

ACCOUNTING PRACTICES IN THE ERA OF BLOCK CHAIN TECHNOLOGY IN NIGERIA

ADAMU NUHU YAWURI^{1*}
ISHAKA MOHAMMED TUKUR²
ELI ADAMA JIYA³

Department of Accounting,
Faculty of Management Sciences
Federal University Dutsin-Ma Katsina State Nigeria ¹ &².
Email: nuhuyauri@gmail.com
Department of Computer Science, Federal University Dutsin-Ma ³
<https://doi.org/10.57233/gujaf.v7i1.14>

Abstract

Block chains offer a novel, secure way to process and store user-accessible financial and non-financial data. This study uses a conceptual approach to investigate accounting processes in the blockchain era. Without a doubt, accounting procedures have changed as a result of the advancement of blockchain technology and the growing interconnectedness of business transactions, creating and reforming new standards from the conventional norms. The use of block chain technology has transformed the accounting and auditing space in the global architecture and revealed new trends, inventions, and developments in the field of accounting. Accounting practices must unavoidably adapt and embrace this growth of digital money in their traditional standards in order to keep up with the always expanding, demanding, dynamic, and competitive global accounting architecture. The use of block chain technology has transformed the accounting and auditing space in the global architecture and revealed new trends, inventions, and developments in the field of accounting. Accounting practices must unavoidably adapt and embrace this growth of digital money in their traditional standards in order to keep up with the always expanding, demanding, dynamic, and competitive global accounting architecture.

Keywords: Block chain, accounting practice, digital money, auditing, crypto markets.

1.0 Introduction

Over the past ten years, block chain technology has developed at an exponential rate, changing conventional business and accounting models and procedures. One of the "buzz" words on everyone's lips these days is "block chain" and both academia and business have acknowledged the technology's potential to alter every aspect of our lives (Bulletin, 2023). Block chain technology adds "blocks" of data to a ledger called the block chain, which is maintained over a network of peer-to-peer computers, in order to store and validate transactional records (Coyne & McMickle, 2017). The business models and market structures of numerous industries, including accounting are starting to be significantly impacted by this potentially disruptive technology (Neldecheva, 2023; Gomber et al., 2018). However, it can be difficult for academics to keep up with the most recent advancements due to the abundance of information generated concerning blockchain (Cai, et al., 2019; Sheldon, 2019).

The majority of the world's markets are not yet regulated, but as the use of cryptocurrency assets has grown, so has the potential to impact the financial system, raising concerns with regulators. There is currently much discussion regarding the impact of blockchain for accounting, and research in accounting has tended to explore the possibility that the block chain might improve existing accounting processes and professional tasks (Michael & Beheran, 2023). Block chain is one of the most significant and innovative technologies developed in recent years (Peters and

Panayi 2016; PricewaterhouseCoopers, 2015). This technology is intended to lower trading costs, speed up transaction settlement, lower fraud risk, enhance transaction auditability, and boost monitoring efficacy (Fanning & Centers 2016; Mcwater et al., 2016). The Internet of Things (IoT), crowdsourcing, robotics, artificial intelligence, and other cutting-edge technologies are all part of the block chain's evolution from a safe financial transaction system. Together, these technologies form the technical basis of trade in the future (Deloitte 2016; Pattison, 2017). The accounting industry is paying more attention to blockchain. For instance, PwC sees blockchain as "next-generation business process improvement software to structurally alter shared practices between customers, competitors, and suppliers" (PwC 2016).

In a similar vein, Deloitte (2016) anticipates that blockchain will enhance business-to-business cooperation, data and process transparency, and eventually economic productivity and sustainability. Blockchain technology has recently expanded to cover a wide range of industries, including banking, trading, insurance, data protection, voting, intellectual property, identity identification, leasing, and government services (Michael & Beheran, 2023; Neldecheva 2023). Blockchain technology has the potential to significantly transform existing paradigms in a number of professions, including accounting and assurance. The creation of a new accounting environment may be aided by block chain's features, which include data integrity protection, instantaneous information sharing, and programmable and automatic process controls. Additionally, the current auditing paradigm might be made more precise and nimbler by using this technology as a basis for autonomous assurance. Transparent information may be distributed throughout a company network thanks to block chain technology, an enhanced database system. Data is kept in blocks that are linked together in a chain in a block chain database. Block chain technology creates a record of past data by using cryptographic algorithms (secure procedures) to safeguard each block's data and bind the blocks collectively (legge, 2024). According to Legge (2024), there are essentially four forms of block chain technology: public, private, consortium and hybrid. Each has unique benefits, limitations and applications.

Block chain technology is the basis for all cryptocurrency assets, including tokens and cryptocurrencies. In general, block chain technology can be used to buy land, real estate, or avatar items virtually. It can also be used to create and monetize apps and content in 3D virtual environments (Ozekhome, 2023).

It will probably take some time until the academic, business and technological community agree on a single, final version of blockchain technology, if they ever do (Sheldon, 2019). Block chains are "a distributed database that maintains a continuously growing list of data records that are hardened against tampering and revision, even by operators of the data store's nodes," according to Fanning and Centers (2016). Thus, blockchain has the ability to function as a safe accounting information system since it is a decentralized public ledger (Tapscott & Tapscott 2016). By further digitizing current paper-based validation, block chain transforms conventional accounting procedures. It gives accountants and auditors a better tool so they may concentrate on more important tasks like strategy and in-depth analysis. Because their knowledge is required to determine what fair-value accounting is, appraise intangible assets, calculate depreciation, and differentiate between different forms of leases, blockchain will not entirely replace accountants or auditors (Hughes et al., 2019). Accounting professionals will have more opportunities to ensure the value of smart contracts and the accuracy of source documents (Christie, 2018). Accounts will be essential for creating, carrying out, and managing smart contracts (Schmitz &

Leoni, 2019). Accountants will have greater skills and time to focus on planning and review as a result of the shifting roles, expanding the scope of accounting (ICAEW, 2018). AI technology would make it simpler and more effective for auditors to verify accounting transactions using block chain data. As auditors take on increasingly sophisticated responsibilities including smart contract reviews, risk assessments, predictive audits, real-time fraud detection, signature verification, software/algorithm audits and audit compliance studies, their value will rise (Tan & Low, 2019).

However, given the speed at which block chain technology is sweeping the business, financial, and investment environment, well-informed, innovative-centered enterprises can gain a competitive advantage in the commercial space. However, there are special risks, opportunities and challenges associated with this innovative and evolving technology that may affect processes and relating control. A new and intriguing dynamic in the financial, accounting, economic and business landscape is emerging as a result of the broad technical advancement that is supporting digital money and assets.

The accounting profession is quickly adopting new viewpoints, regulations, and standards as a result of the developing block chain technology, which must adapt to the shifting and desperate demands of the modern world. The new innovations brought about by block chain technology, especially digital money and assets, necessitate new entry rules and standards, making traditional accounting procedures and regulations untenable in the modern era. In order to take into account the new, developing block chain technology, the conventional statement of financial position and double entry principles and standards must be updated and changed.

In order to do this, the accounting profession should develop in a way that reflects the dynamic change brought about by block chain technology and that is adoptive, welcoming, accommodating, and integrating with regard to new developments brought about by block chain technology. Given the enormous potential of blockchain in all human endeavors, professional accountants and accountants in practice should adapt to the present dynamics rather than staying in a state of flux. The literature on the accounting period in blockchain technology, given its dynamic nature and significance in the modern world, is lacking.

By further digitizing current paper-based validation, block chain transforms conventional accounting procedures. It gives accountants and auditors a better tool so they may concentrate on more important tasks like strategy and in-depth analysis. Because their knowledge is required to determine what fair-value accounting is, appraise intangible assets, calculate depreciation and differentiate between different forms of leases, blockchain will not entirely replace accountants or auditors (Hughes et al., 2019). Accounting professionals will have more opportunities to ensure the value of smart contracts and the legitimacy of source documents (Yu et al., 2018). Accounts will be essential to the creation, implementation, and management of smart contracts (Schmitz and Leoni, 2019). Accountants will have greater skills and time to focus on planning and review as a result of the shifting roles, expanding the scope of accounting (ICAEW, 2018). AI technology would make it simpler and more effective for auditors to verify accounting transactions using block chain data.

Despite increasing global adoption of blockchain technology, accounting practice in Nigeria remains largely dependent on traditional centralized systems characterized by documentation inefficiencies, reconciliation delays, fraud vulnerabilities and limited real-time verification.

Existing literature has extensively discussed blockchain and cryptocurrency from financial and technological perspectives; however, limited attention has been paid to the specific implications of blockchain for accounting systems, auditing procedures and financial reporting quality in Nigeria. This creates uncertainty regarding the readiness of Nigerian accounting institutions, regulators and professionals to integrate blockchain technology into accounting practice.

2.0 Literature Review

According to Christie (2018), block chain is a form of distributed ledger technology (DLT) or financial technology (FinTech) (FRC, 2018; Chen et al., 2019; Goldstein et al., 2019; Gomber et al., 2018). Some see the block chain as a massive spreadsheet or sequential database that outperforms the traditional financial ledger by storing transactional data, protected by cryptography, and controlled by a consensus process (Yermack, 2017). A single definition of block chain is distant (Sheldon, 2019), as evidenced by the diversity of definitions that represent how different fields view it from different angles (Xu et al., 2019).

Transparency, decentralization, immutability, tamper resistance, robust authentication, synchronized networks and consensus are the main features of block chains (Iansiti & Lakhani, 2017; Pattison, 2017; Yermack, 2017). To put it another way, blockchain technology makes it possible to transmit anything of value, including ideas, votes, health information and intellectual property (Tapscott & Tapscott, 2016).

According to some researchers, the block chain framework was first put into use in 1999 when a technical solution was offered to solve the time issue for readily editable digital assets, like text documents, audio files, and images, to track when the content was created and altered and how to seal a digital document (Iansiti & Lakhane, 2017). However, Satoshi Nakamoto created the first practical application of block chain technology in 2009 when he unveiled the first electronic cash system, known as Bitcoin, which uses block chain as a basic technique for tracking and verifying this digital cash transfer. In his essay Bitcoin: The System of Cash A correspondence between peers (Potekhina & Riumkin, 2017).

The Institute of Chartered Accountants in England and Wales (ICAEW) defines block chain as a protocol or method of recording transactions rather than a particular technology. This definition is used in this study. In a block chain, ownership can be transferred from one person to another, unlike the Internet, where data is shared. There are various reasons why blockchain is a preferred model. For instance, it might eliminate the need to reconcile different ledgers in a market with numerous parties involved in transactions. It also avoids downtime and the expense of paying a central authority to keep the ledger accurate because it is dispersed among all users. Any participant in the ledger can trace all previous transactions, allowing for increased transparency and block chain to self-audit.

Block chain in accounting

Reports on blockchain technology are published on the websites of accounting associations, including the International Federation of Accountants (IFAC), the Association of Chartered Accountants (ACCA), the Chartered Institute of Management Accountants (CIMA), the Chartered Institute of Public Finance and Accountancy (CIPFA), and ICAEW. For instance, in order to meet evolving client expectations for block chain transactions, Deloitte, EY, KPMG and PwC are at the forefront of the effort to integrate block chain into their operations (O'Neal, 2019). As a result, PwC released cryptocurrency auditing software and updated its Halo tool for

auditing, Deloitte established its Rubix division and introduced a block chain plug-and-play product (Palmer, 2019), EY introduced a block chain analyzer platform to support audit teams' reconciling data, and KPMG has been collaborating with Guardtime, Microsoft, R3, and Tomia to create block chain-based services (O'Neal, 2019). Tan and Low (2019) contend that by digitizing existing paper-based validations, block chain technology has an impact on the accounting information systems (AIS) database engine. The system can improve transaction accounting efficiency and safely save accounting data, such as accounts payable and accounts receivable (ICAEW, 2018). According to Deloitte (2017) and McWaters et al. (2016), block chain technology can be used to solve contemporary accounting issues. It can streamline processes, cut down on counterpart risk and transaction-settlement time, minimize fraud and enhance capital liquidity and regulation.

Potekhina and Riumkin (2017) points out that the concept of using Blockchain servers and software for accounting purposes derives from the essence of the Blockchain technology as a bitcoin transaction ledger, which means that it is an internal accounting system that reads, records and publishes transaction data. That happened in (Bitcoin). Blockchain is a Blockchain that has recently emerged in the fields of cryptocurrencies and smart contracts as an alternative to ledger computing. Given the potential application of accounting ledger technique, many have expressed their expectation that Blockchain is the future of accounting record keeping and both new set of transactions added to the end of the series is encrypted with the previous block.

Accounting considerations of Block Chain Technology Practice

Although cryptocurrency enabled by block chain technology has become commonplace, the financial reporting for digital assets is still not adequately integrated into current accounting guidance under Generally Accepted Accounting Principles (GAAP) or the International Financials Reporting Standards (IFRS). This is because block chain technology is transparent and decentralized, which has challenged the status quo in the finance industry. Many companies that specialize in crypto accounting have asked the Financial Accounting Standards Board (FASB) to release new guidelines in developed nations like the USA, Chain, and others in order to allay worries and provide clarity. According to current accountant positions, cryptocurrencies should at the very least be considered capital assets for tax purposes and be liable to capital gains tax. However, this problem hasn't been resolved either because, depending on the transaction, cryptocurrency may be liable to income tax even though it isn't recognized as a fiat currency or its equivalent (ACCA Bulletin, 2023).

According to the Financial and Accounting Standards Board (FASB), cryptocurrencies are intangible assets since they lack physical substance. The use of block chain technology as the foundation for all types of cryptocurrencies, including Bitcoin, Ether, Lite-Coin, MaidSafe Coin, Goge Coin, Ripple, Monero and others with tokens, has undoubtedly brought new dynamics into the financial and investment space. Since cryptocurrencies are not actual money, are not backed by sovereign governments and are typically not recognized as legal tender, they are typically not regarded as any other kind of asset. Demand deposits with banks and other financial institutions are considered cash, in addition to cash on hand. Short-term, highly liquid investments that are easily convertible into cash are known as cash equivalents.

Cryptocurrencies usually have no maturation dates and are extremely volatile. The Public Company Accounting Oversight Board (PCAOB) and SEC staff agree that cryptocurrencies

should be treated as intangible assets under US GAAP when they are not considered securities or subject to specialized guidance (FASB Bulletin, 2023). Block chain technology is frequently used by cryptocurrency platforms to verify ledger modifications (Rajeb et al., 2020). Cryptographic techniques are used by block chain technology to stop unauthorized changes or manipulation of the public ledger. In particular, a network member must verify each transaction before it is added to the ledger and the ledger is permanently altered. In some cryptocurrency systems, the member must perform a very challenging computational decryption in order to be validated. The transaction is added to the ledger after it has been verified (Yaga, 2018).

Financial Policy and Regulation of Crypto currency

Nearly every aspect of civilization is impacted by digital technologies. There are now new markets, new ways to organize and manage the production of goods and services, and new ways to communicate. Alongside the material values, digital values have emerged. The global digital market, which has no territorial restrictions since its inception, is where these commodities and services are now produced, purchased and sold. This market is unique in that digital products and services are utilized and consumed online. As a result, communication and the delivery of digital goods from vendors to purchasers are accelerated, and virtual money or cryptocurrencies, are used during transactions. Due to the global financial and economic crisis of 2007–2009, participants in the global economy have begun to demand the creation of alternative saving instruments that are unaffected by traditional financial markets. In the quest for new money equivalents, cryptocurrency has emerged as a crucial instrument on the path to these evolutionary changes. The difficulties the international community faces in defining and comprehending decentralized systems in general, as well as in establishing a legal framework for cryptocurrency transactions, have been made abundantly evident by attempts to regulate cryptocurrencies. The Draft Law of Ukraine On Virtual Assets, which was adopted in the first reading and aims to regulate legal relations arising from the circulation of virtual assets, is a very significant step that has already been taken in Ukraine. Given the urgency of determining the legal status of virtual assets, particularly cryptocurrencies, it is necessary to examine international experience that can be used in the field of virtual asset regulation.

It should be mentioned that the introduction of the first cryptocurrencies was seen adversely by a number of nations because the governments essentially lost their primary advantage, which was the issuance of money. As a result, some nations passed legislation outlawing cryptocurrencies. These days, virtual asset markets are emerging, and they are being used for financial investments and transactions. There were more than 5,100 different kinds of virtual assets with a combined market value of more than \$250 billion by the start of 2020. As of early 2020, the market capitalization of the most popular cryptocurrency, bitcoin, surpasses 63% and is valued at \$159 billion.

Since several foreign regulators now view cryptocurrencies as a new, potential economic trend rather than as an unstable currency surrogate in the shadow economy, the legal regulation of cryptocurrencies has drastically changed. It should be noted, though, that the majority of financial regulators in other nations are wary of legislative initiatives and, in addition to conducting their own research, closely monitor the advancement of new technologies and phenomena in order to devise the best strategy for regulating operations involving virtual assets. It should be mentioned that virtually little research has been done on the problems of identifying the substance and legal essence of virtual assets in legal science. In particular, cryptocurrencies

like bitcoin, bitcoin cash, Ethereum, Litecoin, etc., are becoming more and more prevalent. Currently, the regulators of the world's most powerful nations, including the European Union, do not have a single method for establishing the legal status of virtual assets and controlling transactions with them. In light of the absence of a singular notion, their appeal is rising globally. Identification with terms such as goods, means of payment, unit of account, intangible digital asset, investment asset, financial asset, a particular type of securities, etc. They are also referred to as digital currency, virtual asset and virtual currency. These days, nevertheless, it is clear that these phrases cannot be used interchangeably with cryptocurrencies. It should be mentioned that there isn't a single method used in international practice to decide what these tools should contain and how to regulate them. The prevention of the use of virtual assets to legitimize (launder) proceeds from crime, terrorist financing, and the proliferation of weapons of mass destruction, fraud involving virtual assets, taxation of profits derived from this activity, and regulation of the operations of virtual service providers are the primary goals of current legal regulation of virtual assets. The legal status of cryptocurrencies is handled very differently in various nations. While some nations forbid the use of cryptocurrencies, others have acknowledged their viability and are attempting to create a legislative framework that would unify their legal position (as electronic money, as exchange, as a particular currency, etc.). Virtual assets are prohibited in several nations, although their use in cyberspace is still expanding. The procedures involved in using cryptocurrencies are unaffected by a legal prohibition on their use. This indicates that the procedures involving the usage of such money are not carried out by the state.

The European Parliament is currently working hard to strengthen the laws governing the market for cryptocurrency assets. In order to ensure the proper protection of investors and the financial stability of EU nations, there is a need for a legal definition of crypto-assets as well as legal regulation of all types of crypto-assets, not just those governed by financial services laws. Additionally, in response to a request from Swiss bitcoin companies to the Swiss Federal Tax Administration, cryptocurrency transactions in this country are exempt from value added tax; transactions with cryptocurrencies were recognized in this country as a means of payment rather than transactions for the provision of goods or services. Crypto-asset issuance and trading are governed by Swiss law, which is only feasible if the Anti-Money Laundering (AML) regulations are adhered to. The Swiss Financial Authority must grant licenses for cryptocurrency exchanges and cryptocurrencies in order for them to operate comfortably in the nation. Digital asset owners are required to submit yearly returns. Cryptocurrency sales profits are subject to taxation.

In its ICO Regulatory Guidelines, FINMA released recommendations on the application of Swiss financial market rules on February 16, 2018. ICO FINMA describes in the Guidelines how to categorize assets recorded in distributed books under Swiss law, including cryptocurrencies and other coins or tokens. The Swiss Financial Market Supervisory Authority distinguishes between the following types of tokens in accordance with the ICO Guidelines: payment tokens or cryptocurrencies that are only meant to be used as a means of payment and do not result in claims against the issuer; service tokens that allow access to or use of a digital program or service, provided that the program or service is operational at the time the token is sold; and asset tokens that represent an asset, such as a debt or equity claim against an issuer or a third party, or a right to an underlying asset.

Regarding bitcoin taxation, the primary Australian revenue body in charge of overseeing the country's federal tax system is the Australian Taxation Authority (ATO). The ATO has issued

guidelines regarding the tax treatment of virtual currency and initial coin offerings (ICOs), including acquisitions and disposals. Japan was among the first nations to create a legislative framework for cryptoassets, and it currently has one of the biggest cryptoasset markets in the world. Blockchain and cryptocurrency technology are components of Japan's government's plan to advance digital banking and create a "cashless society." Japan established a law on payment services and acknowledged cryptocurrencies as legal tender in April 2017. This meant that buying, selling, and exchanging virtual currency for other cryptocurrency assets were all permitted by Japanese law. Fiat money, which is managed by governments, interacts with cryptocurrency exchanges and cryptocurrency exchangers. As a result, state registration with the Japan Financial Services Agency (FSA) is required for virtual asset service providers. When selling cryptocurrencies, registered cryptocurrency businesses must pay consumption tax. According to an act passed by Japan's National Tax Agency, cryptocurrency revenue shall be categorized as "miscellaneous income." In order to prevent and manage money laundering, terrorist funding, and the financing of weapons of mass destruction, the Japanese regulator has established stringent cybersecurity and financial monitoring regulations (AML/CFT).

The CBN is the organization in Nigeria that controls the country's currency, monetary policy, and commercial banking sector. On January 12, 2017, the CBN issued a "Circular to Banks and Other Financial Institutions on Virtual Currency Operations in Nigeria" in accordance with its authority under section 27(1)(b) of the CBN Act. In this document, the CBN cautioned against the dangers of virtual currencies and instructed banks and other financial institutions to take the following steps, pending substantive regulation or decision by the CBN (CBN, 2017).

According to the CBN's January 12, 2017 circular, the monetary authority emphasized that virtual currencies are not accepted as legal cash in Nigeria and that the CBN does not authorize or regulate cryptocurrencies or the exchanges on which they are traded. As a result, cryptocurrency investors are not legally protected (CBN, 2017, 2021). The CBN recently issued a similar directive, stating that cryptocurrencies do not qualify as legal cash in Nigeria and instructing all banks to block and freeze any cryptocurrency-related accounts. All previously banned cryptocurrency accounts have been opened after Olayemi Cardoso, the new CBN Governor, took office. However, trade in cryptocurrencies is subject to stringent supervision and monitoring by the central bank.

Theoretical Review

This study adopts Innovation Diffusion Theory and Technology Acceptance Model as its theoretical foundations. Innovation Diffusion Theory explains how new technologies spread within institutions based on perceived advantages, compatibility and complexity, while TAM explains user acceptance of technology based on perceived usefulness and ease of use.

Innovation Diffusion Theory was propounded by Rogers in 1962 and this theory describes how new ideas, technologies or practices are developed and spread in the society. Through not concerned with information technology exclusively, diffusion theory offers a conceptual framework for discussing acceptance at a global level. Diffusion theory speculates five characteristics of innovations that affect their diffusion: relative advantage (the extent to which a technology offers improvements over currently available tools), compatibility (its consistency with social practices and norms among its users), complexity (its ease of use or learning), trial ability (the opportunity to try an innovation before committing to use it) and observability (the

extent to which the technology's outputs and its gains are clear to see) (Dillon & Morris, 1996). This theory established that innovations that provide advantages are compatible with current practices and beliefs are simple, potentially treatable and observable will spread more widely and swiftly than innovations that lack these features (Hamundu, et al., 2020).

The Technology Acceptance Model (TAM) is one of the most influential theories developed to explain and predict how individuals come to accept and use new technologies. It has been widely applied in studies related to information systems, e-government, e-learning and office technology adoption. In the context of Nigerian educational institutions such as Federal Polytechnics, TAM provides a useful framework for understanding how staff members adopt and utilize computers, internet connectivity and ICT tools in carrying out their administrative and managerial tasks. The model emphasizes that people's attitudes and behavioral intentions toward technology use are shaped by their perceptions of its usefulness and ease of use. These perceptions, in turn, determine the level of actual adoption and utilization of technology in organizational settings. The Technology Acceptance Model has been extensively applied in studies examining the adoption of office technologies, e-learning platforms and management information systems.

2.0 Literature Review

In the financial industry, cryptocurrency assets are regarded as a new "tool," particularly when contrasted with the ancient, millennium-old forms of money. Furthermore, governments and society have only lately begun to talk about the potential necessity of regulating the cryptocurrency market. As a result, compared to other financial products, the current research is not as comprehensive. Existing studies predominantly focus on cryptocurrencies and fintech innovations with limited emphasis on how blockchain specifically transform accounting procedure, assurance systems and reporting quality within developing economies such as Nigeria.

Corbet, et al., (2019) examine Cryptocurrencies as a financial asset a systematic of cryptocurrencies are electronic encrypted instruments that allow online transactions without the need to go through a financial institution. They were created in 2009 following the devastating Global Financial Crisis of 2008 that led to several banks closing its doors and many people losing their assets. In simple terms, crypto was crafted to be an alternative to traditional money, financial instruments and even to banks. The mentioned study offers a comprehensive review of literature on cryptocurrencies since their inception as a financial asset in 2009 and addresses key issues affecting the crypto market. For example, it observed that crypto assets have a potential for illicit use due to anonymity and pointed out that their systems are not yet properly developed, which can increase risks of frauds and cybersecurity threats. The authors mention that the existent regulatory framework has flaws, a perspective that is deeply evaluated in the paper. The authors also point out the need to improve the existing knowledge in cryptocurrency research.

Rejeb, et al., (2020) examined the evolving role of cryptocurrencies within the modern financial landscape. The paper demonstrated the cryptocurrencies' potential to offer lower transaction costs, higher efficiencies, increased security and privacy, meaningful diversification benefits, alternative financing solutions, and financial inclusion. These are some of the reasons that explain why crypto assets were created after the Global Financial Crisis of 2008 and why the interest in them has increased so much since then. On the other hand, it also outlines significant challenges, including regulatory uncertainty, the risk of criminal activity, high energy

consumption, security concerns, and the volatility of cryptocurrency values. The paper's comprehensive review serves as a foundation for understanding both the opportunities and obstacles cryptocurrencies present when their world integrates to the traditional financial market.

Giudici, et al., (2020) evaluated the behavioral finance perspectives of the crypto market. The authors delved into the socio-economic impacts, regulatory challenges and the potential of cryptocurrencies to facilitate new forms of financial transactions and investments.

Yaga (2018) examined block chain technology in relation to National Institute of Standards Technology (NSIT), the study focused on how block chain technology has impacted on accounting practices of the National Institute of Standards Technology. The study concluded that block chain technology and its attendant result is bringing into fore new dynamics in the field of accounting that require harmonization.

FASB (2023) focused on the link between digital assets and accounting standards, revealing the implications of cryptocurrencies in the incorporation of financial statements and reports. The implications of cryptocurrencies in the incorporation of financial statements are that, accountants are put on their toe so as enable them to embrace the unique class of digital assets to answer the demand for cryptocurrency accounting which is not really easy. Therefore, with the absence of specific accounting standards and the volatile nature of these currencies, accountants must grasp the complexities involved in their recognition, measurement and reporting so as to enhance accuracy and efficiency in reporting it in financial statements.

Neldecheva (2023) examined crypto currencies and the challenges of classification and entry in accounting books. The study suggested that, price fluctuations for cryptocurrencies make it challenging to keep the accounting records accurate in determining the fair market value of crypto assets. This, in turn, makes financial reporting challenging, especially if one has to audit or rely on these financial statements. Furthermore, the volatile nature of cryptocurrency values can change drastically between time of transaction and the subsequent reconciliation, thus, impacting on the financial statements. The lack of standardized accounting principles which has led to individuals and businesses to resort to various accounting practices, leading to inconsistencies and challenges when comparing financial statements across the cryptocurrency landscape.

Michael and Beheran (2023) examined new rules of cryptocurrencies on company financial settlement. Using a conceptual-based approach, the study concludes that there are vast implications in terms of new rules for cryptocurrencies in company financial segments and reports. The study opined that the tax implications of cryptocurrency transaction is a fundamental issue. Each action, whether buying, selling, trading or using cryptocurrencies trigger a taxable event and accurately valuing these assets at any given time is crucial. Cryptocurrencies high volatility requires careful tracking of transaction dates, prices and associated fees, which can be demanding for individuals and businesses.

Legge (2024) discussed and examined cryptocurrency, bringing to the fore the foundational basis of the requirements of the understanding of digital money/assets. In understanding the concept of cryptocurrency, there is need to explain the concept of crypto assets. Crypto asset is a digital asset that is recorded as an asset on the statement of financial position, but it's not a physical asset. Crypto assets encompass both cryptocurrencies and cryptographic assets. These assets rely

on cryptography for security, utilize distributed ledger technology and don't require third parties like banks for issuance. While cryptocurrencies are a type of crypto assets, not all crypto assets are necessarily cryptocurrencies.

3.0 Methodology

This study adopts a conceptual and systematic literature review methodology. Relevant studies published between 2018 and 2025 were sourced from Scopus-indexed Journal, Google Scholar, ScienceDirect, SpringerLink and Professional accounting reports. Inclusion criteria focused on peer-reviewed studies examining blockchain, accounting systems, auditing, financial reporting and regulation. Studies lacking accounting relevance were excluded. The reviewed literature was synthesized thematically.

Conclusion and Recommendations

Block chain technology leverages innovation in developing new and safely secured digital currencies, obscuring boundaries, creating new service and business, finance and accounting practices. The existing complementarities among these technological innovations are creating an incredible collection of new applications focusing on currency, payments, transactions and investment. Without doubt, given the fast space with which block chain technology is sweeping the business, financial and investment environment, well-informed, innovative-centered enterprises can acquire a competitive advantage in the commercial space. Given the growing space of technology and innovation in the digital space, it is important that the implications of block chain technology for modern day accounting practice are explored. With the accounting practice taking into cognizance the implications of this highly technological and innovative opportunities in money, asset and investment, it is imperative that consistent transformations and redefining of existing practice and standards to meet current realities be accommodated. Doing this, will in no doubt make the future practice of accounting interesting, diverse, competitive and all-embracing in a dynamic technological and innovative environment. The future practice of accounting in terms of rules, principles and standard require constant reforms in line with the fluidity of the environment, a matrix of dynamic change that were hitherto not present. After all, change, they say, is the only constant thing in life.

Reference

- Cai, C.W., (2019). Triple-entry accounting with blockchain: How far have we come? *Journal of Accounting and Finance*, 2(4) 1–23.
- CBN (2021). *Response to regulatory directive on cryptocurrencies*. Retrieved on March 25 from <http://www.cbn.gov.ng>
- Chen, M.A., Wu, Q., & Yang, B., (2019). How valuable is FinTech innovation? *Journal of Financial Studies*. 32 (5), 2062–2102.
- Christie, L., (2018). *Distributed Ledger Technology*. POST brief Houses of Parliament. Available at. <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/POST-PB-0028>
- Corbet, S., Lucey, B., Urquhart, A., & Yarovaya, L. (2019). Cryptocurrencies as a financial asset: A systematic analysis. *International Review of Financial Analysis*, 6(2), 182–199. <https://doi.org/10.1016/j.irfa.2018.09.003>

- Coyne, J.G., & McMickle, P.L., (2017). Can block chains serve an accounting purpose? *Journal of Emerging Technology Accounting* 14 (2), 101–111.
- Deloitte. (2016). *Blockchain Technology a game-changer in accounting?* Available at: <https://www2.deloitte.com/content/dam/Deloitte/de/Documents/Innovation/Blockchain>
- Fanning, K., & Centers, D., (2016). Blockchain and its coming impact on financial services. *Journal of Corporate Accounting and Finance*, 8(2) 53–57
- FASB (2023). FASB Bulletin, 12 (2), 60-78
- FINMA publishes ICO guidelines. URL: <https://www.finma.ch/en/news/2018/02/2018021>
- Giudici, G., Milne, A., & Vinogradov, D. (2020). Cryptocurrencies: Market analysis and perspectives. *Journal of Industrial and Business Economics*, 4(7), 1-18. <https://doi.org/10.1007/s40812-019-00138-6>
- Goldstein, I., Jiang, W., & Karolyi, G.A., (2019). To FinTech and beyond. *Review Finance Studies*. 32 (5), 1647–1661.
- Gomber, P., Kauffman, R.J., Parker, C., & Weber, B.W., (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information System*. 35 (1), 220–265.
- Hennelly, J. (2022). The cryptic nature of crypto digital assets regulations: The ripple lawsuit and why the industry needs regulatory clarity. *Journal of Corporate & Financial Law*, 27(6) 20-31.
- Hughes, A., Park, A., Kietzmann, J., & Archer-Brown, C., (2019). Beyond bitcoin: What blockchain and distributed ledger technologies mean for firms. *Journal of Business Horizon*. 62 (3), 273–281.
- Iansiti, M., & Lakhani, K.R., (2017). It will take years to transform business, but the journey begins now. *Harvard Business Review* 95 (1), 172-184.
- ICAEW, (2018). *Blockchain and the future of accountancy*. Available at: <https://www.icaew.com/technical/technology/blockchain/blockchainarticles/blockchain>
- Jalan, A., & Matkovskyy, R. (2023). Systemic risks in the cryptocurrency market: Evidence from the FTX collapse. *Finance Research Letters*, 53, Article ID: 103670. <https://doi.org/10.1016/j.frl.2023.103670>
- Jones, C., & Kaminska, I. (2022). *Lessons for Crypto from Libor-Bros*. Financial Times.
- Legge, M. (2024). *Cryptocurrency accounting: The beginner's guide*. Cryptotax education. USA, Princeton Publishers
- Litecoin Project (2017). *Litecoin – Litecoin*. Wiki. Retrieved on March 25 from <https://litecoin.info/Litecoin>
- MaidSafe (2017). *MaidSafe - The New Decentralized Internet*. Retrieved on March 25 from <https://maidsafe.net/>
- Margossian A., Mitra R., & Halferty I. (2023). *The virtual currency regulation review*. Edition 3. Australia. URL: <https://thelawreviews.co.uk/edition/the-virtualcurrency-regulation-review-edition-3/1230148/australia>
- McWaters, R. J., Bruno, G., Galaski, R., & Chatterjee, S., (2016). *The future of financial infrastructure an ambitious look at how blockchain can reshape financial services*. World Economy Forum. Available at: http://www3.weforum.org/docs/WEF_The_future_of_financial_infrastructure.pdf

- Michael, M. & Behera, H. (2023). *New rules for cryptocurrency on company financial statements*. Citrin Cooperman, In Focus Resource Centre-Insights, 1-9.
- Morgan, B., & Yeung, K. (2007). *An Introduction to Law and Regulation*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511801112>
- Neldecheva, V. (2023). Cryptocurrency accounting challenges: Navigating the world of digital assets. *Journal of Accountant and Management Science*, 22(6), 1-25.
- O'Neal, S., (2019). *Big Four and Blockchain: Are Auditing Giants Adopting Yet?* Available at. <https://cointelegraph.com/news/big-four-and-blockchain-are-auditing-giants>
- Ozekhome, H. O. (2023). *Concept and nature of cryptocurrency: Cryptoassets, metaverse and bitcoin in Nigeria* In Ajisafe, R. A (et al). (Eds) *Digital Economy and the Prospect of Financial Technology Industry in Nigeria*. A Festschrift for Dipo Fisho Published by Department of Economics, Glorious Vision University, Ogwa-Edo State, Nigeria, 47-59.
- P WC, (2016). *Blockchain is here. What's your next move?* PwC's 2018 Survey. Available at. <https://www.pwc.com/gx/en/industries/technology/blockchain/blockchaininbusiness.h>
- Palmer, D., (2019). *Deloitte 'Blockchain in a Box' to Help Enterprises Showcase Tech*. Available at. <https://www.coindesk.com/deloitte-launches-blockchain-in-a-box-to-help-enterprises-showcase-tech>
- Pattison, I., (2017). *4 characteristics that set blockchain apart*. Available at. <https://www.ibm.com/blogs/cloud-computing/2017/04/11/characteristics-blockchain/>
- Rejeb, A., Rejeb, K., & Keogh, J. G. (2020). Cryptocurrencies in modern finance: A literature Review. *Etikonomi*, 20, 93-118. <https://doi.org/10.15408/etk.v20i1.16911>
- Schmitz, J & Leoni, G (2019). Accounting and auditing at the time of blockchain technology: A Research Agenda. *Australian Accounting Review*. 29. 10.1111/auar.12286.
- Sheldon, M.D., (2019). A primer for information technology general control considerations on a private and permissioned blockchain audit. *Journal of Current Issues of Audit*. 13 (1), 15-29
- Tan, B.S., & Low, K.Y., (2019). Blockchain as the database engine in the accounting system. *Australian Journal of Accounting Review*, 29 (2), 312–318
- Tapscott, D., & Tapscott, A., (2016). *The impact of the blockchain goes beyond financial services*. Harvard Business Review. Available at. <https://hbr.org/2016/05/the-impact-of-the-blockchain-goes-beyond-financial-services>
- VanderLinden. T, & Shirazi, T (2023). Markets in crypto-assets regulation: Does it provide legal certainty and increase adoption of crypto-assets. *Financial Innovation*, 9(22) 1–22. <https://doi.org/10.1186/s40854-022-00432-8>
- Versprille, A. (2023). *A crypto bill is possible, says key republican after ripple ruling*. Bloomberg
- Xu, M., Chen, X., & Kou, G., (2019). A systematic review of blockchain. *Journal of Financial Innovation*, 5(1) 20-35
- Yaga, D. (2018). *Block chain technology overview*. National Institute of Standards and Technology (NIST), NIST Interagency Report 8202. Retrieved on March 25 from <https://nvlpubs.nist.gov/nistpubs/ir/2018/NIST.IR.8202.pdf>. January 20-25
- Yermack, D., (2017). Corporate governance and blockchains. *Journal of European Financial Review*. 21 (1), 7–31.