



USER PERCEPTIONS ON THE ADOPTION OF BLOCKCHAIN TECHNOLOGY IN ACCOUNTING PRACTICES IN NIGERIA.*Dr. Dauda Ibrahim A.¹, Dr. Dauda I. Musa²**Department of Accounting, Isa Mustapha Agwai Polytechnic, Lafia, Nasarawa State¹,**Department of Accounting, Federal University of Kashere, Gombe**Corresponding authors' email and mobile: daudaib22@gmail.com/08036283141¹,**musa.dauda.md@gmail.com/08035478199²*

Abstract

Blockchain technology has the potential to revolutionize accounting practices by providing enhanced transparency, security and efficiency. This study explores the perceptions of accounting professionals regarding the adoption of blockchain technology in accounting practices, while also identifying factors influencing such adoption. The study evaluates the current level of awareness and understanding of blockchain technology among accounting professionals as well as the perceived benefits of its adoption in the practice of accounting. The study employed descriptive surveys approach to interact with accounting professionals from members of the two professional accounting bodies in Nigeria, the Institute of Chartered Accountants of Nigeria (ICAN) and the Association of National Accountants of Nigeria (ANAN), across states in the North Central Region of Nigeria and the FCT. The study's approach ensures comprehensive understanding of perceptions and adoption factors. The study elicited data from its sampled population using a five-point Likert scale questionnaire, developed to measure responses of respondents based on the five scales with the following score: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and strongly Disagree (1). The data generated from the questionnaire are subjected to descriptive analysis using frequency distribution, expressed in percentages and means and standard deviation. A total of 384 questionnaires were administered and used for this research work. The finding provides that accountants in Nigeria are very much aware of the existence and use of Block Chain Technology in accounting practices in Nigeria, and that Block Chain Technology provides a lot of benefits to its users, though with some challenges.

Key words: blockchain, technology, accounting practice, perception, users of accounting

1. Introduction

Blockchain technology has emerged as a transformative force in various industries, including accounting. It is initially associated with cryptocurrencies like Bitcoin, its scope has expanded significantly due to its potential applications across various areas of discipline (Abad-Segura et al, 2021). Institute of Chartered Accountants of England and Wales [ICAEW] (2018) provides that, in recent years, the digital transformation that is emerging across industries has been heavily influenced by the profession and practice of accountants and other accounting practitioners. The evolution of blockchain in accounting is a clear shift from traditional practices to a more technology-driven approach. The integration of blockchain into accounting systems is not just a technological upgrade but a fundamental change in how financial transactions is recorded, verified, and reported (Akoh, 2024).

Accounting profession plays a pivotal role in ensuring the integrity and accuracy of financial data, thereby safeguarding the interests of stakeholders and promoting overall economic stability. However, traditional accounting methods face challenges related to transparency, data security, and the need for multiple intermediaries to verify transactions (Feng, 2021). Blockchain technology however presents a promising solution to address these challenges by establishing a decentralized and tamper-



resistant ledger, which can potentially revolutionize accounting practices and enhance the reliability of financial reporting (Kitsantas & Chytis, 2022).

Blockchain is essentially a decentralized ledger that can never be changed and the records of which can never be destroyed. Therefore, it can be useful as a reliable and constantly updated business register (Israel et al, 2023). According to Potehina and Riumkin, (2017), blockchain technology can be used not only to transfer digital currencies between buyers and sellers but also to transfer ownership of the other two assets between two companies in a cheap, efficient, effective, and reliable way. As blockchain technology evolves and new areas of application are explored, the accounting profession is being defined as an area that can greatly benefit from blockchain. For instance, blockchain's decentralized ledger provides a level of transparency and reliability that are rear in traditional accounting systems. It enables the creation of a permanent, immutable record of transactions, which significantly reduces the risks of fraud and errors (Petrović et al., 2022). Moreover, the automation of transaction verification processes through blockchain can enhance efficiency, reducing the time and resources spent on manual reconciliation and audit processes.

Blockchain technology is revolutionizing a number of industries and practices of different disciplines in Nigeria. The decentralized and transparent nature of blockchain technology presents a plethora of opportunities to improve the security, accuracy, and efficiency of financial transactions hence, the recent adoption of blockchain technology by companies in the Nigeria banking sector, Zenith Bank, First Bank and UBA Plc., to effect payments and generate transactions records with efficiency. The technology reduces the risk of fraud, streamlines procedures, and transforms conventional accounting methods. However, there are issues that need to be resolved in order for implementation to be successful. This study seeks to examine how technology affects financial accounting practices and the perceptions of the practitioners in Nigeria. This study provides a roadmap for understanding and facilitating the adoption of blockchain technology in accounting in the Nigerian economy.

The study provides valuable insights into the perceptions of accounting professionals in Nigeria towards blockchain technology, while identifying the benefits of adopting the technology as well as the challenges faced in the adoption of the technology by Nigerian businesses. Also, the study highlights the factors that influence the adoption of blockchain technology in accounting practices in Nigeria in order to encourage efforts at addressing the perceived difficulties in the adoption of the technology.

Despite its potential benefits, the adoption of blockchain technology in accounting faces several challenges. Key issues include: Technical Complexity; High Implementation Costs; Lack of Skilled Personnel; and Regulatory Uncertainties. The rapid evolution of technology and the increasing complexity of financial transactions call for innovative solutions in the accounting sector. Blockchain technology, with its promise of improved transparency, security, and efficiency, has the potential to be a transformative force. However, the degree to which accounting professionals are aware of, understand, and are willing to adopt this technology remains largely unexplored. While existing literature extensively covers the technical aspects of blockchain and its applications across various industries, there is a notable gap in understanding how accounting professionals perceive this technology and what factors influence their willingness to adopt it. This study aims to bridge that gap by providing a thorough analysis of users' perceptions and the drivers of blockchain adoption in accounting. It would investigate the attitudes of accounting professionals towards blockchain technology and identify the key factors that influence their decision-making processes regarding its adoption and implementation. In view of the above, the study is posed to answer the following research question as it strives to achieve its objectives:

- (i) What is the perception of accounting professionals in North Central Nigeria on awareness of adoption of BCT in accounting practices in Nigeria?
- (Ii) What is the perception of accounting professionals in North Central Nigeria on the benefits of



adopting blockchain technology in accounting practices in Nigeria?

- (iii) What is the perception of accounting professionals in North Central Nigeria on the challenges of adopting blockchain technology in accounting practices in Nigeria?
- (iv) What is the perception of accounting professionals in North Central Nigerian on the factors that influence the adoption of blockchain technology in accounting practice in Nigeria?

The study mainly explores the perceptions of accounting professionals regarding blockchain technology and identify the factors influencing its adoption in the field. Its specific objects are to:

- (i) evaluate the perception of accounting professionals in North Central Nigeria on awareness of adoption of BCT in accounting practices in Nigeria
- (ii) determine the perception of accounting professionals in North Central Nigeria on the benefits of adopting blockchain technology in accounting practices in Nigeria.
- (iii) determine the perception of accounting professionals in North Central Nigeria on the challenges of adopting blockchain technology in accounting practices in Nigeria.
- (iv) explore the perception of accounting professionals in North Central Nigerian on the factors that influence the adoption of blockchain technology in accounting practice in Nigeria.

2. Literature Review

The study reviews relevant literatures and specifically conceptualized blockchain accounting, professional accountants and accounting practices. The review is sectionalized into the following subheadings: Conceptual review, empirical review and theoretical framework.

Conceptual Review

Blockchain Technology

Blockchain is a decentralized, distributed ledger technology that records transactions across a network of computers. Each transaction is grouped into a "block" and linked to the previous block in a "chain," creating an immutable and transparent record. Akinadewo, et al, (2023) describes blockchain as a digital ledger technology that operates in a decentralized and distributed manner, serving the purpose of recording and verifying transactions across multiple computers or nodes within a network. According to Vardia and Signh (2022) a blockchain is structured such that, it is built in a series of blocks, with each block containing a list of transactions. This meaning that no single entity or authority exercises complete control over the entire blockchain network. The ledger, which keeps a record of all transactions, is shared with all participating nodes in the network, ensuring transparency and security (Su et al., 2021).

Transactions are grouped together into blocks, each containing a set of transactions. Each block also contains a unique cryptographic hash of the previous block, creating a chain of interconnected blocks. This chain ensures the integrity of the data and makes it extremely difficult to manipulate or alter past transactions. To ensure consensus and validate the content of a new block before adding it to the chain, blockchain networks use consensus mechanisms such as Proof of Work (PoW) or Proof of Stake (PoS) (Akinadewo, et al, 2023). These mechanisms prevent fraudulent transactions and maintain the security of the network. Once a transaction is added to the blockchain, it becomes highly resistant to any changes or deletions, which is a fundamental characteristic of blockchain technology (Potekhina & Riumkin, 2017). All participants in the network have access to the complete transaction history, and participant identities can be pseudonymous, allowing for a certain level of privacy. Blockchain is characterized by decentralization; where no single entity controls the blockchain, transparency; where all participants can view the transactions recorded on the blockchain, immutability; where once a transaction is recorded, it cannot be altered or deleted, ensuring data integrity and security; where Cryptographic techniques secure the data, making it highly resistant to tampering and fraud.

Blockchain Accounting refers to the application of blockchain technology to accounting practices. This integration aims to enhance the reliability, transparency, and efficiency of financial



reporting and auditing processes. The purpose of this integration is to improve financial reporting and auditing systems' dependability, transparency, and efficiency. Blockchain is an accounting system that includes ownership transfers of assets and accurate record-keeping of finances. The measuring, reporting, and analyzing of financial data is at the core of the accounting profession. A substantial part of this profession pertains to establishing and quantifying property rights and obligations or devising optimal strategies for allocating financial resources (ICAEW, 2018). The implementation of blockchain technology by accountants results in increased operational efficiency due to the transparency it provides on asset ownership and the existence of liabilities. Blockchain has the potential to completely transform the accounting industry by cutting expenses associated.

With its primary goal of facilitating asset ownership transfers and ensuring a secure and trustworthy record of financial information, blockchain technology is undoubtedly a game-changer for accounting (Irina and Adriana, 2020). It is expected to revolutionize the current accounting system in various ways. However, while both researchers and accounting professionals acknowledge the disruptive potential of blockchain for accounting, the exact nature of these transformations remains unclear. We are yet to fully understand the challenges and risks that will arise during this process and how it will ultimately impact the accounting profession. Similar issues are also relevant to the audit system and the audit profession. Although many studies consider accounting and audit as a combined system affected by blockchain's disruptive effects, this particular study focuses solely on the accounting system. We believe that accounting and audit have distinct characteristics that will result in different impacts from blockchain technology.

Blockchain accounting ensures that transactions are recorded in real-time, providing immediate updates to all participants, smart contracts can automate routine accounting tasks, such as reconciliations and compliance checks. The immutable nature of blockchain ensures a transparent and verifiable audit trail, simplifying the auditing process and helps to prevent and detect fraudulent activities by providing an incorruptible record of transactions.

Accounting Profession as a field of accounting can be viewed as a profession that focuses on identifying, documenting, examining, and delivering financial data to stakeholders (Dauda, Ubugadu & Aku, 2015). While the importance of understanding the meaning of accounting has been emphasized, the scope of knowledge required in the accounting profession extends beyond just that. In the perspective of Ajayi (1997), accounting profession is a system for measuring and reporting information that encompasses both individual and overall economic activities. The system encompasses the different subsystems that are related to economic events and decisions.

These subsystems are recognized as the primary accounting fields which include business accounting and government accounting. Ajayi further asserts that, the profession's focus in measurement and reporting information system, which cover both micro and macroeconomic activities, which consists of various subsystems with related economic events and decisions is in line with guiding principles. The listed subsystems are identified as the major accounting fields, which include: business accounting, government accounting, social accounting, auditing and taxation. Accounting can also be included with those disciplines concerned with aspects of human society because, clearly, it is a "system of thought" designed by humans to assist human decision making and influence (human) behaviour (Gaffikin, 2005).

Accounting profession provides qualitative financial information about economic entities that is intended to be useful in economic decisions. This information allows users to make reasoned choices among alternative uses of scarce resources in the conduct of business and economic activities. The need for accounting therefore arose in response to the desire to make judicious use of scarce resources, accumulate wealth and produce high quality of goods and services in a competitive economy (The American Accounting Association, 1986). Salisu (2010) identified two basic bodies of accountants in the practice of accounting profession, namely the Academic accountants and the Accountants in



Practice. This study however included the accounting regulators considering its background. The reason is that, the accounting regulators as bodies have continuously set up the theoretical standards and regulations which guide in the practice of the profession.

According to Salisu (2010) as cited in Dauda, Ombugadu and Aku (2015), academic accountants refer to the academic accountants as those (lecturers, instructors and teachers) who inculcate qualitative and quantitative knowledge on diverse areas of accounting discipline, providing the basis of practicing the profession and the rudiments as it is contained in the various institutions' curriculums. Nigerian higher institutions of learning that offer accounting programs excel in inculcating qualitative and quantitative knowledge on diverse areas of accounting discipline; they maintain adequate standards in the teachings of accounting theory, techniques and practice and steady accreditations of the professional accounting bodies operating in Nigeria and recognized by law. Accountants in practice are individuals who have received additional training from recognized professional accounting bodies, on top of their institution-based education. These bodies grant them recognition and licensing to provide accounting and financial services to the public, while also ensuring that they adhere strictly to best practice principles and ethical considerations through frequent monitoring and supervision (Salisu, 2010). In Nigeria, two bodies are the ICAN and ANAN.

Accounting regulators are bodies responsible for creating and issuing guidelines for the preparation and reporting of financial information, which applies to both public and private entities. These guidelines are designed to benefit investors, businesses, and government regulatory agencies. The accounting profession is guided by these standards in both academic and professional settings. The regulators include the Financial Reporting Council of Nigeria, Corporate Affairs Commission, Companies and Allied Matters Act, Central Bank of Nigeria, and the National Insurance Commission. Other regulators around the world are the Financial Accounting Standards Board in the USA and the United Kingdom Accounting Standard Board, International Financial Reporting Council etc.

These conceptual definitions provide a foundation for understanding the integration of blockchain technology into accounting and the roles and responsibilities of accounting professionals within the broader accounting profession.

Theoretical Review

To develop a theoretical framework for understanding user perceptions on adoption of blockchain technology in accounting practice in Nigeria, this study draws upon several theoretical perspectives that help explain how individuals and organizations perceive and adopt new technologies, particularly within the context of accounting practices. Against this background, the theories of technology acceptance model, diffusion innovation, and social exchange were reviewed.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed by Davis (1989). The primary objective of TAM was to shed light on the processes underpinning the acceptance of technology, in order to predict the behaviour of, and provide a theoretical explanation for the successful implementation of technology. The Model has been used in research to explore the acceptance of new e-technology or new e-services (Davis, 1989; Davis & Venkatesh, 1996). Davis's technology acceptance model (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989) is the most widely utilized models of acceptance and usage of innovated technology by users. The Technology Acceptance Model (TAM) can be effectively applied to accounting practice by examining how accountants perceive and adopt new accounting software or e-services.

Diffusion of Innovations Theory (DOI)

The diffusion of innovations theory is a hypothesis outlining how new technological and other advancements spread throughout societies and cultures, from introduction to widespread adoption. The diffusion of innovations theory seeks to explain how and why new ideas and practices are adopted, including why the adoption of new ideas can be spread out over long periods. The DOI Theory was



developed by E.M. Rogers in 1962, it is one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behavior, or product. Adoption means that a person does something differently than what they had previously (i.e., purchase or use a new product, acquire and perform a new behavior, etc.). The key to adoption is that the person must perceive the idea, behavior, or product as new or innovative. It is through this that diffusion is possible.

Social Exchange Theory

Social Exchange theory was developed by George Homans, in 1958. The theory is a concept based on the notion that a relationship between two people is created through a process of cost-benefit analysis. In other words, it's a metric designed to determine the effort poured in by an individual in a person-to-person relationship. The theory state that people make decisions by consciously or unconsciously measuring the costs and rewards of a relationship or action, ultimately seeking to maximize their reward. This theory focuses on the costs and benefits of adopting blockchain accounting: The perceived advantages of blockchain in terms of transparency, security, efficiency, and competitive advantage. Concerns about the costs of implementing and maintaining blockchain technology, including initial investments and ongoing operational expenses. How blockchain enhances trust among stakeholders in accounting processes in Nigeria.

This theoretical framework integrates multiple perspectives to provide a comprehensive understanding of how accounting professionals in Nigeria perceive and adopt blockchain technology. By applying these theoretical lenses, researchers can explore the motivations, barriers, and facilitators of blockchain adoption in the Nigerian accounting context, ultimately informing strategies to promote its successful implementation and integration.

Empirical Review

Akoh et al (2024) explored the intricate interplay between blockchain and accounting practices, with a focus on its evolution, adoption, and the challenges it presents to unravel the potential of blockchain as a catalyst for change in accounting, examining its implications from a multi-dimensional perspective. The study adopted a qualitative research methodology, the study employs an analytical framework to dissect the integration of blockchain in various accounting sectors. It finds that blockchain technology is not merely an emerging trend but a paradigm shift in accounting as it offers to enhance transparency, efficiency, and security, surpassing traditional accounting systems. The focus here is the significance of blockchain technology in the practice of accounting regardless of its possibly negative impact.

Rijanto (2024) discusses how blockchain can address issues such as know your customer (KYC) compliance, accounting standards, and trade settlement. However, the adoption of blockchain in this sector is not straightforward, with challenges including regulatory compliance, operational risks, and the need for significant investment in technology and education. Contrary the so many studies reviewed, this study allayed fear of the various implications that may come with the blockchain accounting practice.

Johnson and Okoye (2023) studied blockchain technology distributive elements and the quality of financial reporting in Nigeria, using a survey of professional accountants in Abia and Enugu State. The study administered questionnaire of 5 Likert scales using the simple Multivariate Regression Methods and find that blockchain distributive element significantly affects the transparency, reliability, and timeliness of financial reports in Nigeria and concludes that the blockchain distributive element is considered by professional Accountants as a disruptive technology that will change the course of traditional financial reporting. It recommended that there is a need to encourage companies to adopt the distributive elements of blockchain technology. Doing so will help companies automate various financial processes, such as payments, compliance checks, and reconciliations. This is however



encouraging the elimination of manual intervention which shall reduce human errors. This therefore indicates acceptance of the use of blockchain accounting practice.

Alkafaji et al, (2023) investigates blockchain and how it impacts on the quality of the accounting information in listed and non-listed companies in Iraq. The statistical population of this research is divided into two parts: one part is related to the level of familiarity with blockchain technology of accountants, independent auditors, managers, etc., and the other part is related to the effect of blockchain technology on the quality of accounting information. The results of the hypothesis testing showed that in both listed and non-listed companies, familiarity with blockchain technology had increased the quality of accounting information. In this way, blockchain technology has positively and significantly impacted the quality of accounting information. The study emphasizes positive perception as it increases quality of accounting information and by extension, accounting practice.

Akinadewo, et al, (2023) assesses the impact of blockchain technology on the effectiveness of accounting practices in Nigeria. This study used a qualitative approach and the study's primary data came from the distribution of a structured Questionnaire to the targeted respondents, which comprised accountants, finance analysts, and blockchain experts. Data were analyzed through descriptive statistics and inferential statistics. The overall results found that blockchain technology had a significant positive effect on the efficacy of accounting practice in Nigeria. Thus, this study recommends that accounting firms in Nigeria should consider investing in blockchain technology to improve data security, transparency, and efficiency, it has not checked the understandability of technicalities involved in the process and therefore could not consider knowing how accounting stakeholders perceived it.

Ajayi-Nifise, et al, (2024) critically examines the transformative potential of blockchain technology in enhancing transparency and integrity within U.S. accounting practices. Employing a systematic literature review and content analysis methodology, the research draws on a range of peer-reviewed articles, industry reports, and authoritative databases. Key findings reveal that blockchain acts as a catalyst for transparency and integrity in accounting, offering a decentralized and immutable record-keeping system that significantly reduces the likelihood of fraud and errors. The technology's integration into accounting practices is evolving, indicating a future of automated, real-time auditing processes and enhanced financial reporting. However, challenges such as regulatory ambiguity, technical complexities, and scalability issues persist, necessitating strategic solutions. Although the study joined others who emphasizes transparency and integrity in the practice of blockchain accounting, it indicates reservation on its challenges and technicalities.

3. Methodology

The study adopts descriptive research design to explore the perceptions of accounting professionals regarding blockchain technology, while identifying the factors influencing its adoption in the field of accounting. The study's data were obtained from respondents with the aid of a Five Point Likert Scale questionnaire, developed to measure responses of respondents based on the following five scales: (5) Strongly Agree, (4) Agree, (3) Undecided, (2) Disagree and (1) Strongly Disagree. The values generated through administration of the questionnaire were subjected to empirical investigation by way of analysis using frequency distribution, expressed in percentages, means and standard deviation. The study's population is made up of membership of states own association of ICAN and ANAN professionals in the 6 states of North Central Nigeria, numbering 3640, out of which a sample of 384 was considered using the sampling matrix of Krejci and Morgan (1970). A total of 384 questionnaires, based on the sample, were administered to respondents, from which 292 were considered accurately completed among the 327 questionnaires returned, and were used for the analysis. The questionnaire considered for analysis in this study represents a response rate of 76%. The data were analyzed using Scientific Packages for Social Sciences (SPSS).



To justify the study's adopted methodology, and determine the workability of the study's questionnaire, a pilot study was conducted, though not in full scale, using 35 respondents from among the sampled population. From the pilot study, the statements that make up the construct in the questionnaire were found to be relevant as only 2 of the statements, pertaining to respondents' perception on challenges, were restated hence, justifying its use in the main study. However, the findings from the pilot study's descriptive analysis revealed a slight variation from the main study, where respondents averagely refute the statement attributing challenges of BCT adoption to cybersecurity, which is attributed to the smallness of the number of respondents used, as such does not invalidate the statement in the questionnaire used for the main study.

4. Results and Discussion of Findings

Outcome of the study's analysis of respondents' perspectives and views regarding the survey statements relating to the study's objectives are as displayed in tables 1, 2, and 4 below, and are discussed to provide insight towards achieving the study's objectives. As a rule, the study adopts the weighted average mean for each of the constructs to decide on the level of acceptance of each statement that make up the construct. The weighted average mean is determined by taking the sum of all the means of the statements in a construct and dividing by the number of statements that make up the construct. This, is then compared with the mean of the individual statements, where if the statement's individual mean is exact or above the weighted average mean, the statement is considered to be highly perceived as true by the respondents, and if lower, then it is considered otherwise.

Analysis of Respondents' Demography

Table 1 below relays the demography of respondents drawn from the membership of the two major professional accounting bodies in Nigeria who hail from the north central states and the FCT. The analysis shows that, out of 292 respondents, 205 are male, representing 70%, while the remaining 87 respondents are female (i.e. 30%). Among the respondents, also, majority, representing 66% are members of the Association of National Accountants of Nigeria, ANAN, while 34% are members of the Institute of Chartered Accountants of Nigeria, ICAN, suggesting that the proximity of ANAN college to states in the north central Nigeria plays a significant role in their choice of professional body. Moreover, the respondents mostly have work experience ranging from 10 to 20 years, with 54% representation, while those with work experience below 10 years and above 20 years are, respectively, represented by 30% and 16%. This indicates that respondents are well experienced in their field of discipline hence, would provide objective response to the statements raised in the questionnaire.

Regarding respondents' academic qualification, a total of 76% of the respondents are both BSc. and HND graduates combine, while those with post graduate degrees are 22.98%, whereas the remaining respondents only hold O level certificate and Diplomas, indicating that a large percentage of the respondents are well learned, and have the capacity to provide insightful responses that would lead to meaningful and impactful outcome. Lastly, respondents are spread across the 6 states in the north central and the FCT, with Nasarawa state and the FCT having a combine representation of 42%, while the rest are from other states in north central region of Nigeria.



Table 1
Description of Respondents' Demography

Respondents' Profile	Number of Respondents	Percentage of Respondents
State: Benue	53	18%
FCT	55	19%
Kogi	33	11.3%
Kwara	30	10.2
Nasarawa	67	23%
Niger	29	10%
Plateau	25	8.5%
Gender: i. Male	205	70%
ii. Female	87	30%
Academic Qualification: ii. ND	3	1%
iii. BSc./HND	222	76%
v. PG Cert	67	23%
Professional Body: i. ICAN	98	34
ii. ANAN	194	66
Work Experienced: i. 1 – 10 years	87	30%
ii. 10 – 20 years	157	54%
iii. Above 20 years	48	16%

Source: Questionnaire data, 2024

Reliability Test

The study's survey instruments used for data collection was subjected to the Cronbach's Alpha test to determine the reliability of the construct. According to Bland and Altman (1997), research examiners and reviewers always accept 0.70 as a more reliable Cronbach's alpha value for the purpose of research. The result of the test, which was conducted for each construct indicate that the statements with respect to awareness of adoption of BCT in Accounting practices in Nigeria among accounting professionals in North Central Nigeria is 0.73, while that of the construct regarding the benefits of blockchain technology in Accounting Practice in Nigeria is 0.74. Moreover, the construct for identifying the challenges relating to blockchain adoption in accounting practice in Nigeria presents a Cronbach alfa value of 0.77, while that of the construct for the factors that influence blockchain technology's adoption in accounting practice in Nigeria is 0.71. Accordingly, all constructs' Cronbach alpha indicate that the survey items that make up each of the construct are internally consistent hence, are consistent in measuring the same construct involved in the study.

Respondents' Perception on awareness of adoption of BCT in Accounting practices in Nigeria

With respect to perception on awareness of BCT adoption in accounting practices in Nigeria, considering the construct's weighted average mean of 4.10, respondents appear to be highly aware that BCT is a ledger that can be used to record transactions across a network of computers, with a mean score of 4.76, and that BCT adoption can actually improve transparency and accuracy as a result of its ledger decentralization feature hence, Nigerian companies used BCT in providing stakeholder with real-time, reliable, and verifiable, accounting reports. However, respondents' responses indicate that they are oblivious of the fact that Nigerian companies know that they can have access to different sources of



financial service with the adoption of BCT. This might be as a result of their being outside stakeholders who could be secluded from certain companies' information, especially those that concern finance. Moreover, the respondents also show lack of knowledge of Nigerian banks' adoption of BCT to carry out payments, and accounting function of interbank payment reconciliation.

Table 2

Respondents' Perception on awareness of adoption of BCT in Accounting practices in Nigeria

Likert Scale Items	Mean	Std Dev	Decision
Accounting stakeholders in Nigeria knows that Blockchain Technology (BCT) is a ledger that can be used to record transactions across a network of computers.	4.76	0.426	High perception
Accountants in Nigeria know that BCT adoption can improve transparency and accuracy due to it ledger decentralization feature.	4.63	0.498	High perception
Nigerian companies used BCT in providing stakeholder with real-time, reliable, and verifiable, accounting reports.	4.51	0.559	High perception
Companies in Nigeria are aware that they can have access to different sources of financial service with the adoption of BCT.	2.86	1.463	Low perception
Banks in Nigeria adopt BCT to carry out payments, and accounting function of interbank payment reconciliation.	3.73	1.210	Low perception

Source: SPSS output, 2024

Respondents' Perception on the Benefits of BCT to Accounting Practice in Nigeria

Comparing the construct's weighted average mean, 4.38, to the individual means of the survey statements as in table 3 below, the study's analysis shows that respondents perceived improvement in transparency and accuracy of financial record as a benefit that can be derived from the adoption of BCT in accounting practices, and that companies that adopt BCT in processing their accounting data stand to benefit from enhanced data security and reduced risk due to the technology's decentralization capability. Moreover, the respondents also perceived that the adoption of BCT in accounting operations would help the adopting company in reducing its cost of maintaining financial accounting books as such records are stored in the computer system. These views agree with the views of Alkafaji et al, (2023) who documented that familiarity of the use of

BCT in accounting practice on the increase among professional accountants. On the other hand, the outcome of the study's analysis also indicates that respondents' mean score, 4.18 indicate agreement with the statement that BCT adoption could enhance efficiency in organizational operations owing to its automation of transactions, it however falls short of the average mean score of 4.38. This could be attributed to a handful number of respondents neither agreeing or disagreeing with the statement. In the same vein, respondents also perceived BCT potential for streamlining auditing procedure, and regulatory compliance as one of its benefits, though the mean score for the statement, 4.23 is low compared to the average mean score of 4.38, it however indicates that a large number of respondents agree with the statement.



Table 3

Respondents' Perception on the Benefits of BCT to Accounting Practice in Nigeria

Likert Scale Items	Mean	Std Dev	Decision
With BCT, the efficiency of corporate process is enhanced through automation of transactions and streamlining of processes leading to improved performance.	4.18	1.010	Low perception
Adoption of BCT in the conduct of accounting procedures has led to improved transparency and accuracy of financial records.	4.52	0.686	High perception
The use of BCT in processing accounting data has been identified to enhance data security and reduce risk owing to its decentralization feature.	4.55	0.658	High perception
One of the benefits of BCT in accounting practice is its potential to stream line auditing Procedure, and regulatory compliance.	4.23	0.988	Low perception
The use of BCT in accounting processes reduces cost of maintaining financial accounting books.	4.40	0.621	High perception

Source: SPSS output, 2024

Respondents' Perception on the Challenges of BCT in Accounting Practices in Nigeria

The survey outcome as to respondents view on challenges of BCT in accounting practice in Nigeria, with an average mean score of 4.76, indicates that respondents perceived that the challenges of BCT adoption are both technological, organizational, and environmental, and that the technological difficulty could be as a result of absence of advanced IT infrastructure, which also exacerbate cybersecurity risk in the Nigerian BCT environment. This renders BCT activities vulnerable and prone to hacking activities. Also, the respondents see the absence of proper regulatory provisions as yet another challenge hindering increased BCT adoption for accounting practices in Nigeria, with a mean of 4.77. And also, that lack of skills and competence required for proper operation of BCT also poses a challenge to the adoption of BCT in accounting practices in Nigeria, as represented by the mean score of 4.78. This is consistent with the reported finding of Rijanto (2024), and Ajayi-Nifise, et al, (2024) who found regulatory ambiguity and technical complexities as persistent challenges of BCT adoption in the US.

Table 4

Respondents' Perception on the Challenges of BCT in Accounting Practices in Nigeria

Likert Scale Items	Mean	Std Dev	Decision
Challenges of adopting BCT in accounting practice in Nigeria involves technological, organizational, and environmental challenges.	4.75	0.444	High perception
Absence of advanced IT infrastructure makes the adoption of BCT difficult for Nigerian companies.	4.70	0.469	Low perception
Lack of proper regulatory provisions renders BCT-generated reports unacceptable by regulators.	4.77	0.432	High perception
In the Nigerian BCT environment, there are risks of cybersecurity which renders the whole of BCT activities vulnerable and prone to hacking activities.	4.83	0.387	High perception
Lack of required skills and competence has made it challenging for companies to adopt BCT in their accounting system in Nigeria.	4.78	4.420	Low perception

Source: SPSS output, 2024



Respondents' Perception on the Factors influencing adoption of BCT in Accounting Practice in Nigeria

Considering factors that influence the use of BCT in conducting accounting operations in Nigeria, respondents' perspectives on the construct's statements indicate that efficiency and safety is a factor that encourage the adoption of BCT in accounting practice in Nigeria, with a high mean score of 4.86, slightly above the average mean of 4.82. Further, respondents also perceived that the ease with which BCT allows for verification and authentication of transactions also drives companies' adoption of BCT, and that the technology's user-friendly interface makes easy to operate hence, encouraged its adoption among organizations. However, some respondents appeared to stay neutral with regards to cost effectiveness of BCT adoption in accounting practice hence, the low perception outcome regarding the statement, though high at 4.76, but less than the average mean of 4.82. Similarly, respondents' views regarding BCT's ease of use in keeping and managing accounting records and information as motivation factor appeared to be mixed hence, deriving a mean of 4.76, less than the average mean. This could possibly be attributed to the respondents' lack of practical knowledge of the BCT in terms of usage hence oblivious of the technology's interface in keeping and managing accounting records and information hence, expressing neutral opinion.

Table 5

Respondents' Perception on the Factors influencing adoption of BCT in Accounting Practice in Nigeria

Likert Scale Items	Mean	Std Dev	Decision
The usefulness of BCT in making companies' operations very efficient and secured influences its adoption in accounting practice in Nigeria	4.86	0.364	High perception
Ease of verifying and determination of the authenticity of transactions among banks, customers and internal parties to organizations influence the adoption of BCT by companies for their accounting functions.	4.87	0.337	High perception
The user-friendly nature of BCT platforms encourages adoption as it makes it easy to understanding how accounting transactions are recorded on the platform.	4.84	0.363	High perception
Cost effectiveness and auditability of BCT-backed reports is one factor that drives the use of BCT in accounting processes in Nigeria.	4.76	0.436	Low perception
Ease of use of BCT in keeping and managing accounting records and information serves as motivation factor for it use in processing accounting related operations in Nigeria.	4.76	0.428	Low perception

Source: SPSS output, 2024

5. Conclusion

The expression of awareness by professional accountants in the North Central states of Nigeria as to what blockchain technology (BCT) is and does lead to the conclusion that has been adopted for use in the conduct of accounting practices in Nigeria, it brings about improvement in transparency and accuracy of transactions and record hence, provides stakeholders with real-time, reliable, and verifiable accounting reports. Blockchain technology is beneficial to its users in the conduct of accounting operations by improving transparency and accuracy of financial records, enhancing data security and reduce risk owing to its decentralization feature. BCT also reduces cost of maintaining financial accounting books as such books are housed in a computer system.



In respect of challenges associated with BCT adoption in processing accounting related operations, BCT poses both technological, organizational, and environmental challenges. Absence of advanced IT infrastructure, lack of proper regulatory provisions, cybersecurity risk, and lack of required skills and competence also hinders the adoption of BCT in the practice of accounting in Nigeria. Certain factors identified to influence and encourage the adoption of BCT in accounting practices in Nigeria include its usefulness in making companies' operations efficient and secured; the ease of verifying and determining authenticity of transactions among corporate stakeholders, as well as BCT's user-friendly interface provide encouragement and hence, influences its adoption by companies for accounting practices in Nigeria.

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