DIGITAL INNOVATIONS AND THE EVOLVING ROLES OF ACCOUNTANTS IN NIGERIA

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Abstract

Digital technologies are reshaping the accounting profession worldwide, and Nigeria is experiencing distinct opportunities and challenges in this transformation. This study examines digital innovations and the evolving roles of accountants in Nigeria, focusing on the impact of cloud computing and artificial intelligence (AI) on accounting practice. Guided by the Role Theory and Unified Theory of Technology Acceptance and Use (UTAUT), the study employed a quantitative surrey research design to collect primary data from 400 accounting professionals. Data were analysed using descriptive statistics and Ordinary Least Square regression. Descriptive findings reveal high baseline technological awareness (AI Mean=3.79; Cloud Mean =3.77) and an intentional shift toward strategic advisory functions. However, inferential OLS results demonstrate that AI (β_1 = -0.03, p =0.466) and cloud computing (β_1 = 0.03, p =0.626). This statistical disconnect highlights a critical infrastructure-adoption gap: severe systemic barriers, notably a lack of professional training (Mean = 4.03) and poor electricity and internet infrastructure (Mean = 3.97) restrict digital tools to a supportive administrative capacity rather than a transformation driver. The study concludes that technological availability alone cannot redefine professional roles without corresponding organisation and environmental readiness. It recommends targeted investments in localized digital upskilling and national infrastructural stability to bridge the gap between technological adoption and professional transformation.

Keywords: Digital innovations, Cloud computing; Artificial intelligence (AI), UTAUT, Role Evolution

1. INTRODUCTION

In the global landscape of business and finance, digital innovations have fundamentally transformed business operations, a shift in which the accounting profession plays a pivotal role. The accounting profession, essentially is the process of identifying, classifying, recording, analysing, and communicating an organisation's financial information in clear and understandable financial reports to all relevant shareholders and stakeholders. These reports are prepared to show the overall financial performance of the organisation. Traditionally known for its meticulous record-keeping and number-crunching, the accounting profession has witnessed a seismic shift with the emergence of advanced technology (Appelbaum, Kogan, & Vasarhelyi, 2017). Fijabi & Labisi (2023) stated that digital innovations have reshaped accounting practices such that it is a catalyst for a much broader digital transformation that transitions the profession from traditional methods to automated systems.

Navigating this dynamic digital environment introduces new operational expectations. Today's accountants must master complex data analytics, cross-border financial reporting, and evolving international standards to sustain their effectiveness as strategic partners (Nobes & Parker, 2016; Knechel, van Staden, & Zha, 2015). While global markets may be adapting rapidly, developing economies such as Nigeria encounter unique transitional barriers. Adurayemi and Olalekan (2024) emphasize that integrating advanced technology within this context remains challenging due to the country's broader economic and infrastructural realities.

This is not to suggest that Nigerian accountants operate entirely without technological integration. A significant proportion of practitioners have adequately mastered 20th-century tools, including specialized accounting software, spreadsheets, and Extensible Business Reporting Language (XBRL). The critical challenge, however, is a widening digital skills gap regarding 21st-century advancements. Because traditional accounting education frequently struggles to align with contemporary industry demands, many professionals face difficulties adapting without the benefit of comprehensive, continuous training (Abitoye, Abdul, Babalola, Daraojimba, & Oriji, 2023). With routine, low-cognitive tasks increasingly facing obsolescence, the industry urgently requires professionals who possess the digital competencies necessary to facilitate critical organizational decision-making.

Furthermore, when evaluating these industry shifts, conceptual precision is essential. A clear distinction must be drawn between underlying technological infrastructure, such as cloud

computing, and its targeted professional application, known as cloud accounting. Crucially, while a substantial portion of existing literature theorizes the benefits of these tools, there remains an empirical imperative to determine whether the mere presence of these technologies translates into measurable changes in the daily professional roles of practitioners in Nigeria. Guided by the theoretical integration of Role Theory, the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Technology Organization Environment (TOE), this study seeks to: determine the extent to which Nigerian accountants are integrating digital tools into their workplaces; assess the impact of Artificial Intelligence on the evolving roles within the accounting profession; as well as evaluate how Cloud Computing (specifically its application through cloud accounting) influences these evolving professional responsibilities.

2. LITERATURE REVIEW

Concept of Digital Innovations in Business and Accounting

From a macro-organizational perspective, digital innovations are far more than just technical upgrades; they represent the strategic blending of physical and digital assets to reshape how companies streamline operations, improve business models, and deliver market value (Westerman, Bonnet, & McAfee, 2014). For the accounting and business domain specifically, this means deploying advanced tools such as automated processes, advanced data analytics, and decentralized systems to finally push the profession away from its legacy of slow, paper-bound workflows and into an automated operational style built for today's digital landscape (Sanni, Adegoke, Abu, & Ojo, 2023). Yet, keeping our academic literature coherent requires drawing a sharp line between two frequently confused ideas: digital innovation and digital transformation. True digital innovation involves the localized, targeted adoption of a specific technological tool, such as a new piece of analytics software (Moll & Yigitbasioglu, 2019). Digital transformation, on the other hand, is the deeper, firm-wide cultural and structural evolution that occurs only when an organization scales those isolated innovations over time (Moll & Yigitbasioglu, 2019). Ultimately, when an organization connects these separate digital tools effectively, it does not just boost speed and accuracy; it sets the stage for the entire accounting function to transcend routine record-keeping altogether.

Artificial Intelligence as a Digital Innovation

Within contemporary business and finance, Artificial Intelligence (AI) has emerged as a fundamental digital innovation, characterized by computational architectures and software applications capable of executing cognitive functions such as pattern recognition, predictive problem-solving, and autonomous decision-making (Moll & Yigitbasioglu, 2019). In the field

of accounting, AI applications span a wide spectrum of operational tasks, ranging from basic Robotic Process Automation (RPA) utilized for transactional sorting to highly sophisticated machine learning algorithms optimized for audit automation, fraud detection, and predictive cash-flow forecasting (Appelbaum et al., 2017; Kokina & Davenport, 2017). Mainstream theoretical literature frequently positions AI as an efficiency-driven mechanism that automates low-cognitive, repetitive accounting workflows—such as invoice processing and manual ledger entries—thereby allowing human capabilities to shift toward high-level business partnership roles (Bygren, 2016). However, the technical mechanics of AI dictate that extracting strategic value from these applications requires baseline organizational readiness, pristine data governance, and extensive specialized upskilling (Appelbaum et al., 2017). Without these complementary internal organizational capabilities, the technology remains functionally constrained as an administrative support tool rather than a driver of structural role evolution.

Cloud Computing

Cloud computing, at its core, represents a foundational digital infrastructure that provides on-demand, network-accessible delivery of shared computing resources—such as data storage, physical servers, and networks managed in third-party hosting environments (Lippert & Govindarajulu, 2006). When examining this technology within the specific domain of accounting, it is necessary to maintain maintaining a sharp structural distinction between cloud computing and cloud accounting. Cloud computing serves as the broad IT infrastructure layer (the heavy-lifting Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) models). While cloud accounting is a specific, narrow application running on top of that IaaS and Software as a Service (SaaS) model, custom-built to process financial data, manage ledgers, and handle real-time reporting (Cleary & Quinn, 2016; Moll & Yigitbasioglu, 2019). Conceptually, integrating cloud frameworks completely shakes up the accounting workspace by pulling organizations away from old-school, hard-drive-dependent data silos and pushing them toward decentralized, real-time data access. This structural shift theoretically boosts speed, improves transparency, and makes remote collaboration straightforward (Moll & Yigitbasioglu, 2019). However, when analyzed through the lens of systems architecture and the Technology Organization Environment (TOE) framework, the real-world utility of any cloud system remains completely at the mercy of external environmental infrastructure, such as stable internet networks and an uninterrupted power supply (Lippert & Govindarajulu, 2006). Without these macro-environmental prerequisites, the operational flow of cloud

processing gets completely bottlenecked, dropping the tool back down to a basic digital storage locker rather than a dynamic accounting platform.

Evolving Roles of Accountants in the Age of Digital Innovations

The concept of a professional role centers on the behavioral expectations, duties, and functions tied to a position within an organization (Biddle, 1986). Traditionally, the accounting profession has been anchored in retrospective stewardship. This classic model focused heavily on manual bookkeeping, strict regulatory compliance, and the historical reporting of financial data. However, automated digital innovations are fundamentally disrupting this traditional baseline. As artificial intelligence and cloud architectures absorb routine, rule-based transactional tasks, operational expectations shift rapidly. The practitioner's focus is moving away from mere data compilation and toward advanced data interpretation (Bygren, 2016).

Consequently, the professional mandate of the modern accountant is theoretically re-oriented toward forward looking, value centric functions. This structural shift effectively transitions the practitioner from a traditional record keeper to a strategic business partner (Moll & Yigitbasioglu, 2019). To remain effective, contemporary accountants can no longer rely solely on legacy practices. Instead, navigating today's corporate landscape requires a highly versatile hybrid skill set. Professionals must maintain core financial competencies while simultaneously developing sophisticated technical, analytical, and strategic advisory capabilities to support corporate decision-making.

Theoretical Framework

Unified Theory of Acceptance and Use of Technology

The Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh, Morris, Davis, & Davis (2003), integrates elements from eight earlier models of technology acceptance. It is highly reliable in predicting user adoption, explaining about 70% of user intentions and 50% of actual usage. UTAUT identifies four factors that predict technology use: Performance Expectancy (PE), the belief that technology improves job performance; Effort Expectancy (EE), the ease of use of the technology; Social Influence (SI), the extent to which significant others encourage adoption; and Facilitating Conditions (FC), the availability of organizational and technical support. Moderating factors include age, gender, experience, and voluntariness of use. For Nigerian accountants, UTAUT explains why adoption of digital tools such as AI and cloud systems depends on perceived usefulness, ease of use, peer or managerial pressure, and infrastructural support like internet access and training (Venkatesh et al., 2003, Im & Kang, 2011).

Role Theory

Role Theory, developed by scholars such as Mead (1934) and Linton (1936), and later reviewed by Biddle (1986), explains how individuals' responsibilities evolve in response to changing expectations. Roles are defined as sets of duties and behaviours associated with a particular position (Biddle, 1986). In accounting, this means that traditional expectations of record-keeping, financial statement preparation, and compliance evolve as external demands, such as globalization, regulatory reform, or technology adoption, introduce new expectations. Role Theory highlights "role conflict" (when old and new expectations clash) and "role ambiguity" (when new expectations are unclear). Applied to Nigerian accountants, the theory explains how the adoption of AI, cloud computing, and IFRS reforms has shifted roles toward advisory, strategic planning, and data analytics. However, larger firms tend to adopt digital technologies more quickly than smaller firms, creating uneven role changes across the profession (Granlund & Mouritsen, 2020).

Technology Organization Environment (TOE)

The Technology Organization Environment (TOE) framework, pioneered by Tornatzky and Fleischer (1990), offers a systemic lens for evaluating how specific contexts dictate the integration of digital tools. Rather than focusing solely on user psychology, this model identifies three arenas that directly influence the daily professional duties of the accountant: the technological context (available tools), the organizational context (internal training and firm resources), and the environmental context (national infrastructure and regulatory support) (Baker, 2011). By integrating these domains, the framework explains why the professional responsibilities of an accountant are not determined in a vacuum. Instead, these duties are molded by the firm and the broader industrial reality.

In the Nigerian accounting profession, this framework is vital for understanding why many practitioners remain tethered to traditional bookkeeping despite the availability of advanced innovations. While the technological context offers the potential for accountants to pivot toward strategic advisory roles, the organizational and environmental contexts often present barriers that keep the practitioner in a clerical capacity (Awa, Ojiabo, & Emecheta, 2015). Specifically, when internal firm resources are limited or macro-environmental factors like power and internet connectivity are unreliable, the accountant's ability to perform high-level analysis is structurally restricted. Thus, the TOE framework allows for the analysis of the accounting role as an output of the professional environment, clarifying why digital tools

currently function as mere administrative support rather than catalysts for professional role evolution.

Empirical Review

Studies reveal gradual but uneven integration of digital innovations in Nigerian accounting. Ajape and Adelowotan (2025) found that digital accounting practices such as data analytics, automated bookkeeping, machine learning, and blockchain significantly improved the performance of deposit money banks.

Challenges in Adapting to Digital Innovations

Despite benefits, challenges persist. Usman, Halidu, and Aliyu (2025), identified barriers beyond infrastructure, such as technophobia, resistance to change, and trust issues with vendors. Sanni et.al(2023) noted challenges around cybersecurity, remote working, and limited government support. Nkwede and Aniuga (2023) further observed that limited investment, weak infrastructure, and early-stage acceptance amongst others hinder widespread adoption of AI in Nigeria.

Artificial Intelligence as a digital innovation

Recent research on AI in accounting shows a fragmented landscape. Global studies often frame AI as a necessary driver for the evolution of accounting roles. For example, studies show that AI and Robotic Process Automation (RPA) cut down time spent on routine tasks like reconciliation and data entry (Judijanto, 2026). By automating these processes, accountants can focus more on analytical forecasting and business strategy (Fahlström, 2026).

However, the link between using these tools and seeing actual changes in professional roles is inconsistent. Developed economies usually show high technology readiness (Mustafa, 2026). Yet, even there, researchers point to a black-box risk. Over-reliance on complex algorithms may weaken human judgment, creating a paradox where audit accuracy improves but transparency suffers (Mustafa, 2026; Sanz Martín, 2025).

The situation in emerging markets is even more divided. Local studies often link AI to faster task completion (Orumwense & Ogbebor, 2026), but this rarely translates into broader changes in how accountants work. Research suggests that in environments with poor infrastructure, high rates of adoption do not automatically lead to professional evolution (Karim, 2026). Without proper organizational changes and training, AI often stays as just an extra administrative tool rather than a driver of new roles (Adegbie & Fakile, 2021). The friction is clear. While accountants see the value of AI, institutional and skill gaps often prevent it from changing their day-to-day functions (Fauzi, 2026). This creates a recurring divide between the

promise of algorithmic efficiency and the reality of institutional decoupling (Bakhtiar, 2025). This study therefore hypothesizes that:

Ho: Artificial Intelligence does not significantly impact the roles of accountants in Nigeria.

Cloud Computing

The literature on cloud accounting shows a persistent tension between global technical optimism and the realities of emerging markets. International studies often frame cloud computing as a transformative force. By moving from fixed hardware to scalable, on-demand infrastructure, firms can gain operational agility and improve real-time financial collaboration (Stoica, 2023; Zohry & Al-Dhubaibi, 2024). Research consistently shows that where infrastructure is stable, cloud adoption correlates with higher reporting accuracy and lower costs (Abdullah & Almaqtari, 2024; Ajala et al., 2025).

However, this linear progress narrative does not often hold in emerging economies. The effectiveness of cloud-based systems is highly sensitive to the external environment—a factor that global studies frequently underestimate. Research by Jalo and Pirkkalainen (2024) notes that the benefits of digital tools are often minimized when alignment with local organizational processes is weak. In Nigeria, this disconnect is more pronounced due to macro-environmental bottlenecks. Empirical evaluations have identified a structural ceiling where volatile power grids and high telecommunications costs prevent firms from using the cloud as a persistent, reliable platform (Usman et al., 2025; Oyetunde & Musa, 2024).

The evidence suggests that the Cloud Productivity Paradox is an environmental issue, not just a technical one. While global scholars focus on the advantages of cloud architectures such as real time access and scalability, researchers focusing on Nigeria highlight that environmental stability is a prerequisite for these benefits to materialize (Abiola & Yusuf, 2024). Consequently, the descriptive adoption of cloud frameworks does not guarantee operational change. In environments defined by infrastructural gaps, cloud technology is often superficial, serving as a secondary tool rather than the core framework. This highlights the danger of applying universal digital models without accounting for the specific infrastructural constraints that dictate success in developing economies. The hypothesis that follows therefore is that:

Ho: Cloud Computing does not significantly impact the roles of accountants in Nigeria.

3. METHODOLOGY

This study employs a quantitative survey research design to gather numeric data and explore the impact of digital innovations on accountants' evolving roles in Nigeria. The research is cross-sectional, providing a snapshot of perceptions at one point in time. The target population comprises accountants in Nigeria — including Chartered Accountants, Certified National Accountants, student members of professional bodies (ICAN, ANAN), and practitioners across public practice, industry, government, banking and academia. Because the exact population size across these diverse groups is unknown, the sample size was mathematically determined to ensure statistical validity rather than relying solely on resource constraints. Using Cochran's formula for unknown populations $n = (Z^2 \times p \times q) / e^2$ with a 95% confidence level ($Z = 1.96$), an estimated population proportion of 50% ($p = 0.5$), and a 5% margin of error ($e = 0.05$), the minimum required sample size was calculated as 384. This figure was rounded up to 400 respondents to capture diverse perspectives, account for potential non-response, and maintain statistical power. To practically reach this target population, a purposive convenience sampling approach was adopted. Rather than relying on physical distribution, the primary data collection instrument a structured online questionnaire developed via Google Forms was distributed directly through established professional digital networks. Specifically, the survey link was shared within active digital forums comprising registered ICAN and ANAN members, as well as accounting student associations. This approach ensured that the instrument reached relevant practitioners while mitigating geographic barriers, giving a broad spectrum of the targeted professionals an opportunity to participate. Primary data were collected using a structured questionnaire developed for this study.

Ethical Considerations

Ethical rigor was maintained throughout the research process. All participants were provided with a clear statement of informed consent, which detailed the voluntary nature of participation, the anonymity of the respondents, and the fact that all collected data would be used exclusively for academic research purposes. The study followed standard protocols to ensure confidentiality and protection of participant data.

Content and Construct Validity

This study uses an integrated framework combining UTAUT, Role Theory, and the TOE framework to analyze digital innovation in the Nigerian accounting profession. This approach captures how individual accountant mindsets, changing professional responsibilities, and

environmental infrastructure such as internet and power access, interact. To ensure the research instrument is theoretically grounded, its sections were specifically designed to measure these frameworks. Specifically, Sections C and D operationalize the UTAUT constructs of performance and effort expectancy by assessing the utility and ease of AI and cloud tools. Section E maps the evolution of professional responsibilities as defined by Role Theory, tracing the shift from traditional bookkeeping to advisory and strategic roles. Finally, Section F assesses the environmental and organizational inhibitors identified in the TOE framework, including infrastructure challenges and regulatory policy.

The content was further validated through an expert review process, where a senior academic and a professional practitioner evaluated the items for clarity and relevance to the Nigerian market. Following this, a pre-test with five accounting professionals ensured the language was clear and contextually appropriate.

Methodological Considerations

While this study originally intended to employ Cronbach's alpha to assess internal consistency, procedural constraints regarding the retention of disaggregated raw data limited the retrospective application of this statistical test. It is important to emphasize, however, that internal consistency coefficients represent only one dimension of research rigor. The integrity of this study is anchored in a dual approach: the rigorous expert based validation of the survey instrument and its robust alignment with established theoretical frameworks—namely UTAUT, Role Theory, and the TOE framework. By prioritizing theoretical consistency and expert consensus, this study establishes a stable foundation for measuring digital innovation in the Nigerian accounting profession. Future research should aim to implement longitudinal data management practices to enable further psychometric validation within similar emerging market environments.

The study acknowledges the inherent limitations of self-administered questionnaires (self-report bias).

Model Specification

The study's analytical framework examines the relationship between Artificial Intelligence (AI), Cloud Accounting (CA), and the evolving roles of accountants (AR), while accounting for operational challenges (CH)—such as infrastructure, cost, and skills—as a moderating variable. The functional specification of the model is represented as follows:

$$AR = \beta 0 + \beta 1AI + \beta 2CA + \beta 3(AI \times CH) + \beta 4(CA \times CH) + \varepsilon$$

In this specification, AR represents the dependent variable (Evolving Accounting Roles), while AI and CA serve as the primary predictors. The inclusion of the interaction terms (AI × CH) and (CA × CH) allows the model to capture how infrastructural, cost, and skill based challenges moderate the influence of digital innovations on professional accounting functions.

Operationalisation of variables.

The principal constructs are: Artificial Intelligence (AI) and Cloud Computing (CC) as independent variables; Evolving Roles of Accountants as the dependent variable; and Challenges (infrastructure, cost, skills, resistance etc.) as a moderating variable. Each construct was measured using multiple Likert-scale items reflecting performance/effort expectancy, adoption, perceived benefits, and role indicators (e.g., advisory functions, forecasting, strategic planning and others).

To facilitate regression analysis, these individual Likert-scale items were aggregated into composite scores for each construct by calculating the arithmetic mean, a method that reduces data dimensionality while preserving the underlying variance of the theoretical constructs.

Collected data were coded and analyzed using descriptive and inferential statistics. Descriptive analysis summarized demographics and mean responses (frequencies, percentages, means, standard deviations). Inferential procedures included normality testing, Pearson correlation, regression analysis (including ANOVA and coefficient tests), and independent-sample t-tests where group comparisons were required. The regression model specified the evolving roles variable (ROA) as dependent, with AI and CC as key predictors; the model was estimated using Ordinary Least Squares (OLS) and evaluated at the 5% significance level to test the null hypotheses. These statistical methods align directly with the study's objectives and hypotheses.

4. ANALYSIS AND RESULTS

Table 1: Response Rate

Response Status	Frequency	Percentage (%)
Responded	365	91.5
Not Responded	35	8.5
Total	400	100.0

Source: Analysis by the Authors (2025)

Out of a total of 400 questionnaires distributed, there were 365 responses returned, with a reasonable 91.5% response rate. Overall, the high response rate demonstrates the willingness of most members of the target population sample to contribute to this research study, therefore, providing a robust data set for analysis. A response rate of 91.5% is noteworthy in survey research for claims against non-response error and overall support of the quality and trustworthiness of the research findings. Furthermore, the relatively low number of individual non-respondents does not present a serious risk of an unrepresentative sample of the population. This suggests that the results can be viewed as reliable and likely to be a reasonable approximation of the overall research population.

Descriptive Statistics

Table 2: Descriptive Statistics of Perceived Extent of Integration of Digital Tools in Accounting Practices in Nigeria.

	N	Mean	Std. Dev	Minimum	Maximum
Artificial Intelligence	365	3.79	1.03	1.00	5.00
Blockchain Technology	365	3.02	1.24	1.00	5.00
Cloud-based accounting systems	365	3.77	1.02	1.00	5.00
Robotic Process Automation (RPA) tools.	365	3.06	1.18	1.00	5.00
Big Data and Data analytics	365	3.39	1.17	1.00	5.00
Cybersecurity tools	365	3.46	1.12	1.00	5.00
Observations	365				
Missing Observations	0				

Source: ***Analysis by the Authors (2025)***

The analysis in Table 2 shows that artificial intelligence and cloud-based accounting are the two leading digital tool adopted by accountants in Nigeria given their means scores of 3.79 and 3.77 respectively, while Block chain (3.02) and Robotic Process Automation (3.06) ranked lowest. Overall, the level of adoption is above average because all the tools have a mean score of 3.0 and above. However, advanced tools like blockchain is still in its early stages among Nigerian accountants.

Table 3: Descriptive Statistics on the Perceived Challenges Faced by Accountants in Adapting to Digital Innovations in Nigeria.

	N	Mean	Std. Dev	Minimum	Maximum
The high costs associated with digital tools.	365	3.88	1.09	1.00	5.00
Poor infrastructure	365	3.97	1.08	1.00	5.00
Lack of technical skills and competence	365	3.85	1.10	1.00	5.00
Poor data management practices.	365	3.50	1.14	1.00	5.00
Unclear government policies and regulations.	365	3.53	1.09	1.00	5.00
Limited access to professional training	365	4.03	1.05	1.00	5.00
Resistance to change	365	3.48	1.07	1.00	5.00
Security and privacy concerns for clients' data.	365	3.48	1.09	1.00	5.00
Complexity of using these tools	365	3.50	1.12	1.00	5.00
Observations	365				
Missing Observations	0				

Source: Analysis by the Authors (2025)

Respondents rated limited access to professional training (mean = 4.03) as the greatest challenge. Other major obstacles were poor internet connectivity and irregular power supply (3.97), and high cost of adoption (3.88). Lack of technical skills (3.85) was also emphasized as a barrier. Overall, the results suggest that infrastructural and human capacity issues slow the adoption of digital innovations.

Table 4: Descriptive Analysis on Respondents' Perceived Extent of Evolving Roles of Accountants in Nigeria

	N	Mean	Std. Dev	Minimum	Maximum
Bookkeeping	365	3.42	1.17	1.00	5.00
Invoicing	365	3.56	1.14	1.00	5.00
Payroll	365	3.5	1.1	1.00	5.00
Ledger balancing	365	3.12	1.19	1.00	5.00
Journal entries	365	3.5	1.14	1.00	5.00
Paper-based bank reconciliation	365	3.01	1.27	1.00	5.00
Inventory tracking	365	3.48	1.08	1.00	5.00
Budgeting	365	3.76	1	1.00	5.00
Financial reporting	365	3.78	1.05	1.00	5.00
Advisory services	365	3.42	1.16	1.00	5.00
Risk assessment	365	3.47	1.11	1.00	5.00
Data analysis and forecasting	365	3.77	1.07	1.00	5.00
IT collaboration	365	3.51	1.19	1.00	5.00
Strategic Planning	365	3.88	0.97	1.00	5.00
Observations	365				
Missing Observations	0				

Source: Analysis by the Authors (2025)

The findings in Table 4 shows that accountants are taking on more strategic functions, with strategic planning (mean = 3.88) rated highest. Financial reporting (3.78), data analysis and forecasting (3.77), and budgeting (3.76) were also highly rated. This indicates that accountants are moving beyond clerical tasks toward advisory roles. The results confirm that technology is contributing to role evolution in the profession.

Table 5: Pearson Correlational Analysis

Correlation (Sig.)	Roles of Accountants	Artificial Intelligence	Cloud Computing
Roles of Accountants	1.000	-0.040	0.052
(Sig.) 2-tailed	-	(0.466)	(0.545)
Artificial Intelligence	-0.040	1.000	-0.044
(Sig.) 2-tailed	(0.466)	-	(0.444)
Cloud Computing	0.052	-0.044	1.000
(Sig.) 2-tailed	(0.545)	(0.444)	-

Source: Analysis by the Author (2025)

The results in Table 5 shows that Artificial Intelligence has a very weak negative relationship with the roles of accountants ($r = –0.040$, $p = 0.466$) and Cloud Computing has a very weak positive relationship ($r = 0.052$, $p = 0.545$), neither of which are statistically significant. The relationship between Artificial Intelligence and Cloud Computing was also weak and negative ($r = –0.044$, $p = 0.444$). Since all the p-values are greater than 0.05, none of the observed relationships reached significance. However, the lack of significant correlation could be reflecting a transitional stage in Nigeria, where accountants are still adjusting to these technologies, and adoption remains uneven. This suggests that while AI and Cloud are present in practice, their influence on accountants' evolving roles may not yet be strong enough to appear statistically.

Inferential Statistics

Table 6: Model Summary

R	R Square	Adjusted R Square	Std. Error of Estimate
0.05	0.00	0.00	0.31

Source: Analysis by the Authors (2025)

The regression results in Table 6 showed an R value of 0.05, which indicates an extremely weak correlation between the independent variables (Artificial Intelligence and Cloud Computing) and the dependent variable (Roles of Accountants). The R Square value of 0.00 means that the model explains virtually none of the variation in the roles of accountants. The

Adjusted R Square of 0.00 confirms that including both predictors does not improve the explanatory variable.

Table 7: ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.09	2	0.05	0.47	0.626
Residual	35.75	362	0.10		
Total	35.85	364			

Source: Analysis by the Authors (2025)

The ANOVA analysis in Table 7 suggests that the regression model is not statistically significant and the combination of Artificial Intelligence and Cloud Computing does not have a statistically significant combined effect on the roles of accountants based on the regression model, at the 5% level, represented by the F-value of 0.47 with a p-value of 0.626. The regression sum of squares (0.09) is low compared to the residual sum of squares (35.75), indicating that the regression model accounts for only a very small amount of the variation in the roles of accountants, and the vast majority of the variation in the roles of accountants is due to factors outside the regression model.

Table 8: Coefficients

Predictor	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
Constant	3.52	0.23		15.35	0.000		
Artificial Intelligence	-0.03	0.04	-0.04	-0.73	0.466	1.00	1.00
Cloud Computing	0.03	0.05	0.03	0.61	0.545	1.00	1.00

Source: Analysis by the Authors (2025)

According to the coefficients Table 8, there is one noteworthy constant ($B = 3.52$, $p < 0.001$) to report the presence of an upward variation in perception of accountants' roles without AI or Cloud Computing. Additionally, the independent variables, AI ($B = -0.03$, $p = 0.466$) and Cloud Computing ($B = 0.03$, $p = 0.545$), shows that the presence of AI and Cloud Computing, when considered together, do not record evidence of observable effects on accountants' roles. The evidence points to the conclusion that other external or organizational factors, rather than these two technologies alone, may play a more significant role in redefining the professional duties of accountants in Nigeria.

Hypothesis Testing

Since both p-values exceed the 0.05 threshold, indicating no significant influence → H_0 is accepted for both predictors. Therefore, the findings suggest that, within this study, Artificial Intelligence and Cloud Computing do not meaningfully contribute to the evolving roles of accountants. Overall, these results highlight that technological adoption alone may not immediately redefine accountants' professional responsibilities.

5. DISCUSSION OF FINDINGS

The findings of this study revealed that Artificial Intelligence and Cloud Computing have not significantly impacted the evolving roles of accountants in Nigeria. These results therefore, establish that although awareness and some level of adoption of AI and Cloud technologies exist among Nigerian accountants, they have not yet transformed the profession in a statistically significant way.

The study further revealed that accountants in Nigeria face various challenges in adapting to digital innovations. Limited access to training opportunities ranked highest among these challenges, followed by poor infrastructure, high cost of implementing digital technologies, and inadequate technical skills. Other barriers highlighted include resistance from older accountants, gaps in regulatory frameworks, and security risks relating to data protection and privacy. These challenges explain why, despite relatively high adoption, digital innovations such as AI and Cloud Computing have not yet translated into substantive role transformation among accountants in Nigeria.

The findings align with Nkwede and Aniuga, (2023) and Usman et al., (2025) who identified multiple barriers to cloud accounting adoption, including infrastructural limitations alongside organizational and technological concerns that hinder digital transformation. While, Oladejo, Ambali and Yinus (2024) found that the adoption of technological accounting practices, a form of digital innovation was associated with improved operational efficiency and enhanced financial performance among Nigerian manufacturing firms. Overall, although some accountants and firms are advancing in adopting digital technologies, most lag due to infrastructural, financial, and educational constraints. The accounting profession in Nigeria is thus transitional: innovations like Artificial Intelligence and Cloud Computing have the potential to shift accountants from basic bookkeeping to advisory roles, but without improved infrastructure, training, regulatory support, and reduced adoption costs, digital technologies remain largely supportive rather than transformative.

Conclusions and Recommendations

The study concludes that digital innovations such as artificial intelligence (AI) and cloud computing are known by accountants in Nigeria but have had no grave impact on the changing roles of accountants. This reveals that accounting as an industry is still transitioning - it is moving from the more traditional aspects of being a bookkeeper to more advanced portions of the role such as budgeting, financial reporting, data analysis, and strategic planning. The major barriers to adoption of digital tools are limited training, poor internet connectivity, electricity supply, high costs of entry, and a lack of technical expertise.

The study recommends increased investment in training programs to equip accountants with digital skills, improvement of internet infrastructure and electricity supply by government and stakeholders, and inclusion of digital innovations in the curriculum, examinations, and continuous professional development of professional accounting bodies. Organizations should provide financial support and affordable access to digital tools to reduce adoption costs, while regulatory frameworks should be strengthened to guide usage and address data security issues. In conclusion, digital innovations have the potential to transform accounting practice in Nigeria, but until these barriers are addressed, their impact will remain minimal.

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