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Impact of cloud accounting financial reporting quality of commercial banks in Nigeria

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Abstract

The study examined the effect of cloud accounting on financial reporting quality of commercial banks in Nigeria. The specific objectives were to examine the effect of cloud accounting infrastructure and cloud accounting software on earnings quality of listed commercial banks in Nigeria. This study adopted an ex-post facto research design. The population of this study comprised the thirteen (13) commercial banks listed on the Nigerian Exchange Group (NGX) as at 2024. Purposive sampling was employed to select the seven (7) banks that made up the sample constituents, with the selection criterion being that the bank must possess an international authorization. Secondary data were obtained from the audited annual reports and financial statements of the sampled commercial banks covering the period 2015 to 2024. Descriptive statistics was used to summarize the mean, standard deviation, minimum, and maximum values of all variables. Test of hypotheses was conducted using panel least squares regression at 5% significance level. The study found the following: cloud accounting infrastructure has a positive but non-significant effect on earnings quality (β = 1.5606, p = 0.2233); cloud accounting software has a significant negative effect on earnings quality (β = -34.9358, p = 0.0371). the study concluded that, cloud accounting, significantly affect earnings quality while transformative, is not inherently beneficial or harmful to earnings quality; its real effect depends on how it is deployed, managed, and aligned with the broader objectives of truthful and reliable financial reporting in practice. Given that cloud accounting software demonstrated a significant negative effect on earnings quality, it is recommended that software developers and vendors providing cloud accounting solutions undertake a comprehensive review of their software's functionalities, interface, and error-handling capabilities which should focus on identifying features or processes that may lead to data

inconsistencies, misclassifications, or reporting delays, and redesigning them to enhance transparency and accuracy.

Keywords: Cloud Accounting, Financial Reporting Quality, Cloud Accounting Infrastructure, Cloud Accounting Software, Earnings Quality.

INTRODUCTION

The banking sector plays a central role in driving economic growth, stability, and development, and one of its most critical responsibilities is maintaining accurate and reliable financial records. In recent decades, the global financial environment has undergone rapid transformation, shaped largely by advancements in information and communication technologies. Traditional accounting practices, which once relied on manual processes and locally installed systems, are increasingly being replaced by technology-driven solutions that allow for real-time processing, enhanced security, and improved accessibility of financial data (Nworie & Okafor, 2023a). Among these innovations, cloud-based technologies have become prominent tools for delivering accounting services in a fast-changing business domain (Esawi et al., 2025). In many developed economies, cloud accounting has already gained significant adoption, while in emerging economies like Nigeria, its adoption is steadily growing due to the need for operational efficiency, improved compliance, and enhanced service delivery (Oladejo & Etigale, 2025). Commercial banks, as highly regulated entities that must produce accurate and timely financial statements for various stakeholders (Nnko, 2023), have shown increasing interest in leveraging cloud accounting to support their operations (Olaoye & Akadi, 2024). This growing interest raises important questions about how such technologies influence the quality of financial reporting, especially in a banking industry where transparency and trust are indispensable for maintaining public confidence and meeting regulatory requirements.

Financial reporting quality remains a cornerstone of effective corporate governance and sound decision-making in both private and public organizations (Akai et al., 2023). High-quality financial reports ensure that information about an organization's financial position and performance is accurate, relevant, comparable, and reliable for decision-making by stakeholders such as investors, regulators, creditors, and the general public. For commercial banks, where financial information guides lending decisions, investment planning, and regulatory compliance, the quality of financial reporting directly impacts credibility and sustainability (Oladejo & Etigale, 2025). Inaccurate or misleading financial reports can lead to poor investment decisions, regulatory sanctions, and loss of public trust, all of which can threaten the stability of the banking sector. Alongside this need for reliability in reporting, the business environment is also witnessing a growing demand for technology adoption to handle increasingly complex financial transactions. Cloud accounting, which enables organizations to process and store accounting data on remote servers accessible via the internet, is one such technology reshaping how financial data is managed (Akwuobi et al., 2025). Its relevance lies in its ability to offer centralized access, real-time updates, and scalability, making it a potentially powerful tool for enhancing the timeliness and accuracy of financial reports. The combination of strong financial reporting practices and modern technological solutions like cloud accounting is becoming essential for institutions seeking to remain competitive and compliant in the evolving financial landscape.

The effect of cloud accounting on financial reporting quality can be seen in the way it changes how financial data is collected, processed, and communicated. By hosting accounting systems on secure, remotely managed servers, cloud accounting enables real-time entry and updating of transactions, reducing the risk of errors and inconsistencies that often arise in manual or traditional systems (Nduokafor et al., 2024). This improved timeliness ensures that reports reflect the most current financial position of the organization, which is particularly important

for commercial banks where decision-making often depends on up-to-date figures. Furthermore, cloud systems typically come with built-in compliance features that align with accounting standards and regulatory requirements, thereby promoting consistency and reducing the likelihood of misstatements. These systems also enhance collaboration, as authorized staff can access and work on the same set of financial data from different locations, improving efficiency in financial statement preparation. However, the relationship between cloud accounting and financial reporting quality is not entirely without challenges. Factors such as user acceptance, system security, and data migration processes can influence the extent to which cloud accounting delivers its intended benefits (Anaege et al., 2025). This makes it important to study how commercial banks in Nigeria are adopting cloud accounting and whether it is indeed leading to measurable improvements in the accuracy, reliability, and transparency of their financial reports.

In a well-functioning banking environment, financial reporting should present an accurate, complete, and timely reflection of an institution's financial position and performance. Reports should be prepared in compliance with relevant accounting standards, free from material misstatements, and delivered in a manner that supports effective decision-making by regulators, investors, management, and the public. Modern technology, including cloud-based accounting platforms, is capable of supporting these objectives by providing real-time processing, secure data storage, and easy accessibility (Owolabi et al., 2023). When properly implemented, such systems allow commercial banks to maintain up-to-date records, produce reliable statements, and respond quickly to regulatory and market demands.

In practice, however, financial reporting among commercial banks in Nigeria has often faced challenges that undermine its quality. Delays in producing financial statements, inconsistencies in reported figures, and occasional errors in disclosures have been observed in the sector. While some banks have introduced cloud accounting systems, their adoption and effective use remain uneven as a result of limited technical expertise among staff, inadequate infrastructure, and concerns about data security which have hindered the full integration of these systems (Anaege et al., 2025). As a result, the intended benefits of real-time data processing, improved accuracy, and enhanced transparency are not always realized. This gap between technological capability and operational reality raises questions about the true impact of cloud accounting on the quality of financial reporting.

When financial reporting does not achieve high standards of reliability and timeliness, the consequences can be significant. Poor-quality reporting can contribute to misguided investment decisions, weaken compliance with regulatory frameworks, and increase the risk of penalties or reputational damage (Mesioye & Bakare, 2024). Over time, this can erode trust in the banking system, limit access to capital, and reduce the sector's ability to contribute effectively to economic growth. In such an environment, understanding whether cloud accounting is truly improving financial reporting quality becomes not only relevant but necessary for the stability and competitiveness of commercial banks in Nigeria. Prior studies, including Esawi et al. (2025), Oladejo and Etigale (2025), Ikwuo et al. (2025), Azeez et al. (2025), Akwuobi et al. (2025), Olamide (2024), Nwekwo et al. (2024), Nduokafor et al. (2024), Olaoye and Akadi (2024), and Akai et al. (2023), have explored cloud accounting, cloud computing, and related technologies in relation to financial reporting quality and other outcomes. However, most relied on surveys, focused on single industries or states, or examined limited components like SaaS or ERP, neglecting combined infrastructure and software perspectives. Few targeted listed commercial banks or earnings quality specifically. These gaps call for a more robust study that examines the impact of cloud accounting on financial reporting quality of commercial banks in Nigeria. Arising from the above, the main aim of the study is to examine the effect of cloud accounting on financial reporting quality of listed commercial banks in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Cloud Accounting

Cloud accounting refers to the practice of performing accounting processes and storing financial data through online platforms that are hosted on remote servers (Ikwuo et al., 2025). Instead of using locally installed accounting systems that require manual updates and hardware maintenance, cloud accounting relies on internet-based services where data is processed and kept securely in the provider's data centers. This approach allows financial transactions, record-keeping, and reporting activities to be carried out in a virtual environment accessible from multiple devices through a web connection (Ikwuo et al., 2025).

The essence of cloud accounting lies in its use of remote computing resources to handle traditional accounting tasks (Owolabi & Izang, 2020). All bookkeeping activities, from journal entries to preparation of financial statements, are executed through a centralized online platform maintained by a third-party service provider. The data is stored in real time, meaning any changes or entries are immediately updated across the system for authorized users to access (Akpan et al., 2023). This ensures that financial information remains up to date and can be retrieved from any location. For cloud accounting system to be workable, there must be replacement of physical storage and standalone systems with a continuous online service. However, what makes it cloud-based accounting system is that rather than depending on individual computers and isolated databases, all financial data is hosted in a secure digital space (Nduokafor et al., 2024). Users log into the platform using authentication credentials, which ensures that only authorized personnel can view or modify the information. This virtualized approach to accounting has transformed how organizations manage their finances, as it combines accessibility with centralized control over records.

Cloud Accounting Infrastructure

Cloud accounting infrastructure refers to the entire technological framework that supports online-based accounting activities (Arsenie-Samoil, 2011). It consists of the remote servers, network systems, data storage facilities, and digital security mechanisms that make it possible for accounting data to be processed, stored, and retrieved over the internet. This infrastructure forms the underlying foundation on which cloud accounting services operate, ensuring that all accounting transactions and records are managed in a stable, secure, and efficient online environment (Achar, 2018).

Cloud accounting infrastructure is based on the idea that accounting functions no longer rely solely on in-house hardware or localized networks. Instead, the infrastructure is provided by specialized service providers who maintain powerful remote servers and integrated systems capable of handling large volumes of financial data simultaneously (Akai et al., 2023). The infrastructure is designed to facilitate seamless connectivity between users and the hosted accounting platform, ensuring that operations remain continuous regardless of location.

It also encompasses the arrangement and coordination of various technological elements that enable the storage, processing, and safeguarding of accounting information (Arsenie-Samoil, 2011). The infrastructure ensures that data is backed up regularly, remains protected from unauthorized access, and is available at any time through a secure online connection. Without this underlying system of servers, networks, and protective protocols, cloud accounting platforms would not be able to function reliably or offer the level of accessibility and security they provide. Hence, this study hypothetical thus, cloud accounting infrastructure has no significant effect on earnings quality of listed commercial banks in Nigeri

Cloud Accounting Software

Cloud accounting software refers to the specific applications that enable users to carry out accounting tasks through an online platform (Wicaksono et al., 2020). These applications are hosted on remote servers and accessed through the internet, providing tools for recording

transactions, generating reports, tracking assets, and managing other financial functions. The software serves as the operational interface through which accounting activities are executed within the cloud environment (Akai et al., 2023).

This type of software eliminates the need for installation on individual computers, as it operates entirely through web browsers or dedicated online portals (Ikwuo et al., 2025). All updates, maintenance, and upgrades are managed by the service provider, meaning users always work with the most current version of the application. The software integrates the various elements of accounting work into one online workspace where data entry, processing, and reporting can occur in real time. Through secure login credentials, authorized users can access the system from any internet-enabled device, enabling collaboration between different team members or departments. The software functions as the tool that brings the infrastructure of cloud accounting to life, turning the remote servers and networks into a usable system for day-to-day accounting operations. Based on the above, the study hypothetical thus, cloud accounting system has no significant effect on earnings quality of listed commercial banks in Nigeria

Financial Reporting Quality

Financial reporting quality refers to the degree to which financial statements accurately, clearly, and faithfully represent the economic activities and position of an entity (Herath & Albarqi, 2017). High-quality financial reporting ensures that the information presented is complete, free from material errors or bias, and useful for decision-making by stakeholders (Hamour et al., 2024). It reflects the reliability of the financial statements in portraying a true and fair view of a company's performance and financial condition.

The meaning of financial reporting quality centers on the integrity of the information conveyed through published financial statements. When the quality is high, the statements are prepared in accordance with recognized accounting standards and capture the real outcomes of the company's operations without distortion (Rimamshung et al., 2023). It is not merely about presenting figures but about ensuring those figures genuinely reflect underlying business transactions.

It also implies that the financial data is prepared with consistency and transparency, allowing users to compare it over time or against other entities with confidence (Herath & Albarqi, 2017). A high level of financial reporting quality increases trust among investors, regulators, and the public, as it signals that the entity's disclosures are dependable (Ayagi & Salisu, 2023). Conversely, low-quality reporting can mislead users and lead to poor economic decisions.

Earnings Quality

Earnings quality refers to the extent to which reported net income reflects a company's actual financial performance and can be sustained in the future (Akpan, 2025). High-quality earnings are those that are generated from the entity's core operations, supported by actual cash flows, and are not the result of accounting adjustments or one-time events that distort the true profitability. It measures the reliability and persistence of earnings as an indicator of economic performance (Hamour et al., 2024).

The meaning of earnings quality lies in the relationship between reported profits and the company's genuine ability to generate value. When earnings are of high quality, they are derived from recurring, operational activities rather than from temporary gains or aggressive accounting practices (Essien & Akpan, 2024). This ensures that stakeholders can rely on the reported figures as a reasonable basis for predicting future performance.

Earnings quality also involves the alignment between accounting results and the underlying economic reality of the business. It is concerned with whether the earnings figure is an accurate representation of profitability after considering the effects of accruals, revenue recognition practices, and expense allocation. High earnings quality indicates that the

company's reported profits closely match its actual business achievements, while low earnings quality suggests a greater gap between accounting outcomes and true performance (Akpan, 2025).

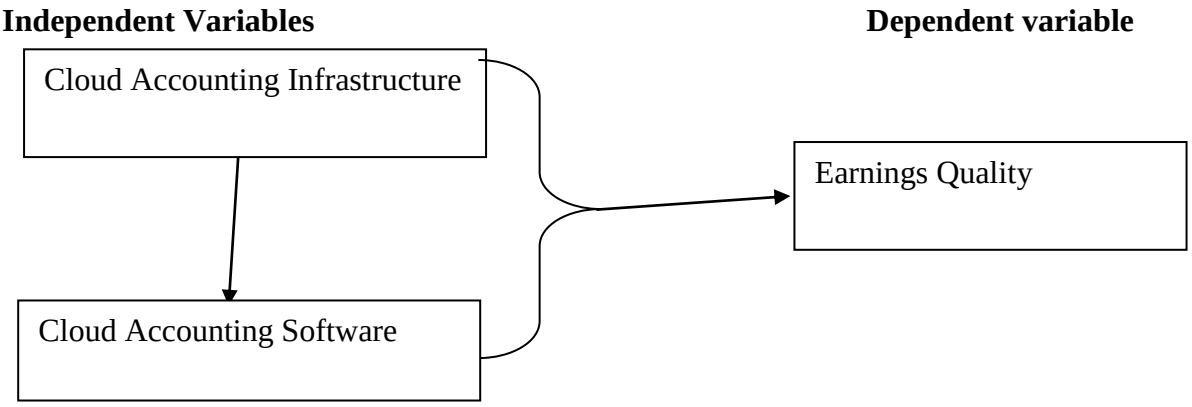

Figure 1: Conceptual Diagram
Source: Researcher's Concept (2025)

Theoretical Framework

The study is anchored on Technology Acceptance Model which was developed by Fred Davis in 1986 and later refined in 1989 as part of his doctoral research at the Massachusetts Institute of Technology (Serras et al., 2024). It emerged from earlier work on the Theory of Reasoned Action, which was created by Fishbein and Ajzen in the 1970s. The model was specifically designed to explain and predict user acceptance of computer technology. It became widely recognized in the field of information systems for its ability to provide a simple yet robust explanation of the factors influencing the adoption of new technological tools in various organizational settings.

The model is built on the idea that two primary factors determine an individual's intention to use a particular technology: perceived usefulness and perceived ease of use (Nworie & Okafor, 2023b). Perceived usefulness refers to the degree to which a person believes that using a specific system will enhance their job performance, while perceived ease of use refers to the degree to which a person believes that using the system will be free of effort. These factors shape the user's attitude toward the technology, which in turn influences their behavioral intention and actual usage. The model suggests that when users find a system both useful and easy to operate, they are more likely to accept and integrate it into their routine work practices (Serras et al., 2024).

This theory is particularly relevant to the study of the impact of cloud accounting on financial reporting quality of commercial banks in Nigeria because it provides a framework for understanding how banking staff and management adopt and utilize cloud-based accounting systems. The willingness of users to embrace cloud accounting platforms depends largely on their perception of the systems' ability to improve financial reporting processes and their ease of operation. By applying the Technology Acceptance Model, it becomes possible to link user acceptance of cloud accounting to improvements in the accuracy, timeliness, and reliability of financial reports, which are crucial for the performance and regulatory compliance of commercial banks.

Empirical Review

Esawi et al. (2025) investigated how the adoption of cloud computing influences the quality of financial reporting in the banking industry, focusing on Banque Misr in Egypt. The research explored the connection between various characteristics of cloud computing and financial reporting quality. Using a quantitative research approach, data were collected through questionnaires administered to 96 Banque Misr employees. The survey assessed

respondents' views on cloud computing features and financial reporting standards. Statistical tools such as reliability testing, correlation analysis, and regression modeling were applied. Results revealed that cloud computing characteristics account for 49.7% of the variation in financial reporting quality, with measured service and broad network access exerting the most substantial positive effects. All cloud computing features showed significant relationships with report comparability. The study concluded that the adoption of cloud computing improves financial reporting quality in banks through better automation, data analytics, collaboration, security, and system resilience.

Oladejo and Etigale (2025) studied the effect of cloud accounting on the quality of financial reports in Nigeria's banking sector. Their work assessed whether elements such as data security, optimal resource utilization, and compliance—associated with cloud accounting—affect the accuracy, clarity, and timeliness of financial reports. The population consisted of 24 listed deposit money banks, from which eight banks with international authorization licenses were purposively chosen. To ensure adequate representation, 384 respondents were drawn from the headquarters of the selected banks in Lagos, using the Cochran formula for sample size determination. Statistical analysis indicated that compliance assurance in cloud accounting explains 47% of the variation in financial transparency, supported by an adjusted R-square value of 0.470. ANOVA results confirmed significant associations between cloud accounting measures and aspects of financial reporting quality, with data security and privacy emerging as positive predictors of report accuracy.

Ikwuo et al. (2025) analyzed the influence of cloud accounting on shareholder wealth maximization in listed pharmaceutical firms in Nigeria. The study specifically assessed how the use and intensity of cloud accounting software affect return on equity. Employing an ex post facto design, five pharmaceutical companies were purposively selected from a population of seven. Secondary data were obtained from annual reports covering 2014 to 2023. In addition to descriptive statistics, the researchers conducted model diagnostic tests, including checks for multicollinearity, autocorrelation, heteroskedasticity, and normality. Hypotheses were tested using robust least-squares regression at a 5% significance threshold. The findings indicated that while cloud accounting software usage significantly boosts return on equity ($p = 0.0056$), the intensity of usage exerts a negative effect ($p = 0.0147$).

Azeez et al. (2025) explored how digital accounting practices enhance the financial reporting quality of small and medium-sized enterprises (SMEs) in Nigeria. Using a quantitative approach, the study collected data from 2,100 digital accountants and IT specialists through structured questionnaires. Analytical methods such as multiple regression, ANOVA, mean, and standard deviation were employed to examine the link between digital accounting adoption and financial reporting quality. Results revealed that 89.6% of participants agreed that digital accounting significantly improves the timeliness, reliability, and accuracy of reports. Regression analysis further showed that automation and integrated data analytics positively contribute to enhancing financial reporting, aligning with other studies that emphasize the growing importance of digitization in modern accounting processes.

Akwuobi et al. (2025) assessed the link between cloud-based accounting systems and organizational performance from the viewpoint of accountants in Anambra State, Nigeria. Adopting a descriptive survey design, the research targeted 772 professionally affiliated accountants. Taro Yamane's formula determined a sample size of 130 respondents. Data were gathered via structured questionnaires, and descriptive statistics were used for analysis. Since the data were ordinal, Spearman's Rank Order Correlation was applied to test the hypothesis. Findings revealed a significant positive relationship between cloud-based accounting and organizational performance ($rho = 0.284$; $p = 0.001$). The study concluded that real-time data access, improved collaboration, enhanced efficiency, and stronger financial control through cloud-based systems are major drivers of improved firm performance.

Olamide (2024) investigated how the Accounting Information System (AIS) influences the quality of financial reporting (QFR) among listed companies in Nigeria's non-financial sector. The study considered four key factors—information quality (IQ), system quality (SQ), service quality (SERVQ), and user competency (UC)—as determinants of QFR generated through AIS. A cross-sectional survey design was adopted, and primary data were collected using questionnaires. Structural Equation Modelling (SEM) was applied to analyze the influence of each factor on QFR. The results showed that SQ ($\beta = 0.338$, $p < 0.01$), IQ ($\beta = 0.324$, $p < 0.01$), and UC ($\beta = 0.050$, $p < 0.01$) each had a significant and positive impact on QFR, whereas SERVQ ($\beta = -0.626$, $p > 0.01$) demonstrated a negative and statistically insignificant effect.

Nwekwo et al. (2024) examined the effect of accounting software on the financial reporting of corporate organizations in Southeast Nigeria. The study aimed to assess the impact of enterprise resource planning (ERP) software and commercially available software (CAS) on financial reporting. Adopting a survey research design, the study utilized primary data collected through structured questionnaires containing both multiple-choice and open-ended questions. All predictor variables were measured using five-point Likert scales, and the Mann-Whitney test was used for statistical analysis. The results indicated that ERP software had a statistically significant effect on financial reporting ($U = 17.28$, $p < 0.05$), and CAS also had a significant effect ($U = 18.004$, $p = 0.014$), suggesting that both types of software contribute positively to reporting quality in corporate organizations in the region.

Nduokafor et al. (2024) explored how the use of cloud-based accounting software impacts business failure prevention within the consumer goods sector of the Nigerian Exchange Group. The study employed an ex post facto design and purposively selected 14 consumer goods firms. Secondary data were extracted from audited financial statements and annual reports covering the period from 2012 to 2021. Descriptive statistics, including mean, standard deviation, minimum, and maximum values, were computed. Hypotheses were tested using robust least-squares regression. Findings indicated that the adoption of cloud-based accounting software significantly reduces the likelihood of business failure, highlighting its role in strengthening financial stability and resilience in firms.

Olaoye and Akadi (2024) assessed the performance of deposit money banks in Nigeria in relation to the use of cloud-based accounting systems. A survey design was adopted, and the study population comprised 38 deposit money banks. Using Taro Yamane's formula, 34 banks were initially selected; however, due to logistical challenges, the final sample included 20 banks. Fifteen questionnaires were distributed to each bank, yielding 300 copies, of which 279 were completed and valid for analysis. Data were collected through structured questionnaires, with descriptive statistics presented in tables. Inferential analyses were conducted using ordinary least squares (OLS) regression and analysis of variance (ANOVA), while reliability was tested using Cronbach's alpha. Results showed a correlation coefficient (R) of 56.20%, and an R^2 of 55.70%, indicating that more than half of the variance in bank performance can be explained by the adoption of cloud-based accounting systems.

Akai et al. (2023) analyzed the influence of cloud computing on financial reporting quality in selected deposit money banks in Nigeria, using software as a service (SaaS) and infrastructure as a service (IaaS) as proxies. Financial reporting quality was evaluated based on the qualitative characteristics outlined in the IASB conceptual framework. The study employed a survey design and collected primary data from 212 respondents, determined using Taro Yamane's formula, out of a population of 450 staff from ten banks in Akwa Ibom State. A structured five-point Likert questionnaire was used for data collection. Hypotheses were tested using robust OLS regression analysis. Findings revealed that SaaS had a positive but statistically insignificant effect on reporting quality, while IaaS had a positive and significant

effect. The study concluded that cloud computing plays a vital role in improving the quality of financial reporting in Nigerian deposit money banks.

Owolabi et al. (2023) investigated the relationship between cloud accounting and the quality of financial reporting among deposit money banks (DMBs) in Nigeria. The study focused on 14 listed DMBs and selected 10 of them using a purposive sampling method, covering a 10-year period. Findings highlighted the importance of adopting cloud accounting technology as a strategy for improving financial reporting quality. The study concluded that cloud accounting positively influences the quality of financial reporting in DMBs.

Akpan et al. (2023) assessed the impact of cloud accounting on financial reporting quality in selected Nigerian deposit money banks, using platform as a service (PaaS), network as a service (NaaS), and software as a service (SaaS) as the proxies for measurement. The study employed a survey research design and gathered primary data through a five-point Likert scale questionnaire developed by the researchers. A purposive sampling technique was applied to select 120 staff members from the chosen banks. The robust least squares regression method was used for data analysis and hypothesis testing. Results indicated that PaaS had an insignificant effect on financial reporting quality, while NaaS and SaaS both had significant positive effects on the financial reporting quality of the selected banks.

Shakatreh et al. (2023) analyzed the role of cloud computing in enhancing the quality of financial reporting, focusing on key features such as on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service. The study applied a quantitative research approach, using questionnaires administered to 96 respondents from ten commercial banks. The findings revealed that cloud computing significantly contributed to delivering high-quality financial reports, explaining 49.7% of the variance in reporting quality. Among the characteristics studied, measured service emerged as the most influential, accounting for 43.5% of the variance. The study further showed that all the identified cloud computing characteristics impacted elements of financial reporting quality, particularly comparability and reliability, thereby underscoring the benefits of cloud computing in accounting.

Adebola and Adebayo (2023) examined how digital accounting affects financial reporting and accountability in Nigeria's manufacturing sector. Ten listed manufacturing firms were selected for the study. Data analysis was conducted using structural equation modeling and multiple regression. The results indicated a significant relationship between digital accounting, financial reporting, and accountability, suggesting that digital accounting enhances transparency and reporting quality in manufacturing firms. The study recommended that firm executives invest in and actively adopt digital accounting tools, allocating resources and capabilities to maximize the benefits of digital technology in operations.

Alao and Adegbie (2020) explored the use of accounting software in improving the quality of corporate reporting in profit-oriented companies, with a particular focus on Microsoft Excel. The study demonstrated how Excel's tools can minimize errors, automate processes, and enhance forecasting. Using sales data obtained online, the researchers applied Excel Solver to determine the optimal percentage of a baby food product to sell at the highest price for maximum profit. The model indicated that at a forecast rate of 67%, profits would reach ₦163,875,000, while at a 100% rate, profits would increase to ₦180,000,000. The study concluded that accounting software is essential to corporate performance in Nigeria, as it simplifies accounting processes and supports more effective decision-making.

Gap in Literature

A review of prior literature reveals that while numerous studies, such as those by Esawi et al. (2025), Oladejo and Etigale (2025), Ikwuo et al. (2025), Azeez et al. (2025), Akwuobi et al. (2025), Olamide (2024), Nwekwo et al. (2024), Nduokafor et al. (2024), Olaoye and Akadi (2024), and Akai et al. (2023), have examined the role of cloud accounting, cloud computing,

and related digital accounting technologies on financial reporting quality and other organizational outcomes, significant research gaps remain. Most of these studies either relied heavily on survey designs with primary data or focused on single industries, specific states, or limited technological components such as SaaS or ERP systems, without comprehensively addressing both infrastructure and software dimensions of cloud accounting simultaneously. Furthermore, many investigations have been conducted in non-bank sectors or concentrated on general measures of performance, comparability, or organizational efficiency, leaving limited empirical evidence on how cloud accounting infrastructure and software specifically affect earnings quality: a critical aspect of financial reporting quality, in listed commercial banks. These methodological and contextual limitations highlight the need for further empirical work using ex-post facto designs, broader datasets, and robust statistical techniques to fill the gap in understanding the extent to which cloud accounting influences earnings quality in the banking sector.

METHODOLOGY

This study adopted an *ex-post facto* research design, which is appropriate because it investigates the relationship between variables using data that already exist, without manipulating or influencing them (Nworie & Nwoye, 2023). The design was chosen as it enables the analysis of past events and trends to determine their impact on the phenomenon under study. By relying on historical data from relevant records and reports, the study ensures objectivity and reduces the possibility of bias that could arise from direct intervention. This approach is particularly suitable for examining cause-and-effect relationships in real-life situations where the variables of interest cannot be manipulated due to practical or ethical considerations.

The population of this study comprised the thirteen (13) listed commercial banks listed on the Nigerian Exchange Group (NGX) as at 2024. These banks form the target population because they are obligated to publish audited financial statements annually, thereby providing reliable secondary data for analysis. The list of these banks is presented below:

1. Access Bank Nigeria Plc.
2. Ecobank Transnational Incorporated Bank Nigeria Plc.
3. Fidelity Bank Nigeria Plc.
4. First Bank Nigeria Plc.
5. First City Monument Bank Nigeria Plc.
6. Guaranty Trust Bank Plc.
7. Stanbic IBTC Bank Plc.
8. Sterling Bank Plc.
9. United Bank for Africa Plc.
10. Unity Bank Plc.
11. Wema Bank Plc.
12. Zenith Bank Nigeria Plc.

The sample size for this study comprised all commercial banks in Nigeria with an international license, totaling seven banks as listed by the Central Bank of Nigeria (Aro, 2024). Purposive sampling was employed to select the sample constituents, with the selection criterion being that the bank must possess an international authorization. This sampling technique was considered appropriate because it allowed the researcher to focus specifically on banks that operate beyond Nigeria's borders and are more likely to adopt advanced financial technologies such as cloud accounting in their operations. By targeting institutions with international authorization, the study ensures that the analysis is based on banks with the capacity, regulatory requirements, and operational scale that make the impact of cloud accounting on financial reporting quality more observable and relevant. The sampled banks are:

1. Zenith Bank
2. Guaranty Trust Bank (GTBank)
3. First City Monument Bank (FCMB)
4. Access Bank
5. United Bank for Africa (UBA)
6. Fidelity Bank
7. First Bank of Nigeria (FBN)

Secondary data were obtained from the audited annual reports and financial statements of the sampled commercial banks covering the period 2015 to 2024. Information on cloud accounting infrastructure and cloud accounting software adoption were extracted from disclosures in the annual reports. Earnings quality data were derived from financial statement figures, specifically focusing on cash flow from operations and net income to compute the earnings quality ratio.

Table 1

Measurement of Variables

Variable	Measurement	Source
Cloud Accounting Software (CAS)	Natural log of value of the cloud accounting software owned by the firm	Ikwuo et al., 2025
Cloud Accounting Infrastructure (CAI)	Natural log of value of the computer equipment owned by the firm	Nworie et al., 2022
Earnings Quality (EQU)	Ratio of cash flow from operations to net income	Ruiz, 2023

Source: Researcher's Compilation (2025)

To evaluate the effect of cloud accounting on earnings quality, the study employs a panel least squares regression model. The functional form of the model adapted from the study by Ikwuo et al. (2025) is expressed as:

$ROEit = \beta0 + \beta1CASUit + \beta2CAIit + \epsilon it$ _____eqi

Where:

ROE = Return on equity of firm i at time t

CASU = Cloud accounting usage (binary)

CAI = Cloud accounting intensity (percentage of total assets)

$\beta0$ = Constant

$\beta1$, $\beta2$ = Coefficients of the model

ϵ = Error term

it = Firm i in year t

The above linear regression equation was modified as follows to suit the study objectives:

$EQUit = \alpha + \beta1(CAIit) + \beta2(CASit) + \varepsilon it$ _____eqii

Where:

EQUit = Earnings Quality for bank iii at time t

CAI = Cloud Accounting Infrastructure

CAS = Cloud Accounting Software

α = Intercept

$\beta1$,$\beta2$ = Coefficients for the independent variables

εit = Error term

t = Time period (2015–2024)

The study adopted both descriptive and inferential statistical techniques. Descriptive statistics was used to summarize the mean, standard deviation, minimum, and maximum values of all variables. Inferential analysis was conducted using panel least squares regression to determine the effect of cloud accounting on financial reporting quality. The panel data approach is suitable because it accounts for variations across banks and over time, providing more robust results than purely cross-sectional or time-series methods. The statistical analysis will be performed using EViews 10 software. A p-value of less than 0.05 will be taken as evidence of

a statistically significant relationship between the variables. In testing the hypotheses, the decision criterion was based on the significance level of 0.05. If the p-value obtained from the regression analysis is less than 0.05, the null hypothesis is rejected, and vice versa.

DATA ANALYSIS

Descriptive Analysis

The study examined the impact of cloud accounting on financial reporting quality of commercial banks in Nigeria. The specific objectives were to examine the impact of cloud accounting infrastructure and cloud accounting software on earnings quality of listed commercial banks in Nigeria. Secondary data were obtained from the audited annual reports and financial statements of the sampled commercial banks covering the period 2015 to 2024 (see Appendix A).

Table 2

Descriptive Analysis

	EQU	CAI (₦'000)	CAS (₦'000)
Mean	121.1169	9445003.	12605819
Median	2.226667	5321000.	8084279.
Maximum	8201.378	79255000	82317000
Minimum	-12.85905	757.0000	629000.0
Std. Dev.	979.8261	12996499	16619854
Skewness	8.184866	3.201071	2.865297
Kurtosis	67.99967	15.38661	11.08221
Jarque-Bera	13104.36	567.0456	286.3053
Probability	0.000000	0.000000	0.000000
Observations	70	70	70

Source: Eviews 10 Output (2025)

In Table 2, the descriptive statistics for Earnings Quality (EQU) show a mean value of 121.12, indicating that on average, the ratio of cash flow from operations to net income is positive, suggesting relatively healthy earnings sustainability among the listed commercial banks during the period under review. However, the maximum value of 8,201.38 reflects extreme cases where cash flows were significantly higher than reported net income, possibly due to conservative revenue recognition or unusual income patterns. The minimum value of –12.86 points to instances of negative earnings quality, where operational cash flows were substantially lower than net income, potentially signaling aggressive earnings management or poor cash generation. The high standard deviation of 979.83 suggests substantial variability in earnings quality across banks and years. The skewness of 8.18 and kurtosis of 67.99 indicate extreme positive outliers and a leptokurtic distribution, implying that most values are clustered around the mean with a few very large spikes. The Jarque-Bera probability of 0.0000 confirms that the series is not normally distributed.

For Cloud Accounting Infrastructure (CAI), Table 2 shows a mean value of ₦9,445,003,000, representing the average value of computer equipment owned by the sampled banks. This suggests a considerable investment in digital infrastructure over the years. The maximum value of ₦79,255,000,000 indicates that some banks made very large-scale investments in computing equipment, possibly reflecting major upgrades or branch-wide technology rollouts. The minimum value of ₦757,000, however, shows that at certain periods or in smaller banks, infrastructure investment was minimal. The standard deviation of ₦12,996,499,000 highlights substantial disparity in investment levels among banks. The skewness of 3.20 and kurtosis of 15.39 indicate a positively skewed and leptokurtic distribution, showing that a few banks have invested exceptionally high amounts compared to the majority. The Jarque-Bera probability of 0.0000 suggests the data is not normally distributed.

Regarding Cloud Accounting Software (CAS), Table 2 reports a mean of ₦12,605,819,000, suggesting that banks, on average, have made significant financial commitments toward

acquiring and maintaining cloud accounting software. The maximum value of ₦82,317,000,000 points to exceptionally high investment periods, likely associated with adopting advanced enterprise-wide cloud systems or licensing expansive software suites. The minimum value of ₦629,000 reflects very low recorded expenditure in some years or among certain banks, possibly due to minimal adoption or reliance on legacy systems. The standard deviation of ₦16,619,854,000 confirms wide disparities in investment levels. A skewness value of 2.87 and kurtosis of 11.08 reveal a positively skewed and highly peaked distribution, with most banks having moderate investments and a few investing extraordinarily high amounts. The Jarque-Bera probability of 0.0000 again confirms non-normality of the data distribution.

CAI and CAS were converted into their natural logarithms because their values, expressed in billions of naira, were large and highly skewed, making log transformation necessary to normalize the data and improve statistical analysis accuracy.

Correlational Analysis

Table 3

Correlational Analysis

Correlational Analysis: Ordinary
Date: 08/10/25 Time: 23:21
Sample: 2015 2024
Included observations: 70

Correlation

Probability	EQU	LOGCAI	LOGCAS
EQU	1.000000		

LOGCAI	-0.011718	1.000000	
	0.9233	-----	
LOGCAS	-0.069415	0.325009	1.000000
	0.5680	0.0060	-----

Source: Eviews 10 Output (2025)

Table 3 presents the correlational analysis between Earnings Quality (EQU), Log of Cloud Accounting Infrastructure (LOGCAI), and Log of Cloud Accounting Software (LOGCAS) for 70 observations from 2015 to 2024. The results show a very weak and negative correlation between LOGCAI and EQU ($r = -0.0117$, $p = 0.9233$), which is statistically insignificant, suggesting that changes in cloud accounting infrastructure have no meaningful linear relationship with earnings quality in the sampled firms. Similarly, LOGCAS exhibits a weak negative correlation with EQU ($r = -0.0694$, $p = 0.5680$), also statistically insignificant, indicating that variations in cloud accounting software values do not have a notable linear association with earnings quality. These results imply that neither cloud accounting infrastructure nor software demonstrates a significant direct relationship with earnings quality in the dataset.

Test of Hypotheses

Table 4

Test of Hypotheses

Dependent Variable: EQU
Method: Panel EGLS (Cross-section SUR)
Date: 08/10/25 Time: 23:19
Sample: 2015 2024
Periods included: 10
Cross-sections included: 7
Total panel (balanced) observations: 70
Linear estimation after one-step weighting matrix
White diagonal standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGCAI	1.560608	1.269648	1.229166	0.2233
LOGCAS	-34.93580	16.42491	-2.127001	0.0371
C	264.6508	120.2891	2.200123	0.0313

Weighted Statistics

R-squared	0.129988	Mean dependent var	0.068103
Adjusted R-squared	0.104017	S.D. dependent var	0.687118
S.E. of regression	0.606599	Sum squared resid	24.65347
F-statistic	5.005202	Durbin-Watson stat	1.482191
Prob(F-statistic)	0.009421		

Source: Eviews 10 Output (2025)

Table 4 presents the results of the panel EGLS regression analysis testing the effect of cloud accounting infrastructure (LOGCAI) and cloud accounting software (LOGCAS) on earnings quality (EQU) of listed commercial banks in Nigeria. The adjusted R-squared value of 0.1040 indicates that the independent variables jointly explain about 10.40% of the variations in earnings quality across the sampled banks and years, which is modest but meaningful in the context of financial reporting data. The probability of the F-statistic is 0.0094, which is below the 5% significance level, showing that the model as a whole is statistically valid and the predictors jointly have a significant effect on earnings quality. The Durbin-Watson statistic of 1.4822 suggests no serious autocorrelation problem in the residuals, further supporting the reliability of the model estimates. The constant term (C = 264.6508, p = 0.0313) is positive and statistically significant at the 5% level, implying that when both cloud accounting infrastructure and software are held at zero, earnings quality would average about 264.65 units.

Test of Hypothesis I

H01. Cloud accounting infrastructure has no significant impact on earnings quality of listed commercial banks in Nigeria.

For hypothesis one (H01), the coefficient for LOGCAI is 1.5606 with a p-value of 0.2233. This positive coefficient means that, holding other factors constant, a one percent increase in cloud accounting infrastructure is associated with an increase of approximately 1.56 units in earnings quality. However, since the p-value exceeds the 5% significance threshold, this effect is not statistically significant. This means there is no sufficient evidence to reject the null hypothesis, and therefore, the study finds that cloud accounting infrastructure does not have a significant effect on the earnings quality of listed commercial banks in Nigeria.

Test of Hypothesis II

H02. Cloud accounting software has no significant impact on earnings quality of listed commercial banks in Nigeria.

For hypothesis two (H02), the coefficient for LOGCAS is -34.9358 with a p-value of 0.0371. The negative sign indicates that, all else being equal, a one percent increase in cloud accounting software is associated with a reduction of about 34.94 units in earnings quality. The p-value is below 5%, making this effect statistically significant. This leads to the rejection of the null hypothesis, providing evidence that cloud accounting software has a significant negative effect on the earnings quality of listed commercial banks in Nigeria.

Discussion of Findings

The results showed that cloud accounting infrastructure ($\beta = 1.5606$, $p = 0.2233$) exerts a positive but statistically non-significant effect on earnings quality, meaning that while improvements in infrastructure are associated with marginal increases in earnings quality, this effect is too small to be statistically confirmed at the 5% level. The positive direction aligns with studies such as Esawi et al. (2025), Oladejo and Etigale (2025), and Akai et al. (2023), which reported that cloud infrastructure enhances aspects like automation, data security, and system resilience, all of which promote better reporting outcomes. Similarly, Shakatreh et al. (2023) found that infrastructure features like broad network access and measured service improve comparability and reliability in financial reporting. However, the lack of significance in this study may reflect issues such as underutilization of infrastructure capacity, incomplete integration with existing accounting systems, or variability in adoption levels across banks, which can dilute measurable effects. This is consistent with Akai et al. (2023)'s finding that while infrastructure as a service (IaaS) had a positive effect, not all institutions experienced uniform benefits, suggesting that infrastructure alone may not guarantee quality improvements unless supported by effective utilization and complementary processes.

Conversely, cloud accounting software ($\beta = -34.9358$, $p = 0.0371$) shows a significant negative effect on earnings quality, implying that increased reliance on such software is associated with a marked decline in earnings quality at the 5% significance level. This result contrasts with positive associations found by Nwekwo et al. (2024), Nduokafor et al. (2024), and Olamide (2024), who reported that accounting software generally enhances accuracy, timeliness, and compliance in financial reporting. However, it finds partial support in Ikwuo et al. (2025), who observed that while software adoption boosts return on equity, excessive or intensive use can harm performance—likely due to user errors, overdependence on automation, or system limitations that fail to address complex accounting judgments. The negative effect here could also stem from mismatches between software functionalities and regulatory reporting requirements, insufficient training, or the adoption of low-quality or poorly customized solutions, factors that can reduce the transparency, accuracy, and comparability of reported earnings. This suggests that software-related risks may outweigh benefits if not properly managed.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

Summary of findings

This study is summarized as follows

1. Cloud accounting infrastructure has a positive but non-significant effect on earnings quality ($\beta = 1.5606$, $p = 0.2233$);
2. Cloud accounting software has a significant negative effect on earnings quality ($\beta = -34.9358$, $p = 0.0371$).

Conclusion

The findings indicate a complex interaction between technological adoption in accounting and the quality of reported earnings, with broader implications for financial reporting reliability, operational efficiency, and stakeholder trust. The positive but non-significant effect of cloud accounting infrastructure on earnings quality suggests that while the underlying systems and technological backbone may offer potential benefits in terms of accuracy, timeliness, and accessibility of financial data, these advantages do not automatically translate into measurable

improvements in the integrity or credibility of earnings reports within the observed period. This could reflect that infrastructure alone, without optimal integration into accounting processes and decision-making frameworks, may have limited influence on shaping earnings outcomes. Conversely, the significant negative relationship between cloud accounting software and earnings quality highlights the possibility that certain operational, behavioural, or contextual factors may counteract the intended benefits of automation and digital processing. For instance, the flexibility, ease of adjustments, and extensive functionalities offered by software tools could inadvertently facilitate earnings management practices, reduce oversight, or introduce new forms of reporting errors, particularly if controls are inadequate or user competencies vary widely. Together, these results imply that technological tools, despite being designed to enhance transparency and accuracy, can yield unintended consequences depending on organizational culture, governance structures, and user behaviour. The mixed effects observed also underscore that the relationship between digital accounting solutions and earnings quality is not purely technical but is shaped by socio-technical dynamics where technology interacts with human judgment, policy frameworks, and ethical considerations. Thus, the evidence points to the fact that cloud accounting, while transformative, is not inherently beneficial or harmful to earnings quality; its real impact depends on how it is deployed, managed, and aligned with the broader objectives of truthful and reliable financial reporting in practice.

Recommendations

Since cloud accounting infrastructure showed a positive but non-significant effect on earnings quality, it is recommended that finance and IT managers of organisations invest in enhancing the robustness and integration of their existing cloud accounting infrastructure by improving server reliability, expanding storage capacity, and ensuring seamless connectivity between the infrastructure and other operational systems. Strengthening these capabilities could better support the accuracy, timeliness, and completeness of financial data, thereby increasing the likelihood of a measurable positive impact on earnings quality over time.

2. Given that cloud accounting software demonstrated a significant negative effect on earnings quality, it is recommended that software developers and vendors providing cloud accounting solution**s** undertake a comprehensive review of their software's functionalities, interface, and error-handling capabilities which should focus on identifying features or processes that may lead to data inconsistencies, misclassifications, or reporting delays, and redesigning them to enhance transparency and accuracy. By aligning the software's operational design more closely with accounting standards and user needs, providers can mitigate adverse effects and improve the reliability of financial reporting for their clients.

Contribution to Knowledge

This study contributes to the literature by filling the gaps left by earlier works, which have mostly examined cloud accounting, cloud computing, and related digital accounting technologies in narrow contexts. Previous studies often relied on survey designs with primary data, focused on single industries or locations, or assessed only one aspect of cloud accounting such as SaaS or ERP systems. Many were conducted outside the banking sector or addressed broad measures of performance, leaving little empirical evidence on the specific effect of cloud accounting infrastructure and software on earnings quality in listed commercial banks. By adopting an ex-post facto design, drawing on a wider dataset, and applying robust statistical techniques, this research provides new empirical evidence on how both the infrastructure and software components of cloud accounting jointly influence earnings quality in the banking sector.

Limitations of the Study and Suggestion for Further Studies

This study was limited by its focus on only seven commercial banks in Nigeria with international authorization, which may not fully represent all banks in the country. The use of

secondary data from audited annual reports also meant that the study relied on the accuracy and completeness of information provided by the banks, which might contain reporting biases. In addition, the study covered only the period from 2015 to 2024, so the findings may not apply to earlier or future periods when technology and accounting practices could be different. The choice of an ex-post facto design meant that the researcher could not control for all other factors that might have influenced financial reporting quality outside of cloud accounting.

Future studies could include all categories of banks, such as those with national and regional authorizations, to allow for broader comparisons. Researchers may also consider using primary data, such as surveys or interviews with accountants and auditors, to capture first-hand experiences with cloud accounting. Extending the study period and covering more years would help identify long-term patterns. In addition, using a mixed-methods approach that combines quantitative and qualitative analysis could provide a deeper understanding of how cloud accounting affects financial reporting quality in different banking contexts.

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Appendix A Data Presentation

Company	Year	Software Value (₦'000)	Net Profit (₦'000)	Computer Equipment (₦'000)	Operating Cashflow (₦'000)	EQU	Log CAI	Log CAS
Access	2015	4977908	65868773	4877897	-181246613	-2.7516	6.69	6.70
Access	2016	4942214	61677124	7616853	-123932466	-2.0094	6.88	6.69
Access	2017	4868964	51335460	5607903	104360683	2.0329	6.75	6.69
Access	2018	5961722	73596295	4432522	366002390	4.9731	6.65	6.78
Access	2019	12613038	70115994	8044058	1094573265	15.6109	6.91	7.10
Access	2020	17251036	80039328	9956885	-81426718	-1.0173	7.00	7.24
Access	2021	13120000	111326487	9542739	500834811	4.4988	6.98	7.12
Access	2022	9771000	166660000	13882000	698528000	4.1913	7.14	6.99
Access	2023	61242000	535680000	24978000	2328828000	4.3474	7.40	7.79
Access	2024	82317000	642217000	79255000	-895473000	-1.3943	7.90	7.92
FCMB	2015	2663211	4760666	1785	5799496	1.2182	3.25	6.43
FCMB	2016	3472791	14338882	1083	-82698446	-5.7674	3.03	6.54
FCMB	2017	3581983	8612978	757	98114491	11.3915	2.88	6.55
FCMB	2018	3981805	14971528	1648	227372130	15.1870	3.22	6.60
FCMB	2019	4285528	17337274	4340	19179858	1.1063	3.64	6.63
FCMB	2020	4982683	19610454	4632	136593871	6.9654	3.67	6.70
FCMB	2021	5816993	20916725	7802	229594950	10.9766	3.89	6.76
FCMB	2022	8751557	31128691	5590	52861238	1.6982	3.75	6.94
FCMB	2023	10477411	93017619	10704	352149122	3.7858	4.03	7.02
FCMB	2024	15653567	73337468	20833	420368347	5.7320	4.32	7.19
Fidelity	2015	945000	13904000	3859000	107132000	7.7051	6.59	5.98
Fidelity	2016	795000	9734000	3701000	-125170000	-12.8591	6.57	5.90
Fidelity	2017	629000	17768000	2183000	-38026000	-2.1401	6.34	5.80
Fidelity	2018	1076000	22926000	1694000	175265000	7.6448	6.23	6.03
Fidelity	2019	1636000	28425000	4505000	-26051000	-.9165	6.65	6.21
Fidelity	2020	3283000	26650000	4740000	242619000	9.1039	6.68	6.52
Fidelity	2021	3968000	23104000	4623000	-117002000	-5.0641	6.66	6.60
Fidelity	2022	4023000	46724000	5060000	297592000	6.3691	6.70	6.60
Fidelity	2023	5123000	99532000	6018000	528802000	5.3129	6.78	6.71
Fidelity	2024	14371000	282858000	19050000	518808000	1.8342	7.28	7.16
First Bank	2015	4043000	37000	1796000	303451000	8201.3784	6.25	6.61
First Bank	2016	5547000	50072000	1958000	-171230000	-3.4197	6.29	6.74
First Bank	2017	11314000	40011000	3217000	430003000	10.7471	6.51	7.05
First Bank	2018	11426000	59667000	9136000	538458000	9.0244	6.96	7.06
First Bank	2019	11878000	73665000	10488000	-254779000	-3.4586	7.02	7.07
First Bank	2020	9955000	89730000	9303000	373688000	4.1646	6.97	7.00
First Bank	2021	12820000	151147000	9108000	452951000	2.9968	6.96	7.11
First Bank	2022	9306000	136311000	14247000	467775000	3.4317	7.15	6.97
First Bank	2023	26595000	15170000	23419000	1165112000	76.8037	7.37	7.42
First Bank	2024	32735000	663490000	41681000	5009993000	7.5510	7.62	7.52
GT Bank	2015	2492959	94308123	1198372	10429148	.1106	6.08	6.40
GT Bank	2016	3377961	126836792	2392426	286884139	2.2618	6.38	6.53

GT Bank	2017	4501296	161284680	2863251	353397327	2.1911	6.46	6.65
GT Bank	2018	5635606	166919765	3733759	224625664	1.3457	6.57	6.75
GT Bank	2019	9546253	175125281	6692435	197853667	1.1298	6.83	6.98
GT Bank	2020	11184555	201439940	3499756	406161646	2.0163	6.54	7.05
GT Bank	2021	10883946	174839487	5681962	464301997	2.6556	6.75	7.04
GT Bank	2022	10296119	169173437	5681962	1041702362	6.1576	6.75	7.01
GT Bank	2023	13915206	539654674	10978926	829111805	1.5364	7.04	7.14
GT Bank	2024	61950997	1017802849	55196356	1739846313	1.7094	7.74	7.79
UBA	2015	3744000	47642000	6218000	58408000	1.2260	6.79	6.57
UBA	2016	3763000	47541000	4986000	-200535000	-4.2181	6.70	6.58
UBA	2017	3313000	42438000	4875000	59151000	1.3938	6.69	6.52
UBA	2018	3213000	41047000	11240000	488626000	11.9041	7.05	6.51
UBA	2019	3214000	62750000	10755000	-317453000	-5.0590	7.03	6.51
UBA	2020	2026000	56911000	20623000	713898000	12.5441	7.31	6.31
UBA	2021	10649000	58669000	18050000	671618000	11.4476	7.26	7.03
UBA	2022	10577000	133696000	21064000	1063228000	7.9526	7.32	7.02
UBA	2023	7417000	586626000	17195000	1479464000	2.5220	7.24	6.87
UBA	2024	12667000	564695000	34013000	1714592000	3.0363	7.53	7.10
Zenith	2015	2753000	98784000	1375000	-415396000	-4.2051	6.14	6.44
Zenith	2016	3903000	119285000	2501000	-104917000	-.8795	6.40	6.59
Zenith	2017	12088000	157145000	2079000	-255750000	-1.6275	6.32	7.08
Zenith	2018	15399000	165480000	1554000	184314000	1.1138	6.19	7.19
Zenith	2019	15109000	178003000	7503000	390093000	2.1915	6.88	7.18
Zenith	2020	14699000	197852000	4928000	160171000	.8095	6.69	7.17
Zenith	2021	23542000	233133000	5582000	457857000	1.9639	6.75	7.37
Zenith	2022	23958000	234593000	8566000	1279760000	5.4552	6.93	7.38
Zenith	2023	44185000	595601000	13822000	1494453000	2.5092	7.14	7.65
Zenith	2024	80203000	936158000	18263000	3720000	.0040	7.26	7.90

Source: *Banks' Annual Report, 2015-2024*