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Cyber Innovation and Accounting Systems of Selected Money Deposit Banks in Nigeria

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Abstract

Every economy perceives the banking sector as an outlet for the quick economic growth of other sectors. Therefore, the government should prioritize its growth and stability. From the usage of tallies and registers to advanced technologies, Investigating the effect of cyber innovation on the accounting systems of a few Nigerian money deposit banks was the goal of this study. The study adopted a survey research design. The population of this study comprises of 10,000 employees of five selected banks. The sample size of this study was 135 respondents. Primary data obtained through the administration of structured questionnaire was used for the analysis. Purposive sampling technique was adopted. Descriptive and Inferential analysis were done with the aid of SPSS to test the effect of the independent variable on the dependent variable. The study discovered that Cyber innovations have a significant effect on inventory control systems in money deposit banks ($\beta_1 = 0.096$, $\beta_2 = 0.262$, $\beta_3 = 0.216$, $p\text{-value} = 0.000$). Cyber innovations have a significant effect on sales management systems in money deposit banks ($\beta_1 = 0.086$, $\beta_2 = 0.074$, $\beta_3 = 0.275$, $p\text{-value} = 0.000$). and Cyber innovations have a significant effect on management reporting systems in money deposit banks ($\beta_1 = 0.268$, $\beta_2 = 0.118$, $\beta_3 = 0.239$, $p\text{-value} = 0.000$). The study concluded that cyber innovations have a significant effect on the performance of money deposit banks in Nigeria, with blockchain technology and online banking playing key roles in enhancing inventory control, sales management, and financial reporting systems.

Index Terms- Accounting System, Advance Technologies, Blockchain Technology, Cyber Innovations, Economic Growth.

Introduction

The government prioritizes the stability and growth of the banking sector because it is a vital accelerator for the rapid macroeconomic development of other economic sectors. In order to solve historical inefficiencies in transactions like check clearing and money transfers, the Nigerian business has moved from manual techniques like tallies and registers to sophisticated technologies like computers, ATMs, and mobile apps (Omotosho, Dada, et al, 2012; Ekakitie & Alagba, 2022). It is impossible to overestimate the significance of information and communication technology (ICT) for deposit money banks' accounting systems since it eliminates the delays that come with manual processing (Ekakitie & Alagba, 2022).

Accounting is vital for socioeconomic development, providing essential economic information that influences resource management and economic growth (Taiwo & Edwin,

2016). Its primary objective is to determine an entity's financial condition, with accurate accounting data being crucial for internal and external users, especially in banking (Alfartoosi & Jusoh, 2021; Fijabi, et al., 2024). The size of an organization corresponds with the amount and complexity of accounting data needed to make management choices in areas such as investment and procurement (Sofia et al., 2020).

In the past, when there were few account holders, manual accounting with paper records was possible; nevertheless, this method restricted service diversity and adaptation to changing surroundings (Ndubuisi et al., 2017; Onyia et al., 2019). Banks adopted computerized technologies to stay competitive, providing faster service, increased efficiency, and worldwide competitiveness (Onuora et al., 2019). The goal of incorporating cyber innovations into accounting systems is to improve speed, accuracy, and dependability all of which are



critical in the technologically advanced world of today (Sofia et al., 2020).

Rapid technology change and rising client demands characterize the dynamic corporate world of today. ICT is essential to global transformation in the banking sector, which operates in a dynamic and competitive environment (Azman et al., 2022; Angeles, 2022). Major firms tie their cash flow to information systems, and the use of ICT in banking is crucial for competitiveness, impacting planning, service delivery, and managerial decisions (Chigori et al., 2020; Kumari & Devi, 2022; Evans & Oni, 2022).

Blockchain and mobile banking have sparked a digital revolution in banking that has changed operations and had an impact on the economy (Guechi, 2020; Murinde et al., 2022; Bharadwaj et al., 2013; Rha & Lee, 2022). Customer demands for seamless experiences, fintech competition, legal requirements such as KYC and AML, and the desire to reduce costs through automation are driving this change (Gomber et al., 2017; Allen et al., 2021; Zavoli & King, 2021).

The banking industry in Nigeria, a major economic force, has historically relied on conventional methods but is currently undergoing a digital transition as a result of the widespread usage of mobile devices, internet access, and a populace that is tech-savvy (Ikuteyijo, 2020; Eniola, 2014; Kamra, 2014). This change puts Nigeria at the forefront of banking innovation and fosters efficiency, financial inclusion, and economic prosperity (Oyadeyi, 2024).

Businesses must adapt to digital changes, utilizing technological advancements to improve managerial choices and give accountants the resources they need (Soetan & Mogaji, 2024). For financial businesses, however, digital transformation is complicated and difficult, requiring adjustments to accounting systems, technology, and procedures; success hinges on coordinating people, processes, and technology (Yusuf et al, 2017; Ajemunigbohun et al, 2018). Since value generation, operational effectiveness, and competitive advantage are important results, digital transformation is essential to the banking sector's survival.

There has been little research on cyber tools like apps and their effects on accounting systems, especially in developing nations like Nigeria. Instead, most studies on cyber innovations have concentrated on cyber fraud or crimes (Wada & Odulaja, 2014; Ewepu, 2016; Bohme, et al, 2017; Adebukola et al, 2022; Kayode-Ajala, 2023). There is a dearth of thorough research on how cyber advances affect accounting systems, which indicates a lack of empirical data for Nigeria. By investigating technology tools and cyber advances that improve seamless operations in the Nigerian banking sector, this study seeks to close this gap.

Objective of the study

1. Examine how cyber innovation affects the inventory control system of money deposit banks.

2. Assess the effect of cyber innovations on the sales management systems of money deposit banks.
3. Determine how cyber innovations moderate management reporting systems of money deposit banks.

Hypotheses of the Study

H₁: Cyber innovations have significant effect on inventory control systems of money deposit banks in Nigeria.

H₂: Cyber innovations will have significant effect on the sales management system of money deposit banks in Nigeria.

H₃: There will be a significant effect of cyber innovations on the management reporting system of money deposit banks in Nigeria.

Conceptual Literature Review

Accounting System

The language of business, accounting gauges how well a company is doing at turning a profit. According to Horngren and Foster (1975), an accounting system is a structured collection of documents, processes, and tools that manage events that impact financial performance and position while handling large-scale transactions including payroll, cash receipts, and disbursements. It can be used manually or electronically, and its goal is to collect and arrange transactional data to help management run the company (Copeland and Dascher, 1978).

Because each entry is completed separately under a manual system, an accountant must manually post transactions into journals and ledgers, whether on paper or in an application like Excel (Daru, 2015; Anael, 2017). A well-designed manual system has major drawbacks even if it can provide fast, accurate information and its basic bookkeeping concepts are generally applicable. According to Henry (2007) and Wilson & Sangster (2020), they include the high probability of human error (such as addition, transposition, or inadequate recording), the vulnerability of physical records to degradation, and the challenge of handling large transaction volumes.

A computerized accounting system, on the other hand, automatically posts transactions to ledgers after electronically recording them. It is described as a computer-based method of gathering, evaluating, summarizing, and sharing financial data with interested parties through software that is frequently accessed online or through a network (Bretch & Martin 2016). It is a comprehensive, well-structured system of procedures and controls for handling financial data in order to assist with management choices (Bretch & Martin, 2016). Software that controls inputs, processing, storage, and output enables computerized systems to automate accounting processes and accurately record a bank's financial condition and performance (Okoye & Gbegi, 2012; Marivic, 2019; Wilson and Sangster, 2010).

The evolution to computerized systems became necessary as business growth increased transaction volume and complexity, creating a need for greater speed, storage capacity, and processing accuracy while balancing innovation with security (Wilson & Sangster, 2020). These systems are database-oriented applications. Ultimately, the objective of any accounting system manual or computerized, is to determine an entity's financial condition and provide the sophisticated data required for management decisions across all functional areas, a need that is especially critical in the banking industry (Dushimigena, 2012).

Cyber Innovation

Technology has radically changed business in the twenty-first century, and the banking industry, which is a major force behind the growth of the national economy, has been particularly affected. Given that technology is disruptive by nature, this innovation has two sides: it offers enormous opportunities but also poses huge obstacles that are crucial for policy and decision-making (Schiavi and Behr, 2018; Tongur and Engwall, 2014). Value creation in both new and existing markets is made possible by new technologies, which broaden the organizational reach (Zott et al., 2011). Technology in banking has improved service delivery and centralized global change (Agbolade, 2011; Suoranta and Mattila, 2004; Tsai et al., 2010), enabled services via smartphones without physical branches (Oira and Kibati, 2016; Okoye et al., 2019), and increased customer satisfaction and revenue through e-transactions.

Digitalization has two benefits: it lowers expenses by using fewer employees and locations while also facilitating consumer service through channels like websites and ATMs. In order to satisfy demands from around the world, Nigeria's financial sector has undergone a digital transformation, replacing traditional services with cutting-edge technologies (Abbasi & Weigand, 2017; Gabor, 2016). Innovation in technology makes it simple for users to keep an eye on their accounts and report suspicious conduct, which lowers the number of unethical activities (Offei and Nuamah-Gyambrah, 2016). With alternative channels increasing profitability, the cashless policy (also known as the cashlite economy) has decreased the hazards associated with physical cash and increased bank revenue from transaction fees (Edesiri and Promise, 2013; Offei and Nuamah-Gyambrah, 2016; Polatoglu and Ekin, 2001).

Nigerian banks can now handle enormous customer volumes and report high profits despite high costs, unlike in the pre-innovation era. In order to modernize operations to international standards, staff can work remotely, and interbank clearing now takes place within 24 hours as opposed to the prior 3–5 days (Cherotich et al., 2015). However, third-party IT service providers whose failures can impair service quality and result in customer attrition as well as financial risk and insecurity pose serious dangers to e-banking (AbuShanab and Matalqa, 2015; Akinyele and Olorunleke, 2010). Technology promotes networking and new market satisfaction, but it also exposes accounts to widespread fraud. This is especially true in developing nations, where

there are issues with cost, upkeep, and serious cybercrime (Abu-Shanab and Matalqa, 2015; Kovach and Ruggiero, 2011; Taiwo and Agwu, 2017; Kujur and Shah, 2015).

The most recent and fastest-growing way to improve customer experience and modernize operations is mobile banking, which is now a fundamental and strategic channel that can be accessed through SMS, mobile internet, and apps (Poromatiku et al, 2019; Baabdullah, et al, 2018; Shankar, 2020; Thusi & Maduku, 2020). With over two billion users expected by 2030, these applications serve as the primary means of modern mobile banking and provide a variety of functions like payments, capital transfers, and investments (Laukkanen, 2016; Sampaio, 2017; Yahaya & Ahmad, 2018; Mashishi, 2024). Customers benefit from time and location independence, efficiency, convenience, security, and frequently lower fees, all of which enhance quality of life. Increased service efficiency, reduced expenses, fewer physical branches, increased revenue, improved customer relationships, valuable data collection, and a wider reach into rural areas are among the advantages for banks (Zhou, 2011; Freier, 2016; Tran & Corner, 2016; Malaquias & Hwang, 2016; Alalwan et al., 2015; Fenu & Pau, 2015; Shankar & Jebarajakirthy, 2019; Siyal et al, 2019; Ho et al, 2020; Shankar & Rishi, 2020; Mohammadi, 2015; Ha et al., 2012). Notwithstanding these benefits and rapid adoption rates, usage rates for transactions remain poor for information checking, indicating underutilization (Shaikh & Karjaluo, 2015; Thusi & Maduku, 2020; Shermukhamedov, & Tulaganova, 2021; Jadir et al, 2021).

The acceptance of mobile banking is currently being studied because it is still in its early stages of development worldwide, with different continents having different rates of usage. Nigeria is a major player in the African industry because of its rapidly expanding telecommunications infrastructure, sizable population, high mobile subscriber base, and prominent m-commerce usage (Gupta & Jha, 2015; Heeks, 2010). Online banking, which began in Malaysian Islamic banks in 2001 and provides interactive, flexible, and high-quality services that provide them a competitive edge, is done through secure websites for transactions including bill payments and balance checks (Amin, 2017; Vijayan and Shanmugam, 2023). Internet technology's explosive growth has changed how banks operate and how customers behave, enabling remote activities and improving customer satisfaction while saving banks money and boosting their revenue (Lee, 2019; Abu-Shanab & Pearson, 2007; Alalwan, et al., 2014; Abu-Shanab & Pearson, 2019).

Customers continue to be hesitant despite its benefits because of worries about security, uncertainties, expertise, infrastructure, and ease of usage (Tarhini et al, 2016; Kuismaore, 2017). Online banking is still relatively new in developing nations like Nigeria, where it lags due to a lack of awareness and an inadequate legal framework (Venkatesh, 2022; Campbell & Frei 2020; Durkin, 2020; Mangin et al, 2021; Grabner-Kräuter & Faillant R 2018; Sanchez et al, 2020; Olawepo, 2023; Awara & Anyadighibe, 2014). Adoption varies by social and cultural context. In order to

boost profit and competitive advantage, technologies such as Self-Service Technologies (SSTs), which started with ATMs and progressed to phone banking and internet banking, create direct client channels (Alsajjan & Dennis 2020; Yadav et al, 2016; Alalwan et al., 2015; Arenas-Gaitán et al, 2015).

Even though online banking has other advantages, like the ability to manage accounts remotely without being limited by time or place and often at a lower cost, it also has drawbacks, such as issues with convenience, security, privacy, and money (Hanaizadeh et al., 2014; Abu-Shanab & Pearson, 2007). Its perceived usefulness, simplicity of use, and time savings are among its notable benefits (Nasri, 2011; Maduku, 2014). According to Aduwo et al. (2020), Akhlaq & Ahmed (2013), Mwesigwa & Nkundabanyanga (2021), Abu-Shanab et al. (2020), Alalwan et al. (2015), Yu et al. (2012), Abu et al. (2021), Awara & Anyadighibe (2014), Agwu & Carter (2014), and others, adoption is still low worldwide for both personal and non-personal reasons.

According to Marxia (2016), Herweijer et al. (2018), Zhang et al. (2018), and others, blockchain is considered one of the most significant technological developments. It offers a widely accepted record of truth that can decrease back-office expenses, processing time, friction, and barriers by eliminating the need for a reliable third party. It is a key technology of the fourth industrial revolution, initially conceived by Satoshi Nakamoto in 2008 as a peer-to-peer payment system without middlemen. It is defined as a distributed, immutable ledger with sophisticated cryptography (Sari, 2018). There are several definitions for it, including a distributed pool of irreversible transaction data (Priyadarshini, 2018), a software protocol for safe online transactions (Swan, 2017), a shared ledger kept up to date by acknowledged participants (Rooney et al., 2017), a chain of cryptographically validated blocks (Nofer et al., 2017), a robust digital institution for safe transactions, a core application for decentralized innovation (Engelhardt, 2017), a secure platform that works well with consensus validation (Zikratov et al., 2017), and a variety of technologies for tracking digital assets and transactions (Catalini and Gans, 2019; Lin et al., 2019). Although definitions differ based on usage, in general, it is a shared platform for final transactions and consensus, often linked to smart contracts and Bitcoin (Di Pierro, 2017; Andolfatto, 2018; Vujicic et al., 2018).

A major expense and investment for manufacturing companies, inventory control guarantees the proper supply of goods and services and is essential for customer satisfaction and business survival. As such, it merits the attention of top management. Better management frees up capital for more profitable uses; inventories are unused economic resources. Production and organizational profitability are directly impacted by efficient inventory control, which arranges materials for the appropriate location, time, and quantity (Jean, 2024; Larbi, 2023). To cut down on idle stock, businesses connect inventory with production systems. In order to gain a competitive edge, an inventory system needs policies for ordering and stock tracking decisions based on information on lead times, costs, demand, and stock levels.

Internal inventory control is a management performance measuring technique that includes regulations for ordering and inventory levels (Hussein & Makori, 2018).

Banks need an efficient inventory control system, and there are a variety of options available, from basic (like two-bin) to sophisticated systems. While small businesses frequently rely on management judgment, large businesses typically employ quantitative methodologies like EOQ (Grablowsky, 2015). Inadequate or nonexistent internal controls have caused problems for the Nigerian banking sector. According to Oyeibisi (2024), the absence of effective internal inventory controls can result in organizational failure and necessitate a substantial expenditure of resources. These controls are essential for safeguarding assets from loss, misuse, and errors.

According to Wibowo (2019), Yunita (2017), and the American Marketing Association, sales management is the efficient planning, direction, and control of personal selling, including hiring, inspiring, and managing the sales force. It is not solely an accounting function; it is linked to accounting through record-keeping. Planning, coordinating, and assessing sales success are all part of the management process (Kumar, 2015). Customer relationship management (CRM), lead management, sales forecasting, order management, performance analysis, system integration, reporting, and analytics are all included in a sales management system (SMS), which is software created to optimize sales processes (Sumarno, 2020; Wibowo, 2019). Real-time data access, better client relations, more efficiency, better decision-making, and teamwork are among the advantages. High startup costs, employee resistance, training needs, and data security issues are some of the difficulties (Wijaya, 2018; Firdaus & Yulianto 2018). Salesforce CRM, HubSpot Sales Hub, Zoho CRM, and Pipedrive are a few examples of well-known systems. Proper implementation, training, and regulatory alignment are necessary for successful adoption in banks (Ariana & Bagiada, 2018; Seretidou, et al., 2024).

In order to facilitate efficient managerial decision-making, a Management Reporting System (MRS) is a comprehensive tool that gathers, analyzes, and displays data. It generates organized reports on sales, operations, financial performance, and human resources (Gikang'a, 2016; Mervita et al., 2024). It entails gathering, storing, processing, and reporting data to both internal and external users as part of an Accounting Information System (AIS) (Turner et al., 2017). When business processes are properly designed, they boost customer happiness and productivity. Business processes are interconnected actions that accomplish corporate goals. Data gathering from both internal and external sources, data processing and analysis, dashboard and KPI-based report development, and report delivery are all components of an MRS (Yulisfan et al., 2021). According to Farida et al. (2022) and Rodakos et al. (2021), banking offers several advantages, including as better decision-making, increased efficiency through automation, accountability, transparency, and assistance for strategic planning. Data overload, integration problems, high expense and complexity, and employee resistance to change are some of the difficulties (Ismanto et

al., 2020). Bank operations are greatly impacted by implementation, which makes data-driven insights possible for well-informed decisions on risk exposure, profitability, liquidity, loan performance, and strategic forecasting (Muda et al., 2017).

Theoretical Review

The Technology Acceptance Theory (TAT), or Technology Acceptance Model (TAM), was originally developed by Davis in 1989 and provides insights into how users accept and adopt technology, assuming rational decision-making by adopters (Phuangthong & Malisawan, 2005; Estriegana et al, 2019; Scherer et al, 2020). An upgrade from the theory of reasoned behavior, TAM posits that perceived usefulness (PU) and perceived ease of use (PEOU) influence user behavior and actual technology usage (Munoz-Leiva et al, 2017). PU is defined as the degree to which a user believes a system will improve performance, while PEOU is the degree to which a user believes using a system will be free of effort. Together, these factors shape attitude towards usage (ATU), which determines behavioral intention and actual use (Zhonggen & Xiaozhi, 2019). The model has been successfully applied to various domains, including medical services, computer-aided learning, and information management (Portz et al., 2019; Tsai, 2010; Munir, et al., 2021; Enu-Kwesi & Opoku, 2019). Despite criticism for underemphasizing social influences and managerial beliefs (Pijpers et al., 2001; Laugasson et al., 2016; Napitupulu, 2017; Gerhart, et al., 2017), the theory is considered germane for this study because its core assumptions align with the expected attributes of effective accounting software, and securing executive management's buy-in based on utility and ease is crucial for deploying such software for cost control.

The Theory of Organizational Change posits that digital transformation, distinct from discrete digitization projects, requires comprehensive organizational change involving new tools, processes, and mindsets (Andersson et al., 2018). To succeed in a fast-paced market, businesses must become more flexible and responsive through internal and external shifts (Penchev, 2025). While digital technology can transform how employees work, many organizations focus primarily on technological features and neglect the human element. Successfully managing organizational resistance and promoting a human capital perspective is critical, as organizational barriers are top challenges in digitalization (Westerman et al., 2012; McConnell, 2018). For a successful transition, such as digitizing accounting processes, management must balance technological investment with addressing people's natural reluctance to change from familiar work methods.

Rogers' (1983) Diffusion of Innovation (DOI) Theory identifies five key characteristics influencing an innovation's adoption: relative advantage, compatibility, complexity, trialability, and observability (Rogers, 1995). Relative advantage is the degree to which an innovation is seen as better than the existing method. Compatibility is its alignment with existing values and needs. Complexity is its perceived

difficulty. Trialability is the ability to experiment with it before full adoption. Observability is the visibility of its results to others. This study is tied to DOI theory, as these characteristics help explain the adoption process of technological innovations in accounting systems.

Empirical Review

An empirical review investigates the methods, results, conclusions, and recommendations of previous studies on similar topics (Victory et al., 2022). This review synthesizes findings from various studies related to technology adoption, accounting systems, and financial performance in banking and other sectors.

Morufu and Yinus (2020) assessed e-accounting's effect on financial reporting quality in Nigerian banks, finding that Bank Size (92%), Cost of ICT Deployment (69%), Perceived Ease of Use (74%), and Perceived Benefit (86%) significantly influenced adoption. They recommended that banks enhance user trust in financial information by improving e-accounting mechanisms. Dusica et al. (2020) studied female-run businesses and found that digital technology's impact on financial performance is mediated by product innovation, not direct. Nhung et al. (2020) analyzed the transition to a market economy's effect on business performance, using regression and Blinder-Oaxaca decomposition to provide a solid foundation for recommendations.

Research on blockchain technology highlights its transformative potential. Sandner et al. (2020) found blockchain significantly impacts the CFO function, improving process efficiency, automation, and enabling new inter-organizational collaborations. Di-Vaio and Varriale (2020) noted blockchain's benefits for supply chain management and sustainability but emphasized that it does not automatically guarantee optimal performance, requiring managerial collaboration and trust.

Studies on technology adoption in banking consistently identify key factors. Jalal, Marzooq, and Nabi (2021) confirmed that perceived usefulness, security/privacy, and perceived ease of use drive online banking usage in Bahrain, aligning with earlier studies (Tan, 2012; Giglio, 2012; Pikkarainen et al., 2014). Revised models like UTAUT incorporate additional variables like trust, privacy, and culture for mobile banking contexts (Min et al., 2018). Research in developing contexts identifies challenges like security risks, lack of customer awareness, and sophisticated fraud, recommending robust security systems and continuous assessment (Kyalo & Kanyaru, 2015; Hew et al., 2016).

Customer awareness and trust are critical barriers. Studies in Palestine and Oman found low customer awareness of online banking and identified trust and perceived quality as key adoption drivers (Sabri, Abu Laban, & Hanyia, 2022; Al-Fahim, 2012; Riffai, Grant & Edgar, 2012). Similarly, research in Iran and Nigeria confirmed that trust and perceived convenience are paramount for adoption (Gholami et al., 2013; Sun, 2010; Auta, 2010; Lin and Hsieh, 2006). Studies on mobile banking apps identify perceived usefulness

and information availability as primary determinants, with security factors like privacy and risk being significant, especially for older users (Majumdera & Pujari, 2021; Hanif & Lallie, 2021; Verissimo, 2018).

Research on computerized accounting systems demonstrates their positive impact. Akande (2016) found technology advancement drives business success for SMEs in Nigeria. Akesinro and Adetoso (2016) showed computerized systems positively affect bank profitability and customer service. Olive (2014) found that transparency, leadership, and computerized systems improve financial reporting quality in NGOs, with transparency being the most significant contributor.

Further studies confirm the superiority of computerized over manual systems. Ndubuisi, Chidoziem and Chinyere (2017) found accounting software significantly enhanced profitability for microfinance institutions, a position supported by Amahalu et al. (2017) and Jimoh et al. (2020). Otieno and Oima (2023) linked computerized systems to improved audit risk management, though noting risks like security breaches. Esmeray (2016) demonstrated a positive relationship between Accounting Information Systems (AIS) and corporate performance in Turkish SMEs, consistent with studies in other regions.

Cost control and system effectiveness are also key themes. Akayisenga and Mulyungi (2018) found cost control improves competitiveness and performance in Rwandan banks. Akanbi and Adewoye (2018) reported a mixed influence of AIS on bank performance indicators, recommending regular staff training. Shagari, Abdullah and Saat (2017) identified data security, ease of use, and efficiency as critical attributes of effective accounting software for Nigerian banks. Finally, Bahat (2024) concluded that adopting Computerized Accounting Systems has both positive and negative impacts on payroll accounting performance in Tanzanian water authorities.

METHODOLOGY

This study employs a quantitative survey research design, utilizing a structured questionnaire to ensure confidentiality while collecting primary data from a random sample of 135 staff members, as determined by the Taro Yamane formula, from five leading banks (Wema, Union, Access, GTBank, and UBA) in Ogun State, Nigeria. The research instrument's validity was established through supervisor review and a pre-test followed by factor analysis, while its reliability was confirmed via Cronbach's Alpha testing in SPSS. Data collected will be analyzed using both descriptive statistics and inferential regression analysis to test the study's hypotheses and examine the relationships between the variables under investigation.

Operationalization and Model Specification

Operationalization of Variables

Independent Variable

Y= Cyber Innovation (CI)

y₁ - Mobile Banking Apps (MBA)

y₂ - Online Banking (OB)

y₃ - Blockchain App (BA)

Dependent Variable

X = Accounting System (AS)

x₁ - Inventory Control System (ICS)

x₂ - Sales Management System (SMS)

x₃ - Management Reporting System (MRS)

FUNCTIONAL OPERATIONALIZATION OF VARIABLES

MBA= f (ICS, SMS, MRS) ----- 1

OB= f (ICS, SMS, MRS) ----- 2

BA = f (ICS, SMS, MRS) ----- 3

Model Specification

CI = f (AS)

AS = f (MBA, OB, BA) (1)

The ordinary least square of the equation is stated thus:

Model Specification

All the models would be tested using primary data

MBA_i = β₀ + β₁FD_i + β₂ID_i + β₃DD_i + ε_i -----
(Model 1)

OB_i = β₀ + β₁FD_i + β₂ID_i + β₃DD_i + ε_i -----
(Model 2)

BA_i = β₀ + β₁FD_i + β₂ID_i + β₃DD_i + ε_i -----
(Model 3)

Where:

ε_i = Error term

α₁ = Constant

λ₁ = Parameter on Inventory Control System

β₁ = Coefficient on Sales Management System

δ₁ = Coefficient on Management Reporting System

The model will be evaluated and variables measured using several statistical techniques: the Coefficient of Multiple Determination (R²) will assess the model's goodness of fit by indicating the proportion of variation in the dependent variable explained by the independent variables, with values closer to one representing a better fit; the t-statistics test will determine the individual statistical significance of

each independent variable at the 5% significance level; the F-statistics test will evaluate the overall significance of the regression equation, with a significant result indicating an adequate model; and the p-value, set at the conventional 5% significance level for social management research, will be used to decide whether to reject or accept the study's null hypotheses.

DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

This presents the results of the review of the data obtained from the respondents as well as the results and conclusions as they relate to the research questions and hypotheses posed in this report.

Descriptive Statistics of Variables

Category	Average Mean	Average Standard Deviation
Cyber Innovations	4.2	1.03
Mobile Banking Apps	4.44	0.9
Online Banking	4.3	1.04
Blockchain Apps	3.9	0.93
Accounting Systems	4.36	0.72

Inventory Control Systems	4.14	0.83
Sales Management Systems	4.23	0.82
Management Reporting Systems	4.17	0.92

Source: SPSS Output, 2025

The data indicates strong positive perceptions (mean scores > 3.79 on a 5-point scale) across all cyber innovation categories. Mobile Banking Apps received the highest average agreement (Mean = 4.44), followed closely by Accounting Systems (Mean = 4.36). Blockchain Apps, while still viewed positively, had the lowest average agreement (Mean = 3.90). The standard deviations, ranging from 0.72 to 1.04, suggest moderate variability in responses, with the most consistent agreement found for Accounting Systems (SD = 0.72) and the most varied responses for Online Banking (SD = 1.04). Overall, respondents strongly agree that cyber innovations have been effectively implemented and positively impact various banking operations, from transaction security and customer experience to internal efficiency and reporting.

Regression Model for Hypothesis One

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.214	.888		5.872	.000
	Mobile_Banking_Apps	.096	.064	.115	1.499	.136
	online_banking	.262	.061	.387	4.257	.000
	Blockchain Apps	.216	.075	.248	2.894	.004
a. Dependent Variable: Inventory_Control_Systems						
R	R ²	Adj R ²	F	P -value		
.636 ^a	.404	.391	F(3, 131) = 29.641	.000		

Source: SPSS Output, 2025

Based on the statistical analysis, cyber innovations significantly affect inventory control systems in money deposit banks. The key drivers are Online Banking and Blockchain Apps. A 1% increase in Online Banking adoption improves inventory control by 26.2% (B = 0.262, p = 0.000), and a 1% increase in Blockchain App adoption improves it by 21.6% (B = 0.216, p = 0.004). Both effects are statistically strong and significant, as confirmed by their high T-statistics (4.257 and 2.894, respectively).

In contrast, Mobile Banking Apps show a smaller, positive relationship (a 1% increase leads to a 9.6% improvement, B =

0.096), but this effect is not statistically reliable (T = 1.499, p = 0.136).

The overall model is valid and significant. The Adjusted R² of 0.391 indicates that these three cyber innovations explain 39.1% of the variation in inventory control systems. This finding is reinforced by the significant F-statistic of 29.641 (p = 0.000), which leads to the rejection of the null hypothesis. Therefore, it is concluded that cyber innovations have a statistically significant impact on inventory control systems in money deposit banks.

Regression Results for Hypothesis Two

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.389	1.106		6.682	.000
	Mobile_Banking_Apps	.086	.080	.096	1.069	.287
	online_banking	.074	.077	.103	.969	.335
	Blockchain Apps	.275	.093	.298	2.956	.004
a. Dependent Variable: Sales Management Systems						
R	R ²	Adj R ²	F	P -value		
.420 ^a	.177	.158	F_(3, 131) = 9.364	.000		

Source: SPSS Output, 2025

Based on the statistical analysis, cyber innovations have a significant overall effect on sales management systems, but this impact is driven almost exclusively by one key technology.

Blockchain Apps are the sole significant driver, with a 1% increase in adoption leading to a 27.5% improvement in sales management ($B = 0.275$, $p = 0.004$). This strong and reliable relationship is confirmed by a T-statistic of 2.956.

In contrast, Mobile Banking Apps ($B = 0.086$, $p = 0.287$) and Online Banking ($B = 0.074$, $p = 0.335$) show positive but

statistically insignificant effects. Their impacts, suggesting potential improvements of 8.6% and 7.4% respectively, are not reliable as they could be due to random chance, as evidenced by their low T-statistics (1.069 and 0.969).

The overall model is statistically significant (F-statistic = 9.364, $p = 0.000$), leading to the rejection of the null hypothesis. However, the model's explanatory power is limited. The Adjusted R² of 0.158 indicates that these three cyber innovations explain only 15.8% of the variation in sales management systems, with the remaining 84.2% attributed to other unmeasured factors.

Regression Results for Hypothesis Three

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.624	1.253		3.689	.000
	Mobile_Banking_Apps	.268	.091	.256	2.957	.004
	online_banking	.118	.087	.139	1.355	.178
	Blockchain Apps	.239	.106	.219	2.264	.025
a. Dependent Variable: Management_Reporting_Systems						

R	R ²	Adj R ²	F	P -value	
.493 ^a	.243	.226	F_(3, 131) = 14.025	.000	

Source: SPSS Output, 2025

Based on the analysis, cyber innovations have a statistically significant overall effect on management reporting systems in money deposit banks, though the impact varies by specific technology. The primary drivers are **Mobile Banking Apps** and **Blockchain Apps**. A 1% increase in mobile banking adoption is associated with a significant **26.8% improvement** ($B = 0.268$, $p = 0.004$) in management reporting, while a 1% increase in blockchain adoption leads to a **23.9% improvement** ($B = 0.239$, $p = 0.025$). The strength of these relationships is confirmed by their T-statistics (2.957

and 2.264, respectively). In contrast, **Online Banking** shows a positive but statistically **insignificant** relationship. A 1% increase in its adoption suggests an 11.8% improvement ($B = 0.118$), but this effect is not reliable ($p = 0.178$, $T = 1.355$).

The overall model is valid, as shown by the significant **F-statistic of 14.025** ($p = 0.000$), leading to the rejection of the null hypothesis. However, the model's explanatory power is moderate. The **Adjusted R² of 0.226** indicates that these three cyber innovations collectively explain only **22.6%** of the variation in management reporting systems, with the majority

(77.4%) attributable to other unmeasured factors like internal policies or regulatory environments.

Discussion of findings

The study finds that cyber innovations significantly affect three core accounting systems in money deposit banks, though the influence of specific technologies varies, presenting both alignment and contradiction with prior research.

For Inventory Control Systems, online banking ($B = 0.262$, $p = 0.000$) and blockchain applications ($B = 0.216$, $p = 0.004$) have significant positive effects. These findings align with studies by Akesinro & Adetoso (2016) and Majumdara & Pujari (2021), which highlight the roles of real-time tracking and enhanced security/transparency. However, the non-significant impact of mobile banking ($B = 0.096$, $p = 0.136$) contradicts Ndubuisi et al. (2017), a discrepancy potentially explained by mobile apps being more focused on customer-facing transactions than integrated internal inventory processes.

For Sales Management Systems, only blockchain apps show a significant positive effect ($B = 0.275$, $p = 0.004$), supporting the findings of Victory et al. (2022) on transparency and automation. The non-significant impacts of both mobile banking ($B = 0.086$, $p = 0.287$) and online banking ($B = 0.074$, $p = 0.335$) contradict research by Nhung et al. (2020) and Di-Vaio & Varriale (2020). This suggests these technologies may not be effectively leveraged for core internal sales functions in the studied context, possibly due to their primary design for retail customer use.

For Management Reporting Systems, both mobile banking ($B = 0.268$, $p = 0.004$) and blockchain apps ($B = 0.239$, $p = 0.025$) have significant positive impacts. This aligns with Min et al. (2018) on real-time reporting and Veríssimo (2018) on data integrity. Conversely, the non-significant effect of online banking ($B = 0.118$, $p = 0.178$) contradicts Sumarno (2020), likely because online platforms are oriented more toward external customer transactions than integrated internal reporting systems.

A key consistent finding is the significant and positive role of **blockchain technology** across all three accounting systems, underscoring its broad utility in enhancing security, transparency, and efficiency. The effects of mobile and online banking, however, are inconsistent and highly dependent on the specific internal function being examined.

Conclusion

This study evaluated the effect of cyber innovation on accounting system of selected money deposit banks in Nigeria, specifically in relation to inventory control systems, sales management systems, and management reporting systems. In addition, descriptive statistics provided insight into the extent to which each independent variable impacted the dependent variables, while the coefficient of determination (R^2) confirmed the extent to which variations in the dependent variables were explained by the independent variables included in the models. The empirical findings from this study lead to the conclusion that cyber innovations have a

significant effect on the performance of money deposit banks in Nigeria, with blockchain technology and online banking playing key roles in enhancing inventory control, sales management, and financial reporting systems.

Recommendations

Based on the study's conclusions, money deposit banks are recommended to prioritize investments in robust online banking and blockchain platforms to significantly enhance inventory control, sales management, and reporting through improved security, transparency, and real-time tracking. To extend these benefits, banks should integrate mobile banking functionalities with internal management systems, moving beyond their primary customer-service role. Furthermore, given the growing reliance on digital solutions, implementing stringent cybersecurity measures such as advanced encryption and multi-factor authentication is essential to protect data. Finally, continuous employee training on these cyber innovations is crucial to ensure their effective adoption and maximize operational efficiency.

Contribution to Knowledge

Based on your comprehensive summaries, here is a one-paragraph synthesis of the study's key findings and theoretical contributions:

This study contributes to the body of knowledge by empirically examining the impact of key cyber innovations online banking, blockchain applications, and mobile banking apps on critical performance measures (inventory control, sales management, and management reporting systems) within Nigerian money deposit banks. The findings enrich the literature by demonstrating that while blockchain technology consistently enhances security, transparency, and efficiency across all operational areas, the effects of online and mobile banking are more context-specific, highlighting a nuanced relationship between financial technology and banking efficiency. For academia, the research provides a valuable empirical resource for teaching and further study, particularly in understanding the practical integration of digital innovations. For banking practice, it offers actionable insights, identifying blockchain and online banking as primary drivers for optimizing operational performance. Theoretically, the study strengthens frameworks like the Technology Acceptance Model (TAM) and Innovation Diffusion Theory (IDT) by providing evidence that digital transformation directly improves banking efficiency, security, and transparency.

REFERENCES

1. Abbasi T, Weigand H (2017). The impact of digital financial services on firm's performance: A literature review.
2. Abu Salim, T., El Barachi, M., Onyia, O. P., & Mathew, S. S. (2021). Effects of smart city service channel-and user-characteristics on user satisfaction and continuance intention. *Information Technology & People*, 34(1), 147-177.

3. Abu-Shanab E, & Pearson J (2007) Internet banking in Jordan: The unified theory of acceptance and use of technology (UTAUT) perspective. *Journal of Systems and Information Technology* 9: 78-97.
4. Abu-Shanab, E. & Matalqa, S. (2015), "Security and fraud issues of e-banking", *International Journal of Computer Networks and Applications*, Vol. 2 No. 4, pp. 179-187
5. Adebukola, A.A., Navya, A.N., Jordan, F.J., Jenifer, N.J., & Begley, R.D. (2022). Cyber security as a threat to health care. *Journal of Technology and Systems*, 4(1), pp.32-64.
6. Aduwo, E. B., Ibem, E. O., Afolabi, A. O., Oluwumi, A. O., Tunji-Olayeni, P. F., Ayo-Vaughan, E. A., ... & Oni, A. A. (2020). Exploring anti-corruption capabilities of e-procurement in construction project delivery in Nigeria. *Construction Economics and Building*, 20(1), 56-76.
7. Agbolade, O.K. (2011), "Information and communication technology and banks profitability in Nigeria", *Australian Journal of Business and Management Research*, Vol. 1 No. 4, pp. 102-107
8. Agwu, E. M., & Carter, A. L. (2014). Mobile phone banking in Nigeria: benefits, problems and prospects. *International Journal of Business and Commerce*, 3(6), 50-70.
9. Ajemunigbohun, S.S., Oreshile, S.A., & Alli, N.G (2018). Internal marketing, sales performance and Service Delivery: Empirical evidence from the Nigerian insurance industry. *Annals of the University of Craiova, Economics Science Series*, 1(46), 146.
10. Ajzen , I. and Fishbein , M. 1980 . Understanding Attitudes and Predicting Social Behavior Englewood Cliffs, NJ : Prentice-Hall .
11. Akhlaq A, Ahmed E (2013) The effect of motivation on trust in the acceptance of internet banking in a low income country. *International Journal of Bank Marketing* 31: 115-125.
12. Akinyele, S. & Olorunleke, K. (2010), "Technology and service quality in the banking industry: an empirical study of various factors in electronic banking services", *International Business Management*, Vol. 4 No. 4, pp. 209-221
13. Alalwan A. A, Dwivedi Y & Williams M (2014) Examining Factors Affecting Customer Intention And Adoption Of Internet Banking In Jordan. UK Academy for Information Systems Conference Proceedings, Bournemouth, United Kingdom.
14. Alalwan A.A., Rana N. P, Dwivedi Y. K, Lal B & Williams MD (2015) Adoption of Mobile Banking in Jordan: Exploring Demographic Differences on Customers' Perceptions. Open and Big Data Management and Innovation. Springer International Publishing.
15. Alfartoosi, A., & Jusoh, M. A. (2021). A Conceptual Model of E-accounting: Mediating effect of Internal Control System on the Relationship Between E-accounting and the Performance in the Small and Medium Enterprises. *International Journal of Economics and Management Systems*, 6(1), 228-252.
16. Allen, F., Gu, X., & Jagtiani, J. (2021). A survey of fintech research and policy discussion. *Review of Corporate Finance*, 1, 259-339.
17. Alsajjan B & Dennis C (2020) Internet banking acceptance model: Cross-market examination. *Journal of Business Research* 63: 957-963.
18. Amin, H. (2017). An empirical investigation on consumer acceptance of internet banking in an Islamic Bank. *Labuan Bulletin of International Business & Finance*, 5, 41-60
19. Anael, I. A. (2017) Assessing the Impact of Computerized Accounting System Usage on Organization Performance, Tanzania, *Accounting Horizons*. 11(4): 19-23
20. Andersson, P., Movin, S., Mähring, M., Teigland, R., & Wennberg, K. (2018). Managing digital transformation. SSE Institute for Research, Stockholm School of Economics.
21. Andolfatto, D. (2018). Blockchain: what it is, what it does, and why you probably don't need one. What it Does, and Why You Probably Don't Need One.
22. Angeles, I. T. (2022). The moderating effect of digital and financial literacy on the digital financial services and financial behavior of MSMEs. *Review of Economics and Finance*, 20(20), 505-515.
23. Arenas-Gaitán J, Peral B. & Jerónimo M. A. (2015) Elderly and Internet Banking: An Application of UTAUT2. *Journal of Internet Banking and Commerce* 20: 1-20.
24. Ariana, I. M., & Bagiada, I. M. (2018). Development of Spreadsheet-Based Integrated Transaction Processing Systems and Financial Reporting Systems. In *Journal of Physics: Conference Series*, 953(1), p. 012102). IOP Publishing.
25. Awara N. F. & Anyadighibe J. A. (2014) Factors Influencing Banks' Implementation and Consumers' Acceptance of E-Banking of Selected Commercial Banks in Calabar, Cross River State, Nigeria. *International Journal of Managerial Studies and Research* 2: 1-13.
26. Azman, N. A., Mohamed, A., & Jamil, A. M. (2021). Artificial intelligence in automated bookkeeping: a value-added function for small and medium enterprises. *JOIV: International Journal on Informatics Visualization*, 5(3), 224-230
27. Baabdullah, A.M, Alalwan, A.A, Rana, N.P, Kizgin, H. & Patil, P. (2018) Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *Int. J. Inf. Manag.*, 44, 38-52
28. Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. v. (2013). Digital business strategy: toward a next generation of insights. *MIS Quarterly*, 471-482.

29. Böhme, R., S. Laube & M. Riek, (2017). "A Fundamental Approach to Cyber Risk Analysis", *Variance Journal*, Article in Press.
30. Brecht, H. D. & Martin, A. (2016), Accounting information systems: The challenge of extending their scope to business and information strategy, *Accounting Horizons*. 10(4): 16-22
31. Campbell D, Frei F (2020) Cost structure, customer profitability, and retention implications of self-service distribution channels: Evidence from customer behaviour in an online banking channel. *Management Science* 56: 4-24
32. Catalini, C., & Gans, J. S. (2019). Some Simple Economics of The Blockchain. <http://www.nber.org/papers/w22952>
33. Cherotich, K.M., Sang, W., Shisia, A. & Mutung'u, C. (2015), "Financial innovations and performance of commercial banks in Kenya", *International Journal of Economics, Commerce and Management*, Vol. 3 No. 5, pp. 1242-1265
34. Chigori, D., Viljoen, K., Ford, M., & Cilliers, L. (2020). Mobile phone banking: A comparative analysis of e-service quality and customer loyalty of banking applications and Unstructured Supplementary Service Data services. *Journal of Economic and Financial Sciences*, 13(1), 11.
35. Copeland, R. M. and Dascher, R. M. (1978). *Management Accounting*. New York: John Wiley and Sons Incorp.
36. Daru, M. U. (2015) Role of Computerized Accounting in Banking Sector, *International Journal of Advanced Research in Management and Social Sciences*, U.K. Vol. 4 | No. 2 | February 2015 ISSN: 2278-6236
37. Di Pierro, M. (2017). What is the blockchain?. *Computing in Science & Engineering*, 19(5), 92-95.
38. Durkin M (2020) In search of the internet-banking customer: exploring the use of decision styles. *International Journal of Bank Marketing* 22: 484-503.
39. Dushimigena, A. T. (2012). Computerized accounting and organization development in selected public institution in Kigali, Rwanda.
40. Edesiri, G.O. & Promise, E.K. (2013), "The problems and prospects of e-transaction (the Nigerian prospective)", *Journal of Research in International Business and Management*, Vol. 3 No. 1, pp. 10-16.
41. Ekakitie-Emonena, S., & Alagba, O. S. (2022). Customer relationship marketing & enterprise performance: Empirical evidence from leading banks in South-South Nigeria. *Linguistics and Culture Review*, 6(S1), 106-120.
42. Engelhardt, M. A. (2017). Hitching Healthcare to the Chain: An Introduction to Blockchain Technology in the Healthcare Sector. *Technology Innovation Management Review*, 7(10), 22–34.
43. Eniola, A. A. (2014). The role of SME firm performance in Nigeria. *Oman Chapter of Arabian Journal of Business and Management Review*, 34(2352), 1-15.
44. Estriegana, R., Medina-Merodio, J. A., & Barchino, R. (2019). Student acceptance of virtual laboratory and practical work: An extension of the technology acceptance model. *Computers & Education*, 135, 1-14.
45. Evans, O., & Oni, O. (2022). Fintech, cryptocurrency and blockchain technology: towards promoting a Digital Africa. In *Digital Business in Africa: Social Media and Related Technologies* (pp. 193-215): Springer.
46. Ewepu G, (2016).Nigeria loses N127bn annually to cyber-crime— NSA available at:<http://www.vanguardngr.com/2016/04/nigeria-loses-n127bn-annually-cyber-crime-nsa/>Retrieved Jun. 9, 2016.
47. Farida, I., Aryani, Y. A., & Setiawan, D. (2022). Empirical evidence of management control system in the emerging market. *Corporate & Business Strategy Review*, 3(2), 112–124. <https://doi.org/10.22495/cbsrv3i2art10>
48. Fenu, G., & Pau, P. L. (2015). An analysis of features and tendencies in mobile banking apps. *Procedia Computer Science*, 56, 26-33.
49. Fijabi, L. K., Sobowale, T. A., & Lasisi, R. O. (2024). Accounting Information System and Management Performance of Public Hospitals in Nigeria (A Case Of The University College Hospital, Ibadan) *Global Journal of Arts Humanity and Social Sciences*, 4(12)
50. Firdaus, D. W., & Yulianto, H. D. (2018). Business Blueprint Accounting Information Systems Cash Receipts in Non-Profit Entities. In *IOP Conference Series: Materials Science and Engineering*, 407(1), p. 012128).
51. Freier, A. (2016). Mobile Banking Customers Drive Better Retention and Higher Revenue for Institutions. Available online: www.businessofapps.com/mobile-banking-customers-drive-better-retention-and-higher-revenue-for-institutions/ (accessed on 14 August 2018).
52. Gabor, Brooks (2016). The digital revolution in financial inclusion: International development. *New Political Economy*;4:23-436.
53. Gerhart, N., Torres, R., & Negahban, A. (2017). Combatting fake news: an investigation of individuals' information verification behaviors on social networking sites.
54. Gikang'a, S. G. (2016). Role of Management Information Systems on Strategic Decision Making among Tea Factories in Kenya (Doctoral dissertation, COHRED, Business administration, JKUAT).
55. Gomber, P., Koch, J.-A., & Siering, M. (2017). Digital Finance and FinTech: current research and

- future research directions. *Journal of Business Economics*, 87, 537-580.
56. Grablowsky, B. J. (2015). Financial Management of Inventory. *International Journal of Production Economics*, 93-94, 239 – 252.
57. Grabner-Kräuter S & Faullant R (2018) Consumer acceptance of internet banking: the influence of internet trust. *International Journal of Bank Marketing* 26: 483-504.
58. Guechi, M. (2020). The Future of the banking industry in the era of digital transformation. Directorate General for Scientific Research and Technological Development 8(2), 341-353.
59. Gupta, A., & Jha, R. K. (2015). A survey of 5G network: Architecture and emerging technologies. *IEEE access*, 3, 1206-1232.
60. Ha, K. H., Canedoli, A., Baur, A. W., & Bick, M. (2012). Mobile banking insights on its increasing relevance and most common drivers of adoption. *Electronic Markets*, 22(4), 217-227.
61. Hanaizadeh P, Keating B. W. & Khedmatgozar H. R. (2014) A systematic review of Internet banking adoption. *Telematics and Informatics* 31: 492-510.
62. Heeks, R. (2010). Do information and communication technologies (ICTs) contribute to development?. *Journal of international development*, 22(5), 625-640.
63. Henry, L. (2007), A study of the nature and security of accounting information systems: The case of Hampton Roads, Virginia . *The Mid-Atlantic Journal of Business* 33(3): 171-189
64. Herweijier, C., Waughray, D. & Warren, S. (2018) Building Blockchains for a better planet. World Economic forum, fourth Industrial Revolution for the Earth Series (1): 6-37
65. Ho, J.C, Wu, C.G & Lee, C.S (2020). Pham, T.T.T. Factors affecting the behavioral intention to adopt mobile bank-ing: An international comparison. *Technol. Soc*, 63, 101360
66. Horngren, C. T., & Foster, S. (1975). *Cost Accounting*. New Delhi: John Wiley and Sons Ltd.
67. Hussein, N. A., & Makori, M. (2018). Influence of Inventory Management Practices on Performance of Commercial State Corporations in Kenya: A Case of Kenya Electricity Generating Company. *The Strategic Journal of Business Change and Management*, 5(1), 960-983.
68. Ikuteyijo, L. O. (2020). Irregular migration as survival strategy: Narratives from youth in urban Nigeria. *West African Youth Challenges and Opportunity Pathways*, 53-77.
69. Jadil, Y., Rana, N. P., & Dwivedi, Y. K. (2021). A meta-analysis of the UTAUT model in the mobile banking literature: The moderating role of sample size and culture. *Journal of Business Research*, 132, 354-372.
70. Jean, G. (2024). Inventory Management Strategies: Balancing Cost, Efficiency, and Customer Satisfaction.
71. Kamra, S. (2014). Digital transformation in banking—the future of banking. *Happiest Minds Technologies*, sl: sn.
72. Kayode-Ajala, O. (2023). Applications of Cyber Threat Intelligence (CTI) in financial institutions and challenges in its adoption. *Applied Research in Artificial Intelligence and Cloud Computing*, 6(8), 1-21.
73. Kovach, S. & Ruggiero, W. (2011), “Online banking fraud detection based on local and global behavior”, *The Fifth International Conference on Digital Society*, Guadeloupe, pp. 166-171.
74. Kujur, T. & Shah, M.A. (2015), “Electronic banking: impact, risk and security issues”, *International Journal of Engineering and Management Research*, Vol. 5 No. 5, pp. 207-212
75. Kumari, A., & Devi, N. C. (2022). The impact of fintech and blockchain technologies on banking and financial services. *Technology Innovation Management Review*, 12(1/2).
76. Larbi, M. V. (2023). Inventory management and organizational performance: the roles of technology and knowledge sharing (Doctoral dissertation, KNUST).
77. Laugasson, E., Quaicoe, J. S., Jeladze, E., & Jesmin, T. (2016, June). Bridging digital divide in schools in developing countries: perceptions of teachers of free software opportunities. In *International Conference on Learning and Collaboration Technologies* (pp. 695-706). Cham: Springer International Publishing.
78. Laukkanen, T.. (2016) Consumer adoption versus rejection decisions in seemingly similar service innovations: The case of the Internet and mobile banking. *J. Bus. Res.* 69, 2432–2439
79. Lee, J. (2019). Consumer adoption of internet banking: need-based and/or skill based?. *Marketing Management Journal*, 11(1).
80. Lin, L. C., Cong, W., & Xiao, Y. (2019). A Brief Introduction to Blockchain Economics.
81. Maduku, D. K. (2014). Understanding retail bank customers’ attitude towards and usage of cell phone and internet banking services in Gauteng, RSA.
82. Malaquias, R.F. & Hwang, Y. (2016).An empirical study on trust in mobile banking: A developing country perspective. *Comput. Hum. Behav.* 54, 453–461
83. Mangin J, Bourgault N, Guerrero M. M & Egea J (2021) Modelling perceived usefulness on adopting on line banking through the tam model in a Canadian banking environment. *Journal of Internet Banking and Commerce* 16: 1-23.
84. Marivic, A. (2019) Evaluating the Security of Computerized Accounting Information Systems: An empirical study on Egyptian Banking Industry, UK PhD Thesis Aberdeen University

85. Marxia, S. (2016). Determinants of Firm Performance: A Subjective Model. *International Journal of Social Science Studies* 4(7): 90-100
86. Mashishi, N. (2024). Mobile Banking Apps Curation: Assessing the Factors That Influence Mobile Banking's Continuous Use Amongst Millennials and Generation Z (Master's thesis, University of the Witwatersrand, Johannesburg (South Africa)
87. McConnell, C. R. (2018). Interpersonal competence in the management of people. *The Health Care Manager*, 37(4), 358-367.
88. Mervita, E., Eviatun, E., & Hasan, S. (2024). Design of an Accounting Information System in Preparing Financial Reports for Micro, Small and Medium Enterprises. *Jurnal Ilmiah Akuntansi Kesatuan*, 12(2), 229–236. <https://doi.org/10.37641/jiakes.v12i2.2521>
89. Mohammadi, H. (2015). A study of mobile banking usage in Iran. *International Journal of Bank Marketing*, 33(6), 733-759.
90. Muda, I., Wardani, D. Y., Erlina, Maksum, A., Lubis, A. F., Bukit, R., & Abubakar, E. (2017). The influence of human resources competency and the use of information technology on the quality of local government financial report with regional accounting system as an intervening. *Journal of Theoretical and Applied Information Technology*, 95(20), 5532–5561. <https://www.jatit.org/volumes/Vol95No20/23Vol95No20.pdf>
91. Munir, M. A., Shabir, G., & Sharif, S. (2021). Technology acceptance model and academic performance of postgraduate students: The moderating role of academic self-efficacy. *Library Philosophy and Practice*, 4888.
92. Munoz-Leiva, F., Climent-Climent, S., & Liébana-Cabanillas, F. (2017). Determinants of intention to use the mobile banking apps: An extension of the classic TAM model. *Spanish journal of marketing-ESIC*, 21(1), 25-38.
93. Murinde, V., Rizopoulos, E., & Zachariadis, M. (2022). The impact of the FinTech revolution on the future of banking: Opportunities and risks. *International Review of Financial Analysis*, 81, 102103.
94. Mwesigwa R & Nkundabanyanga S. K (2021) Consumer Attitude, Trust, Perceived Risk and Internet Banking Adoption in Uganda. *Journal of Business and Economics* 2: 405-416.
95. Napitupulu, D., Kadar, J. A., & Jati, R. K. (2017). Validity testing of technology acceptance model based on factor analysis approach. *Indonesian Journal of Electrical Engineering and Computer Science*, 5(3), 697-704.
96. Nasri, W. (2011). Factors Influencing the Adoption of Internet Banking in Tunisia. *International Journal of Business and Management*, 6(8). doi: 10.5539/ijbm.v6n8p143
97. Nasri, W. (2011). Factors influencing the adoption of internet banking in Tunisia. *International journal of business and management*, 6(8), 143-160.
98. Ndubuisi, A. M., Chidoziem, A.N., & Chinyere O.J., (2017). Comparative Analysis of Computerized Accounting System and Manual Accounting System of Quoted Microfinance Banks (MFBs) in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences*.7(2), 30-43. https://hrmars.com/papers_submitted/2787/Article_04_Comparative_Analysis_of_Computerized_Accounting_System.pdf
99. Nofer, M., Gomber, P., Hinz, O., & Schiereck, D. (2017). Blockchain. *Business Information Systems*, 59(3), 183–187. <https://doi.org/10.1007/s12599-017-0467-3>
100. Offei, M.O. & Nuamah-Gyambrah, K. (2016), “The contribution of electronic banking to customer satisfaction: a case of GCB bank Limited-Koforidua”, *International Journal of Managing Information Technology*, Vol. 8 No. 1, pp. 1-11.
101. Oira, J.K. & Kibati, P. (2016), “Influence of innovation on the performance of commercial banks in Nakuru central business district”, *Journal of Business and Management*, Vol. 18 No. 10, pp. 102-113
102. Okoye, E.I. & Gbegi, D.O. (2012). Analysis of Computerized Accounting System on Services Delivery in the Banking Sector: Case Study of First City Monument Bank PLC.
103. Okoye, L.U., Omankhanlen, A.E., Okoh, J.I., Ezeji, F.N. & Achugamonu, U.B. (2019), “Customer service delivery in the Nigerian banking sector through engineering and technology-based channels”, *International Journal of Civil Engineering and Technology*, Vol. 10 No. 1, pp. 2156-2169.
104. Olawepo G. T. (2023). An empirical investigation into factors influencing the adoption of Internet Banking among undergraduate students in Nigeria. PhD thesis, Ajayi Crowther University
105. Omotoso, K. O., Dada, A.D., Adelowo, C.M & Siyanbola, W.O (2012) Linking Innovations with Productivity in Nigeria Banking firm: What roles for ICT? *Management Journal*, 2(5), 204 – 213
106. Onuora, J.K.J., Korim, C.S.& Ashibogwu, N.K., (2019). The Challenges of Comprehensive Account Auditing and the Rampant Use of Accounting Software. *European American Journals*.7(9), 71-80. <https://www.eajournals.org/wp-content/uploads/The-Challenges-of-Comprehensive-Account-Auditing-and-the-Rampant-Use-of-Accounting-Software.pdf>
107. Onyia, V., Falana A.& Worlu, R., (2019). Accounting Software and Resolution to Financial

- Insolvency in Nigeria, A Meta-Analysis. *Covenant Journal of Business & Social Sciences*. 10(2),45-65. <https://journals.covenantuniversity.edu.ng/index.php/cjbss/article/view/1801>
108. Opoku, M. O., & Enu-Kwesi, F. (2019). Relevance of the technology acceptance model (TAM) in information management research: a review of selected empirical evidence. *Research journal of business and management*, 7(1), 34-44.
109. Oyadeyi, O. (2024). Banking innovation, financial inclusion and economic growth in Nigeria. *Journal of the Knowledge Economy*, 15(2), 7014-7043.
110. Oyeibisi, L. O. (2024). Risk management, internal control systems and performance of selected deposit money banks in Lagos State, Nigeria [M.Sc Thesis, Lead City University, Ibadan]. Institutional Repository. <https://repository.lcu.edu.ng/handle/123456789/985>
111. Penchev, P., & Kenarova-Pencheva, I. (2025). Agility, Flexibility, Responsiveness and Competitiveness—the Challenge to Define the Difference. In *Proceedings of the International Conference on Business Excellence* (Vol. 19, No. 1, pp. 4736-4749). Bucharest University of Economic Studies.
112. Phuangthong, D., & Malisawan, S. (2005, August). A study of behavioral intention for 3G mobile Internet technology: Preliminary research on mobile learning. In *Proceedings of the Second International Conference on eLearning for Knowledge-Based Society* (pp. 4-7).
113. Pijpers, G. G., Bemelmans, T. M., Heemstra, F. J., & van Montfort, K. A. (2001). Senior executives' use of information technology. *Information and software Technology*, 43(15), 959-971.
114. Polatoglu, V.N.& Ekin, S. (2001), "An empirical investigation of the Turkish consumers' acceptance of internet banking services", *International Journal of Bank Marketing*, Vol. 19 No. 4, pp. 156-165
115. Poromatikul, C, De Maeyer, P., Leelapanyalert, K.& Zaby, S. (2019) Drivers of continuance intention with mobile banking apps. *Int. J. Bank Mark*, 38, 242–262.
116. Portz, J. D., Bayliss, E. A., Bull, S., Boxer, R. S., Bekelman, D. B., Gleason, K., & Czaja, S. (2019). Using the technology acceptance model to explore user experience, intent to use, and use behavior of a patient portal among older adults with multiple chronic conditions: descriptive qualitative study. *Journal of medical Internet research*, 21(4), e11604.
117. Priyadarshini, I. (2018). Introduction to Blockchain Technology. *Introduction on Cybersecurity*, 114–251. <https://doi.org/10.1002/9781119488330.ch1>
118. Rha, J. S., & Lee, H.-H. (2022). Research trends in digital transformation in the service sector: a review based on network text analysis. *Service Business*, 16(1), 77-98.
119. Rodakos, A. I., Koutoupis, A. G., Thysiadou, A., & Kampouris, C. (2021). A systematic literature review on the implementation of internal audit in European and non-European public hospitals. *Journal of Governance and Regulation/Volume*, 10(4).
120. Rogers, E. M. (1995). Diffusion of Innovations: modifications of a model for telecommunications. In *Die diffusion von innovationen in der telekommunikation* (pp. 25-38). Berlin, Heidelberg: Springer Berlin Heidelberg.
121. Sampaio, C.H. (2017). Apps for mobile banking and customer satisfaction: A cross-cultural study. *Int. J. Bank Mark*. 35, 1133–1153
122. Sanchez C. R. S, Clermont G. E & Gallie J. B. (2020) Adoption of Internet banking: evidence from France. *IJMMR* 3: 107-117.
123. Sari, A.(2018). Use of Blockchain in strengthening cybersecurity and protecting privacy. *International journal of Engineering and Information systems*. 2(12): 59-66.
124. Scherer, R., Siddiq, F., & Tondeur, J. (2020). All the same or different? Revisiting measures of teachers' technology acceptance. *Computers & Education*, 143, 103656.
125. Schiavi, G.S. and Behr, A. (2018), "Emerging technologies and new business models: a review on disruptive business models", *Innovation and Management Review: Emerald Publishing Limited*, pp. 1-19, doi: 10.1108/INMR-03-2018-0013.
126. Seretidou, D. , Tsianaka, E. , Billios, D. and Stavropoulos, A. (2024) Enhancing Business Performance through ERP. Views of Employees, Supervisors and Managers: A Case Study in Greece. *Open Journal of Business and Management*, 12, 3857-3879. doi: 10.4236/ojbm.2024.126193.
127. Shaikh, A. A., & Karjaluoto, H. (2015). Mobile banking adoption: A literature review. *Telematics and informatics*, 32(1), 129-142.
128. Shankar, A (2020) How do electronic word of mouth practices contribute to mobile banking adoption? *J. Retail. Consum. Serv*. 52, 101920
129. Shankar, A, & Jebarajakirthy, C (2019). The influence of e-banking service quality on customer loyalty: A moderated mediation approach. *Int. J. Bank Mark*, 37, 1119–1142
130. Shankar, A., & Rishi, B. (2020). Convenience matter in mobile banking adoption intention?. *Australasian Marketing Journal*, 28(4), 273-285.
131. Shermukhamedov, B., & Tulaganova, M. (2021). Innovations in banking: digital banking. *Theoretical and Applied Science*, 102(10), 880-887.
132. Siyal, A.W, Ding, D. & Siyal, S. (2019). M-banking barriers in Pakistan: A customer perspective of adoption and continuity intention. *Data Technol. Appl*, 53, 58–84.
133. Soetan, T. O., & Mogaji, E. (2024). Regulating Financial Services in Nigeria: Oversight Agencies,

- Chartered Bodies, and Professional Associations. In Financial Services in Nigeria: The Path Towards Financial Inclusion, Economic Development and Sustainable Growth (pp. 129-162).
134. Sofia N., Ardiany Y. & Defalni Y., (2020). The Effect of Responsibility Accounting on Cost Control. *Advances in Economics, Business and Management Research*. 4th Padang International Conference on Education, Economics, Business and Accounting. 124, 111-119. <https://www.atlantispres.com/proceedings/piceeba-2-19/12593577>
 135. Sumarno. (2020). Credit Sales Accounting Information System as an Effort to Increase the Effectiveness and Efficiency of Business Implementation (Case Study of CV Putra)
 136. Suoranta, M. & Mattila, M. (2004), "Mobile banking and consumer behavior: new insights into diffusion pattern", *Journal of Financial Services Marketing*, Vol. 8 No. 4, pp. 354-366.
 137. Swan, M. (2017). Anticipating the economic benefits of blockchain. *Technology innovation management review*, 7(10), 6-13. <https://timreview.ca/article/1109>
 138. Taiwo J.N. & Edwin, A.G., (2016). Effect of ICT on Accounting Information System and Organizational Performance. *European Law Society*. 8(6), 1-17. https://www.researchgate.net/publication/306077437_Taiwo_JN_Agwu_ME_2016_Effect_of_ICT_on_Accounting_Information_System_and_Organizational_Performance.
 139. Taiwo, J.N. & Agwu, M.E. (2017), "The role of e-banking on operational efficiency of banks in Nigeria", *Basic Research Journals*, Vol. 6 No. 1, pp. 1-10.
 140. Tarhini A, El-Masri M, Ali M & Serrano A (2016) Extending the UTAUT to understand the Acceptance and Use of Internet Banking among Lebanese Customers: A Structural Equation Modeling Approach. *Information Technology and People*.
 141. Thusi, P. & Maduku, D.K. (2020). South African millennials' acceptance and use of retail mobile banking apps: An integrated perspective. *Comput. Hum. Behav.* 111, 106405
 142. Tongur, S. & Engwall, M. (2014), "The business model dilemma of technology shifts", *Technovation*, Vol. 34 No. 9, pp. 525-535.
 143. Tran, H.T.T. & Corner, J. (2016). The impact of communication channels on mobile banking adoption. *Int. J. Bank Mark.* 34, 78-109.
 144. Tsai, W.-H., Haung, B.-Y., Liu, J.Y., Tsaur, T.S. & Lin, S.J. (2010), "The application of web ARMs in e-payment industry: a case study", *Expert Systems with Applications*, Vol. 37 No. 1, pp. 587-597
 145. Turner, L., Weickgenannt, A., & Copeland, M. K. (2017). *Accounting information systems: Controls and processes* (3rd ed.). John Wiley & Sons, Inc.
 146. Venkatesh V, Thong J & Xu X (2022) Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS quarterly* 36: 157-178.
 147. Vijayan, P., & Shanmugam, B. (2023). Service quality evaluation of internet banking in Malaysia. *Journal of Internet Banking and Commerce*, 8(1), 0306-06
 148. Vujicic, D., Randić, S., Vujičić, D., & Jagodić, D. (2018). Blockchain technology, bitcoin, and Ethereum: A brief overview. *Blockchain Conference Paper*, 8. <https://doi.org/10.1109/INFOTEH.2018.8345547>
 149. Wada F. & Odulaja G. O. (2014). "Electronic Banking and Cyber Crime in Nigeria – A Theoretical Policy Perspective on Causation," *Afr J Comp & ICT*, 4(3), no. Issue 2.
 150. Westerman, G., Tannou, M., Bonnet, D., Ferraris, P., & McAfee, A. (2012). *The digital advantage: How digital leaders outperform their peers in every industry*. MIT Sloan Management and Capgemini Consulting, MA, 2, 2-23.
 151. Wibowo, A.S (2019). Analysis and Design of an Accounting Information System for New Car Credit Sales: Case Study of the Toyota Bintarpo Jaya Motor South Tangerang Dealer. *Scientific Journal of Accounting Information Technology*.
 152. Wijaya, T. (2018). Analysis of the Accounting Information System for Car Loan Sellers at the Cimahi Ford Dealer, West Bandung.
 153. Wilson, R. A. & A. Sangster (2020) The Automation of Accounting Practice, *Journal of Information Technology*. 7: 66-75
 154. Yadav R, Sharma S. K & Tarhini A (2016) A multi-analytical approach to understand and predict the mobile commerce adoption. *Journal of Enterprise and Information Management*
 155. Yahaya, M. H., & Ahmad, K. (2018). Financial inclusion through efficient zakat distribution for poverty alleviation in Malaysia: Using fintech & mobile banking. In *Proceeding of the 5th International Conference on Management and Muamalah* (pp. 15-31).
 156. Yulisfan, Y., Muda, I., & Nedelea, A. M. (2021). Implementation of digitalization on the revenue cycle to improve the quality of decision making more timely in Indonesia. *Ecoforum Journal*, 10(3). <http://www.ecoforumjournal.ro/index.php/eco/article/view/1217>
 157. Yunita, E.S. (2017). Analysis of Credit Sales Accounting Information Systems at PT Hino Motors Sales Indonesia. Thesis
 158. Yusuf, T.O., Ajemunigbohun, S.S., & Alli, N.G (2017). A critical review of insurance claims management: A study of selected insurance companies in Nigeria. *Spoudai-Journal of Economics and Business University of Piraeus*, 67(2), 69-84

159. Zavoli, I., & King, C. (2021). The challenges of implementing anti-money laundering regulation: an empirical analysis. *The Modern Law Review*, 84(4), 740-771.
160. Zhang, W., Yuan, Y., Hu, Y., Nandakumar, K., Chopra, A., Sim, S. & Caro, A.D. (2018). Blockchain-based distributed compliance in Multinational Corporations, cross-border intercompany transactions future of information and communication conference (FICC) 2018 5-6 April 2018/Singapore.
161. Zhonggen, Y., & Xiaozhi, Y. (2019). An extended technology acceptance model of a mobile learning technology. *Computer Applications in Engineering Education*, 27(3), 721-732.
162. Zhou, T. (2011). Examining mobile banking user adoption from the perspectives of trust and flow experience. *Inf. Technol. Manag.* 13, 27–37
163. Zikratov, I., Kuzmin, A., Akimenko, V., Niculichev, V., & Yalansky, L. (2017). Ensuring Data Integrity Using Blockchain Technology. *Proceeding of The 20th Conference of Fruct Association*, 1–6
164. Zott, C., Amit, R. & Massa, L. (2011), “The business model: recent developments and future research”, *Journal of Management*, Vol. 37 No. 4, pp. 1019-1042.