



Digital Accounting Practices and Financial Performance of Listed Deposit Money Banks in Nigeria

Odukwu Victory Chika^{1*}, Eke Promise², Nwankwo Chidozie³, Stanley Mirian Owelechi⁴

^{1*,2,3,4}Ph.D Student, Department of Accounting, Faculty of Management sciences, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Rivers State, Nigeria.

Email: ²promiseeke40@gmail.com

Corresponding Email: ^{1*}victorychika0519@gmail.com

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Abstract: *The study investigated the relationship between digital accounting practices and financial performance of Nigerian deposit money banks. Both primary and secondary sources were used in the study's examination of the research on Nigerian deposit money banks. The collected data was subjected to regression analysis. Regression analysis was used to predict the value of the dependent variables based on the knowledge about the explanatory factors used to assess the effect on the dependent variables. The eleven (11) deposit money banks registered on the Nigerian Exchange Group (NXG) were the population for this research; however, only nine (9) of such banks were actually sampled and included in the analysis. Among the study's results were positive connections between cloud accounting (CLA) and return on assets; also, blockchain technology had a positive relationship with return on assets. Therefore, the study concluded that the adoption of electronic accounting practices and financial performance of Nigerian deposit money banks. As a result, we propose digital activities in the banking industry and call for more research into digital activities in businesses since doing so may reveal even bigger investment prospects for investors among other things.*

Keywords: *Digital Accounting Practices, Financial Performance.*

1. INTRODUCTION

Bank's financial success is based on how efficiently she uses her core business's assets to boost operations (service delivery), create value, and enhance shareholders' earnings. The value created will in no doubt bring about positive financial performance. When the bank renders excellent, fast, and reliable services to her target audience, she enjoys unusual patronage and image capable of enhancing revenue. This establishes the overall financial health of a bank over a certain time frame. Comparing a company's financial performance to



others in the same industry, or across industries, is a common practice for financial analysts and investors. One of the ratios used to gauge financial health is return on assets (ROA). This ratio is commonly emphasized while analyzing financial accounts since it shows how profitable a firm is (Rosikah 2018). Nevertheless, return on assets (ROA) refers to a financial ratio that indicates how profitable a company is in relation to its total assets. Corporate management, analysts, and investors can use ROA to determine how efficiently a company uses its assets to generate a profit. The metric is commonly expressed as a percentage by using a company's net income and its average assets. A higher ROA means a company is more efficient and productive at managing its assets to generate profits while a lower ROA indicates there is room for improvement.

The profitability of banks over a specified period of time, can be expressed in terms of overall profits and losses during that time. Evaluating the financial success of a banking institution allows shareholders to judge the results of business strategies and activities in objective monetary terms. It is a mathematical measure evaluating how well a bank uses its resources to make profit. A few examples of performance indicators of a banking institution include operating income, earnings before interest and taxes and net asset value. It is imperative to note that no one measure of financial performance should be taken on its own. Rather, a thorough assessment of a company's performance should take different measures into consideration.

Today's business organizations, and the banking sector in particular, must adapt to a volatile and uncertain economic climate and a constantly shifting business landscape. Information technology is driving this worldwide transformation. As a consequence of technology advancements, heightened awareness, and the needs of consumers, today's business climate is very dynamic and subject to quick change. Analytics, blockchain technology, artificial intelligence, big data, cloud computing, and machine learning are just a few examples of the data-driven digital technologies that have ushered in radical shifts in business structure, capital allocation, and operations in recent years. According to a report by McKinsey, major IT firms spent between \$20 and \$30 billion on AI research and development in 2016 (Bughin et al. 2017). While much of the early money invested into new digital technologies went to IT companies, advances in cloud computing and other areas have made it possible for non-tech companies to invest in these technologies on a large scale as well. Firms that wanted to use digital technology formerly had to spend money on data infrastructure and hardware. However, with the rise of cloud-computing technologies, companies now have the option of renting data infrastructure from service providers like Amazon Web Services (AWS). This has made it simpler and cheaper to implement large-scale deployments of digital technology (Brynjolfsson et al. 2017).

It fascinating to note that increasing numbers of Nigerian banks are using digital accounting as a means of providing financial services and a tool for expanding the company's operations. With the advent of net banking, Nigeria is arguably on the point of a profound change in the financial system (Ovia, 2021). Although, the Nigerian economy is facing economic downturn, yet the banking industry stands out. Non-Resident Nigerians and High Net Worth Individuals with several bank accounts find digital accounting in the banking industry



interesting since it allows them to access their accounts from anywhere in the globe using a home computer with an Internet connection. Therefore, the scope for expansion is enormous. If banks offered even more enticing incentives, clients would stop going to their local branches in favor of the more convenient option of banking from the comfort of their own homes. There seems to be no evidence of improvement in the situation at this time. While almost all banks in the nation provide some sort of electronic banking, nearly all provide additional electronic banking services, such as telephone banking.

According to the literature review conducted by Emmanuel (2020), the primary objective of accounting is to determine the financial condition of an entity as of a certain date. If a company relies heavily on providing accurate accounting data to both internal and external users, then it's in good shape to have an AIS in place. This is particularly true in the banking business. In addition, it is reasonable to assume that the amount and sophistication of accounting data needed to guide management choices across functional areas including procurement, security, human resources, debt financing, and capital investment correlates with the size of the business.

Blockchain is a technology that is used to store and verify transactional information. It functions by adding "blocks" of data to a ledger called the blockchain, which is controlled by a system of peer-to-peer computers (Bonson & Bednarova, 2019). Blockchain is a decentralized, immutable database that makes it easier to track assets and record transactions among a network of businesses. An asset may be physical (such as a house, car, money, or land) or intangible (intellectual property, patents, copyrights, branding). On a blockchain network, almost anything of value may be recorded and traded, lowering risk and increasing efficiency for all parties. Blockchain is the best technology for distributing that data because it offers real-time, shareable, and entirely transparent data that is kept on an immutable ledger and accessible exclusively to members of a permissioned network. Among other things, a blockchain network can track orders, payments, accounts, and production. Additionally, because everyone has access to the same version of the truth, you can see every aspect of a transaction from beginning to end, increasing your confidence and opening up new prospects. The advent of digital accounting practices via cloud accounting and a host of other digital solutions have profoundly transformed accounting practices and the financial world. Although, the use of accounting software has been invoked in the past decades, its potential over the years has been rather progressive leading to more sophistication in the recording, storage, interpretation, and communication of accounting data to end users. Cloud accounting is made available via the network using common processes that support thin or thick client stages such mobile devices, laptops, and others. The target audience can achieve effective and long-lasting online data service through the adaption of the cloud accounting system to enabling technologies. According to Gartner, a company's researchers have identified cloud accounting as the top trend that will change how the firm is perceived (Egiyi & Udeh, 2020).

In the past, this part of banking has remained at the infant level (Ovia, 2021). This is the case despite the fact that Internet banking has several advantages over visiting a physical bank location. Lack of suitable operational facilities, such as communications and electricity, upon which electronic banking depends, has been noted as a contributing factor to the inability of



banks in Nigeria to fully take advantage of this mode of banking (Akinduko, 2020). Internet banking is seen as less important in the current banking system since banks have not been able to integrate their operations into the internet development process, but the advent of CBN cashless policy has made electronic banking necessary for every individual, firms or corporate organizations in Nigeria. It has been previously stated that the lack of a clearly defined legal framework for internet banking, leaving banks with inadequate legal cover to provide the services, and poor telecommunication infrastructural support are contributing factors to internet banking's moderate economic impact in Nigeria.

The fact that fraudsters have exploited the country's internet system makes it a less desirable location for genuine foreign and local financial transactions. A rising body of data suggests that fraudulent Nigerians utilize spurious websites to steal money from unsuspecting victims around the globe, adding to the natural skepticism that exists about using online banking services in Nigeria (Victory et al, 2022). Existing bank locations are sometimes used for these kinds of crimes. However, the banking sector's use of digital technology to carry out everyday duties has recently seen some major advancements. This study aims to determine whether or not there is a substantial correlation between the adoption of digital accounting techniques and the financial performance of Nigeria's publicly traded financial institutions. Specifically, the study aimed at investigating the relationship between blockchain technology and return on assets (ROA) of Nigerian deposit money banks that are publicly traded, and to determine whether cloud-based accounting has any relationship with ROA of Nigeria's publicly traded deposit money banks.

Literature Review

Theory of Organizational Change

While it's possible for an organization to take on a number of digitalization projects, the digital transformation is a much larger phrase and cannot be broken down into individual initiatives. Multiple digitization initiatives are often the starting point for the digital transformation (Bloomberg, 2018, & Negin, 2019). The fact is that digital transformation requires organizational change, including new tools, processes, and mindsets (Andersson et al., 2018 & Bloomberg, 2018). If they want to succeed in today's fast-paced market and environment, businesses must undergo internal and external shifts to become more flexible and responsive (EY, 2017). The increasing prevalence of digital methods of doing business necessitates an internal overhaul. Digital technology, as stated by Quinn (2017), has the ability to enable a shift in how employees inside businesses do their duties. Despite the significance of this issue, it seems that many businesses are changing and focusing primarily on technology features while ignoring the value of the human element. We wonder why, if technology factors alone are what really matters, organizational hurdles are at the top of the list of digitalization's problems. Organizations need to be more flexible and proactive to change in order to adjust to environmental shifts and maintain competitive advantage. Initiating the transition, however, poses serious difficulties for top-level managers and the whole company (McConnell, 2018). It is more important to manage organizational opposition and push the human capital viewpoint to change than it is to manage the other parts of digitalization and digital transformation difficulties, which together move the company toward a successful transition. Westerman et al. (2012), state that a company's



success in its digital transformation endeavor is proportional to how well it controls the organizational barriers to change. Management must be able to strike a balance between technological advancements and investments in human capital if they want to steer an organization or business effectively through transitions, such as the digitization of accounting processes. People's natural reluctance to change, especially when it involves moving from a familiar work or scenario to one they are less familiar with, is one of the largest obstacles to introducing new technologies.

Empirical Review

In the view of Victory et al (2022), empirical review seeks to investigate the methods, results, conclusions, and recommendations of eminent researchers on same or similar research study. In this study, researchers highlighted some of the previous studies that are comparable with the present study. Morufu and Yinus (2020), assessed the effect of e-accounting on the quality of financial reporting at a number of Nigerian banks. The annual reports of the chosen financial institutions were secondary data, spanning the years 2010 through 2017. The findings indicated that some parameters impacting electronic accounting adoption in the sampled banks were Bank Size (BS) at 92%, Cost of ICT Deployment (CID) at 69%, perceived Ease of Use (PEOU) at 74%, and Perceived Benefit (PB) at 86%. They suggested that deposit money banks make more of an effort to boost user trust in the financial information supplied by banks by creating mechanisms that improve the use of e-accounting. Dusica et al (2020), investigated how successful financial outcomes relate to the creative use of digital technology, using a sample of 46 exclusively female-run businesses. The study's findings support the assumptions that digital technology does not directly affect financial performance and that product innovation mediates the connection between digital technology and financial success. Nhung et al. (2020), looked at how the transition from a subsidized to a market economy affected business performance after accounting for a number of different micro and macro variables. STATA was used to examine the data. The results of this study provide a solid foundation for making recommendations because, in addition to the regression analytical technique, the Blinder-Oaxacade composition analysis was used to investigate the impact of variables on the financial performance of food processing companies in greater depth. Sandner et al (2020), explores the influence of blockchain technology on the CFO-function of an industrial company. Based on a review of literature, semi-structured expert interviews were conducted with 23 participants. Analysis of the responses demonstrated a considerable impact of blockchain technology on the CFO-function. The results indicate improvements of business processes in regard to efficiency and automation, a relocation of the CFO's strategic role, improvements of CFO-relevant KPIs through integrating machines into payment networks as well as the emergence of integrated business ecosystems facilitating new forms of inter-organizational collaboration. Di-Vaio, and Varriale (2020), investigated the major implications of blockchain technology for operations management (OM) with a focus on the decision-making processes in supply chain management (SCM) from the perspective of sustainable performance. It also allows information and data sharing, but it is still not possible to observe a high level of sustainable performance. Although the adoption of blockchain technology presents numerous benefits, especially in improving OM, these new technological solutions do not guarantee the achievement of the best performance in terms of effectiveness, efficiency, and sustainability



issues. Managers and policy makers need to work together to create a real forum within their collaborative network in which there is a common culture and mutual trust.

GAP in literature

The researchers introduced study by stating the significance of the study to the Nigerian banking sector as the exact topic of this investigation “digital accounting practices and financial performance of listed deposit money banks in Nigeria” has not been adopted whether in part or in full by any scholar. The problems highlighted as be-devilling the sector are recent ones. The researchers also made some operational definition of the terms which was based on our perception of the meaning of the concept under review. Eminent researchers reviewed did not use the exact tools and therefore did not also make exact revelations and recommendations. Therefore, the present enquiry has made enormous contributions to the body of knowledge, and has close some knowledge gaps.

2. RESEARCH METHODOLOGY

Experimental research, descriptive correlational research, assessment, and comparative causal research are the four sub-types of quantitative research identified by Johnston et al (2019). The eleven (11) deposit money banks registered on the Nigerian Exchange Group (NXG) were the population for this research; however, only nine (9) of such banks were actually sampled and included in the analysis. This analysis focused on the years 2016 through 2021. These banks were chosen using a standardized sampling method. Zenith Bank Plc, Guarantee Trust Bank Plc, unity bank Plc, UBA Plc, Eco Bank, FCMB, Fidelity Bank, Wema Bank, Access Bank, and sterling Bank Plc were the banks chosen for the survey. Primary and secondary data were utilized interchangeably in this investigation. The information was gathered from the annual reports of nine (9) listed deposit money banks in the Nigerian Exchange Group (NXG) group fact book.

Descriptive statistics, the Pearson product-moment correlation coefficient. Return on assets (ROA) and return on equity (ROE) are linear measures that employ these matrices of independent variables (ROE).

Model: Returns on Assets (ROA) model

ROA = f (BCT, CLA).....3.1

This can be written in ordinary least square (OLS) form as:

ROA₁ = a₀+a₁BCT₁+a₂CLA₁ +U₁.....3.2

.a₁>0:a₂>0:a₃>0:a₃

Where:

ROA = Returns on Asset, as proxy for financial performance

BCT = Blockchain technology, as a proxy digital accounting practices

CLA = Cloud accounting, as proxy for digital accounting practices

T = Time period under study

a₀ = constant

a₁+a₂ = parameter or co-efficient of explainable variables

U = Error term



3. RESULTS AND DISCUSSIONS

This section of our study reveals the results and opens a discussion accordingly, to establish whether or not the empirical reviews are in tandem with the present study.

	N	Minimum	Maximum	Mean	Std. Deviation
BCT	54	1.00	5.00	2.5556	1.42308
CLA	54	1.00	22.00	3.00000	2.97791
ROA	54	1.00	1.09	2.687	1.18377
Valid N (listwise)	54				

Descriptive statistics for all research variables are shown in Table 4.1. The data showed that the range for blockchain technology (BTC) was between 1.00 and 5.00, with a mean of 2.5556 and a standard deviation of 1.42308, that cloud accounting (CLA) was between 1.00 and 22.00, with a mean of 3.00000 and a standard deviation of 2.97791, that return on assets (ROA) was between 1.00 and 1.09, with a mean of 2.687 and a standard deviation of 1.18377. All research variables, however, had means greater than 2.5. This led the researcher to conclude that the factors were really prevalent.

Table 4.2: Correlation table on the strength of relationship between each of the predictor and the criterion variables respectively.

Control Variables		BCT	CLA	ROA	
FS	BCT	Correlation	1.000	.004	.694
		Significance (2-tailed)	.	.002	.004
		Df	0	54	54
	CLA	Correlation	.418	1.000	.643
		Significance (2-tailed)	.002	.	.080
		Df	54	0	54
	ROA	Correlation	.694	.243	1.000
		Significance (2-tailed)	.004	.080	.
		Df	54	54	0

Source: SPSS (25)

The table 4.2 displayed the results of a correlation analysis showing the strength and direction of the association between each predictor and criterion variable. First, at the 0.004 0.05 level of significance, a correlation coefficient of $r = 0.694^{**}$ was found between BCT and ROA, providing information about the strength and direction of the relationship between the two variables. The figure is very significant, suggesting a close connection between BCT and ROA for the nine (9) deposit money institutions in Nigeria that are publicly traded. There is a



favorable association between BCT and ROA for the nine Nigerian banks that report it. Thus, the study's author came to the conclusion that among Nigeria's nine publicly traded deposit money banks, BCT significantly correlates with ROA.

Discussion of Findings

Through the use of secondary data gathered from the annual reports of the sampled listed banks using the Nigerian Exchange Group bulletin, this study tested hypotheses regarding the strength and direction of the relationship between the predictor variables (blockchain technology and cloud accounting) and measures of financial performance (return on asset, and return on equity) of listed deposit money banks. So, it's important to look at this juncture to discuss our results and relate them to that of eminent scholars. Our findings are shown in Table 4.1, where it can be seen that the researcher's assertion that BCT, CLA, ROA, ROE, and FM are all more than 2.5 is supported. The correlation coefficient $r = 0.694^{**}$ between BCT and ROA of the nine (9) mentioned financial institutions in Nigeria at the significant/probability value = 0.004 0.05 level of significance is also shown in Table 4.2. Sandner et al. (2020) and Di-Vaio and Varriale (2020), corroborate this finding. They explored how blockchain technology may alter the function of the CFO in a manufacturing company. According to his findings, the CFO's strategic role is shifting, the integration of machines into payment networks improves CFO-relevant key performance indicators, and there has been an increase in the prevalence of integrated business ecosystems that facilitate new types of inter-organizational collaboration. Finally, as shown in 4.2, we found a substantial and strong association between cloud accounting (CLA) and ROA of the nine (9) listed deposit money institutions in Nigeria, with a correlation coefficient of $r = 0.643^{**}$ at the significant/probability value = 0.002 0.05 level of significance. In addition, the nine Nigerian deposit money banks that are publicly listed have all seen an increase in return on asset (ROA) after adopting cloud-based accounting. Here, the findings corroborated those of Fullana and Ruiz (2021), who constructed an empirical model of rural SMEs' digital accounting competency. Their findings thus far indicate that digital accounting entrepreneurship is essential to the long-term success of rural MSMEs, particularly in the following areas: entrepreneurial competency; marketing capability; knowledge sharing; financial resources; technological utilisation; drive change and engagement; and individual competency. Therefore, their findings warrant further investigation towards developing a model of digital accounting entrepreneurship skill. Using a sample of 46 businesses run by women, Dusica et al. (2020), looked into the correlation between financial success and innovative use of digital technologies; they reached the opposite conclusion, finding that digital technology has no direct influence on financial success, and that the relationship between digital technology and financial success is mediated by product innovation.

4. CONCLUSIONS

This study investigated the relationship between digital accounting techniques and financial performance of banking industry in Nigeria, using annual financial data extracted from the Nigerian Exchange Group (NGX). In keeping with the study's stated goal and findings, we draw the conclusion that the adoption of digital accounting techniques is positively associated with financial performance. Digitalization of banking activities has in no doubt transformed



the banking industry. Today, information is recorded, communicated, saved and secured on the cloud instead of the paper work that made banking work boring, time wasting and cost effective. In the past, this part of banking has remained at the background. The study provided the following recommendations to assist banking institutions make better decisions: Management should give investors more data on the potential success of their digital activities to enhance effectiveness and efficiency. The government of Nigeria should once again address security and privacy issues in cloud accounting since many Nigerian banks are beginning to realize the advantages and value of cloud accounting and are moving in that direction. Blockchain technology should be adopted by every financial institution in Nigeria to strengthen their financial system. Researchers should carry out more investigations in this area to boost awareness rate.

Competing interest

Authors declared that there are no competing interest of any kind. Authors approved the final publication of the journal.

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