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Digital disruption of accounting information and quality of financial reporting of listed money deposit banks in Nigeria

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Abstract

This study investigates the digital disruption of accounting information (DDAI) and the quality of financial reporting of listed deposit money banks (DMBs) in Nigeria. The accuracy of financial reporting and the ability of the Nigerian banks to fully digitalize their services are both severely limited by infrastructure deficiencies and unstable power supplies. The goal of this study is to fill in the gaps in the existing literature on the significance of digital disruption of accounting information in DMBs in Nigeria's developing banking industry. The study employed a field survey research design and data were sourced with the help of self-structured questionnaires. The respondents were drawn from the staff of 13 DMBs listed in Nigeria. A total of 641 questionnaires were retrieved and validated for the study. The reliability and validity of the study instruments were confirmed with the help of the Cronbach alpha test with a range of 0.877 to 0.967 which suggested satisfactory reliability of the measures and further suggested that all the measurement scales of the instrument were good enough. The results showed that the mean values for each category ranged from 3.83 to 4.53 with an overall mean of 4.13. The regression showed that DDAI had a significant effect on qualitative characteristics. The study concluded that DDAI had a significant effect on the quality of the financial reporting of listed DMBs in Nigeria. The outcome significantly contributes to the idea that managers of DMBs should consider the digitalization of the accounting information process to improve the quality of financial reporting.

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1. Introduction

Digital disruption of accounting information has become a popular phenomenon where data analytics, cloud accounting and other disruptive technologies provide a new perspective in order to improve the quality

of financial reporting (QFR) of financial institutions in Nigeria. Fewer banks with less advanced technology and specifically designed accounting software that can provide quick, reliable and high-quality financial reports define the reporting procedures in Nigerian banks. The money deposit banks (DMBs) in Nigeria are unable to fully automate financial reporting due to unfavourable environmental and infrastructure deficiencies and inconsistent information sharing (Faridi et al., 2023; Oladejo et al., 2020). DMB operations are hampered by significant infrastructure gaps, unreliable power supplies and other variables that affect the effectiveness of operations and the timeliness of financial reporting.

The problem of financial reporting (QFR) in Nigeria stems from the FRCN's systemic failure, laxity and inefficiency which have a detrimental impact on financial reporting quality. The low standards and compromised posture of the Financial Reporting Council of Nigeria (FRCN) as well as the prescriptive character of the International Financial Reporting Standards (IFRS) provide gaps and allow for non-compliance with full disclosures (Akintoye et al., 2020; ; Apochi & Mustapha, 2022). According to Kassim et al. (2022), the FRCN has never properly responded to financial scandals involving the DMBs in Nigeria, including discretionary earnings, reported misstatements, fraud cases, unethical insider dealings and other financial scandals that lead to aggressive and fraudulent revenue recognition and deteriorate the QFR issue among the listed DMBs in Nigeria (Aguguom & Ebun, 2021). Practices for omitting or delaying recognition overestimate income, equity and assets, understate costs and finally increase liabilities to stakeholders relying on the QFR of the DMBs. Equity is increased by overstating revenue and other comprehensive income and understating costs which causes contingent liabilities to be understated.

Different customers and suppliers together with many market expansions, high-quality standards, and information overload must be managed by banking activities and commercial transactions through the DMBs (Akeju et al., , 2017; Osita-Nwosu & Onuora, 2023). QFR and other data management and integration become crucial in order to overcome the difficulties of connecting banking supply-chain management systems between banking operations and stakeholders' financial needs as well as between their partners. The origins of structured and unstructured data make analysis and information generation a little more challenging among the DMBs in Nigeria. However, the application of digital disruption of accounting information systems could enhance efficiencies as digital solutions using data analytics, block chain, artificial intelligence and cloud accounting handle data and convert and adjust it to end-user needs. The supply chain includes all operations from planning to manufacturing to logistics in order to optimize customer value and provide long-term competitive advantages.

This study focuses on examining the effects and implications of digital disruption of accounting information on the QFR of listed DMBs in Nigeria. The evaluation of how the digital disruption of accounting information technologies of big data analytics (BDA), block chain (BCN), artificial intelligence (AI) and cloud accounting (CA) implementations enhances the performance of the DMBs and improves the QFR for easy reliance on economic value in decision-making. Digital accounting information disruption becomes essential for addressing the issue of expanding and degenerating QFR. Data management and integration give DMBs, their customers and other stakeholders' visibility into the QFR issue and its related information disclosure challenges at every level and activity promoting stronger relationships and long-term cooperation.

Numerous studies have contributed to solve the problem of QFR in Nigeria. The level of resettlements and dissatisfaction of the stakeholders is increasingly disturbing and unsettling and the non-performance of the banks had a significant impact on the reporting quality of the banks (Ahmed, 2020; Akintoye et al., 2019). Besides, there are conflicting results from earlier research conducted in Nigeria on the relationship between the OFR and the International Financial Reporting Services compliance level as it affects the OFR in the DMBs (Aguguom & Ebun, 2021; Osita-Nwosu & Onuora, 2023). The reported divergences have persisted over the years as a result of partial compliance by the preparers and some variations in IFRS standards as well as the many indirect methods permissively allowed to measure accounting numbers as regulated by the standards. The inconsistencies had created doubts about the significant effects of the IFRS adoption and the widening gaps in credibility and QFR had intensified. Nigerians have become worried and lack confidence in the DMBs' ability to accurately reflect their financial status due to inconsistencies in expectations between users and the OFR of the DBMs. In addition, the financial discrepancy was noticeable when the financial reporting of developed and developing countries that adopted IFRS was compared. In South Africa, Ames (2013) discovered that the OFR did not considerably increase with the introduction of IFRS. Moreover, Elbannan (2011) in Egypt found no relationship between FRQ and IFRS compliance. However, Agyei-Mensah (2013) in Ghana found that FRQ significantly increased after adopting IFRSs and Uwuigbe et al., (2016) and Kassim et al. (2022) found a significant relationship in Nigeria after adopting IFRSs. There is limited knowledge available to African countries on how IFRS compliance influences the quality of financial information in financial statements.

The weaknesses of manual computations and data processes have given rise to the need for digital disruption of accounting information. The financial industries are changing due to the digital disruption of accounting information technologies (Arpaci et al., 2022; Cao et al., 2022). It offers a safer and more efficient way to carry out financial reporting and banking transactions (Afifa, Van, & Van, 2022). Digital disruption means that ensemble machines and genetic algorithms can be used to optimize the portfolio rebalancing process, speeding the reporting processes and creating value for the owners (Cong & Du, 2022;

Jiang et al., 2020). This entails employing evolutionary algorithms to determine the best weights for portfolio assets depending on a variety of restrictions and goals, including risk tolerance, return targets and liquidity demands (Faridi et al., 2023; Jiang et al., 2020). The suggested strategy aims to provide accountants and financial experts of the DMBs with the necessary incentives to use block chain as a consequence of the value of block chain in their work operations as well as its positive effects on the output of the banks.

The lack of proper information being disclosed in the contents of the financial accounts of the banks is becoming concerning (Athamena et al., , 2023; Barroso & Laborda, 2022). During the most recent global financial crisis, investors required information on banks' risk exposure but this was not readily available (Peter et al., , 2020; Shan & Troshani, 2021). According to this perspective, the world has seen a financial crisis that is unprecedented. Since the global financial crisis of 2008, academics in accounting and finance have become very interested in the financial reporting transparency of banks. The financial crisis highlighted the detrimental economic implications of bank secrecy, giving rise to the concept that a lack of information about bank asset quality may threaten financial stability and accelerating the decline in trust in the QFR (El Hilali, El Manouar, & Idrissi, 2020). The lack of market discipline caused by banks' opacity can make agency issues worse and raise the dangers of panic and contagion during a crisis (Ouda & Klischewski, 2019). The public revelation of stress test findings together with the government's clear support of the banking sector assisted in suppressing the panic by giving investors the necessary information.

The demand and application of digital disruption of accounting information have become important trajectory requirements for restoring dignity and ensuring a globally acceptable QFR in banks. There are high uncertainties and heightened apprehensive dispositions about the veracity of reported financial statements while some unscrupulous auditors continue to play compromising roles in validating unethical practices as many of the auditing firms are deeply involved in lending credibility to faulty and unreliable financial statements (Aguguom & Ebun, 2021). For instance, in 2021, the reported cases of Skye Bank and Polaris Bank of Nigeria are quite pathetic among the many challenges and consequences of weak QFR in the listed deposit money banks in Nigeria.

If the Central Bank of Nigeria had not stepped in, the then-Skye Bank would have been in an awful mess and was likely to collapse due to cases of insider trading, unethical financial reporting practices and careless managerial incompetence. The bank was deeply involved in unacceptable corporate governance lapses, the inability of the bank to meet critical prudential and adequacy ratios and protracted undisclosed liquidity issues that led the bank to become continuously reliant on the CBN Lending Window in order to continue operating (Oladejo et al., 2020; Osita-Nwosu & Onuora, 2023). The unfortunate incident of the then -Skye Bank and lack of fair financial reporting had been compromised under the watch of the statutory auditors who had been validating and certifying the illegality and irregularities of the bank until the apex banks intervened.

A review of the literature showed the range of weak QFR and inadequate accounting disclosure issues that have been investigated in deposit money banks (DMBs) listed in Nigeria (Akintoye et al., 2020; Kassim et al., 2022). The management of vast earnings, insider trading and information symmetry among Nigerian banks have all led to dissatisfaction. The lack of stakeholders' legitimacy in banking operations, the pathetic faith of depositors and the lack of transparency in banking financial reporting are worrisome and create motivation for this study. Furthermore, the lack of corporate governance best practices in Nigeria, weak institutions for defending investors' contractual rights and the compromised regulatory position of the apex bank's monitoring units help to highlight the significance of this study (Apochi & Mustapha, 2022; Sanyaolu et al., 2017). Consequently, researching the QFR of the DMBs listed is justified as a determinant of the digital disruption of accounting information. It will hopefully provide some alleviation and solutions for the QFR issues that have gotten worse and are now the focus of poor and insufficient study. Numerous studies illustrate the need to look at the most recent data and application of digital disruption of accounting information and suggest opportunities for more research by demonstrating the variety of domains related to the level of accounting disclosure of the DMBs in Nigeria and the majority of these works had a narrow emphasis on the level of decay, punitive and unchecked reckless unethical practices of the banks.

The concerns of QFR may seem to have been over-flogged in the literature based on the aforementioned facts, yet the quality of Nigerian reporting in the context of DMBs is under-researched. Genuine financial reporting is not provided to depositors and other stakeholders and understating the true state of the banks' finances has resulted in significant losses for depositors and investors. This institutionalised lack of transparency has also given DMBs a bad reputation on an international level. The current study provides a timely solution to the problem by exploring the determinants of QFR in DMBs in Nigeria. The timely study would help the concerned stakeholders be well informed to take corrective actions, help policymakers take essential measures to protect the vulnerable innocent banks' depositors and be an opportunity for the financial regulators to take essential measures to avoid any prospective financial crises that may be proven to worsen.

In addition, this study adds to the existing literature by providing a thorough and systematic significance of digital disruption of accounting information in the content of the emerging economy of Nigeria and beyond as findings would be useful for economies in other developing economies and a lesson for similar problems.

Consequently, this study examined the effect of digital disruption of accounting information on the QFR of listed DMBs in Nigeria. This study answered and tested the following research questions and hypotheses:

Research Question: How does digital disruption of accounting information determinants affect the QFR of DMBs listed in Nigeria?

Research Hypothesis (H_1) : Digital disruption of accounting information determinants does not significantly affect the QFR of DMBs in Nigeria.

The rest of the study was structured as follows: Section 2 provides a brief literature review on the disruption of accounting information and its determinants as well as the QFR, its measures and the theoretical framework. In section 3, the study considered methodology looking at the sources of data employed and analyses. Section 4 provides the empirical results and discussions. The study ends in section 5 with a conclusion, recommendations, limitations and suggestions for further studies.

2. Literature Review and Theoretical Framework

2.1. Quality Financial Reporting

Quality financial reporting refers to the accuracy with which a company's financial reporting sends information about its activities, particularly its predicted cash flows that inform equity investors (Garzoni et al., 2020). Thus, the goal of QFR is to create high-quality financial data that is helpful for making economic decisions. According to the IFRS conceptual framework for financial reporting, financial reporting's goal is to give the reporting entity's main consumers valuable financial information (IASB, 2008). There are other significant users of the financial information that should be acknowledged, even though the framework defines the major users as present and future investors, lenders and other creditors who use the information to make choices about giving resources to the company. The quality of accounting standards such as IFRS and compliance with the standards determine the QFR (Abbas, Qureshi et al., 2022; Akeju et al., 2017). Therefore, providing high-quality financial information that can support the efficient operation of the capital market is a requirement for compliance with IFRS disclosure requirements.

According to Osita-Nwosu and Onuora (2023); Akintoye et al. (2019) and Sanyaolu et al. (2017), IFRS compliance leads to a higher QFR which lowers the chance of profit management improves fast loss recognition and generates more value-relevant accounting data. It is also critical to have a legal structure that protects investors in order to attain the QFR and the requirement for regulators to establish procedures that restrict managers' earnings management practices. The literature on qualitative financial reporting can be classified into two different parts such as relevance and faithful representation of financial reporting while enhancement is classified into comparability, verifiability, timeliness and comprehension (Kassim et al., 2022).

2.2. Fundamental Qualitative Characteristics

Relevance: The term "relevance" refers to how helpful knowledge is when making financial decisions. Accounting data needs to have the following characteristics in order to be useful: Value as a confirmatory factor provides information about past events that has predictive value and sheds light on possible future events. Accounting data is crucial in order to analyse previous events, anticipate future events or take action to prevent probable future occurrences (Akeju et al., 2017). For example, creditors may take the company's performance during a strong quarter into account when determining whether to extend or raise the amount of credit available to a corporation.

Faithful Representation: According to Raed (2017), representational fidelity also known as dependability refers to the information that accurately depicts a company's resources, obligatory claims, transactions, etc. The following requirements must be met for accounting information to be considered representative: All transactions should be included in financial accounts which should be completely correct. Additionally, the knowledge is somewhat objective. Since subjectivity and judgement are involved in financial reporting, information cannot be totally neutral. However, if a corporation surveyed many accountants and summed up their responses, it would appear impartial and objective. The degree of error-freeness describes the degree to which information is error-free (Balios, 2021; ElKelish, 2021).

2.3. Enhancing Quality Characteristics

Comparability refers to the ability of a user to recognise patterns of similarity and difference between two economic events. The informative value of relative economic performance will be increased by comparing entities and applying approaches or procedures consistently throughout time. Relevant and faithful descriptions should include comparison to maximise the underlying qualitative traits (Adugna & Kumar, 2021; Al-Okaily et al., 2023).

Verifiability: The capacity of the users to validate that the data properly represents what it purports to represent and that the selected measurement technique was used is known as verifiability. According to Shmuratko and Sergii (2021), information is deemed verified when many skilled observers or assessors concur and reach the same conclusion. Direct and indirect verification come in two types. Direct verification may be checked through an amount or other representation but indirect verification refers to the amount or other

representation that is confirmed by examining the inputs and recounting the outputs while using the same accounting standard (Kumari & Devi, 2023).

Timeliness: Timeliness is the rate at which customers may get accounting information. It is less helpful to make decisions when knowledge is outdated. Since accounting information must compete with other information, it must be current. Timeliness is necessary for information to have an influence on a decision because it ensures that consumers receive it at the right time (Troshani et al., 2019; Varma, 2018). Shareholders must receive the information quickly enough to get an accurate and comprehensive picture.

Understandability: According to Varma et al. (2022), understand ability refers to the extent to which individuals may be able to recognise or determine the relevance of the message that is being sought to be transmitted through the use of financial information. Financial statement users are assumed to be well informed to do accurate data analysis. Others will find it simpler to understand information that has been appropriately presented, organised and simplified (Ritter & Pedersen, 2020). Consumers may contact a consultant to explain information to them if they find it unclear or challenging to understand. The provision of information that the average consumer of financial statements can understand is highly desirable. Underperforming firms sometimes use a lot of jargon and sophisticated terminology in an effort to mask their underperformance.

Digital Disruption of Accounting Information: A digital disruption of accounting information is a shift that might have a beneficial or negative impact on the economy as a whole. Over the past two decades, the corporate world has undergone significant change. In the upcoming decade, further industrial upheaval and transformation will occur (Shan & Troshani, 2021; Shmuratko & Sergii, 2021). The DMBs in Nigeria's use of digital technology to process accounting data might have a big impact on how competitive and contestable the financial markets are. Nigerian banking might adopt a platform-based and customer-centric paradigm forcing incumbents to reorganise. Due to innovation, a greater selection of suppliers and a more competitive financial system, digital disruption has the potential to improve efficiency and enhance financial inclusion. This disruption will put pressure on the profit margins of the established players which may encourage further risk-taking and lead to competition for rents in the industry. Competing companies must enter the market at the same time as incumbents must reorganise in order to increase efficiency (Nourallah et al., 2023; Salijeni et al., 2019).

Big Data: Massive increases in processing power, new data sources and the infrastructure that supports the generation of novel knowledge are driving the big data movement—in Nigeria. These banks have several chances to improve understanding, forecast outcomes and automate non-routine operations by using analytics on a large amount of data. Additionally, it offers chances for the accounting industry to add value and support organizations in changing how they make decisions across a variety of domains. The use of data and analytics has to be suitable and subject to strong scrutiny particularly when relying on predictive models. We also need new ways of thinking about the ethics, governance—and regulation of data to provide adequate openness and promote trust in its usage (Barroso & Laborda, 2022; Kornchai & Khajirt, 2021).

Block chain: Financial instruments like Bitcoin are supported by block chain technology. It is possible to make payments online without using a bank with the help of the digital currency Bitcoin (Al-Okaily et al., 2023; Anshari et al., 2020). Nevertheless, auditors will have additional chances to monitor and examine the block chain. These developments make it possible for DMBs to use data in ways that were not feasible or conceivable before. We identify the following three major ways data enhances business decisions: Gaining knowledge, predictive forecasting and automated non-routine decision-making are goals. There are chances to add value for the DMBs in each of these categories. However, there are risks associated with doing so. Thus, caution must be exercised to prevent drawing erroneous conclusions, assure proper use of predictive models and control the effects of expanding automation.

Artificial Intelligence: The DMBs in Nigeria operate in an industry where artificial intelligence (AI) is a trending and pervasive in delivery in order to remain competitive and relevant. The banking sector has benefited from AI's increased efficiency by being able to automate mundane operations such as data input, fraud detection and compliance monitoring freeing up staff to work on more difficult jobs. Financial institutions may now spot patterns and trends that would be hard to spot manually because of the real-time analysis of massive volumes of data made possible by AI-powered systems.

Institutions may be able to enhance risk management and make more informed decisions. In advanced economies, the influence of artificial intelligence on the banking industry has been profound. Artificial intelligence has a significant impact on the banking sector in advanced economies (Balios, 2021; Cao et al., 2022) with benefits ranging from improved client experiences to greater efficiency and security. One of the most significant implications of artificial intelligence on the banking industry has been the ability to provide customers with more individualised and useful experiences (Arpaci et al., 2022). Financial institutions offer 24/7 customer service and cut wait times with the help of AI-powered chatbots and virtual assistants increasing client satisfaction.

Cloud Accounting: Users have internet access to shared resources, software or storage through immediate solutions known as cloud services (Barroso & Laborda, 2022). It allows banking institutions to store and analyze data on distant servers instead of using local systems. Although the banking sector has been slow to adopt cloud technology because of worries about letting go of their old on-premises applications, regulatory compliance and data protection issues, this attitude is quickly changing (Cao et al., 2022). More and more financial institutions nowadays realise how technology may help them achieve their corporate goals and their consumers' demands.

2.4. Theoretical Framework

In Nigeria, financial services are changing. The need for digital accounting information disruption is great but it may take some time for a developing country like Nigeria to implement it. According to the disruptive innovation idea, a smaller company can compete with a well-established one (the incumbent) by beginning at the bottom end of the market and advancing up from there (Chen, Chiang, & Storey, 2012). Existing banks need to innovate and enhance banking services to appeal to the wealthiest or most lucrative depositors and clients while avoiding conventional banking techniques to satisfy the demands of their expanding clientele.

The demand for banking operations has expanded to a worldwide scale, making digital disruption of financial reforms necessary (Zhang et al., 2015). According to Christensen's disruptive innovation hypothesis which was put forward in 1995, new competitors should target an underdeveloped market sector and win by meeting customers' needs at a lower cost than the market leader. The established players overlook the newcomer while continuing to focus on their more profitable areas (Varma, 2018). Few other ideas have the same influence on corporate awareness as Christensen's theory on disruptive innovation because new entrants progressively rise higher by offering solutions that appeal to the incumbent's mainstream clientele.

In a study of historical business literature, the economists refer to the idea as "one of the most influential modern business ideas" (Arslan & Taskin, 2014). According to some observers, the notion is so admired that few people challenge its prognostication (Admati & Pfleiderer, 1988). The theory's impact extends beyond the realm of business and encompasses improved service delivery across all industries and financial activities. Christensen and his colleagues have promoted disruption as a paradigm for considering challenging societal challenges like poverty, unemployment, illiteracy and a lack of access to healthcare. As a result of the concept's or its derivatives' widespread use, Christensen himself expressed dissatisfaction with some of the applications.

2.5. Empirical Review

Mahdi et al. (2022) empirically examined financial reporting, digital reporting considerations and financial disclosure in a systemic review of 204 studies indexed in the Scopus database. Exploring the secondary sourced data, the study considered some basic determinants of the quality of financial reporting, the internal and external determinants and the financial reporting monitoring mechanism for a period of 33 years covering 1990 to 2022. The study demonstrated insufficient financial disclosure as weak mechanisms like a board of directors were attributed to the insufficient quality of financial reporting. Similar previous studies by Adugna and Kumar (2021); Ahmed (2020) and ElKelish (2021) also provided. For instance, Adugna and Kumar (2021) found that determinants of financial reporting had a positive effect in Ethiopia. Ahmed documented that qualitative characteristics were a significant effect of the digitalization of banking operations in Islamic banking.

Alaa et al. (2021) studied the Egyptian market considering the extent of the digital disruption of accounting information and the quality of financial reports in the banking industry in Egypt. The study explored the relevance of banking digitalization and its performance through the estimation of Tobin's Q model and market performance determinants. Data was extracted from secondary sources from the financial records of the banks listed on the Egyptian Stock Exchange for 2 years (2020 and 2021) using 11 banks as the sample size. The regression analysis revealed that digital disruption of accounting information and digitalization of banking activities significantly affected the banks' effective market value and financial performance. Some previous studies conducted in Egypt documented similar significant effects in their documents' empirical results (Al-Sayyad, 2020; Ebaid, 2021; Hariynto, 2021; Ibrahim & Al-Saidi, 2019). Ibrahim and Al-Saidi (2019) examined the effect of digital disruption on accounting and found that digitalization had a significant effect on the quality of financial reporting and financial inclusion in the banking sector listed in Egypt.

Kornchai and Khajirt (2021) investigated how digital accounting affected the accuracy of financial reporting for Thai-listed companies using a structural equation model. There were 313 companies mentioned in the research that operated in Thailand. The study discovered that as the quality of financial reporting improved, the digital disruption of accounting had a substantial impact on the usability and practical relevance of the accounting information as a result of the multiple regression and structural equation models mentioned. The study showed a strong relationship between strategic choices and the use of disruptive technologies to digitally change accounting data. This was in line with the findings of other investigations (El Hilali et al., 2020; Ouda & Klischewski, 2019; Peter et al., 2020; Shan & Troshani, 2021). Peter et al. (2020) found a significant impact of digital transformation on the quality of financial reporting.

Similarly, Oladejo et al. (2020) investigated the impact of accounting technology adoption on the calibre of financial reporting in order to better understand how the digital disruption of accounting was being explored. A sample of 10 DMB workers was given questionnaires as part of the study's field survey methodology. The respondents were given a selection of 300 structured questionnaires to complete. Descriptive and regression analyses were performed on 260 questionnaires that were collected from the respondents. The analysis's findings showed that information technology adoption enhanced timely and accurate financial reporting. The study came to the conclusion that the quality of financial reporting was damaged by the digital disruption of accounting information. Additionally, other research by Barroso and Laborda (2022) and Aguguom and Ebun (2021) was also conducted. In these studies, Aguguom and Ebun (2021) documented a significant effect of quality financial reporting on performance. Anshari et al. (2020) examined financial technology and disruptive innovations and found that digital disruption of accounting information exerted a significant effect. Barroso and Laborda (2022) studied digital transformation and emerging fintech and reported that digital disruption of accounting information had a significant effect on transforming the quality of financial reporting. In addition, Afifa et al. (2022) examined block chain adoption in accounting and its effect from the perspective of emerging economies and the empirical examination revealed that the application of block chain had a significant effect on the quality of financial reporting.

3. Methodology

The current study examined the digital disruptions and quality of financial reporting of listed DMBs in Nigeria.

Research Design and Method of Data Collection: The study employed a field survey research design, using primary data sourced with the help of self-structured questionnaires. The respondents were drawn from the staff of 13 DMBs listed in Nigeria. A total of 641 questionnaires were retrieved and validated for the study analysis from the online questionnaires administered.

Reliability and Validity of Instrument: The reliability and validity of the study instruments were confirmed with the help of the Cronbach alpha test with a range from 0.877 to 0.967 which suggested satisfactory reliability of the measures and further suggested that all the measurement scales of the instrument were good enough to be used for the data.

Method of Data Analysis: The study used descriptive and inferential statistics. The description employed the percentage, mean and standard deviation of the responses from the respondents. The study adopted a 5 point-Likert scale of SD (strongly disagree), D (disagree), U (undecided), A(agree) and SA (strongly agree). The inferential (regressions) analyses were conducted using multiple regression analysis to establish relationships and the effect of digital disruption accounting information on quality financial reporting.

4. Data Analysis, Results and Discussions

4.1. Descriptive Statistics

According to the age distribution, almost half of the sample falls in the age group of 31.20% which is 46 years and above followed by 28.08 (36-45 years) and 24.96 % (28-35 years) and the least is 15.76 % which is 21-27 years. In terms of work experience, 2 to 10 years (51.33 %) have the highest followed by 48.67 (10 years and above).

Table 1. Descriptive statistics.

Demographics	Number	Percentage	Demographics	Number	Percentage
Gender			Work experience		
Male	351	54.76	2 -10 years and less	329	51.33
Female	290	45.24	10 years and above	312	48.67
Total	641	100	Total	641	100
Age	•		Education		
21-27	101	15.76	Less than a bachelor's degree	143	22.31
28-35	160	24.96	Bachelor's degree	182	28.40
36-45	180	28.08	Master/M.Phil.	181	28.23
46 and above	200	31.20	PhD.	135	21.06
Total	641	100	Total	641	100
Field of study	•		Job title		
Accounting	201	31.36	Senior managers -directors	145	22.62
Finance	190	29.64	Managers	158	24.65
Economics	95	14.82	Accountants	205	31.98
Others	155	24.18	Auditors	133	20.75
Total	641	100	Total	641	100

Moving to the education variable, the majority of the sample (28.40) holds a bachelor's degree. 28.23% hold an MSc/M. Phil degree followed by 22.31% with less than a bachelor's degree and lastly a PhD which is 21067%.

In the field of study, 31.36% were accountants followed by respondents with a speciality in finance (29.64%), other disciplines not specified (24.18%) and those in economics were 14.82%. Again, the distributions in the sample are not evenly distributed across the categories with a higher concentration of individuals. Finally, the distribution of job titles is shown in Table 1. Accountants are the respondents' highest-ranking jobs (31.98) followed by managers at 24.65, senior managers to directors at 22.62 and lastly auditors at only 20.75%.

4.2. Model Specifications

$$\begin{array}{lll} Yi &=& \alpha_0 &+& \beta X_i &+& \mu_i & & & & & & & & & \\ FQTC_{it} &=& \alpha_0 &+& \beta_1 BDA_{it} &+& \beta_2 BCN_{it} &+& \beta_3 AI_{it} &+& \beta_4 CA_{it} &+& \mu_{it} & & & & & \\ ENQC_{it} &=& \alpha_0 &+& \beta_1 BDA_{it} &+& \beta_2 BCN_{it} &+& \beta_3 AI_{it} &+& \beta_4 CA_{it} &+& \mu_{it} & & & & & & & \\ \end{array} \label{eq:fitting} \tag{2}$$

Where FQTC = Fundamental qualitative characteristics, ENQC = Enhancing qualitative characteristics, BDA = Big data analytics, BCN = Block chain, AI = Artificial intelligence, CA = Cloud accounting; α = constant, β = coefficients of the model, μ = error terms and i=cross-sectional.

In Table 2, the study presents the results of the reliability test.

Table 2. Result of the reliability test

Variables	No of items	Cronbach's alpha
Relevance of QFR	5	0.878
Faithful representation of the QFR	5	0.877
Comparability	5	0.912
Verifiability	5	0.967
Timeliness	5	0.956
Understandability	5	0.895

Source: Pilot study, 2023.

By interpreting Cronbach's alpha, a reliability coefficient that shows how strongly items in a set are positively connected to one another, dependability may be ascertained (Sanyaolu et al., 2017). Table 3 displays the contents and format of the reliability test's predicted result.

The results in Table 3 showed that for reliability and faithful depiction of the QFR, 0.967 was the highest and 0.877 was the lowest. Similarity, timeliness, and understandability were 0.878, 0.912, 0.956, and 0.895 respectively. The scales were deemed trustworthy according to the results of the researcher's pre-test since Cronbach's alpha was higher than 0.70 and the validation of manipulation was valid (Akeju et al., 2017; Ouda & Klischewski, 2019).

4.3. Regression Analysis

Categories under fundamental and enhancing characteristics represent the responses from the respondents. In Table 3, the results indicate that respondents generally agree that the digital disruption of accounting information and financial reporting systems can be improved through accurate claim computation and fraud prevention and detection.

The study suggested that digital disruption is significantly improving the quality of financial reporting by listed deposit money banks in Nigeria. The mean value of each response category ranges from 3.87 to 4.41 indicating that the respondents are generally positive about the quality of financial reporting of listed DMBs in Nigeria. The standard deviation values range from 0.77 to 0.1.11 which indicates that the responses are relatively consistent for each category. Similarly, the statistical values and the mean values suggest that the respondents have a favourable view of the quality of financial reporting of listed DMBs in Nigeria. Nevertheless, the standard deviation values suggest that there may be some variability in the responses within each category.

Consequently, the results tend to indicate that the quality of financial reporting related to the fundamental qualitative characteristics of relevance and faithful representation as well as the enhanced qualitative characteristics of comparability, verifiability, timeliness and understandability is perceived positively by the respondents. The high percentage of "SA" (strongly agreed) responses and the mean values above 3.87 as estimated affirm this conclusion.

Table 3. OFR (Fundamental qualitative and enhancing quality characteristics)

Table 3. QFR (Funda							
Variables	SD	D	U	A	SA	Total	Mean (StD)
Relevance of QFR							
Big data enhances the relevance of	15	77	93	175	281	641	3.98
the QFR.	(02.3)	(12.0)	(14.5)	(27.3)	(43.8)	(100)	(1.13)
Block chain improves the QFR.	19	50	110	219	243	641	3.96
. , ,	(3.0)	(7.8)	(17.2)	(34.2)	(37.9)	(100)	(1.06)
Artificial intelligence impacts the	3	12	44	239	343	641	4.41
relevance of QFR.	(0.5)	(1.9)	(6.9)	(37.3)	(53.5)	(100)	(0.74)
Cloud accounting is useful and	0	19	82	146	394	641	4.43
relevant in terms of the QFR for	(0.0)	(3.0)	(12.8)	(22.8)	(61.5)	(100)	(0.82)
users.	, ,	,	,	,	,	,	,
Faithful representation of the QFR	ı	I	1				L
The application of big data enhances	0	6	97	181	357	641	4.39
the faithful representation of the	(0.0)	(0.9)	(15.1)	(28.2)	(55.7)	(100)	(0.77)
QFR.	(0.0)	(0.0)	(10.1)	(20.2)	(00.1)	(100)	(0.17)
Block chain is relevant to the	6	57	108	204	272	641	4.06
faithful representation of the QFR.	(0.9)	(8.9)	(15.9)	(31.8)	(42.4)	(100)	(1.01)
Artificial intelligence impacts the	3	37	117	147	337	641	4.21
faithful representation of the QFR.	(0.5)	(5.8)	(18.3)	(22.9)	(52.6)	(100)	(0.97)
Faithful representation and cloud	3	31	86	249	272	641	4.18
accounting are closely related.	(0.5)	(4.8)	(13.4)	(38.8)	(42.4)	(100)	(0.87)
Comparability	(0.0)	(1.0)	(13.1)	(30.0)	(12.1)	(100)	(0.87)
Digital disruption enhances the	0	25	78	192	346	641	4.34
comparability of the information	(0.0)	3.9)	(12.2)	(30.0)	(54.0)	(100)	(0.84)
content of financial statements.	(0.0)	3.3)	(12.2)	(30.0)	(34.0)	(100)	(0.64)
Comparability of the financial	9	16	76	173	367	641	4.36
statements is possible with digital	(1.4)	(2.5)	(11.9)	(27)	(57.3)	(100)	(0.89)
accounting information.	(1.4)	(2.5)	(11.9)	(21)	(37.3)	(100)	(0.89)
Verifiability							
	0.0	0.4	110	000	000	0.4.1	2.05
Information technology affects the verifiability of accounting	23 (3.6)	64 (10)	110	222	222	641	3.87
verifiability of accounting information.	(3.6)	(10)	(17.2)	(34.6)	(34.6)	(100)	(1.11)
The application of disruptive digital	0	34	129	191	287	641	4.14
accounting information improves	(0.0)	_		_			
the verifiability of financial	(0.0)	(5.3)	(20.1)	(29.8)	(44.8)	(100)	(0.92)
v							
reporting.							
Timeliness The timeliness of financial		0.4	115	155	0.07	041	4.07
	0	24	117	175	325	641	4.25
	(0.0)	(3.7)	(18.3)	(27.3)	(50.7)	(100)	(0.88)
disruptive digital solutions.	0	1.4	0.0	150	250	0.4.1	4.04
Timelines are facilitated by the	8	14	88	170	270	641	4.24
digital disruption of accounting	(2.25)	(2.18)	(13.7	(26.52)	(42.12)	(100)	(0.9)
information.			3)				
Understandability	l			1	1		
The digitalization of accounting	9	9	99	173	348	641	4.32
information enables the	(1.4)	(1.4)	(15.5)	(27.1)	(54.5)	(100)	(0.88)
understandability of the QFR.							
Understandability is affected by the	0	33	104	212	292	641	4.19
application of digital disruption to	(0.0)	(5.1)	(16.2)	(33.1)	(45.6)	(100)	(0.89)
accounting information.							
Source: Researcher's computation (9098)							

Source: Researcher's computation (2023).

Table 4. Digital disruption of accounting information

Variables	SD	gital disrupt	U	A	SA	Total	Mean
,		_					(StD)
Big data			<u>l</u>			J.	(/
Big data solutions are	5	10	35	256	335	641	4.53
applicable to the analysis of	(0.78)	(1.56)	(5.46)	(39.94)	(52.26)	(100)	(0.7)
financial data.	, ,	, ,			,		, ,
The application of big data is	4	36	51	165	385	641	4.22
not applicable to financial	(0.62)	(5.62)	(7.96)	(25.74)	(60.06)	(100)	(0.9)
reporting quality.							
Block chain		•					
Block chain analysis is	14	61	102	223	241	641	3.79
compatible with the QFR.	(2.18)	(9.52)	(15.91)	(34.79)	(37.6)	(100)	(1.1)
Digital disruption of	9	45	125	196	266	641	4.06
accounting information is	(1.40)	(7.02)	(19.5)	(30.58)	(41.5)	(100)	(1.1)
possible with block chain							
technology.							
Artificial intelligence							
The availability of new tools	10	4	85	218	324	641	4.21
and artificial intelligence	(1.56)	(0.62)	(13.26)	(34.01)	(50.55)	(100)	(0.9)
improves the QFR.							
Artificial intelligence affects	7	20	78	160	216	641	4.24
the QFR.	(1.09)	(3.12)	(12.17)	(24.96)	(58.66)	(100)	(0.9)
Cloud accounting							
Cloud accounting is useful	10	43	106	210	272	641	3.85
when applied to the efficiency	(1.56)	(6.71)	(17.58)	(32.76)	(41.39)	(100)	(1.1)
of tax revenue generation							
improving the QFR.							
The QFR is affected by the	0	29	101	266	245	641	4.17
application of cloud	(0.0)	(5.52)	(16.46)	(41.50)	(36.52)	(100)	(0.9)
accounting solutions.							

Note: Percentages are in parentheses.
Source: Researcher's computation (2023).

The results in Table 4 suggest that digital disruption has a positive effect on the quality of financial reporting by listed DMBs in Nigeria. In each case of the estimation, the highest percentage of responses was either "agree" or "strongly agree". The lowest percentage of responses was either "undecided" or "strongly disagree"

Among the four categories, the highest percentage of responses was strongly agreed followed by agree, undecided and disagree. This implies that the majority of respondents were positive about the desire for and effect of digital disruption of accounting information for listed DMBs in Nigeria. Regarding statistical values, the mean values for each category ranged from 3.83 to 4.53 with an overall mean of 4.13. The average respondents agree that digital disruption of accounting information had a positive effect on the quality of financial reporting of listed DMBs in Nigeria.

In addition, the standard deviation values for each of the parameters ranged from 0.07 to 1.1 with standard deviation of 1.00. This further suggested that there was a moderate degree of variability in responses across the groups. According to the responses provided by the respondents, the results of the estimate indicate that digital disruption of accounting information was desirable and had a beneficial impact on the quality of financial reporting of listed DMBs in Nigeria.

4.3.1. Correlation Matrix and Interpretations with a Variance Inflation Factor

The degree of relationship between the variables chosen for this investigation was shown by the findings of the correlational analysis conducted in this area of the study. Big data (BDA), Block chain (BCN), Artificial intelligence (AI), Cloud accounting (CA), the dependent variable and improving the quality features of financial reporting (ENQC) are correlated with one another. These steps were carried out to check the bivariate relationship between each pair of dependent and independent variables used in the subsequent analysis and to check that the connections within the explanatory variables were not such that they could cause multicollinearity problems.

Table 5. Correlation matrix and interpretations with variance inflation factor

Variables	FQTC	ENQC	BDA	BCN	AI	CA	7	VIF		
Variables	1,210	21,20	DDII	Derv	111	011	VIF	1/VIF		
FQTC	1									
ENQC	0.341	1								
BDA	0.322	0.243	1				1.29	0.776		
BCN	0.406	0.303	0.421	1			1.53	0.654		
AI	0.482	0.373	0.401	0.536	1		1.81	0.552		
CA	0.445	0.337	0.301	0.396	0.560	1	1.49	0.671		
Average							1.53	0.663		

The results in Table 5 show the relationships between dependent and independent variables that indisputably range from 0.243 to 0.560. It is important to note that none of these coefficients of correlation indicate a multicollinearity issue because this issue only arises when there is a significant correlation between the independent variables. Looking at the first column of the numeric values, cloud accounting, big data, block chain and artificial intelligence are positively correlated with each other in the qualitative aspects of financial reporting. All the coefficients are in positive correlation with one another as shown in Table 5. The results further show that there is no proof of multicollinearity among the variables given the fact that the correlations among the independent variables are generally weak because the associations among the explanatory (independent) variables in the same model are not highly correlated and this does not suggest a problem of multicollinearity.

Furthermore, subjecting the results to a multicollinearity test using the variance inflation factor (VIF), the VIF values that are below 3 and tolerance values that are approaching 1 indicate no harmful effect of multicollinearity. The VIF of big data is 1.29 and its reciprocal is 0.776 which is not up to 1, the VIF of block chain is 1.53 and its reciprocal is 0.654, the VIF of artificial intelligence is 1.81 with a reciprocal of 0.552 and the VIF of cloud accounting is 1.49 with a reciprocal of 0.671. The average VIF (1.53) is below 3 and the reciprocal (0.663) is not up to 1 which means that the study's VIF has no harmful effect of multicollinearity.

Model 1: This subsection presents the regression result on the relationship between digital disruption of accounting information and fundamental qualitative characteristics. These regression results are presented in Table 6. The dependent variable is the fundamental qualitative characteristics while the explanatory (independent) variables are big data analytics, block chain, artificial intelligence and cloud accounting.

Table 6. Effects of digital disruption of accounting information on fundamental qualitative characteristics

FQTC	Coef.	Robust std. err.	T	P> t			
BDA	0.099	0.063	1.570	0.118			
BCN	0.115***	0.059	1.970	0.045			
AI	0.219***	0.056	3.940	0.000			
CA	0.163***	0.064	2.540	0.011			
_cons	1.736***	0.238	7.290	0.000			
Observations							
R-Squared		0.177					
Adjusted R-squared		0.172					
F – Statistic		35.46					
Prob > F-statistic		0.000					
Het. Test		34.49					
Prob > Het. test	0.000						
Normality test	1.318						
Prob > Het. test	0.517						

Note: Dependent variable: Fundamental qualitative characteristics = FQTC. Independent variables: Big data analytics, Blockchain = BCN, Artificial intelligence = AI, Cloud accounting = CA.

***, ** and * represent 1%, 5% and 10% significance levels respectively. *** significant at 5% level of significance

4.4. Other Diagnostics

The lower portion of Table 6 shows the outcomes of the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity and the Jarque-Bera normality test for normality. These tests reveal that the error term (residual) of the calculated regression model is distributed normally as expected with a p-value of 0.517 at the

5% alpha level. Furthermore, the heteroscedasticity p-value for the Breusch-Pagan/Cook-Weisberg test is 0.000 which is less than 0.010 and denotes a statistically significant result at the 5% level of significance. This suggests that the null hypothesis for homoscedasticity should not have been taken into account. According to the results of the research, the heteroscedasticity-resistant standard error regression model is used since the calculated regression model's error term has a heteroscedasticity issue.

$$FQTC_{i} = \beta_{0} + \beta_{1}BDA_{i} + \beta_{2}BCN_{i}3 + \beta_{3}AI_{i} + \beta_{4}CA_{i} + \mu_{i}$$

$$FQTC_{i} = 1.736 + 0.099BDA_{i} + 0.115BCN_{i} + 0.219AI_{i} + 0.163CA_{i} \text{ Re-stated}$$

4.5. Interpretation (Model 1)

Big data analytics, block chain, artificial intelligence and cloud accounting have coefficients that are positively signed and compatible with the study expectation (1=0.099; 2=0.115; 3=0.219; 4=0.163)>0. The F-statistics value of 35.46 (p-value = 0.000) indicates that the variables that provide an explanation in our model are all statistically significant at the 5% level for explaining variations in fundamental qualitative features as a whole. The findings also demonstrate that big data analytics, block chain, artificial intelligence and cloud accounting together accounted for around 17.2% (adjusted R-squared = 0.17) of changes in fundamental qualitative characteristics with other factors accounting for the remaining 82.8%. The result demonstrates that big data analytics has a coefficient that is positively correlated but is not statistically significant at a 5% level (1 = 0.099, p-value = 0.118) when focusing on the estimated coefficients of block chain, artificial intelligence, cloud accounting and big data analytics.

At a 5% alpha level, it is discovered that the calculated block chain coefficient (2 = 0.115, p-value = 0.045) is positively and substantially associated with fundamental qualitative features. This indicates that a unit rise in the block chain causes fundamental qualitative characteristics to grow by 0.115 units. This computed parameter (coefficient) for artificial intelligence (3 = 0.219, p-value = 0.000) demonstrates the existence of a favourable and statistically significant association at a 5% alpha level. This implies that for every unit improvement in artificial intelligence, there is a 0.219 unit rise in fundamental qualitative traits. The calculated coefficient of cloud accounting (4 = 0.163, P-value = 0.011) exhibits a positive and statistically significant association at a 5% alpha level similar to the calculated coefficients of block chain and artificial intelligence. This means that whenever there is a unit rise in cloud accounting, a 0.163 unit increase in fundamental qualitative features is also recorded.

Model 2: The regression result that confirms the effect of digital disruption of accounting information on enhancing the qualitative characteristics of financial reporting is presented in this subsection. As can be deduced from Table 7 in the regression model that is used for the analysis, the dependent variable enhances the qualitative characteristics of financial reporting. On the other hand, the independent variables are the digital disruption of accounting information indicators which are big data analytics, block chain, artificial intelligence and cloud accounting.

Table 7. Effects of digital disruption of accounting information on enhancing qualitative characteristics

ENQC	Coef.	Robust std. err.	T	P> t	
BDA	0.021	0.055	0.390	0.696	
BCN	0.249***	0.050	4.950	0.000	
AI	0.247***	0.053	4.630	0.000	
CA	0.113***	0.048	2.370	0.018	
_cons	1.610***	0.241	6.680	0.000	
Observations					
R-Squared		0.240		•	
Adjusted R-squared		0.236			
F – Statistic		42.96			
Prob > F-statistic		0.000			
Het. Test		12.82			
Prob > Het. test	0.000				
Normality test	1.798				
Prob > Het. test		0.407			

Note: Dependent variable: Enhancing qualitative characteristics = ENQC. Independent variables: Big data analytics, Blockchain = BCN, Artificial intelligence = AI, Cloud accounting = CA.

***, ** and * represent 1%, 5% and 10% significance levels respectively. *** significant at 5% level of significance

4.6. Other Diagnostics

The error term (residual) of the estimated model of regression is inferred to be normally distributed as predicted using the findings of the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity and the Jarque-

Bera normality test in the lower section of Table 7. The Jarque-Bera normality test's p-value (p-value = 0.407) indicates that normality does not meet the 5% threshold of significance. Furthermore, the homoscedasticity null hypothesis should not be considered based on the heteroscedasticity p-value of the Breusch-Pagan/Cook-Weisberg test. The computed significant value is smaller than 0.010 at a 1% level of significance as indicated. According to the study, there is a heteroscedasticity problem with the error term of the estimated regression model which calls for the employment of a heteroscedasticity-resistant standard error regression.

4.7. Interpretations

$$ENQC_{i} = \beta_{0} + \beta_{1}BDA_{i} + \beta_{2}BCN_{i}3 + \beta_{3}AI_{i} + \beta_{4}CA_{i} + \mu_{i}$$

$$ENQC_{i} = 1.610 + 0.021BDA_{i} + 0.249BCN_{i} + 0.247AI_{i} + 0.113CA_{i}$$

The coefficients of big data analytics, block chain, artificial intelligence and cloud accounting are positively signed and are consistent with the study expectations (β_1 = 0.021; β_2 =0.249; β_3 = 0.247; β_4 = 0.113) > 0. In Table 7, the value of the computed F-statistics was 42.96 (p-value = 0.000) suggesting that the model is statistically significant at a 5% level. The model is statistically fit. The results show that digital disruption of accounting information indicators explained 23.6% (adjusted R-squared = 0.236) of changes in enhancing qualitative characteristics. This result further confirms the fitness of the model. Based on the estimated coefficients of the regression models, big data analytics (β_1 = 0.021, p-value = 0.696) shows a positive but statistically insignificant coefficient at a 5% level.

This means that big data analytics are not a determining factor in enhancing the qualitative characteristics of financial reporting. The computed coefficient of block chain (2=0.249, P-value=0.000) demonstrates that at a 5% alpha level, there is a positive and statistically significant relationship between block chain and enhancing qualitative features of financial reporting. This indicates that given a unit growth in the block chain, block chain derives enhancing the qualitative qualities of financial reporting favourably and enhances them by 0.249 units. At a 5% alpha level, the computed coefficient for artificial intelligence (3=0.247, p-value=0.000) demonstrates a favourable and statistically significant association. This indicates that for every unit improvement in the block chain, the quality of financial reporting increases by 0.213 units. In addition, cloud accounting has an estimated coefficient like block chain and artificial intelligence is positive and statistically significant at a 5% alpha level (4=0.113, p-value=0.018). Accordingly, the variable is also a driving factor for the block chain and an increase of one unit in cloud accounting leads to an improvement of around 0.113 units in the qualitative aspects of financial reporting.

5. Discussions

The results of the study revealed mixed results. The descriptive statistics showed that the majority of the respondents affirmed that digital disruption of accounting information had a positive effect on the quality of financial reporting of the listed DMBs in Nigeria. However, the regression analysis revealed mixed results. In model 1, the model revealed that while block chain, artificial intelligence and cloud accounting exerted significant effects, big data exhibited an insignificant effect on the fundamental quality of financial reporting. In model 2, the results also showed that all the parameters of the model, block chain, artificial intelligence and cloud accounting had a significant effect on enhancing qualitative characteristics while big data had an insignificant effect. Nonetheless, the joint statistics using a combination of the explanatory variables of big data, block chain, artificial intelligence and cloud account exerted a significant effect on fundamental qualitative as well as on enhancing qualitative characteristics. This study concluded that digital disruption of accounting information had a positive and significant effect on the quality of financial reporting of listed DMBs in Nigeria.

The result is consistent with previous studies (Mahdi Sahi et al., 2022) that empirically examined financial reporting digital reporting considerations and financial disclosure in a systematic review of 204 studies indexed in the Scopus database. Exploring the secondary sourced data the study considered some basic determinants of the quality of financial reporting, the internal and external determinants and the financial reporting monitoring mechanism for 33 years covering 1990 to 2022. The study demonstrated insufficient financial disclosure as weak mechanisms like a board of directors were attributed to the insufficient quality of financial reporting. The result of this current study is consistent with prior studies by Adugna and Kumar (2021); Ahmed (2020); ElKelish (2021) and Alaa et al. (2021) and previously documented significant effects in their documents' empirical results (Al-Sayyad, 2020; Ebaid, 2021; El Hilali et al., 2020; Hariyanto, 2021; Ibrahim & Al-Saidi, 2019; Kornchai & Khajirt, 2021; Ouda & Klischewski, 2019; Peter et al., 2020; Shan & Troshani, 2021). Similarly, Oladejo et al. (2020); Aguguom and Ebun (2021); Anshari et al. (2020); Barroso and Laborda (2022) and Afifa et al. (2022) reported similar positive effects suggesting that digital disruption of accounting information affects the quality of financial reporting.

6. Conclusion and Recommendations

The study examined the digital disruption of accounting information and the quality of financial reporting by DMBs in Nigeria. It appears that the listed DMBs in Nigeria are not fully compliant. Using advanced digital disruption of accounting information to provide excellent financial reporting is desirable and vital to address the problem of growing discontent among stakeholders and the restricted information in the banks' reported financial statements attests to these facts. The study was to investigate the reality of prior studies' assertions. In conducting the research, a field survey approach was explored as direct responses were obtained directly from the experts and members of staff at the banks. The respondents' opinions confirmed our expectations. In the regression analysis, our result further affirmed that big data was not common in operations in the DMBs in Nigeria. The result showed that big data exerted an insignificant effect on fundamental qualitative characteristics in models 1 and 2. The study suggested managers seize the chance to develop an enabling competitive advantage in high-quality financial reporting and banking services. It also stressed the importance of the application of digitalization of accounting processes in banking services by the DMBs in Nigeria. Application and implementation of digital disruption of accounting information enhance transparency and timely and accurate financial reporting improving corporate legitimacy and global recognition.

7. Limitations and Suggestions for Future Studies

This study provides the significance of the digital disruption of accounting information in the emerging literature of Nigeria. This study had some limitations. First, the study considered digital disruption of accounting information with the DMBs as the only focus. Further studies may consider other sectors in Nigeria. Second, the study concentrated only on the staffers of the banks when extracting responses. Further studies may consider other stakeholders and users of the financial reports when making useful decisions. Third, the study suggests that banks should consider the application of disruption to accounting information to deepen the impact of disruptive technologies like machine learning and robotics on the quality of financial reporting in Nigeria.

References

- Abbas, A. F., Qureshi, N. A., Khan, N., Chandio, R., & Ali, J. (2022). The blockchain technologies in healthcare: Prospects, obstacles, and future recommendations: Lessons learned from digitalizatio. *International Journal of Online and Biomedical Engineering*, 18(9), 144–159. https://doi.org/10.3991/ijoe.v18i09.32253
- Admati, A. R., & Pfleiderer, P. (1988). A theory of intraday patterns: Volume and price variability. *The Review of Financial Studies*, 1(1), 3-40. https://doi.org/10.1093/rfs/1.1.3
- Adugna, B. M., & Kumar, B. (2021). Determinants of internet financial reporting: In the case of Ethiopian insurance and banking sector companies. *Innovations*, 66, 760–778.
- Afifa, M. M. A., Van, H. V., & Van, T. L. H. (2022). Blockchain adoption in accounting by an extended UTAUT model: Empirical evidence from an emerging economy. *Journal of Financial Reporting and Accounting*, 21(1), 5-44. https://doi.org/10.1108/jfra-12-2021-0434
- Aguguom, T. A., & Ebun, O. (2021). Financial reporting quality and economic value added of listed companies in Nigeria. Augustine University Journal of Social Sciences, 1(1), 13-30.
- Agyei-Mensah, B. K. (2013). Adoption of international financial reporting standards (IFRS) in Ghana and the quality of financial statement disclosures (December 19, 2013). *Macrothink Institute, International Journal of Accounting and Financial Reporting*, 3(2), 269.
- Ahmed, I. E. (2020). The qualitative characteristics of accounting information, earnings quality, and Islamic banking performance: Evidence from the gulf banking sector. *International Journal of Financial Studies*, 8(2), 1–16. https://doi.org/10.3390/ijfs8020030
- Akeju, J. B., Owolabi, F., & Babatunde, A. A. (2017). The impact of international financial reporting standard (IFRS) adoption on the quality of consolidated financial reporting in Nigeria. *International Journal of Social Science and Economic Research*, 2(2), 2505-2516.
- Akintoye, I. R., Adegbie, F. F., & Adeniji, Y. A. (2020). Activity accounting and corporate investment decisions among selected listed manufacturing firms in Nigeria. European Journal of Accounting, Auditing and Finance Research, 8(5), 1-15. https://doi.org/10.37745/ejaafr/vol8.no5.pp1-15.2020
- Akintoye, I. R., Adegbie, F. F., & Bello, I. (2019). Evaluation of integrated reporting and the value of listed manufacturing firms in Nigeria. European Journal of Accounting, Auditing and Finance Research, 7(7), 31-59.
- Al-Okaily, M., Alkhwaldi, A. F., Abdulmuhsin, A. A., Alqudah, H., & Al-Okaily, A. (2023). Cloud-based accounting information systems usage and its impact on Jordanian SMEs' performance: The post-COVID-19 perspective. Journal of Financial Reporting and Accounting, 21(1), 126-155. https://doi.org/10.1108/jfra-12-2021-0476
- Al-Sayyad, A. M. A. (2020). The impact of the financial report quality, and selection of the auditor on maximizing the value of the enterprise from the perspective of shareholders an applied study on the companies listed in the Egyptian stock exchange. Alexandria Journal of Accounting Researches Accounting and Auditing Department Faculty of Commerce Alexandria, 3(4), 1-21.
- Alaa, F. Z., Ahmed, M. I. F., & Asser, A. K. (2021). The impact of the banking digitalization indicators disclosure on the market value of banks listed on the Egyptian stock exchange: An applied study. *Journal of Contemporary Issues in Business and Government*, 27(6). 10.47750/cibg.2021.27.06.001

- Ames, D. (2013). IFRS adoption and accounting quality: The case of South Africa. *Journal of Applied Economics and Business Research*, 3(3), 154-165. http://www.sciepub.com/reference/189333
- Anshari, M., Almunawar, M. N., & Masri, M. (2020). Financial technology and disruptive innovation in business: Concept and application. *International Journal of Asian Business and Information Management*, 11(4), 29-43. https://doi.org/10.4018/ijabim.2020100103
- Apochi, J. G., & Mustapha, L. O. (2022). IFRS adoption and financial reporting quality in Nigeria: A conceptual approach.

 *European Journal of Accounting, Auditing and Finance Research, 10(6), 9-18.

 https://doi.org/10.37745/ejaafr.2013/vol10n6pp918
- Arpaci, I., Karatas, K., Kusci, I., & Al-Emran, M. (2022). Understanding the social sustainability of themetaverse by integrating UTAUT2 and big five personality traits: A hybrid SEM-ANN approach. *Technology in Society*, 71(C), 102120. https://doi.org/10.1016/j.techsoc.2022.102120
- Arslan, Y., & Taskin, T. (2014). International evidence on the interaction between cross-border capital flows and domestic credit growth. İktisat İşletme ve Finans, 29(341), 37-56. https://doi.org/10.3848/iif.2014.341.4177
- Athamena, B., Houhamdi, Z., & ElRefae, G. A. (2023). Retention contracts with asymmetric information: Optimistic approach vs pessimistic approach. *Journal of Financial Reporting and Accounting*, 21(1), 156-177. https://doi.org/10.1108/jfra-12-2021-0488
- Balios, D. (2021). The impact of big data on accounting and auditing. International Journal of Corporate Finance and Accounting, 8(1), 1-14. https://doi.org/10.4018/ijcfa.2021010101
- Barroso, M., & Laborda, J. (2022). Digital transformation and the emergence of the fintech sector: Systematic literature review. *Digital Business*, 2(1), 10-28. https://doi.org/10.1016/j.digbus.2022.100028
- Cao, T., Duh, R.-R., Tan, H.-T., & Xu, T. (2022). Enhancing auditors' reliance on data analytics under inspection risk using fixed and growth mindsets. *The Accounting Review*, 97(3), 131-153. https://doi.org/10.2308/tar-2020-0457
- Chen, H., Chiang, R., & Storey, V. (2012). Business intelligence and analytics: From big data to big impact. MIS Quarterly, 36(4), 1165-1188. https://doi.org/10.2307/41703503
- Cong, Y., & Du, H. (2022). The use of new data sources in archival accounting research: Implications for research in accounting information systems and emerging technologies. *Journal of Emerging Technologies in Accounting*, 19(1), 21-31. https://doi.org/10.2308/jeta-19-11-08-44
- Ebaid, I. E.-S. (2021). Incorporating international financial reporting standards (IFRS) into accounting curricular Perceptions of undergraduate accounting students in Saudi Universities. *Journal of Advanced Research in Economics and Administrative Sciences*, 2(2), 1-15. https://doi.org/10.47631/jareas.v2i2.216
- El Hilali, W., El Manouar, A., & Idrissi, M. A. J. (2020). Reaching sustainability during a digital transformation: A PLS approach. *International Journal of Innovation Science*, 12(1), 52-79. https://doi.org/10.1108/ijis-08-2019-0083
- Elbannan, M. (2011). Accounting and stock market effects of international accounting standards adoption in an emerging economy. Review of Quantitative Finance and Accounting, 36(2), 207-245. https://doi.org/10.1007/s11156-010-0176-1
- ElKelish, W. W. (2021). The international financial reporting standards 9 financial instruments, information quality and stock returns in the modern technology era. *Journal of Applied Accounting Research*, 22(3), 465-483. https://doi.org/10.1108/jaar-12-2019-0164
- Faridi, S., Madanchi Zaj, M., Daneshvar, A., Shahverdiani, S., & Rahnamay Roodposhti, F. (2023). Portfolio rebalancing based on a combined method of ensemble machine learning and genetic algorithm. *Journal of Financial Reporting and Accounting*, 21(1), 105-125. https://doi.org/10.1108/jfra-11-2021-0413
- Garzoni, A., Turi, I. D., Secundo, G., & Vecchio, P. D. (2020). Fostering digital transformation of SMEs: A four levels approach. *Management Decision*, 58(8), 1543–1562. https://doi.org/10.1108/md-07-2019-0939
- Hariyanto, D. (2021). Effect of trading volume, market capitalization, firm size in explaining return on vultures. *Journal of Advanced Research in Economics and Administrative Sciences*, 2(2), 50-64. https://doi.org/10.47631/jareas.v2i2.228
- IASB. (2008). Preliminary views on an improved conceptual framework for financial reporting. Retrieved from https://www.assb.gov.sg/
- Ibrahim, M. Z., & Al-Saidi, S. S. (2019). The role of financial inclusion in activating the stock market: An applied study on the banks listed on the Egyptian stock exchange. *Journal of Trade and Finance*, 1(1), 1-21.
- Jiang, Z., Ji, R., & Chang, K.-C. (2020). A machine learning integrated portfolio rebalance framework with risk-aversion adjustment. *Journal of Risk and Financial Management*, 13(7), 1-20. https://doi.org/10.3390/jrfin13070155
- Kassim, Y. S., Aliyu, S. K., Hannatu, S. A., & Mazadu, A., S. (2022). Monitoring characteristics and financial reporting quality of Nigerian listed consumer goods firms. Ra Journal of Applied Research, 8(12), 913-928. https://doi.org/10.47191/rajar/v8i12.12
- Kornchai, P., & Khajirt, N. (2021). Digital accounting, financial reporting quality and digital transformation: Evidence from Thai listed firms. *Journal of Asian Finance Economics and Business*, 8(8), 409–419.
- Kumari, A., & Devi, N. C. (2023). Blockchain technology acceptance by investment professionals: A decomposed TPB model. *Journal of Financial Reporting and Accounting*, 21(1), 45-59. https://doi.org/10.1108/jfra-12-2021-0466
- Mahdi Sahi, A., Mahdi Sahi, A., Abbas, A. F., & FA Khatib, S. (2022). Financial reporting quality of financial institutions:

 Literature review. Cogent Business & Management, 9(1), 2135210.

 https://doi.org/10.1080/23311975.2022.2135210
- Nourallah, M., Ohman, P., & Amin, M. (2023). No trust, no use: How young retail investors build initials trust in financial robo-advisors. *Journal of Financial Reporting and Accounting*, 21(1), 60-82. https://doi.org/10.1108/jfra-12-2021-0451

- Oladejo, M. O., Yanus, S. O., & Aina-David, O. A. (2020). Implementation of accounting technology and financial reporting quality of quoted epos it money banks in Nigeria. *International Journal of Managerial Studies and Research*, 8(2), 1-9. https://doi.org/10.20431/2349-0349.0802002
- Osita-Nwosu, C., & Onuora, J. K. (2023). The effect of international financial reporting standard (IFRS) on the quality of financial statements in Nigeria. *International Journal of Innovative Finance and Economics Research*, 11(1), 43-50.
- Ouda, H. A., & Klischewski, R. (2019). Accounting and politicians: A theory of accounting information usefulness.

 Management, 31(4), 496-517.
- Peter, M. K., Kraft, C., & Lindeque, J. (2020). Strategic action fields of digital transformation: An exploration of the strategic action fields of Swiss SMEs and large enterprises. *Journal of Strategy and Management*, 13(1), 160-180. https://doi.org/10.1108/jsma-05-2019-0070
- Raed, K. (2017). The impact of accounting information systems on the banks success: Evidence from Jordan. Research Journal of Finance and Accounting, 8(17), 1-14.
- Ritter, T., & Pedersen, C. L. (2020). Digitalization capability and the digitalization of business models in business-to-business firms: Past, present, and future. *Industrial Marketing Management* 8(6), 180–190. https://doi.org/10.1016/j.indmarman.2019.11.019
- Salijeni, G., Samsonova-Taddei, A., & Turley, S. (2019). Big Data and changes in audit technology: Contemplating a research agenda. *Accounting and Business Research*, 49(1), 95-119. https://doi.org/10.1080/00014788.2018.1459458
- Sanyaolu, W. A., Lawal, A., & Job-Olatunji, K. (2017). IFRS adoption and quality of financial statement: Perspective of auditors, chartered accountants and graduates of accounting. *International Journal of Innovative Finance and Economics Research*, 5(2), 1-10.
- Shan, Y. G., & Troshani, I. (2021). Digital corporate reporting and value relevance: Evidence from the US and Japan. International Journal of Managerial Finance, 17(2), 256-281. https://doi.org/10.1108/ijmf-01-2020-0018
- Shmuratko, Y., & Sergii, S. (2021). Financial technologies' impact on the development of banking. Financial and Credit Activity Problems of Theory and Practice, 4(2), 61–69. https://doi.org/10.18371/fcaptp.v4i31.190792
- Troshani, I., Locke, J., & Rowbottom, N. (2019). Transformation of accounting through digital standardization: Tracing the construction of the IFRS taxonomy. Accounting Auditing and Accountability Journal, 32(1), 133–162. https://doi.org/10.1108/aaaj-11-2016-2794
- Uwuigbe, O. R., Uwuigbe, U., Iyoha, F. O., & Omankhanlen, A. E. (2016). Globalizing the board and financial performance: Evidence from Nigerian banks. *Indian Journal of Finance*, 10(9), 66-71.
- Varma, A. (2018). Big data usage intention of management accountants: Blending the utility theory with the theory of planned behavior in an emerging market context. *Theoretical Economics Letters*, 8(13), 2803-2817. https://doi.org/10.4236/tel.2018.813176
- Varma, P., Nijjer, S., Sood, K., Grima, S., & Rupeika-Apoga, R. (2022). Thematic analysis of financial technology fintech influence on the banking industry. *Risks*, 10(10), 1-18. https://doi.org/10.3390/risks10100186
- Zhang, J., Yang, X., & Appelbaum, D. (2015). Toward effective big data analysis in continuous auditing. *Accounting Horizons*, 29(2), 469-476. https://doi.org/10.2308/acch-51070