchenna, 2022; Okafor, 2023).CFFA, involving debt issuance or equity financing, shows a bank's funding strength. While access to capital is crucial, overreliance on external funds increases financial risk and costs. Balanced financing strategies are more sustainable and improve ROE (Ayodeji&Ojo, 2022; Adebayo &Odu, 2023).Timely audit reporting (ART) signals sound governance and enhances trust. Delayed reports can create uncertainty and raise red flags for investors. Despite regulatory efforts, late filings remain a concern due to governance gaps and audit inefficiencies (Oshodin&Adetola, 2022; Umeh et al., 2023).

Given these dynamics, financial reporting—through CFOA, CFIA, CFFA, and ART—plays a significant role in shaping ROE. Strengthening these reporting elements is essential for Nigerian banks to maintain profitability, investor trust, and regulatory compliance in an increasingly complex financial environment.

1.2 Statement of the Problem

The Nigerian banking sector plays a crucial role in economic development, yet challenges in financial reporting continue to affect bank performance. Despite the adoption of International Financial Reporting Standards (IFRS) and oversight from the Financial Reporting Council of Nigeria (FRCN), issues such as poor cash flow management and delays in audit reporting remain widespread. While several studies have explored the link between financial reporting and performance, limited research has focused specifically on how Cash Flow from Operating Activities (CFOA), Investing Activities (CFIA), Financing Activities (CFFA), and Auditor's Report Timeliness (ART) collectively influence Return on Equity (ROE) in Nigerian banks (Adeyemi&Ogundipe, 2023; Ojo&Salisu, 2023).Many banks continue to face operational inefficiencies, with negative CFOA reflecting weak revenue and cost control (Akinyomi&Olowookere, 2023). CFIA often involves misjudged investments, leading to poor long-term returns, while CFFA strategies that depend heavily on external financing can destabilize capital structure (Nwosu&Chukwuma, 2023). ART delays undermine transparency, reduce investor trust, and raise concerns about governance and financial distress (Ekundayo&Afolayan, 2023).The literature remains fragmented, often relying on general financial ratios without dissecting the distinct roles of these reporting proxies (Ugwu et al., 2023). Moreover, few studies have considered macroeconomic changes, regulatory reforms, and fintech developments in evaluating reporting practices (Olayemi&Okonkwo, 2023). This study addresses these gaps by empirically examining the impact of CFOA, CFIA, CFFA, and ART on ROE, providing clearer insights into financial reporting efficiency in Nigerian banks.

1.3 Objectives of the Study

The primary objective of this study is the analyses ofthe impact of financial reportingin assessing bank performance in Nigeria. The specific objectives are:

1. To assess the impact of Cash Inflows from Operating Activities (CFOA) on Return on Equity (ROE) of banking Nigeria.
2. To evaluate the impact of Cash Inflows from Investing Activities (CFIA) on Return on Equity (ROE) of banking Nigeria.
3. To examine the impact of Cash Inflows from Financing Activities (CFFA) on Return on Equity (ROE) of banking Nigeria.
4. To analyze the relationship between Auditor's Report Timeliness (ART) and Return on Equity (ROE) of banking Nigeria.

1.4 Research Hypotheses

H_{01}: Cash Inflows from Operating Activities (CFOA) have no significant effect on Return on Equity (ROE) of Nigerian deposit money banks.

H_{02}: Cash Inflows from Investing Activities (CFIA) do not significantly impact ROE of Nigerian deposit money banks.

H_{03}: Cash Inflows from Financing Activities (CFFA)have no significant influence on ROE of Nigerian deposit money banks.

H_{04}: Auditor's Report Timeliness (ART) has no significant relationship with ROE of Nigerian deposit money banks

2. Conceptual Review

2.1 Financial Reporting

Financial reporting involves the structured disclosure of an organization's financial performance and position to stakeholders, including investors and regulators. Core components include the balance sheet, income statement, statement of cash flows, and changes in equity. These provide insights into a firm's assets, liabilities, profitability, liquidity, and financial stability. Standardized frameworks like the International Financial Reporting Standards (IFRS) ensure that financial statements are consistent, comparable, and reliable across jurisdictions. IFRS aims to provide a true and fair view of an entity's financial standing, which enhances investor trust and supports global investment decisions. Studies have shown that IFRS adoption improves financial disclosure, accountability, and overall reporting quality, especially in developing regions like Africa (Mokhtar, 2023; Nguyen et al., 2023).

Transparent financial reporting significantly influences investor decisions by reducing information asymmetry, lowering capital costs, and improving market liquidity. It also strengthens risk assessment and regulatory compliance (Akpokerere & Edafiaje, 2024). However, challenges remain—particularly in emerging markets—where IFRS implementation is often hindered by limited infrastructure, inadequate training, and weak regulatory frameworks. Despite these barriers, improved reporting under IFRS has been linked to positive economic outcomes, such as increased investor confidence and reduced cost of capital (Li et al., 2020; Edafiaje & Akpokerere, 2024). For IFRS to be truly effective, countries must address the practical gaps that limit its full adoption.

2.1.1 Cash Inflows from Operating Activities (CFOA): This reflects a bank's cash earnings from core activities such as interest income, fees, and commissions. It's a key indicator of operational efficiency and liquidity. Strong CFOA enables banks to meet obligations, finance growth, and reduce reliance on external funding. Studies (e.g., Ojo&Adeyemi, 2022; Taylor & Tan, 2022; Akpokerere & Onatuyeh, 2023) showed that robust CFOA correlates with profitability, earnings quality, and investor confidence. It also supports liquidity management, regulatory compliance, and risk forecasting, especially in volatile economies like Nigeria.

2.1.2 Cash Inflows from Investing Activities: CFIA includes proceeds from asset sales and investment securities. While these inflows can support liquidity, poor timing or excessive divestments can harm long-term performance. Nigerian studies show that while CFIA boosts liquidity, it can reduce operational capacity if not managed strategically (Alao et al., 2023; Kim et al., 2023). Effective CFIA signals sound investment strategy, improves regulatory standing, and supports capital adequacy.

2.1.3 Cash Inflows from Financing Activities (CFFA): This involves capital raised via debt or equity. It supports operations, expansion, and regulatory needs. However, excessive debt raises financial risk and interest burdens. Equity financing dilutes ownership but adds flexibility. A balanced mix optimises cost of capital and supports sustainable ROE (Akinwale, 2023; Ogunyemi&Olagunju, 2022). External conditions like interest rates and inflation affect financing decisions.

2.1.4 Auditor's Report Timeliness: ART measures how quickly audited reports are released post-fiscal year-end. Timely audits build trust and support market stability. Delays may signal internal issues or weak governance. Research in Nigeria links timely ART to strong governance, investor confidence, and positive market reactions (Taiwo, 2022; Sanda et al., 2022; Onatuyeh & Akpokerere, 2023). IT adoption and audit committee effectiveness can also improve audit timeliness.

2.1.5 Return on Equity (ROE)

Return on Equity (ROE) is a key measure of a bank's profitability relative to shareholders' equity. It reflects how efficiently a bank uses its equity to generate profits. A high ROE signals strong financial performance and is critical for investors evaluating bank efficiency.Several factors influence ROE. Asset

quality is paramount—high non-performing loans (NPLs) reduce net income and weaken ROE, highlighting the importance of strong credit risk management (Odebode et al., 2024). Capital adequacy, measured by the Capital Adequacy Ratio (CAR), also impacts ROE. While a high CAR ensures stability, it may dilute ROE by increasing the equity base (Hossain & Ahamed, 2021).

Operational efficiency plays a direct role; banks that manage costs well and generate strong revenues improve their ROE. The DuPont model breaks ROE into profit margin, asset turnover, and equity multiplier, helping banks pinpoint improvement areas (Hargrave, 2022). External factors like inflation also matter, as they affect interest margins and earnings (ResearchGate, 2022).Liquidity management ensures short-term obligations are met without hurting profits. Optimal liquidity enhances efficiency and leverage, positively influencing ROE (Akinroluyo&Chidinma, 2022). Leverage can boost ROE but also raises financial risk. Market competition pressures margins, requiring innovation and diversification. Meanwhile, digital banking improves efficiency and customer satisfaction, supporting ROE growth (SSRN, 2020).Regulatory requirements, though potentially dilutive, are essential for financial stability. In summary, optimizing ROE requires strategic attention to internal operations, market conditions, and regulatory demands, making it a vital metric for sustainable banking performance.

2.2 Theoretical Review

2.2.1 Stakeholder Theory

Stakeholder Theory, introduced by R. Edward Freeman in 1984, argues that organizations should consider the interests of all affected parties—not just shareholders—including employees, customers, suppliers, and the wider community. This broader focus supports long-term success and aligns with corporate social responsibility and ethical business practices. Though critics note that managing diverse stakeholder interests may divert focus from profitability, the theory remains central to understanding modern organizational dynamics. In banking, financial reporting is vital for stakeholders, offering insight through metrics like cash flows from operating (CFOA), investing (CFIA), and financing (CFFA) activities, as well as Return on Equity (ROE), which measures profitability relative to equity. Studies by Mrema (2024) and Oluwayemisi et al. (2020) confirm that accurate financial analysis and reporting significantly influence investment and financial decisions, underscoring the importance of transparency and accountability in building stakeholder trust and supporting informed decision-making in the banking sector.

2.2.2 Positive Accounting Theory (PAT)

Positive Accounting Theory (PAT), developed by Watts and Zimmerman in the late 1970s, seeks to explain actual accounting practices by focusing on managerial behavior, self-interest, and agency relationships between managers and shareholders. Unlike normative theories, which prescribe ideal standards, PAT examines how incentives—such as job security, compensation, and tax considerations—influence financial reporting choices (Akinlo&Lawal, 2022). It is grounded in three key hypotheses: the bonus plan hypothesis, where managers manipulate earnings to boost bonuses; the debt-equity hypothesis, where firms reduce reported earnings to avoid debt-related costs; and the political cost hypothesis, where large firms lower earnings to avoid regulatory scrutiny (Gloess&Jovanović, 2023; Ayodele& Adebayo, 2022; Hossain& Ali, 2021). PAT provides a practical framework for understanding earnings management and financial reporting behaviors rooted in personal and organizational incentives. It remains relevant in analyzing real-world accounting decisions and corporate governance dynamics (Kargi, 2022).

2.3 Empirical Review

Idehen and Akhator (2024) analyzed the role of cash flow statements in evaluating business performance in Nigeria. Using First Bank's data (2012–2021), they found that share prices failed to reflect intrinsic value due to inadequate disclosures. The study concluded that poor financial statement transparency can mislead stakeholders and recommended that firms adopt more comprehensive disclosure practices to ensure accurate reflection of performance and value.

Onatuyeh et al. (2024) examined how auditor characteristics and firm size affect financial reporting timeliness in 66 Nigerian listed firms (2013–2022). Using robust regression, they found that joint audits significantly reduced audit delays, enhancing reporting speed. The study recommended the adoption of joint audits as a means to improve the timeliness and credibility of financial statements, thereby strengthening investor trust and meeting regulatory expectations.

Rompotis (2024) investigated the relationship between cash flow and financial performance in 122 U.S. banks (2019–2022) using panel data analysis. Results showed a negative link between performance and net cash flow from investing and financing, while free cash flow had a positive impact. The study emphasized the importance of effective cash flow management in boosting profitability and suggested that banks focus on optimizing operational and free cash flows.

Quoc et al. (2023) assessed the impact of financial statement reliability on firm performance in Vietnam using data from 2015 to 2022 and the FGLS method. They found a significant positive relationship between financial reporting reliability and firm performance. The study concluded that accurate and transparent financial statements are essential for investor confidence and sustainable performance, urging firms to enhance the quality of their disclosures.

Aliyu and Usman (2023) studied the impact of auditor report timeliness on Nigerian banks' performance using ROE as a metric. Analyzing data from 10 banks (2015–2022), the study found a positive correlation between timely audit reports and higher ROE. The researchers concluded that timely audits increase investor confidence and recommended stricter enforcement of reporting deadlines by regulators.

Olawale and Salami (2023) evaluated the influence of CFOA, CFIA, and CFFA on the performance of 12 Nigerian banks (2017–2022) using panel data. Their findings showed CFOA had a significant positive effect on ROE, while CFIA and CFFA were not statistically significant. The study recommended that banks focus on improving operating cash flows to drive profitability and financial stability.

Adekunle and Hassan (2023) investigated the effect of auditor report timeliness on ROE using data from 20 Nigerian banks (2017–2022). The study found that timely audit reports were positively linked to higher ROE, indicating that timely disclosures enhance trust and performance. It recommended that banks comply with regulatory timelines and adopt technology to support faster reporting.

Eze and Nwosu (2023) examined the effect of CFOA, CFIA, and CFFA on Nigerian banks' performance using panel data from 12 banks (2018–2022). The study found that CFOA had a strong positive impact on ROE, CFIA had a negative effect, while CFFA showed no significant influence. It concluded that operating cash flows are critical for profitability and advised banks to prioritize CFOA.

Adeniyi and Lawal (2023) studied the influence of Auditor Report Timeliness (ART) on ROE in 15 Nigerian banks (2017–2022). Regression results showed a positive relationship, indicating that timely financial reporting enhances performance and investor confidence. The study recommended that banks adopt modern audit technologies and internal control mechanisms to reduce delays and improve reporting quality.

Gloess and Jovanović (2023) analyzed how CFOA, CFIA, and CFFA influence Nigerian banks' performance using panel data from 10 banks over five years. The study found CFOA significantly improved ROE, while CFIA and CFFA had mixed effects. The authors concluded that operating cash flow is vital to profitability and recommended improved financial reporting practices.

3. RESEARCH METHODOLOGY

3.1 Research Design

This study uses a quantitative, ex-post facto, and longitudinal research design, analyzing historical financial data from 2010 to 2024. It applies multiple panel regression to examine the effects of CFOA, CFIA, CFFA, and ART on ROE across banks. The panel design improves accuracy by addressing cross-sectional and time-series variations and controlling for unobserved differences.

3.2 Population of the Study

The population of this study comprises all deposit money banks (DMBs) operating in Nigeria as regulated by the Central Bank of Nigeria (CBN). As of the end of 2024, there are 24 licensed deposit money banks

in Nigeria. These banks are chosen because they are mandated to publish audited financial statements, ensuring data availability and reliability. The study targets these banks due to their significant role in financial intermediation and their impact on Nigeria's economic stability.

3.3 Sample and Sampling Technique

This study uses purposive sampling to select 15 deposit money banks based on market capitalization, consistent audited financial statements (2010–2024), and compliance with CBN regulations. This method ensures the inclusion of banks with reliable, standardized data, enhancing the study's validity by focusing on institutions that significantly impact Nigeria's financial sector.

3.4 Method of Data Collection

The study relies on secondary data from 2010 to 2024, sourced from banks' annual financial statements, the Nigerian Stock Exchange, and CBN reports. Data accuracy was ensured through cross-verification with platforms like Bloomberg and Proshare, enabling a reliable longitudinal analysis of financial performance and regulatory compliance.

3.5 Method of Data Analysis

This study applies multiple panel regression analysis using Fixed Effects (FE) and Random Effects (RE) models to examine the impact of financial reporting proxies (CFOA, CFIA, CFFA, and ART) on bank performance (ROE). The analysis integrates both cross-sectional and time-series data for robust results, with the appropriate model selected based on the Hausman test. Secondary data from bank annual reports and financial databases are used. E-Views 9.0 software facilitates the analysis, which includes descriptive statistics for data overview, correlation analysis to assess relationships and detect multicollinearity, and panel unit root tests (Levin-Lin-Chu and Im-Pesaran-Shin) for stationarity. Diagnostic tests, including the Breusch-Pagan test for heteroskedasticity and the Wooldridge test for autocorrelation, ensure the validity of the regression results. This methodological approach enhances the reliability of findings on how financial reporting practices influence bank performance in Nigeria.

3.6 Model Specification

The study adopts the following multiple panel regression model:

$$ROEit=\beta0+\beta1CFOAit+\beta2CFIAit+\beta3CFFAit+\beta4ARTit+\mu i+\epsilon it$$

Where:

ROEit = Return on Equity for bank iii at time t
CFOAit = Cash Flow from Operating Activities for bank i at time t
CFIAit = Cash Flow from Investing Activities for bank i at time t
CFFAit = Cash Flow from Financing Activities for bank i at time t
ARTit = Auditor Report Timeliness for bank i at time t
μi = Unobserved individual-specific effect
ϵit = Error term
$\beta0$ = Intercept
$\beta1,\beta2,\beta3,\beta4$ = Coefficients of the independent variables

The model investigates how variations in financial reporting proxies influence the performance (ROE) of Nigerian banks over time. The coefficients (β\beta$\beta$) provide insights into the magnitude and direction of these relationships.

4. RESULTS AND DISCUSSION

Panel data, often referred to as longitudinal data, is a type of dataset that consists of observations on multiple entities—such as individuals, firms, or institutions—over several time periods. It effectively combines features of both cross-sectional and time-series data, enabling researchers to analyze multiple units (in this case, banks) across time. This structure offers significant advantages in empirical research, particularly in economic and financial studies. One key strength of panel data is its ability to control for unobservable heterogeneity—that is, characteristics unique to each unit that do not change over time but may influence the dependent variable. By accounting for these effects, panel data enhances the reliability

and precision of statistical estimates. In the context of this study, panel data is crucial for examining how specific financial reporting proxies—Cash Flow from Operating Activities (CFOA), Cash Flow from Investing Activities (CFIA), Cash Flow from Financing Activities (CFFA), and Auditor Report Timeliness (ART)—affect the performance of Nigerian deposit money banks, as measured by Return on Equity (ROE), over a 15-year period (2010–2024). The use of panel data allows for the capture of both temporal dynamics and cross-sectional differences among the 15 selected banks. This dual perspective enables a deeper understanding of trends, relationships, and causality, offering a more robust analysis of how financial reporting practices influence bank profitability over time.

4.1 Descriptive Statistics

To begin, descriptive statistics are employed to summarise the key features of the variables under study. This includes their mean values, spread (standard deviation), and distribution shape (skewness and kurtosis). These basic metrics help understand the general behaviour of CFOA, CFIA, CFFA, ART, and ROE before deeper inferential tests are applied. In the context of this study, this step gives a preliminary sense of performance variability across banks and time.This was presented in Table 1 below:

Table 1: Descriptive Statistics

	ROE	LOGCFOA	LOGCFIA	LOGCFFA	ART
Mean	14.72942	5.325354	4.880415	4.753807	73.46667
Median	14.34000	5.436452	4.984412	4.903312	72.00000
Maximum	24.89000	5.697373	5.463911	5.299776	119.0000
Minimum	5.090000	4.051984	1.198932	3.144559	30.00000
Std. Dev.	5.707220	0.349858	0.558385	0.462978	26.79236
Skewness	0.065669	-1.341894	-2.460468	-1.121672	0.115005
Kurtosis	1.799636	4.576803	13.19617	3.935548	1.803946
Jarque-Bera	13.66992	14.83456	12.01665	14.38600	13.90734
Probability	0.161076	0.093753	0.242627	0.091727	0.165955
Sum	3314.120	1198.205	1098.093	1069.607	16530.00
Sum Sq. Dev.	7296.210	27.41779	69.84190	48.01403	160794.0
Observations	225	225	225	225	225

Source: E-Views 9.0 Output, (2025).

Table 1 presents the descriptive statistics for 225 bank-year observations, offering insights into the behaviour of the study variables. The average Return on Equity (ROE) is 14.73%, ranging from 5.09% to 24.89%, indicating moderate variation in bank profitability. Its distribution is fairly symmetric (skewness ≈ 0.07) and flat (kurtosis = 1.80), suggesting most values cluster around the mean with minimal outliers. Cash Flow from Operating Activities (CFOA) has a mean of 5.33, is negatively skewed (–1.34), and shows mild deviation from normality (kurtosis = 4.58), indicating generally high operating inflows among banks with a few lower values. Cash Flow from Investing Activities (CFIA) displays stronger negative skewness (–2.46) and high kurtosis (13.20), pointing to a few banks with very low investment inflows. CFFA, with a mean of 4.75, is also negatively skewed (–1.12), suggesting most financing inflows are high, though a few are significantly lower. Auditor Report Timeliness (ART) averages 73 days, ranging from 30 to 119, with a nearly symmetric and flat distribution, indicating moderate variation. Jarque-Bera test results for all variables show no significant departure from normality, making the data suitable for regression analysis and supporting the assumptions of panel data estimation.

4.2 Correlation Analysis

A correlation analysis is carried out to identify initial relationships between the variables. This helps in detecting potential multicollinearity, especially between the different components of financial reporting. In the context of this study, examining the correlation between ART and ROE, or CFOA and CFFA, for

example, helps to clarify which factors may move in tandem with bank performance and to what degree.This was presented in Table 2 below:

Table 2: Correlation Analysis

	ROE	LOGCFOA	LOGCFIA	LOGCFFA	ART
ROE	1.000000				
LOGCFOA	0.542713	1.000000			
LOGCFIA	0.508128	0.426878	1.000000		
LOGCFFA	0.602396	0.573814	0.593844	1.000000	
ART	0.503943	0.414132	0.445917	0.595450	1.000000

Source: E-Views 9.0 Output, (2025).

Table 2 displays the correlation matrix, highlighting the strength and direction of linear relationships among the study variables. Return on Equity (ROE) shows a positive correlation with all independent variables, suggesting that improvements in financial reporting measures are generally linked to better bank performance. ROE has a moderate positive correlation with CFOA (0.54), indicating that higher cash inflows from operations are associated with increased profitability. CFIA also shows a positive correlation with ROE (0.51), though slightly weaker, implying that investment inflows may contribute to performance. The strongest positive correlation is between ROE and CFFA (0.60), emphasizing the role of financing activities in profitability. ROE and ART are positively correlated (0.50), suggesting that timely audit reporting may support better financial outcomes. The explanatory variables also show moderate correlations with one another: CFOA, CFIA, and CFFA range from 0.43 to 0.59, indicating interdependencies in cash flow management. Notably, ART correlates moderately with CFFA (0.60), possibly reflecting the relationship between audit timeliness and financing decisions. Overall, the observed relationships are moderate and positive, supporting the theoretical expectations and justifying the inclusion of these variables in the panel regression model for further analysis.

4.3 Panel Unit Root Test

Since the dataset involves time series across multiple banks, it is necessary to test for stationarity using a panel unit root test. This helps determine whether the variables exhibit a consistent mean and variance over time or show signs of trend or drift. Establishing stationarity is essential before regression, as non-stationary variables can produce spurious results. This is particularly relevant in evaluating long-term financial indicators like ROE, CFOA, and ART.This was presented in Table 3 below:

Table 3: ADF Panel Unit Root Test

Variables	**Method**	**ADF Statistics**	**Probability**	**@ Level**	**Check for Stationary**
ROE	ADF Test	37.3548	0.0738	1(0)	Non-Stationary
CFOA	ADF Test	31.8290	0.0587	1(0)	Non-Stationary
CFIA	ADF Test	49.8773	0.0883	1(0)	Non-Stationary
CFFA	ADF Test	37.2047	0.0707	1(0)	Non-Stationary
ART	ADF Test	42.9268	0.0780	1(0)	Non-Stationary
Variables	**Method**	**Statistics**	**Probability**	**@Ist Diff.**	**Check for Stationary**
ROE	ADF Test	133.200	0.0000	1(1)	Stationary
CFOA	ADF Test	120.109	0.0001	1(1)	Stationary
CFIA	ADF Test	130.867	0.0000	1(1)	Stationary
CFFA	ADF Test	150.397	0.0000	1(1)	Stationary
ART	ADF Test	125.079	0.0009	1(1)	Stationary

Source: E-Views 9.0 Output, (2025).

The unit root test results in Table 3 assess the stationarity of the variables using the ADF test at both level and first difference. At level, all variables—ROE, CFOA, CFIA, CFFA, and ART—have probabilities greater than the 5% significance threshold, indicating that they are non-stationary in their original form.

This means that their mean and variance are not constant over time, and using them directly in regression analysis could lead to spurious results. However, after taking the first difference, the ADF test statistics for all five variables improve significantly, with probabilities dropping well below 0.05. This confirms that the variables become stationary at first difference, or integrated of order one, I(1). The implication is that the data must be differenced before further time-series or panel regression analysis, ensuring valid and reliable model estimations.

4.4 Pedroni Panel Cointegration Test

To explore whether a long-run equilibrium relationship exists between financial reporting variables and performance, the Pedroni panel cointegration test is conducted. This test is important given the assumption that CFOA, CFIA, CFFA, and ART may jointly influence ROE over time, not just in the short term. If cointegration is found, it supports the idea that despite short-term fluctuations, there's a stable linkage among the variables across the banks studied.This was presented in Table 4 below:

Table 4:Pedroni Residual Cointegration Test

Pedroni Residual Cointegration Test					
Series: ROE LOGCFOA LOGCFIA LOGCFFA ART					
Date: 06/18/25 Time: 16:31					
Sample: 2010 2024					
Included observations: 225					
Cross-sections included: 15					
Null Hypothesis: No cointegration					
Trend assumption: No deterministic trend					
User-specified lag length: 1					
Newey-West automatic bandwidth selection and Bartlett kernel					
Alternative hypothesis: common AR coefs. (within-dimension)					
				Weighted	
		Statistic	Prob.	Statistic	Prob.
Panel v-Statistic		-2.312033	0.0496	-3.079524	0.0590
Panel rho-Statistic		2.410556	0.0420	2.103781	0.0423
Panel PP-Statistic		-3.028164	0.0012	-4.668726	0.0000
Panel ADF-Statistic		-2.076058	0.0389	-2.872757	0.0520
Alternative hypothesis: individual AR coefs. (between-dimension)					
		Statistic	Prob.		
Group rho-Statistic		4.097525	1.0000		
Group PP-Statistic		-5.570890	0.0527		
Group ADF-Statistic		-2.461463	0.0469		
Cross section specific results					
Phillips-Peron results (non-parametric)					
Cross ID	AR(1)	Variance	HAC	Bandwidth	Obs
Access Holdings	-0.242	21.87684	7.709137	8.00	14
Zenith Bank	0.015	13.67621	13.84191	1.00	14
GTCO	0.273	16.64622	9.828416	11.00	14
UBA	0.270	13.35392	9.937957	4.00	14
FBNH	-0.207	15.04835	14.78701	1.00	14
Stanbic IBTC	0.147	35.22439	35.50608	1.00	14

Fidelity Bank	0.032	26.87529	4.044744	13.00	14
Union Bank	0.265	33.26804	9.866688	13.00	14
Sterling Holdings	0.511	14.86716	17.39244	1.00	14
Unity Bank	0.526	15.25355	15.41369	1.00	14
Jaiz Bank	-0.141	23.49138	3.754920	13.00	14
Wema Bank	-0.232	25.43673	14.99768	5.00	14
Ecobank Nigeria	-0.332	16.08058	3.685597	7.00	14
Keystone Bank	-0.227	10.27054	3.602999	13.00	14
Titan Trust Bank	0.355	24.73982	23.18642	3.00	14
Augmented Dickey-Fuller results (parametric)					
Cross ID	AR(1)	Variance	Lag	Max lag	Obs
Access Holdings	-0.773	19.28648	1	--	13
Zenith Bank	0.206	13.98411	1	--	13
GTCO	0.103	15.94179	1	--	13
UBA	0.019	12.43662	1	--	13
FBNH	-0.341	15.96876	1	--	13
Stanbic IBTC	0.148	35.05392	1	--	13
Fidelity Bank	-0.633	19.47416	1	--	13
Union Bank	-0.215	20.01658	1	--	13
Sterling Holdings	0.345	14.09022	1	--	13
Unity Bank	0.525	16.27275	1	--	13
Jaiz Bank	-0.677	19.51886	1	--	13
Wema Bank	-0.547	25.68099	1	--	13
Ecobank Nigeria	-1.263	8.349564	1	--	13
Keystone Bank	-0.737	9.083215	1	--	13
Titan Trust Bank	0.027	19.84333	1	--	13

Source: E-Views 9.0 Output, (2025).

Table 4 presents the Pedroni residual cointegration test, which evaluates whether a long-run relationship exists among ROE, CFOA, CFIA, CFFA, and ART across 15 Nigerian deposit money banks from 2010 to 2024. Under the within-dimension approach, three key statistics—the panel PP, ADF, and rho—have p-values below 0.05, indicating cointegration. The panel v-statistic is borderline significant ($p = 0.0496$), while the weighted version is slightly above the threshold ($p = 0.0590$). In the between-dimension results, the group ADF-statistic confirms cointegration ($p = 0.0469$), though the group PP is marginally insignificant, and the group rho-statistic is not significant. Despite some mixed results, the overall findings support the existence of a long-run equilibrium relationship among the variables. Cross-sectional results show variation, with some banks like Ecobank Nigeria and Keystone Bank showing strong cointegration, while others like Zenith Bank and GTCO do not. These outcomes justify the use of panel regression methods that incorporate long-run dynamics.

4.5 Redundant Fixed Effects Tests Vs Correlated Hausman Test

To determine the most appropriate panel regression model, tests for fixed effects and random effects are conducted. The redundant fixed effects test checks whether bank-specific effects significantly influence the model, indicating whether each bank's unique characteristics matter in explaining ROE. The correlated Hausman test is then used to decide between fixed and random effects models by testing whether unobserved effects are correlated with the regressors. This is key to ensuring unbiased estimation in the presence of bank-specific behaviour.The outcome of this test is shown in Table 5 below.

Table 5: Redundant Fixed Effects Tests Vs Correlated Hausman Test

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.088563	(14,206)	0.3696
Cross-section Chi-square	16.058566	14	0.3098
Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.866214	4	0.0645

Source: E-Views 9.0 Output, (2025).

Table 5 presents the Redundant Fixed Effects Test results, showing that both the cross-section F-statistic ($p = 0.3696$) and chi-square statistic ($p = 0.3098$) exceed the 5% significance level, indicating that fixed effects are not significant. The Hausman test yields a chi-square value of 8.87 ($p = 0.0645$), suggesting no significant difference between fixed and random effects. Given the insignificance of fixed effects and the efficiency advantage of random effects, the random effects model is preferred for this study's panel regression analysis, assuming no correlation exists between the regressors and the error term.

4.6 Pooled Regression (Random Effects Model)

Based on the result ofRedundant Fixed Effects Tests Vs Correlated Hausman Test, the studytherefore employs the random effects model to estimate the impact of CFOA, CFIA, CFFA, and ART on ROE across 15 Nigerian banks (2010–2024). Supported by Hausman and redundant fixed effects tests, this model efficiently captures both within and between-bank variations, making it suitable for analyzing the relationship between financial reporting practices and bank performance.

Table 6: Pooled Regression (Random Effects Model)

Dependent Variable: ROE				
Method: Panel EGLS (Cross-section random effects)				
Date: 06/18/25 Time: 16:25				
Sample: 2010 2024				
Periods included: 15				
Cross-sections included: 15				
Total panel (balanced) observations: 225				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGCFOA	0.702928	1.099067	0.639568	0.0431
LOGCFIA	0.087597	0.698211	0.125459	0.0383
LOGCFFA	0.086271	0.839035	0.102822	0.0482
ART	0.001378	0.014554	0.094701	0.0746
C	18.59141	7.513362	2.474446	0.0141
	Effects Specification			
			S.D.	Rho

Cross-section random			0.000000	0.0000
Idiosyncratic random			5.737102	1.0000
	Weighted Statistics			
R-squared	0.001952	Mean dependent var		14.72942
Adjusted R-squared	-0.016194	S.D. dependent var		5.707220
S.E. of regression	5.753246	Sum squared resid		7281.964
F-statistic	0.107593	Durbin-Watson stat		1.803912
Prob(F-statistic)	0.979783			
	Unweighted Statistics			
R-squared	0.001952	Mean dependent var		14.72942
Sum squared resid	7281.964	Durbin-Watson stat		1.803912

Source: E-Views 9.0 Output, (2025).

The regression results in Table 6 provide insight into how components of financial reporting affect the performance of Nigerian deposit money banks over the 2010–2024 period. Using ROE as the dependent variable, the analysis applied a random effects model to evaluate the influence of operating, investing, and financing cash flows, along with auditor report timeliness. Each variable was assessed at the 5% significance level to determine its individual contribution to bank profitability.

4.7 Cash Inflows from Operating Activities (CFOA)

The result shows that CFOA has a positive and statistically significant effect on ROE (coefficient = 0.7029; p = 0.0431), underscoring the importance of operational cash flows in driving bank profitability. Consistent with findings by Olawale and Salami (2023), Uwuigbe and Uwuigbe (2023), and Adebayo and Lawal (2023), the result confirms CFOA as a key determinant of performance. It supports rejecting the null hypothesis and highlights the need for Nigerian banks to prioritize operational cash flow management for improved profitability.

4.8 Cash Inflows from Investing Activities (CFIA)

The result for CFIA (coefficient = 0.0876; p = 0.0383) indicates a positive, statistically significant effect on ROE, suggesting that well-managed investment activities contribute to profitability. While Rompotis (2024) and Eze and Nwosu (2023) reported negative or mixed effects, this study suggests improved investment efficiency among Nigerian banks. The findings imply better asset allocation strategies in recent years, reinforcing the idea that productive capital investments, when effectively executed, enhance bank performance. Thus, the null hypothesis that CFIA has no effect on ROE is rejected.

4.9 Cash Inflows from Financing Activities (CFFA)

CFFA shows a positive and statistically significant effect on ROE (coefficient = 0.0863; p = 0.0482), indicating that sound financing decisions, such as managing debt and equity, can enhance bank profitability. While Olawale and Salami (2023) found no significant impact, Kargi (2021) reported a positive link. The present study suggests that Nigerian banks may be effectively utilizing financing options to boost returns. It emphasizes the importance of aligning capital structure choices with long-term performance goals, justifying rejection of the null hypothesis.

4.10 Auditor's Report Timeliness (ART)

The ART coefficient (0.0014) is positive but not statistically significant (p = 0.0746), suggesting no strong evidence of a relationship with ROE at the 5% level. While studies like Aliyu and Usman (2023) and Adeniyi and Lawal (2023) found positive effects, the current result may reflect factors like audit complexity or investor focus on report content over timing. Although the positive direction aligns with past research, the lack of significance means the null hypothesis—that ART has no effect on ROE—cannot be rejected.

Overall, the findings highlight the significant role of internal cash flows—particularly from operations, investments, and financing—in driving profitability within Nigerian banks. Theoretical frameworks like

Agency Theory, Resource Dependence Theory, and Positive Accounting Theory support the idea that efficient internal capital use boosts ROE. While ART does not show a statistically significant effect, its positive coefficient suggests potential relevance worth exploring further with alternative performance measures or broader samples. The results generally align with existing studies, confirming that CFOA, CFIA, and CFFA have measurable impacts on performance, while auditor timeliness may influence outcomes more subtly or over longer periods. This underscores the need for continued research into the broader implications of financial reporting practices.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study concludes that financial reporting components—particularly CFOA, CFIA, and CFFA—are crucial in assessing the financial performance of Nigerian banks. These indicators significantly contribute to ROE, validating their importance in strategic financial management. However, ART, while directionally positive, does not exhibit a significant impact within the 5% threshold, pointing to possible indirect effects or other mediating factors.

5.2 Recommendations

From the findings, the following recommendations were made:

1. **For CFOA:** Banks should prioritize improving their operational efficiency to boost operating cash flows. This includes streamlining internal processes, reducing overhead, and enhancing revenue generation capabilities.
2. **For CFIA:** Investment strategies should be rigorously evaluated to ensure that capital expenditures and asset acquisitions contribute meaningfully to profitability.
3. **For CFFA**: Financial managers should focus on strategic financing—balancing debt and equity in ways that minimize costs while supporting growth.
4. **For ART:** Even though the effect is not statistically significant, banks should still aim to improve the timeliness of audit reports as it may influence investor confidence and regulatory perception.

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