

Cloud Accounting and Financial Reporting Quality of Selected Deposit Money Banks in Nigeria

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Abstract

This study examined the effect of cloud accounting on financial reporting quality of selected deposit money banks in Nigeria. Platform as a service (Paas), network as a service (Naas) and software as a service (Saas) were the cloud accounting proxies employed to ascertain their effects on financial reporting quality. The research design adopted in this study was the survey research design since primary data was used. The instrument for data collection was the researcher constructed five-point Likert questionnaire. Purposive sampling technique was used to select a sample size 120 staff members of selected deposit money banks in Nigeria. The robust least square regression technique was employed to analyze the data as well as test the three hypotheses formulated for the study. From the analysis of the study, it was found out that platform as a service (Paas) has an insignificant effect on financial reporting quality. It was also found out that network as a service (Naas) and software ware as a service (Saas) have significant effect on financial reporting quality of selected deposit money banks in Nigeria. Thus, it was concluded that network as a service and software as a service significantly improve financial reporting quality of deposit money banks in Nigeria. Based on these findings, it was recommended that management teams in banks should conduct thorough evaluations of available NaaS and SaaS solutions to select those that best align with their specific reporting needs.

Keywords: *Cloud accounting, financial reporting quality, platform as a service, network as a service, software as a service*

Introduction

Continuous improvement and crave for competitive advantage have constantly brought in revolutionary trend in many facets of live including the accounting practices. The idea of cloud accounting was brought about by advancement in technology, particularly the emergence and development of cloud computing. As businesses began to embrace digital transformation, they sought more efficient and accessible ways to manage their financial data. Cloud accounting refers to the use of accounting software and tools that are hosted on remote servers and accessed over the internet, instead of being installed on a local computer. With cloud-based systems, multiple users can work simultaneously on the same set of data, ensuring that financial reports reflect the most current, reliable and comparable information. Cloud accounting can be seen as an important resource to improve enterprise competitiveness. According to Christauskas and Miseviciene (2012) cloud-based accounting system is a way to manage business accounts entirely online and attained as a service, on-demand, acting similar to accounting software installed on users' computers, but performed on servers and accessible by users through their web browsers. The application of this technology in accounting offers an opportunity for the accountants to remodel their activity and practices and to be able to offer increased and relevant services (ACCA report, 2020).

Cloud accounting is a derivative of cloud computing and applying it to an accounting context. Cloud computing represents delivery of computing administrations such as software, information, and shared assets via personal computers and other devices over a network (Buyya et al., 2008). Ping and Xuefeng (2011) describe cloud accounting as the process of using cloud computing and the internet to develop a virtual accounting information system. Thus, cloud computing in conjunction with accounting is referred to as cloud accounting. The relationship between cloud accounting and cloud computing is that while cloud computing is the delivery of computing services such as software, information and shared resources via computers and other devices over a network, cloud accounting involves the access of accounting software and data via the internet. In recent years, corporate businesses have embraced the new paradigm of cloud accounting to close the gap between it and traditional accounting systems. According to Zhao (2018), traditional accounting is based on self-built system but companies that use cloud accounting software construct its system on external platform. According to Effiong, Udoayang and Davies (2020), with the introduction of internet-based business transactions, accounting cannot be restricted to a desktop computer or office server. Wu (2017) pointed out that cloud accounting is the optimization of traditional accounting principles and business processes. Cloud accounting offers greater convenience, efficiency and accuracy compared to traditional accounting methods. By leveraging cloud technology banks can streamline their financial operations, resulting in better decision-making and improved financial reporting practices.

From the perspective of service mode, cloud accounting is classified into platform as a service (PaaS), network as a service (Naas), SaaS (Software as a Service) and Internet as a service (Marand et al., 2013). PaaS is a cloud computing model where a third-party provider offers a platform upon which users can develop, run, and manage applications. In the context of cloud accounting, PaaS can provide a framework that supports accounting software development and

deployment. It allows users to access and utilize accounting-related applications, databases, and tools without the need to manage underlying infrastructure or worry about software compatibility issues (Marand et al., 2013). NaaS is a cloud computing model that provides networking capabilities and services over the internet. In the context of cloud accounting, NaaS enables secure and reliable connectivity between different accounting applications and systems, facilitating data exchange, collaboration, and integration. SaaS is a cloud computing model where software applications are hosted and accessed over the internet. In cloud accounting, SaaS provides ready-to-use accounting software solutions, eliminating the need for users to purchase, install, and update traditional accounting software. These cloud accounting model offer flexibility, scalability, and cost-effectiveness. According to Marand et al (2013) cloud accounting remove the burden of managing infrastructure, networking, and software development, allowing users to focus on their core accounting tasks while leveraging the benefits of cloud-based solutions.

A financial report possesses high quality when it discloses the exact phenomena it purports to report in a timely manner. According to Tang et al (2008), financial reporting quality refers to how accurately and truthfully a financial statement informs the users about the state and performance of an organization's finances. The International Accounting Standard Board conceptual framework (2018) states that the essential attributes for assessing the quality of financial report are the qualitative attributes of useful financial information. To achieve a high quality financial reports, information must be faithfully represented, comparable, verifiable, timely, and understandable. Thus, the emphasis is on having transparent financial reports, and not having misleading financial reports to users (Gajevszky, 2015). It is essential to provide high-quality financial reporting to influence users in making investments decisions, and to enhance market efficiency. The higher the quality of financial information, the more significant are the benefits to be gained by investors and users of the financial reports. This attribute of quality could be improved by cloud accounting services through flexible and scalable infrastructures. Being a type of on-demand service that provides access to shared resources, applications, or storage over the Internet, it enables financial institutions to store and process data in remote servers and these data could be easily deployed for financial reporting processes.

This study has contributed to knowledge by providing empirical evidence of the effect of cloud accounting on financial reporting quality of selected banks in Nigeria. The findings of this study would be useful to many stakeholders specially management of banks in Nigeria. It would be particularly useful to the management of banks as it could help them eliminate the cost of expensive hardware, software licenses and maintenance. The application of cloud accounting would allow management of banks to make quicker, more informed decisions as well as respond promptly to changes in the market. Bank management can securely share financial data and reports with auditors, regulators, enhancing transparency and streamlining communication.

Previous empirical findings on related topic show that the area of cloud accounting is still open for more researches as there are different measures of cloud accounting and varying research findings. For instance Effiong, Udoayang, and Davies (2020) measured cloud accounting using maintenance cost; Akai et al (2023) measured cloud accounting using infrastructure as a service (IaaS) and software as a service (SaaS), Ehioghien and Ojeaga (2022) measured it using cloud based technologies; Owolabi, Oyegoke and Olalere (2023) and Herath and Albarqi (2017) used private and community cloud. On the other hand other previous studies

focused on the effect of cloud accounting on performance (Okere, 2022; Ezuwore-Obodoekwe, Okoye & Obinabo, 2020; Trabulsi, 2018)); competitive advantage (Matarneh, Al-Tahat, Ali, & Jwaifel (2019) and profitability (Borhan & Bader, 2018). Worst still, other sectors of the economy such as manufacturing companies and Small and Medium Scale enterprises were the major focus of other studies. Unfortunately, there was no unanimous agreement of the effect of cloud accounting on these measurement parameters. One of the sectors that cloud computing can be of material importance is banking industry but the full benefit of this technology is yet to be fully appreciated in Nigeria. Thus, there is need to assess the effect of cloud accounting on the financial reporting quality of banks in Nigeria.

2.1 Review of related literature

Cloud Accounting

Cloud accounting is an emerging technology and service, which is very different from traditional accounting. Cloud accounting refers to the use of accounting software and tools that are hosted on remote servers and accessed over the internet, instead of being installed on a local computer. Cloud accounting is an accounting information system formed by using cloud computing technology, which can be understood as an organic combination of traditional accounting information and cloud technology (Zhang, 2019). It allows users to manage and perform various accounting tasks online, including bookkeeping, invoicing, financial reporting, and data analysis. Ping and Xuefeng (2011) describe cloud accounting as the process of using cloud computing and the internet to develop a virtual accounting information system. Cloud accounting is a type of cloud computing application with the specific purpose of processing financial data. The relationship between cloud accounting and cloud computing is that while Cloud computing is the delivery of computing services such as software, information and shared resources via computers and other devices over a network (usually the internet), Cloud accounting involves the access of accounting software and data via the internet. It moves the installation, processing and data storage of the accounting systems and services from on-premise to the remote servers owned by cloud service providers. Effiong et al (2020) noted that with the introduction of internet-based business transactions, accounting cannot be restricted to a desktop computer or office server. Cloud accounting is taking the concept of cloud computing and applying it to an accounting context. According to Yuan et al (2019), it is a new business model with high reliability, high expandability and high cost performance. Wu Qi (2017) points out that cloud accounting is the optimization of traditional accounting principles and business process. Cloud accounting provides the flexibility to access financial data and perform accounting tasks from anywhere and at any time, as long as there is an internet connection. These accounting solutions are designed to accommodate the needs of businesses of all sizes. It allows easy scalability, allowing businesses to upgrade or downgrade their accounting software and storage resources based on their requirements without significant disruptions or costs.

Platform as a service (PaaS) is a cloud accounting model where a third-party provider delivers hardware and software tools to users over the internet. Usually, these tools are needed for application development. According to Cutting et al (2021), PaaS provider hosts the hardware and software on its own infrastructure, as a result PaaS frees developers from having to install in-house hardware and software to develop or run a new application. It is provided through a cloud service provider's hosted infrastructure. PaaS can be delivered through public, private and hybrid clouds

to deliver services such as application hosting and Java development. Network as a service (NaaS) is a cloud delivery model that simplifies network operations for businesses. It facilitates significant flexibility and elasticity along with the ability for efficient service delivery. This enables organizations to realize expected outcomes without the need to own, build, or maintain infrastructure. The advantage that NaaS deliver is compelling in terms of value and agility. It's also paramount to recognize that it represents a step change across people, process, and technology. Software as a service (SaaS) is a software distribution model in which a cloud provider hosts application and makes them available to end users over the internet. It is a way of delivering applications over the internet (Christauskas et al., 2012). Instead of installing and maintaining software, one simply access it from the internet, freeing oneself from complex software and hardware management. In this model, an independent software vendor (ISV) may contract a third-party cloud provider to host the application.

Financial reporting quality

Financial reporting quality refers to how accurately and truthfully a financial statement informs users about the state and performance of an organization's finances (Tang *et al.*, 2008). Accounting standards convergence, accounting standards harmonization, economic crises, growth in disclosure requirements, and other factors have created an excessive focus on financial reporting. Also, the worldwide increase in accounting scandals in the early 21st century has pointed to weaknesses in financial reporting quality. The quality of financial reporting determines, and depends upon, the value of accounting reporting. It is essential to provide high-quality financial reporting to influence users in making investments decisions, and to enhance market efficiency. The higher the quality of financial reporting, the more significant are the benefits to be gained by investors and users of the financial reports. Financial reports must adhere to certain qualitative standards in order to be of high quality and serve their intended function.

Both the IASB and FASB boards come to the same conclusion in their conceptual frameworks that high quality is achieved by adhering to the objective and qualitative characteristics of financial reporting information. These attributes are relevance, faithful representation, comparability, verifiability, timeliness and understandability. Information must be relevant and faithfully represented if it is to be useful. Relevant information must have predictive value and confirmatory value to be useful for decision making. Financial statements must faithfully represent the phenomena that it purports to represent and must be complete, neutral and free from error. Comparability implies accounting information must enable users to understand similarities in, and differences among items. Timely financial reports would enable users make informed decisions and information is made understandable by classifying, characterizing and presenting them in a clear and concise manner.

2.2 Theoretical framework

This study is supported by innovation diffusion theory and system theory. Innovation diffusion theory was propounded by Rogers in 1962 and this theory describes how new ideas, technologies or practices are developed and spread in the society. Though not concerned with information

technology exclusively, diffusion theory offers a conceptual framework for discussing acceptance at a global level. Diffusion theory speculates five characteristics of innovations that affect their diffusion: relative advantage (the extent to which a technology offers improvements over currently available tools), compatibility (its consistency with social practices and norms among its users), complexity (its ease of use or learning), trialability (the opportunity to try an innovation before committing to use it), and observability (the extent to which the technology's outputs and its gains are clear to see) (Dillon & Morris, 1996). This theory established that innovations that provide advantages are compatible with current practices and beliefs, are simple, potentially treatable, and observable will spread more widely and swiftly than innovations that lack these features (Hamundu, Husin, Baharudin & Khaleel, 2020). This theory is related to this study since it supports the acceptance of cloud base technique in reporting of the organizational operations. Though not concerned with information technology exclusively, diffusion theory offers a conceptual framework for discussing acceptance of cloud computing at a global level.

System theory on the other hand was propounded by Ludwig von Bertalanffy in 1930 and emphasized the holistic nature of system and their emergent properties, highlighting that the behavior of a system cannot be fully understood by examining its individual components and how they collectively contribute to the functioning and behavior of the system as whole. According to the system theory, organizations should be viewed as an open framework that converts contributions to yields within the conditions (both external and internal) on which they rely (Miller & Rice 1967). In the current climate, for example, an organization that isn't sensitive to its situation is unlikely to survive. Things like innovation, social and financial wonders are not static, but rather constantly changing; thus, associations are expected to adapt in a bid to improve their financial reporting quality (Chikere and Nwoka, 2015). This theory is particularly related to this study as it explains the need for organizations to adapt to the dynamic business environment. The theory shows the need for banks to adopt cloud computing processes to improve their financial reporting and consequently meet the needs of different stakeholders.

2.3 Empirical review

Akpan et al (2023) examined the effect of cloud accounting on financial information quality of selected firms in Nigeria. Cross-sectional survey research design was adopted and the target population was professional accountants, auditors and information technology experts across various fields. The study covered Lagos state metropolis because it's highly dominated with commercial activities and host the head office of most companies in Nigeria. Data was obtained from primary sources through the administration of a well-structured questionnaire to the respondents. Findings of the study from the statistics revealed that cloud accounting techniques played a significant role in enhancing efficiency of financial information quality, the study recommended that firms should be encouraged to invest more in automated accounting and effectively train their accounts staff for better efficiency in financial and other accounting functional reporting.

Akai *et al* (2023) investigated the effect of cloud computing on the quality of financial reports in selected deposit money banks in Nigeria. Software as a service (Saas) and Infrastructure as a service (Iaas), were the cloud computing proxies employed to ascertain their effect on financial reporting quality. Financial reporting quality (FRQT) was measured in terms of qualitative

characteristics of financial report as provided by IASB conceptual framework. The research design adopted in this study was survey design because the data used was primary. The results obtained from the robust OLS regression analysis revealed that software has a statistically positive but insignificant effect on the financial reporting quality; infrastructure has a statistically positive and significant effect on the financial reporting quality. Okere, (2022) examined the effect of Cloud accounting and performance of listed manufacturing firms in Nigeria. The research evaluated a random sample of 10 manufacturing firms and discovered that cloud accounting and cloud accounting costs had a significant impact on the performance of publicly listed manufacturing companies. The report advised that corporate initiatives be implemented to lower cloud accounting costs and that accounting regulations be developed to align different cloud accounting cost components with the cost structure of manufacturing enterprises.

Owolabi, Oyegoke and Olalere (2023) investigated the effect of cloud accounting on financial reporting quality of DMBs in Nigeria. The population was 14 listed deposit money banks while the sample size was 10 using purposive sampling technique for a period of 10 years. This study discovered that there is need for DMBs to adopt cloud accounting technology to increase their financial reporting quality. The study hereby concluded that cloud accounting has a positive effect on financial reporting qualities of DMBs. The study recommended that the eventual fate of cloud computing in Nigeria is splendid if government and all partners would put all hands-on deck to guarantee that these distinguished difficulties/obstructions to its achievability are tended to decisively.

Ehioghiren & Ojeaga (2022) examined cloud-based accounting technologies, preparing future-ready professional accountants. Two objectives and null hypotheses were formulated to guide the study. A survey research design approach was adopted for the study, 112 auditing firms in Edo State and 73 students in accounting department for University of Benin was the population of the study. 7-point Likert scale was used to answer the two set of designed questionnaire A and B. The findings reveal that the two hypotheses were significant to the dependent variables, therefore, the study recommended that firms should device strategies on adapting cloud technologies and ensure training and retraining of professional accountants on the uses of cloud technologies accounting as this will enhance the knowledge in all their activities for effective and efficient performance in financial information by making them reachable to owners and employees everywhere with an Internet devices.

Al-Okaily, Alkhwaldi, Abdulmuhsin, Alqudah, and Al-Okaily (2022) examined the factors influencing the usage of cloud-based accounting information systems (AIS) in the crisis era (i.e. the COVID-19 pandemic) by expanding the unified theory of acceptance and use of technology (UTAUT) with new related critical factors. A quantitative research approach based on a cross-sectional online questionnaire was used for collecting empirical data from 438 potential and current users of cloud-based AIS. The outcome of the structural path revealed that performance expectancy, social motivation, COVID-19 risk (COV-19 PR) and trust (TR) were significantly influencing users' behavioral intention (BI) toward using cloud-based AIS and explained 71% of its variance.

Effiong, Udoayang, and Davies (2020) investigated the effect of cloud accounting on the harmonization of cost structures of manufacturing-oriented enterprises listed on the Nigerian Stock

Exchange. The paper examined the practicality of cloud accounting in manufacturing enterprises by a comparison of cloud expenditures to manufacturing firms' cost structures. In order to create the estimated model, they used the least squares random effect technique. The price of the server was used as a starting point to calculate the costs of the power bill, maintenance, the network, and the building itself. There was a negative influence on direct expenditure from the price of the server, the network, and the building, but a favourable effect from the price of maintenance and electricity. Costs associated with servers and infrastructure were favourably connected with indirect expenses, whereas those associated with electricity, maintenance, and networks were adversely correlated.

Ezuwore-Obodoekwe, Okoye, and Obinabo (2020) investigated the impact of cloud accounting on the performance of the Nigerian banking sector, using annual data from 2008 to 2017 and adopting the Ordinary Least Squares (OLS) technique. The study's results reveal that private cloud computing has a significant influence on the profit after tax of the Nigerian banking industry. Additionally, the community cloud has an influence on the Nigerian banking sector's revenues after taxes. Matarneh, Al-Tahat, Ali, and Jwaifel (2018) studied the effect of cloud accounting on the competitive advantage of Jordanian industrial enterprises. To meet the study's objectives, both descriptive and analytical methodologies were used. Additionally, the multi-linear correlation test was used, and the inquiry yielded a number of conclusions. Borhan and Bader (2018) examined the impact of accounting information system on the profitability of selected commercial banks in Jordan. The study adopted a survey design and data were collected through self-administered questionnaire from 206 employees in Jordanian banks. The study analyzed the obtained data using the linear regression analysis. Findings highlights that there was a significant impact of accounting information system on the profitability of banks under study. Mugenyi (2018) explored on the reception of Cloud Computing Services by Commercial Banks in Uganda for Sustainable Development. The investigation found that banks in Uganda are consistently expanding in number of branches, sizes and operational exercises over the most recent two decades.

3.0 Methodology

The survey research design was adopted for this study because the source of data was primary. The population of this study comprised selected staff of deposit money banks in Nigeria. An assessable sample size of one hundred and twenty staff members were purposively selected. The criteria for selection was that the staff members must be key staff members of the banks that operate the systems and understand cloud computing systems technology. The instrumentation for data collection was the 5-point Likert researchers' self-constructed questionnaire. The questionnaire were coded as 5-Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree, and 1-Strongly Disagree. A weighted average was obtained for each response of the participants relating to the questionnaire question of the variables under study. The copies of the questionnaire were sent out to expert to evaluate whether the questions effectively captured the issues under investigation and the Alpha Cronbach test was employed to ascertain the reliability of the study instrument. The robust ordinary least square (OLS) regression technique was employed in analyzing the data set in this study. This technique was considered to be most appropriate as the data set failed to meet the assumptions of normality as have been the case with the present study. Spearman rank correlation analysis was adopted to evaluate the association among the variables, and check for possible collinearity among the variables of interest.

The model used in this study is as specified below:

Financial reporting quality = f(Cloud computing)

FNRQ = f(Paas, Naas, Saas)

Therefore the econometric model of this study is presented below;

$FNRQ = \beta_0 + \beta_1 Paas + \beta_2 Naas + \beta_3 Saas + e$

Where;

FNRQ = Financial reporting quality

Paas = Platform as a service

Naas = Network as a service

Saas = Software as a service

β_0 = Constant

$\beta_1 - \beta_3$ = Slope Coefficient

e = Error term

4.0 DATA ANALYSIS AND INTERPRETATION

This study examined the effect of cloud accounting on financial reporting quality of selected banks in Nigeria. The independent variable of this study was cloud accounting measured using platform as a service, network as a service, and software as a service while the dependent variable of the study was measured using the International Accounting Standard Board (IASB, 2018) qualitative characteristics of useful financial information.

4.1 Analysis of questionnaire

The copies of questionnaire used in generating data for the analysis of this study were sent to one hundred and twenty staff members of selected deposit money banks in Nigeria. Out of the 120 copies sent out to the respondents, only 105 copies were retrieved and this is analyzed below;

Table 4.1: Analysis of questionnaire administration

Questionnaires	Copies	Percentage
Retrieved	105	87.5%
Un-retrieved	15	12.5%
Total	120	100%

Source: Author's computation (2023)

Table 4.1 shows that out of the 120 copies of the questionnaire that were sent out, 105 copies were retrieved. This represented 87.5% of the total questionnaire sent out and this was the number that was used for analysis in the subsequent sections that followed. However, 15 copies of the questionnaire could not be retrieved representing 12.5%.

Table 4.2: Analysis of educational qualification

Questionnaires	Copies	Percentage
Bsc/HND	90	85.7%
Post graduate	15	14.3%
Total	105	100%

Source: Author's computation (2023)

Table 4.2 shows the analysis of the academic qualification of the respondents. Out of the total 105 respondents, 90 of them were Bsc/HND holders which constituted 85.7% while the remaining 14.3% had post graduate qualification. This implied that our respondents have fair knowledge of computing and understood fairly the questions raised in the questionnaire.

Table 4.3 Test of data normality of the effect of cloud accounting on financial reporting quality

Variable	Obs	W	V	Z	Prob>z
Fnrq	105	0.93617	3.679	2.040	0.0033
Paas	105	0.70363	2.765	2.360	0.0025
Naas	105	0.39250	2.107	2.487	0.0013
Saas	105	0.87201	1.108	2.682	0.1821

Source: Authors computation (2023)

Table 4.3 shows the result obtained from the Shapiro-Wilk normality test for the data employed in this study. It was observed that the dependent variable of financial reporting quality ($Z=2.040$; $\text{Prob}>Z=0.0033$) is not normally distributed since the probabilities of the z-statistics are significant at 5% level. In the case of the independent variables, the table shows that Platform as a service ($Z=2.360$; $\text{Prob}>Z=0.0025$), and network as a service ($Z=2.487$; $\text{Prob}>Z=0.0013$) are not normally distributed since the probabilities of the z-statistics are significant at 5% level. However, software as a service ($Z=2.682$; $\text{Prob}>Z=0.1821$) follows a normal distribution since the probability of the z-statistic is insignificant at 5% level.

Table 4.4 correlation analysis of the effect of cloud accounting on financial reporting quality

	FNRQ	PAAS	NAAS	SAAS
FNRQ	1.0000			
PAAS	0.1823	1.0000		
NAAS	0.0373	0.0954	1.0000	
SAAS	0.1737	-0.1332	-0.1332	1.0000

SOURCE: Authors computation (2023)

Table 4.4 shows the correlation between the variables of the study. This table shows that there exists a positive and weak association between platform as a service and financial reporting quality

of the selected banks in the study (0.1823). There is a positive and moderate association between network as a service and financial reporting quality of the selected banks in the study (0.0373). There is also a positive and moderate association between software as a service and financial reporting quality of the selected banks in the study (0.1737). Since the correlation coefficients are moderate, there is no room to suspect the presence of multicollinearity.

Table 4.5: Regression result of the effect of cloud accounting on financial reporting quality

	FRQT Model (Pool OLS)	FRQT Model (Robust Regression)
CONS.	1.208 (3.22) {0.003} **	1.761 (3.87) {0.004} **
PAAS	0.298 (1.293) {0.033}	0.251 (1.56) {0.069}
NASS	0.462 (5.38) {0.000} ***	0.452 (3.25) {0.000} ***
SAAS	0.131 (2.33) {0.001} **	0.237 (3.65) {0.000} ***
F-stat/Wald Stat	46.23 {0.0000} ***	31.98 {0.0000} ***
R- Squared	0.233	0.251
VIF Test	1.20	
Hettero. Test	67.28 {0.0033} **	

Note: Values in () are t-statistic; and { } are p-values; while **, *, implies statistical significance at 5% and 1% levels respectively**

Table 4.5 shows the pool OLS regression analysis of the effect of cloud computing on financial reporting quality of selected banks in Nigeria. From table 4.5 R-squared had a value of 0.233 and this implies that about 23% of the systematic variations in financial reporting quality of the pooled banks in Nigeria was jointly explained by the independent variables in the model. Furthermore, the F-statistic value of 46.23 and the associated p-value of 0.0000 shows that the specified model for the banks on the overall is statistically significant at 1% level. This means that the regression model is valid and can be used for statistical inference. However, the researcher conducted some post regression test to further ascertain the validity of the pool OLS regression. These tests include multicollinearity and heteroscedasticity. Table 4.5 shows that a mean VIF value of 1.20 indicates that the mean VIF is within the benchmark value of 10, which excludes multicollinearity and indicates that no independent variable needs to be eliminated from the model. The Breusch Pagan module was used by the study to test the heteroscedasticity. The result obtained from the regression

model as shown in the table 4.5 reveals that the probability value of the heteroscedasticity test is significant at 5% level {6.12 [0.0033]}. This result indicates that the assumption of homoscedasticity has been violated. However, the study re-specifies the model to control for this violation by employing the robust regression as recommended by Greene (2009). Therefore, due to the presence of heteroscedasticity obtained from the pool least square regression estimator, the researcher proceeds to employ the robust regression which is relied upon for hypotheses testing.

4.2 Test of hypotheses

The hypotheses of this study were tested using the robust regression presented in table 4.5 above

H₀₁: Platform as a service does not have any significant effect on financial reporting quality of selected banks in Nigeria.

The results obtained from the Robust OLS regression analysis in table 4.5 revealed that the platform as a service (Coef. 0.251: p-value = 0.067) has an insignificant positive effect on financial reporting quality of the banks under study. Hence, the null hypothesis that platform as a service (Paas) has no significant effect on the financial reporting quality of selected banks in Nigeria failed to be rejected. This implies that platform as a service has no significant effect on financial reporting quality of selected banks in Nigeria.

H₀₂: Network as a service does not have any significant effect on financial reporting quality of selected banks in Nigeria.

The results obtained from the Robust OLS regression analysis in table 4.5 revealed that network as a service (Coef. 0.452: p-value = 0.000) has a significant positive effect on financial reporting quality of the banks under study. Hence, the null hypothesis that network as a service (Naas) has no significant effect on the financial reporting quality of selected banks in Nigeria was rejected. This implies that network as service has a significant effect on financial reporting quality of selected banks in Nigeria.

H₀₃: Software as a service does not have any significant effect on financial reporting quality of selected banks in Nigeria.

The results obtained from the Robust OLS regression analysis in table 4.5 revealed that software as a service (Coef. 0.24: p-value = 0.000) has a significant positive effect on financial reporting quality of the banks under study. Hence, the null hypothesis that software as a service (Naas) has no significant effect on the financial reporting quality of selected banks in Nigeria was rejected. This implies that software as service has a significant effect on financial reporting quality of selected banks in Nigeria.

4.3 Discussion of findings

Platform as a Service (PaaS) and financial reporting quality of selected banks in Nigeria

The result obtained from robust OLS regression in table 4.5 reveals that platform as a service {(Coef. 0.251: p-value = 0.067)} has a statistically positive and insignificant effect on the financial reporting quality of the selected banks in the study. The coefficient for PaaS is 0.251, suggesting a positive relationship with financial reporting quality, but the p-value of 0.067 indicates that this relationship is not statistically significant. This means that the use of PaaS does not have a substantial impact on improving financial reporting quality for banks in Nigeria. Also, the outcome of this study was supported by the study of Al-zoubi (2017) and Tahmina (2017) who noted that platform as a service can enhance performance appraisal, increase stakeholders' involvement as well as boost investors' confidence since there is increased accessibility to the operations and activities of the organization over the platform. Effiong et al., (2020) noted also that accounting information system in electronic form provide quantitative indicators of financial performance.

Network as a Service (NaaS) and financial reporting quality of selected banks in Nigeria

The result obtained from robust OLS regression in table 4.5 reveals that the variable of network as a service {(Coef. 0.45: p-value = 0.000)} has a statistically positive and significant effect on the financial reporting quality of the selected banks in the study. Specifically, the result from this study implies that Network as a Service (NaaS) significantly improved the financial reporting quality of selected banks in Nigeria during the period under study. This is so because NaaS facilitates significant flexibility and elasticity along with the ability to efficient service delivery. This enables organizations to realize expected outcomes without the need to own, build, or maintain infrastructure. Also, by using cloud accounting service, the company could achieve the timely sharing of financial data. It's also paramount to recognize that it represents a step change across people, process, and technology. However, the findings of this study support the work of Al-zoubi (2017), who noted that Naas a service has the ability to rapidly deploy new sites, deliver a more secure and consistent application experience for customers and employees, achieve greater agility, and offload some of organization's network management tasks.

Software as a Service (SaaS) and financial reporting quality of selected banks in Nigeria

The result obtained from robust OLS regression in table 4.5 reveals that software as a service {(Coef. 0.24: p-value = 0.000)} have a statistically positive significant effect on the financial reporting quality of the selected banks in the study. This implies that Saas, significantly improved the financial reporting quality of the selected banks in the study. This is because Software as a service (SaaS) makes financial data readily assessable and available to end users over the internet. Saas has a considerable influence on the accounting information system from the perspectives of operating, preparing, processing, presenting, and delivering the accounting information. Thus, this significantly helps to support timeliness as a qualitative characteristic of financial information which results in increasing financial reporting quality and also supporting the quality of accuracy by using effective IT which cloud accounting is a major component. These findings support the work of Akpan et al (2023) and Akai et al (2023) who noted that cloud accounting significantly improve the quality of financial reports of the studied organizations.

5.0 Summary and conclusion

The results of the study indicate that platform as a service (PaaS) has an insignificant effect on the financial reporting quality of banks in Nigeria. On the other hand, network as a service (NaaS) and software as a service (SaaS) have a significant positive impact on financial reporting quality. These results indicate a strong positive relationship between these services and financial reporting quality. Banks in Nigeria that utilize NaaS and SaaS experience improved financial reporting quality. Based on the findings, it could be concluded that while PaaS does not significantly affect financial reporting quality in Nigerian banks, NaaS and SaaS have a notable impact. Therefore, banks should consider adopting NaaS and SaaS solutions to enhance their financial reporting practices and maintain high-quality reporting standards. Based on the above findings, it was recommended that Banks in Nigeria should explore the potential benefits of network as a service (NaaS) and software as a service (SaaS) in improving their financial reporting quality. Also management teams in banks should conduct thorough evaluations of available NaaS and SaaS solutions to select those that best align with their specific reporting needs. Regular monitoring and assessment should be done to ensure the continued effectiveness and efficiency of NaaS and SaaS in enhancing financial reporting quality. This study has contributed to knowledge by providing empirical evidence that platform as a service (PaaS) has an insignificant effect on financial reporting quality. Secondly, the study also provide empirical evidence that network as a service (NaaS) and software as a service (SaaS) have a significant positive effect on financial reporting quality. These findings emphasize the importance of leveraging these service models to enhance financial reporting quality in the banking sector.

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