

Digital Transformation, Tax Reform, and the Future of Accounting Practice in Nigeria. A systematic Review

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Abstract: *The accounting profession is undergoing rapid transformation driven by the Fourth Industrial Revolution, particularly through the adoption of artificial intelligence, cloud computing, and digital tax administration systems. This study conducted a systematic review of the literature to examine how global digital accounting trends intersect with Nigeria's regulatory and infrastructural environment. Particular attention is given to the Nigeria Tax Reform Acts (2025), the implementation of the TaxPro Max digital tax platform, and the emerging digital skills gap among accounting professionals. Using a structured search and screening process, relevant studies, surveys, and legislative analyses were evaluated and synthesized to identify key themes and professional implications. Findings revealed a dual transformation pathway, where advanced economies move toward automated finance models, while Nigeria's transition is regulatory-driven, with rapid fiscal digitalization and persistent infrastructural constraints. Evidence indicated digital tax administration improves revenue performance. The study concluded that digital literacy and technological competence are essential*

Keywords: digital transformation; artificial intelligence; cloud accounting; TaxPro Max; Nigeria tax reforms; Technology Acceptance Model

INTRODUCTION

The accountancy profession is currently standing at the precipice of an unprecedented era of volatility and opportunity, driven by the rapid integration of disruptive technologies that are fundamentally reshaping the mechanisms of financial reporting, assurance, and taxation (Tang, 2025). Globally, the traditional image of the accountant as a retrospective record keeper and custodian of historical ledgers is steadily fading away (Onogholo et al., 2025). In its place, a new professional paradigm is emerging one defined by automation, where data entry, reconciliation, and payroll processes are increasingly touchless (Tang, 2025).

Technologies such as machine learning, natural language processing, and robotic process automation are not merely enhancing efficiency; they are transforming the allocation of professional time from routine computation to interpretation, advisory functions, and strategic decision-making (Onogholo et al., 2025). Industry reports further indicate rapid expansion in forensic accounting and data analytics services, propelled by constant increasing demand for real-time financial insights, predictive analytics, and the reduction of human error in financial data processing (Usman et al., 2025). The global pathway is clear: accounting is evolving from mechanical record keeping to strategic financial intelligence.

In Nigeria, often described as Africa's largest economy, this digital transformation is unfolding within a uniquely complex institutional environment (Bamidele & Afolabi, 2025). Unlike many Western economies where market competition primarily drives technological adoption, Nigeria's digital shift is being pushed more forcefully by regulatory reform and government policy (Oriaifoh & Obaretin, 2025). This shift culminated in the enactment of the 2025 Tax Reform Acts, including the Nigeria Tax Act (NTA), the Nigeria Tax Administration Act (NTAA), and the Nigeria Revenue Service (Establishment) Act (Hudu, 2026). These legislative instruments have effectively codified the digitalization of tax administration in the country (Oriaifoh & Obaretin, 2025).

The Nigeria Tax Administration Act (NTAA) 2025 introduces stringent measures, ensuring that electronic fiscal systems are used for taxable persons. It requires real-time recording and transmission of transaction data to tax authorities, thereby significantly limiting manual noncompliance for so many businesses (Hudu, 2026). Furthermore, the establishment of the Nigeria Revenue Service (NRS) as a digitally enabled autonomous agency, replacing the Federal Inland Revenue Service (FIRS), signals a decisive shift toward data-driven tax enforcement (Oriaifoh & Obaretin, 2025).

As a result, digital literacy within the Nigerian accounting profession has shifted from a competitive advantage to a regulatory necessity (Bamidele & Afolabi, 2025). Core tax filing and statutory compliance processes have migrated to electronic platforms such as TaxPro Max (Tivde et al., 2025), making digital proficiency indispensable for contemporary practice. However, despite

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carefully crafted regulatory reforms, Nigeria's digital transformation faces significant infrastructural limitations that create a widening gap between policy aspiration and operational reality (Chukwuani, 2025). Persistent deficits in electricity supply and broadband connectivity threaten the sustainability of cloud-based accounting solutions (Usman et al., 2025).

Although Nigeria boasts a vibrant technology startup ecosystem and performs strongly in digital content creation, the foundational infrastructure required to support stable cloud computing remains unreliable (Chukwuani, 2025). Consequently, many accounting firms incur substantial operational costs due to reliance on alternative power sources and expensive mobile data services. This creates a cost structure markedly different from that of firms operating in countries such as China, Germany, the United Kingdom, and the United States of America (Chukwuani, 2025). Thus, while Nigerian accountants may possess the intellectual capacity and software tools necessary for modernization, infrastructural instability often constrains effective deployment.

Furthermore, beyond infrastructural barriers, digital transformation is hampered by psychological and sociological resistance (Usman et al., 2025). Empirical studies including recent work by Hossain, (2025), Usman et al. (2025), Ta and Lin, (2023), (Sari et al., 2023; Zhang et al., 2022) showed significant trust deficits among Nigerian SMEs regarding cloud-based accounting, driven by security, privacy, and infrastructure deficits. Concerns about data reliability and privacy, cybercrime, and unauthorized third-party access to sensitive financial information remain widespread challenge (Chukwuani, 2025).

The enactment of the Nigeria Data Protection Act (NDPA) 2023 has added another layer of complexity to this landscape (Atata & Okegbile, 2024). The NDPA imposes strict legal obligations on data controllers and processors to ensure the security, confidentiality, and lawful processing of personal data (Uwadinma, 2025). Accountants, who usually process substantial amount of personal financial information, are now legally liable for data breaches. Cybersecurity, therefore, has evolved from a peripheral IT concern into a central professional obligation within accounting practice (Atata & Okegbile, 2024).

The convergence of global technological disruption, domestic regulatory reform, infrastructural constraints, and data protection obligations has produced a volatile yet opportunity-rich professional landscape. Demand for traditional bookkeeping roles is steadily declining, while demand for specialized competencies in forensic accounting, data analytics, IT audit, and strategic business reporting continues to rise (Olugbamiye et al., 2023). As an inherent consequence of the digital age, digitalization has exerted a profound influence on the accounting profession. Numerous professions are anticipated to either lose relevance or experience significant transformation within the digitalization process. To this end, the study evaluates the readiness of the accounting profession for digital transformation, critically examines the intersection of global digital trends and Nigerian operating environment. It seeks to answer how digital transformation is reshaping accounting profession in Nigeria, evaluates efficiency gains of digital tools and analyzing context- specific adoption, by synthesizing recent data on cloud adoption, forensic

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accounting growth, and the 2025 legislative reforms, this study provides a comprehensive roadmap for the future ready Nigerian accountant. Ultimately, it argues that to remain relevant, the profession requires a move beyond the traditional ledger to become the custodian of digital trust and financial integrity in a rapidly evolving digital economy.

This study is important for many stakeholders in Nigeria's changing digital and regulatory environment. It gives accounting professionals insights into new skills in forensic accounting, data analytics, IT audit, and digital tax compliance, while also explaining the regulations that come from recent tax and data protection changes. For students and early-career professionals, it points out the in-demand skills needed for success in a technology-focused career. The study also helps universities and professional organizations adjust their curricula and ongoing training to meet the realities of digital change.

For policymakers and tax authorities, it provides a solid understanding of the infrastructure and behavioral challenges that may impact the success of digital tax reforms. Additionally, it helps businesses understand the costs, compliance needs, and cybersecurity issues related to digital adoption. On a larger scale, the research adds to discussions about modernization in finance by showing how improved digital accounting abilities boost transparency, revenue generation, and sustainable economic growth.

LITERATURE REVIEW

This section reviews concepts on digital transformation in accounting practice and profession and Nigeria's regulatory environment using TaxPro Max as a case study. It also considers, relevant empirical studies, and the theoretical foundations of digital technology adoption in Nigeria and globally.

Accounting Profession

Accounting is considered a professional service because it calls for specialised knowledge, competence, and ethical responsibility. Financial statement users such as investors, regulators, creditors, and the government need to be assured that professional accountants and auditors apply sound professional judgment in the transparency, credibility, and reliability of financial information prepared for end users (Personal Finance Lab, 2022). Such core values form the foundation for business stability and economic growth.

In Nigeria, the accounting profession is governed by two esteemed professional associations: the Institute of Chartered Accountants of Nigeria (ICAN) and the Association of National Accountants of Nigeria (ANAN). ICAN was established under the ICAN Act No. 15 of 1965, while ANAN received its enabling legislation under the ANAN Act No. 76 of 1993. Both professional

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associations were mandated with the responsibility of training professional accountants who exhibit ethical values and instill confidence.

It is worth mentioning that the formation of these professional bodies has contributed to the development of the accounting profession in Nigeria. Although these professional bodies were formed at different times and through different Acts, they have a common goal. Their main roles and responsibilities are regulating the accounting profession, providing education and training to members, setting and evaluating auditing standards, and implementing disciplinary measures for unprofessional behavior, among others (Olojede et al., 2020). Their collaboration with government agencies has also influenced the development of accounting legislation and policies, thereby strengthening Nigeria's financial reporting system.

However, there is a growing need for both professional bodies to place greater emphasis on digital transformation. By promoting training in emerging technologies and integrating digital competencies into their professional development programmes, they can better equip members to produce timely and accurate financial reports in an increasingly technology-driven business environment.

Accounting Practices in Nigeria

Accounting Practice in Nigeria have undergone significant substantial changes, that is influenced by historical, economic, and regulatory elements (Olojede et al., 2020). The profession of accounting is important in shaping the country's business environment, and contributes to ensuring that financial transparency, regulatory compliance, and economic growth are achieved. Accounting practice can be regarded as having dynamic relationship between historical factor, regulatory environment and development. The expansion of the profession is closely intertwined with the endeavours of professional associations, regulatory entities, and the integration of technology.

According to Carnegie et al., (2021), many individuals within the society have some basic understanding of accounting, or the principles and procedures involved in accounting. In some quotas, accounting is perceived as incomprehensible by certain individuals in society, and it is not a subject that generate significant interest. In some instances, accounting is often referred to as 'the language of business' as described in various educational materials. Balagobei, (2020) defined accounting practices as the activities that include record keeping, maintaining records, budgeting methods, and payroll accounting.

Likewise, accounting practices refer to the techniques and control mechanisms that accounting departments use to produce business transactions. Consistency plays a critical role in accounting practices to ensure the production of credible financial information. This is because many business transactions have to be conducted consistently. It is worth pointing out that accounting practices

are affected by many factors such as cultural values, the choice of method and the manner of behavior that accountants exhibited while performing their functions. It is worth pointing out that the role of professional bodies such as ICAN and ANAN in shaping and influencing accounting practices must not be ignored (Adedoyin & Adegbe 2024).

Digital Transformation in Accounting Practice

Digital transformation is a strategic change in the way an organization does business by utilizing digital technologies (Olufemi et al., 2021). In the modern digital age, digital competency is a necessity for the survival of any business. For the field of accounting, the concept of digital transformation is a move away from manual accounting systems.

Historically, accounting processes were manual, relying on physical documentation, face-to-face client interactions, and handwritten records (Asukwo & Enobong, 2023). These methods were slow, time-consuming, and increasingly uncompetitive in a modern business environment that demands speed and accuracy. Although accounting is one of the oldest professions, its transition from manual to digital systems has been gradual, accelerating notably since the computer revolution of the 1980s (Oladejo & Yinus, 2020).

Digitalization has significantly improved accounting practices by replacing manual tasks such as invoice generation, client billing, account reconciliation, and communication with automated systems. Today, accounting processes are technology-driven, incorporating cloud computing, artificial intelligence (AI), data analytics, and automation. Cloud-based platforms such as QuickBooks and Xero provide real-time access to financial information from any location (Oladejo & Yinus, 2020). AI and data analytics facilitate automation of tasks like data entry and fraud detection (Borhani et al., 2021), while automation streamlines reporting and payment processes (Rossignoli et al., 2020).

Both internal (management accounting) and external (financial reporting subject to audit and regulatory compliance) functions increasingly rely on digital systems to enhance accuracy, transparency, and compliance (Hasan, 2023). Digital accounting thus involves the electronic recording, processing, storage, and communication of financial information through integrated technological tools (Abdullahi & Ejike, 2025). Overall, digital transformation has repositioned accounting from a traditional record-keeping function to a technology-driven, efficiency-oriented, and value-creating profession within a globally interconnected economy (Okoroigwe et al., 2021).

The Global Shift: AI and Automation

Globally, AI is changing the structure of accounting work by improving accuracy, reducing manual workload, and enabling faster analysis of financial data (Tang, 2025). Tools such as **Machine Learning (ML)** and **Robotic Process Automation (RPA)** are increasingly applied to tasks like invoice processing, transaction classification, account reconciliations, financial reporting, and

audit planning (Onogholo et al., 2025). As these tools mature, accounting functions are gradually shifting toward a “finance factory” model, where routine processes are automated and professionals focus more on interpretation, risk oversight, and strategic decision support (Tang, 2025). However, these gains introduce new risks. One persistent concern is the “**black box**” **problem**, where AI systems generate recommendations without clearly explaining how they arrived at them. This opacity complicates auditability and can weaken trust especially when AI outputs affect material financial decisions (Tang, 2025). As a result, digital adoption increasingly requires accountants to develop competencies beyond traditional accounting, including data governance, ethical judgment, model oversight, and documentation practices that support accountability (Onogholo et al., 2025). For example, an audit team may deploy ML to flag unusual revenue patterns for further testing. Efficiency improves, but auditors still need to justify why the flagged transactions were selected. A practical safeguard is to combine ML results with explainability summaries and maintain clear audit documentation showing how professional judgment was applied to validate the algorithm’s outputs.

Regulatory digitalization and TaxPro Max

Digital tax reforms have fundamentally change Nigeria’s tax administration and processes. As economies become increasingly interconnected and technology-driven, modern tax systems have become indispensable (Bamidele & Afolabi, 2025). This digital transformation has raised important questions about the adequacy of traditional tax legislation within a rapidly evolving digital economy. Prior to 2005 when tax administration in Nigeria was largely manual, the former Federal Inland Revenue Service (FIRS), now the Nigeria Revenue Service (NRS), depended on paper-based processes for filing returns, processing payments, issuing receipts, tracking compliance, and granting tax clearance certificates. The modernization project initiated thereafter marked a significant turning point, improving operational efficiency and service delivery despite challenges such as limited stakeholder and legislative support (Premium Times, 2020). Its success paved the way for further digital initiatives, including the introduction of the Taxpayer Identification Number (TIN) system in 2011.

The most advanced phase of this digital transformation is the introduction of TaxPro Max, officially launched on June 7, 2021. This platform was designed as a comprehensive web-based tax administration platform, which replaces the earlier systems such as SIGTAS and ITAS and implemented the automation mandate of the Finance Act 2020 (FIRS, 2022). The introduction of TaxPro Max facilitates taxpayer registration, electronic filing and payment of returns, management of withholding taxes, capital allowances and losses, issuance of tax clearance certificates, and direct interaction with tax authorities. Evidence suggests that the platform has improved compliance and revenue outcomes by enhancing transaction traceability, reducing manual inefficiencies, and strengthening institutional monitoring capacity (Bamidele & Afolabi, 2025; Tivde et al., 2025).his mandate-driven digital shift has been reinforced by the 2025 Tax Reform Acts, particularly the Nigeria Tax Act (NTA) and the Nigeria Tax Administration Act (NTAA),

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which institutionalize digital compliance as a central feature of contemporary tax administration (Oriaifoh & Obaretin, 2025). The extension of taxation to digital assets and the regulation of non-resident companies with “significant economic presence” further expand the scope and technical complexity of tax compliance (Hudu, 2026).

Consequently, accounting practice in Nigeria is undergoing structural redefinition. Firms must align internal processes with electronic filing systems to ensure automated reconciliation between ledger balances and TaxPro Max submissions. Accountants handling digital assets such as cryptocurrency require robust procedures for transaction traceability, valuation, and defensible tax documentation. Similarly, professionals advising digital or platform-based businesses must evaluate cross-border revenue exposures under significant economic presence rules and maintain comprehensive compliance records. Overall, digital tax reforms anchored by TaxPro Max and strengthened by the 2025 legislative framework have institutionalized real-time reporting, automated compliance monitoring, and traceable audit trails. In this evolving environment, accounting regulation is increasingly technology-enabled. Professional relevance now depends not only on ethical standards but also on digital competence, data integrity management, and the ability to operate effectively within a digitally monitored compliance ecosystem.

Adoption Challenges in Digital Accounting: Infrastructure and Trust Constraints

Despite strong regulatory momentum toward digitalization, significant barriers to effective implementation remain (Usman et al., 2025). Empirical evidence indicates that, beyond cost considerations, organizational limitations and concerns about data security and privacy are major deterrents to the adoption of cloud accounting systems among Nigerian SMEs (Usman et al., 2025). A persistent trust deficit exists, with many business owners apprehensive about unauthorized access to sensitive financial information. These concerns are reinforced by infrastructural weaknesses. Studies from South-East Nigeria reveal that although professional accountants acknowledge the efficiency gains of cloud-based platforms, unreliable internet connectivity and unstable power supply significantly hinder adoption (Chukwuani, 2025). Comparative evidence further shows that while digital finance usage is widespread in developed economies such as the UK and the US, Nigeria continues to lag in the foundational infrastructure required for large-scale digital integration, despite growth in electronic payment systems (Ozili, 2020). Together, these infrastructural and trust-related challenges create a gap between regulatory ambition and practical implementation in Nigeria’s digital accounting landscape.

The Forensic Accounting Imperative

Financial digitalization has also increased the relevance of forensic accounting in Nigeria (Kabara & Aliyu, 2025). In particular, **big-data analytics** is increasingly viewed as essential for forensic auditing in the Nigerian public sector, enabling auditors to interrogate large and complex datasets

for indicators of fraud and cyber-enabled crimes that traditional audit approaches may overlook (Kabara & Aliyu, 2025; Onodi et al., 2023). Techniques such as **cross-drive analysis** and **network-based audit trails** can strengthen audit quality by improving traceability and anomaly identification (Onodi et al., 2023). Given the growing sophistication of financial crime in the digital economy, the literature supports a hybrid enforcement approach that combines **AI-driven anomaly detection** with conventional forensic investigation (Mbea, 2025).

Data Privacy and Legal Frameworks

The legal framework governing digital data has also expanded (Uwadinma, 2025). The **Nigeria Data Protection Act (NDPA) 2023** introduces broader compliance obligations for organizations, particularly regarding lawful processing, consent governance, and cross-border data transfers (Atata & Okegbile, 2024). For the accounting profession, these obligations shift data governance from an optional best practice to a compulsory operational and ethical duty (Atata & Okegbile, 2024). Consequently, compliance with the NDPA is increasingly central to professional work, compelling firms to adopt formal data protection measures such as carrying out Data Protection Impact Assessments (DPIAs) to limit regulatory risk and potential legal exposure (Atata & Okegbile, 2024).

Theoretical Underpinnings of Digital Adoption

Digital technology adoption in accounting is widely interpreted through the Technology Acceptance Model (TAM) and the Technology Organization Environment (TOE) framework (Usman et al., 2025; Bamidele & Afolabi, 2025). These theories help explain why adoption rates differ across accounting practitioners and firms, particularly within developing contexts such as Nigeria (Usman et al., 2025). TAM argues that two beliefs largely determine whether users accept a technology: **perceived usefulness** (whether the tool improves job performance) and **perceived ease of use** (whether it is simple to learn and operate) (Bamidele & Afolabi, 2025). In Nigeria, however, adoption decisions may not be driven only by these individual perceptions. Regulatory enforcement and infrastructural constraints such as unstable internet connectivity, high data costs, and limited access to reliable power can become decisive factors that push or restrict adoption regardless of perceived ease (Usman et al., 2025).

TOE complements TAM by shifting attention from individuals to the wider system in which adoption occurs. It proposes that adoption outcomes depend on; technological conditions (for example, system compatibility and security), organizational conditions (for example skills and financial capacity), and environmental pressures (for example, regulatory requirements and market expectations). Within this framework, organizational readiness often reflected in the availability of skilled personnel, supportive leadership, and sufficient funding emerges as a central determinant of digital transformation success, especially for SMEs (Usman et al., 2025). In short, while TAM explains why users may accept digital tools, TOE clarifies when and under what conditions

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organizations can implement them effectively. In practice, for example, an SME may value cloud accounting software because it speeds up reporting (high perceived usefulness), yet struggle to implement it due to limited staff capability and weak internal controls (low organizational readiness). Conversely, the same SME may adopt a mandatory e-filing system even if it feels difficult to use, because regulatory penalties increase the cost of non-compliance (strong environmental pressure).

Empirical Review

Table 1 presents a summary of selected studies that examine the relationship between the accounting profession and digitalization and are relevant to this research. The studies are organized by author(s), country of study, year of publication, publication type, and key findings or thematic focus.

Table 1: Summary of Empirical Studies on Digital Transformation and the Accounting Profession

Author(s)	Country	Year	Source Type	Key Findings
Aiyelabegan et al.	Nigeria	2026	Journal Article	E-invoicing and TaxPro Max improve transparency, compliance, and tax administration efficiency in the Nigeria Revenue Service.
Ilaboya & Uwaifo	Nigeria	2025	Journal Article	Digital platforms such as TaxPro Max and e-tax systems improve taxpayer registration, filing, and electronic payment processes.
Abdullahi & Ejike	Nigeria	2025	Journal Article	Artificial intelligence adoption significantly improves financial reporting quality among professional accountants.
Ibilbor & Deshi	Nigeria	2025	Journal Article	Digital tax reforms including TIN, ITAS, and TaxPro Max enhance administrative efficiency in tax administration.
Surya	Indonesia	2024	Journal Article	Digital transformation requires accountants to acquire technological skills and adapt to evolving professional roles.
Al-Okaily et al.	Jordan	2024	Journal Article	Digital accounting transformation positively influences employee job performance and organizational outcomes.
Yaya & Bhuana	Indonesia	2024	Journal Article	Technological advancement supports and complements the work of accountants rather than replacing them.

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Sidorova et al.	Russia	2023	Journal Article	Simulation-based accounting education improves students' understanding of professional accounting practice.
Fijabi & Lasisi	Nigeria	2023	Journal Article	Digitalization enhances audit efficiency, tax services performance, and financial advisory services.
Almeida & Carvalho	Portugal	2022	Conference Paper	Accounting education must incorporate digital competencies to prepare future accountants for technology-driven practice.
Eznwa & Nkem	Nigeria	2021	Journal Article	Artificial intelligence integration increases accountants' productivity and professional effectiveness.
Yoon	Korea	2020	Journal Article	Adoption of advanced accounting technologies is inevitable in modern financial reporting environments.
Ogaluzor	Nigeria	2019	Journal Article	Digitalization positively influences accountants' work performance and professional relevance.
Slyozko et al.	Ukraine	2019	Journal Article	The accounting profession is expected to undergo significant transformation due to the digital revolution.
Todorova	Bulgaria	2018	Journal Article	Artificial intelligence presents opportunities and challenges for the future of the accounting profession.

Note. Authors' synthesis of empirical literature on digital transformation and the accounting profession.

METHODOLOGY

This study applied a systematic mixed-methods review design to consolidate secondary evidence on the influence of digital transformation on accounting careers in Nigeria. The design was appropriate because it supported the integration of quantitative findings on the extent and effects of technology adoption with qualitative insights from documentary sources, including legislation and regulatory guidance relevant to digital accounting practice. A structured search strategy was used to identify peer-reviewed journal articles, conference proceedings, and authoritative statutory or policy documents published between 2020 and 2026. The search process relied on combinations of key terms aligned with the study focus, including digital transformation, accounting profession, cloud accounting, tax technology, automation, regulation, data protection, and Nigeria, and was complemented by backward reference searching to locate additional eligible materials.

Eligibility decisions were guided by predefined criteria. Sources were retained where they addressed digital technologies with direct implications for accountants' roles, competencies, employability, or professional practice in Nigeria; presented empirical evidence on effectiveness, uptake, barriers, or implementation context; or provided primary legal and regulatory texts (or credible scholarly interpretations of those texts) with clear relevance to accounting work. Materials were excluded if they were outside the 2020–2026 period, were insufficiently connected to the Nigerian setting, or did not provide adequate methodological detail to support dependable interpretation. Screening was completed in two stages, beginning with title and abstract review and followed by full-text assessment for all potentially relevant records.

Data were then extracted using a standard template capturing publication details, study design, sample characteristics, technology domain, measured outcomes, and contextual factors affecting implementation. Quantitative evidence was synthesised from empirical studies reporting measurable outcomes linked to digital tools and accounting-related processes. Extracted studies included regression-based evidence on TaxPro Max effectiveness from 374 respondents (Bamidele & Afolabi, 2025) and survey findings on constraints affecting cloud accounting adoption among 300 small and medium-sized enterprise participants (Usman et al., 2025). Because outcome measures and analytical approaches varied across studies, the quantitative component was synthesised using structured tabulation and narrative comparison rather than meta-analysis. This enabled consistent interpretation of patterns relating to efficiency outcomes and adoption challenges across heterogeneous evidence.

Qualitative evidence was drawn from document analysis of key legal and regulatory instruments shaping the operating environment for digital accounting in Nigeria. The review emphasised the Nigeria Tax Act 2025, the Nigeria Tax Administration Act 2025, and the Nigeria Data Protection Act 2023, interpreted alongside peer-reviewed legal scholarship examining their implications for compliance, data governance, and professional accountability (Hudu, 2026; Oriaifoh & Obaretin, 2025). These materials were analysed through thematic coding to surface recurring issues that influence accounting practice in digitally enabled contexts, including regulatory enforcement as a driver of digitalization and concerns relating to trust, privacy, and system integrity. The final stage involved triangulating quantitative and qualitative findings to strengthen inference and reduce single-source bias. Convergences and inconsistencies between empirical evidence on operational realities and documentary evidence on regulatory conditions were examined to generate an integrated explanation of how policy environments and workplace-level adoption dynamics jointly shape evolving accounting roles and skill requirements in Nigeria (Bamidele & Afolabi, 2025; Hudu, 2026; Oriaifoh & Obaretin, 2025; Usman et al., 2025).

RESULTS/ FINDINGS

Efficacy of Digital Tax Administration

Recent empirical data confirms that the digitization of tax administration in Nigeria is yielding statistically significant results. A study by Bamidele and Afolabi (2025) involving 374 observations on the impact of TaxPro Max on revenue generation produced the regression results presented in Table 1.

Table 1: Regression Results for TaxPro Max Adoption and Revenue Generation

Model Indicators	Value	Interpretation
R Squared (R ²)	0.887	88.7% of variation in revenue is explained by TaxPro Max adoption.
F Statistic	263.85	The model is statistically significant (p < 0.001).
Regression Sum of Squares	89.214	High variance explained by the model.
Residual Sum of Squares	8.117	Low unexplained variance.

Source: Adapted from Bamidele and Afolabi (2025)

From table 1; the high F value (263.85) and R squared (0.887) indicated that the shift from manual to digital filing is a primary driver of improved fiscal performance. This validates the government's aggressive push for the 2025 reforms and suggests that digital compliance tools are now critical for business viability.

Barriers to Cloud Accounting Adoption

Despite the benefits, Nigerian SMEs and accounting firms face multidimensional barriers. Usman et al. (2025) utilized multiple regression analysis to identify the most significant impediments, as shown in Table 2.

Table 2: Multiple Regression Analysis of Barriers to Cloud Accounting Adoption

Barrier Dimension	Beta Coefficient (β)	t value	p value	Significance
Organizational Barriers	-0.30	-3.8	0.000	Highly Significant
Security/Privacy Concerns	-0.25	-3.2	0.002	Significant
Psychological Barriers	-0.20	-2.5	0.013	Significant
Regulatory/Legal Barriers	-0.18	-2.1	0.037	Significant
Socio Cultural Barriers	-0.15	-1.8	0.072	Not Significant (at 5%)

Source: Adapted from Usman, Halidu, & Aliyu (2025)

From Table 2, shows the negative Beta coefficients indicate that as these barriers increase, adoption decreases. Notably, "Organizational Barriers" (such as lack of skilled personnel) and "Security/Privacy Concerns" are the most potent deterrents. This aligns with qualitative findings regarding a "Trust Deficit" where stakeholders fear unauthorized access to cloud stored data.

Professional Perceptions of Cloud Benefits

Conversely, amongst professional accountants in South East Nigeria, there is high consensus regarding the operational benefits of these systems. Chukwuani (2025) found that the perceived efficiency gains are substantial (see Table 3).

Table 3: Professional Accountants' Perceived Benefits of Cloud Systems

Benefit Variable	Mean Score (Max 5.0)	% Agree/Strongly Agree
Improved Efficiency & Faster Reporting	4.53	89%
Real Time Data Accessibility	4.41	85%
Enhanced Transparency & Audit Trail	4.27	80%
Scalability and Flexibility	4.10	77%
Reduced Capital Expenditure	3.95	73%

Source: Adapted from Chukwuani (2025).

From Table 3 the results suggested that the barrier to adoption is not a lack of awareness regarding the benefits (89% agreement on efficiency), but rather the infrastructural and organizational constraints identified in Table 2.

Impact of Forensic Techniques on Audit Quality

The rise of digital fraud has necessitated forensic interventions. Onodi et al. (2023) analyzed the effect of specific forensic techniques on audit quality in public sector establishments. The regression results demonstrated a strong positive relationship.

Table 4: Regression Results for Forensic Techniques on Audit Quality

Forensic Technique	T-Statistic	P-Value	Interpretation
Computer Cross Drive Analysis	16.036	0.000	Significant positive effect on audit quality.
Network Audit Trail	21.972	0.000	Significant positive effect on audit quality.
Live Analysis	21.055	0.000	Significant positive effect on audit quality.

Source: Adapted from Onodi, Okafor, & Ezinando (2023).

These high t-statistics confirmed that the integration of digital forensic tools is not merely optional but essential for ensuring high quality audits in the public sector.

DISCUSSION

The convergence of the results from Bamidele and Afolabi (Table 1) and Usman et al. (Table 2) paints a complex picture. The government, through the Nigeria Revenue Service (NRS) and the 2025 Tax Acts, is effectively forcing digitalization upon the sector to maximize revenue. The high R squared value for TaxPro Max proves this strategy works for the state. However, the practitioners are caught in the middle. They recognize the benefits (Table 3), but are hampered by severe organizational and security barriers (Table 2). This creates a "compliance gap" where firms may digitize superficially to meet regulatory requirements without fully integrating the technology for strategic advantage.

The 2025 Tax Reform Acts introduce provisions that fundamentally alter the accountant's daily work. As noted by Oriafih and Obaretin (2025), the consolidation of taxes and the introduction of a digital services tax require accountants to move beyond local bookkeeping to understanding cross border digital taxation. Hudu (2026) highlights that the new tax laws specifically impact copyright licensing and royalties in the creative sector, requiring accountants to understand the tax implications of digital intellectual property transactions. This forces a shift in skill sets from manual computation to the interpretation of complex fiscal laws in a digital context.

The significant t-statistics found by Onodi et al. (2023) regarding forensic techniques (Table 4) indicates the growing importance of forensic accounting. With the increasing sophistication of cybercrimes, accountants must possess the skills to perform "Live Analysis" and "Cross Drive Analysis" to detect fraud. Kabara and Aliyu (2025) further emphasize that Big Data analytics is

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critical for fraud detection in the public sector. This suggests that the future accountant must be part data scientist and part investigator to maintain professional relevance.

The "Security/Privacy Concerns" identified in Table 2 are not unfounded. The Nigeria Data Protection Act (NDPA) 2023 imposes strict obligations on data controllers and processors (Atata & Okegbile, 2024; Uwadinma, 2025). Accountants, who process vast amounts of personal financial data, are now legally liable for data breaches. The Act mandates the appointment of Data Protection Officers (DPOs) for high volume processors, creating a new career specialization within the profession. Compliance with NDPA 2023 is not just an IT issue but a core accounting function, as non-compliance attracts heavy fines.

Implication to Research and Practice

The research findings reveal a paradigm shift in research and accounting in Nigeria. The research community should conduct more empirical research on the "compliance gap," particularly on the application of digital technology superficially and strategically. Future research should focus on the impact of regulatory digitalization on firm performance, audit quality, and tax compliance, as well as the application of AI, Big Data, and forensic technology.

For the accounting profession, the application of manual computations is no longer the focus. The profession should evolve and build new competencies in data analytics, forensic accounting, and digital tax compliance. The 2025 Tax Reform Acts and the Nigeria Data Protection Act (2023) have introduced new responsibilities in cross-border taxation and data protection.

Ultimately, the way forward is a collaborative effort among professional associations, regulators, and the profession itself in addressing the digital skill gap and being relevant in a technology-driven world.

CONCLUSION & RECOMMENDATIONS

Digital transformation in the Nigerian accounting sector is characterized by a "Push Pull" dynamic. The Push comes from aggressive government regulations (Tax Reform Acts 2025) mandating digital compliance. The Pull comes from the demonstrated efficiency gains of AI and cloud systems. However, the Friction lies in the infrastructural deficit and organizational resistance.

The study concludes that the future accountant in Nigeria will not be defined by their ability to compute figures, a task now better performed by AI, but by their ability to leverage technology to provide strategic, ethical, and compliant financial guidance. The successful professional must bridge the gap between the "finance factory" automation and the unique nuances of the Nigerian business environment.

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Based on the comprehensive review of the literature and the findings presented in this study, the following recommendations and suggestions for further research are proposed to guide policy, practice, and academic inquiry.

Professional bodies such as the Institute of Chartered Accountants of Nigeria (ICAN) and the Association of National Accountants of Nigeria (ANAN) should move beyond periodic, theory-driven syllabus reviews and deepen the practical orientation of their professional training. Notably, ICAN's 2025 syllabus update is a commendable step forward, as it reflects emerging needs and challenges in today's financial sector by embedding more real-life scenarios into its professional curriculum helping to prepare prospective accountants to remain competitive and capable of addressing increasingly complex financial issues. Building on this progress, these professional bodies should strengthen collaboration with technology vendors to deliver hands-on, subsidized training on relevant platforms such as TaxPro Max and cloud-based accounting software (Usman et al., 2025). In addition, as emphasized by Onogholo et al. (2025), universities should partner with accounting firms and technology companies to develop AI-focused curricula that equip graduates with industry-relevant competencies for an evolving profession. Finally, government support remains essential for structured induction and work-related training particularly for public sector accountants to build capacity in areas such as computer forensics and digital evidence handling (Onodi et al., 2023).

To address the significant "Organizational Barriers" identified, the government should introduce incentives such as tax breaks and grants to encourage Small and Medium sized Enterprises (SMEs) to adopt AI and cloud technologies (Onogholo et al., 2025). Policymakers need to develop clear data protection regulations specifically for cloud computing in Nigeria to mitigate the "trust deficit" and offer incentives for SMEs to adopt certified cloud accounting solutions (Usman et al., 2025). Additionally, investments in expanding technology infrastructure and internet access must be sustained to reduce the cost of data and improve reliability (Muoneke, 2024).

Given the legal liabilities introduced by the Nigeria Data Protection Act 2023, accounting firms must operationalize data governance. This includes appointing Data Protection Officers and conducting regular data protection impact assessments to ensure compliance and build client trust (Atata & Okegbile, 2024). Technology vendors operating in Nigeria should also offer localized support and transparent data security policies to further alleviate privacy concerns (Usman et al., 2025).

To sustain the revenue gains from platforms like TaxPro Max, the Federal Inland Revenue Service (now NRS) should establish regional technical support centers across geopolitical zones to resolve technical issues promptly (Bamidele & Afolabi, 2025). Periodic software updates, system audits, and cybersecurity checks should be institutionalized to safeguard taxpayer data and reduce downtime (Bamidele & Afolabi, 2025).

Suggestions for Further Studies

While this research provides critical insights into the digital transformation of the Nigerian accounting profession, several avenues for future research remain.

Geographic and Sectoral Expansion: Current empirical studies have largely focused on major commercial centers like Lagos and Abuja. Future research should expand the geographic scope to include SMEs and accounting firms in other geopolitical zones to provide a more comprehensive national picture of adoption barriers (Usman et al., 2025). Additionally, research should investigate sector specific variations, distinguishing between the challenges faced by manufacturing SMEs versus service-oriented firms (Usman et al., 2025).

Longitudinal Analysis of AI Adoption: Most existing studies rely on cross sectional data. Future researchers should employ longitudinal designs to track adoption trends over time and evaluate the long-term impact of AI powered analytics on investment decision making and market trends (Chukwuani, 2025; Sulaiman et al., 2025). This would help in understanding whether the "forced" digitalization leads to sustained behavioral change or superficial compliance.

Cybersecurity and Financial Integration: There is a need for deeper investigation into the intersection of AI, cybersecurity, and accounting. Future studies should evaluate how AI driven encryption and fraud detection systems can mitigate risks such as cyberattacks in financial reporting (Sulaiman et al., 2025). Furthermore, research should explore the specific impacts of the 2025 Tax Reform Act on niche sectors, such as the taxation of royalties in the creative industry, to assess compliance complexities (Hudu, 2026).

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Appendices

Appendix A: Key Features of the 2025 Tax Reform Acts

Act	Key Provision	Impact on Accountants
Nigeria Tax Act (NTA)	Consolidates CIT, PIT, VAT, and CGT.	Requires re evaluation of corporate tax strategies.
Nigeria Tax Admin Act (NTAA)	Mandates TIN for all accounts; introduces Electronic Fiscal Systems (EFS).	Enforces digital literacy; mandates real time reporting.
Nigeria Revenue Service Act	Replaces FIRS with NRS; autonomous funding.	Centralizes collection; accountants must deal with a more empowered authority.
Joint Revenue Board Act	Harmonizes taxes across Federal/State levels.	Reduces multiple taxation disputes; standardizes compliance procedures.

Appendix B: AI vs. Traditional Accounting Time Allocation

Source: Adapted from Onogholo et al. (2025) and Tang (2025)

Accounting Task	Traditional Method Time	AI Assisted Method Time	Efficiency Improvement
Data Entry	High (Manual input)	Low (Automated/OCR)	Approx. 80%
Bank Reconciliation	Moderate (Periodic)	Low (Real-time)	Approx. 60%
Audit Preparation	High (Sampling)	Moderate (100% Data Review)	Approx. 50%
Fraud Detection	Reactive (Post-event)	Proactive (Real-time anomaly detection)	High Value Strategic