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RESEARCH ARTICLE

Professional Accountants' Views on the Challenges and Benefits of Transitioning to Cloud-Based Accounting Systems in South East, Nigeria

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Abstract

The increasing adoption of cloud-based accounting systems has attracted considerable interest worldwide, yet empirical evidence on its uptake in South East Nigeria remains limited. This study investigated professional accountants' views on the challenges and benefits of transitioning to cloud-based accounting solutions in this region. A descriptive survey design was adopted, with a target population comprising professional accountants working in audit firms, company accounting departments, and financial consultancies across South East Nigeria. A total of 200 respondents were sampled using convenience and purposive techniques, facilitated through engagements at ICAN district seminars. Primary data were gathered using a structured questionnaire measured on a five-point Likert scale, which focused on perceived benefits, infrastructural and security challenges, as well as other adoption inhibitors. The data were analyzed using both descriptive statistics and inferential tests, including t-tests and ANOVA, to identify variations in perceptions across demographic and firm-specific factors. The findings revealed that most respondents recognized the significant benefits of cloud-based accounting, particularly its contributions to enhanced efficiency, real-time financial reporting, transparency, and scalability. However, substantial challenges persisted, especially unreliable internet and power supply, data security and privacy concerns, insufficient training, and resistance to organizational change. These results highlight regional-specific hurdles that could slow adoption. Based on these findings, the study recommends targeted capacity-building initiatives, strengthened data protection policies, and investments in regional ICT infrastructure to support cloud adoption. Limitations include the small geographic focus and self-reported data, and future research could explore comparative regional analyses or longitudinal designs. Overall, this study provides practical and policy-relevant insights for improving the adoption of cloud-based accounting in South East Nigeria.

Keywords: *Cloud-Based Accounting; Professional Accountants; Adoption Challenges; South East Nigeria; Financial Reporting*

Introduction

Cloud-based accounting systems (CBS) have become a disruptive force in the accounting profession worldwide. By utilizing internet-enabled platforms, these systems allow organizations to store, process, and access financial data remotely, offering significant advantages such as real-time collaboration, process automation, and reduced IT overhead (Hashid & Almaqtari, 2024; Akpan, 2024). As a result, cloud accounting is viewed as a key driver of digital transformation in the sector (Akpan, 2024). Empirical studies in both developed and emerging economies—including Zimbabwe and Bangladesh—highlight that CBS adoption enhances data accuracy, efficiency, and decision-making quality, although uptake remains modest in many regions due to specific local constraints (Dlamini & Schutte, 2024; Al-Zoubi, 2017; Phaphoom et al., 2017).

In Nigeria, adoption of accounting software has been gradual and uneven. According to Iwuchukwu (2017) and Egiyi and Udeh (2020), challenges include limited internet infrastructure, cybersecurity threats, and policy uncertainty. In the microfinance sector of Anambra State, a study found that although cloud solutions such as NAMBUIT are gaining traction, barriers like unreliable internet, security apprehensions, and scarce technical skills continue to inhibit broader adoption (Mhlongo et al., 2024; Ugbah et al., 2025). Furthermore, a survey of accounting and finance professionals in southern Nigeria identified internet instability, data security fears, system integration difficulty, and weak regulatory frameworks as key inhibitors—while noting that moderate subscription and training costs actually encouraged adoption.

Despite advances in infrastructure and growing awareness of the advantages of CBS, Nigeria still lags behind technologically advanced countries in cloud adoption (Phaphoom et al., 2017). Specific to South East Nigeria, pockets of adoption exist—especially in microfinance institutions and professional service firms—but accounting professionals' attitudes, perceptions, and willingness to embrace CBS are under-researched. Given the essential role of accountants as system adopters and champions, understanding their views is critical to closing this knowledge gap and informing effective policy, practice, and training strategies.

Problem Statement

Although the global momentum in cloud accounting is robust, the extent to which accounting professionals in South East Nigeria perceive its benefits and face its challenges remains under-explored. Existing quantitative studies often focus on institutional and technical barriers (Ugbah et al., 2025; Phaphoom et al., 2017; Mhlongo et al., 2024), yet there is scant evidence capturing professional accountants' lived perceptions—particularly in a region characterized by unique infrastructural, cultural, and organizational factors. Without capturing these subjective insights, advocacy for cloud adoption risks overlooking critical hurdles such as trust issues, readiness, or attitudes—areas that cannot be addressed through infrastructure investment alone.

This theoretical and empirical disconnect threatens to weaken digital transformation efforts: policies and vendor offerings may fail to resonate with local realities if they are not grounded in professional feedback. Consequently, South East Nigerian firms may underutilize cloud-based accounting capabilities, undermining potential gains in efficiency, transparency, and competitiveness. To address this, this study seeks to explore accountants' perceptions in the region, focusing on both the perceived opportunities and the transition difficulties they face.

Research Objectives

To fill this gap, the present study is guided by three primary objectives:

1. To assess professional accountants' perceived benefits of cloud-based accounting systems
2. To identify the challenges they face during the transition to cloud accounting
3. To explore demographic or firm-specific differences in perceptions

Literature Review

Concept of Cloud-Based Accounting Systems

Cloud-based accounting systems (CBS) enable financial data to be stored, processed, and accessed over the internet, rather than on local servers. These platforms provide functionalities such as real-time data entry, automated workflows, remote accessibility, and seamless updates (Ugbah et al., 2025). Compared to traditional desktop-based systems, CBS offers small and medium enterprises (SMEs) enhanced collaboration, reduced hardware dependencies, and scalable subscription-based pricing (Yusuf Mohammed, 2023; Ugbah et al., 2025).

A study by Mohammed (2023) in Ekiti State, Nigeria compared traditional accounting and CBS integration, finding that cloud systems increased the productivity of accounting staff, improved financial organization, and positively influenced reporting quality. Meanwhile, Peters and Agwor (2024) emphasized during the COVID-19 pandemic that enterprises relying on remote operations depended heavily on cloud platforms to maintain business continuity in Nigeria. Such evidence underscores CBS's transformative potential for firms, particularly in emerging economies.

Theoretical Frameworks

Technology Acceptance Model (TAM)

TAM, developed by Davis (1989), remains one of the most influential frameworks for studying user acceptance of technology. It models user behavior as driven by two constructs:

1. **Perceived usefulness (PU)** – the degree to which a person believes that using the technology enhances job performance.
2. **Perceived ease of use (PEOU)** – how effortless users believe the technology is.

TAM has been validated in numerous Nigerian studies. For example, the introduction of cloud computing in Ogun State colleges revealed that PU, PEOU, attitude toward use, and access cost significantly predicted adoption intent (Abass et al., 2020). Bello and Imoru (2024), using TAM 3 within Nigerian TVET institutions, also found PU, PEOU, and social influence to be significant drivers of cloud adoption, with PEOU emerging as the most critical predictor.

Diffusion of Innovation (DOI) Theory

Rogers's (2003) Diffusion of Innovation (DOI) theory explains how new technologies spread across a population. It focuses on five key attributes that influence adoption decisions: relative advantage, compatibility, complexity, trialability, and observability. Relative advantage refers to the perceived improvement over existing options, compatibility reflects how well the innovation matches current work practices, and complexity relates to how difficult it is to use. Trialability is the opportunity to experiment before full adoption, while observability concerns the visibility of positive outcomes.

In Nigeria, DOI has been used alongside the Technology Acceptance Model (TAM) to understand how professionals view new financial technologies. For example, Arogundade et al. (2021) combined TAM and DOI constructs and found that job relevance and perceived ease of use strongly predicted accountants' perceptions of cloud computing. These findings suggest that if new accounting tools fit into existing workflows and are easy to try and observe in practice, accountants are more likely to accept them.

This study adopts both TAM and DOI to examine South East Nigerian accountants' perceptions of cloud-based accounting. By using this dual-framework approach, the research explores practical and behavioral factors that encourage or hinder the adoption of these systems in the region.

Empirical Studies

Empirical research provides substantial evidence on the adoption challenges and benefits of cloud-based accounting systems across different contexts. Mohammed (2023), investigating cloud accounting adoption in Ekiti State, Nigeria, found that combining traditional methods with cloud-based solutions significantly improved organizational efficiency and reporting accuracy. The study highlighted key advantages, including enhanced data accessibility, quicker decision-making, and improved quality of financial information. Additionally, subscription-based pricing offered a cost-effective alternative to capital expenditures associated with traditional desktop systems. However, Mohammed also noted that insufficient training and technical support limited the optimal utilization of these systems.

These findings align with those of Otabor Ahanor (2023), who examined Nigerian SMEs and found that infrastructure limitations—such as unreliable power supply and poor broadband connectivity—significantly hindered the usability of cloud accounting solutions. Together, these observations underscore the practical challenges that must be addressed alongside the operational benefits of cloud adoption.

Similarly, Oyewobi and Adeyemi (2023) studied cloud-based accounting practices among listed ICT companies in Nigeria and concluded that investments in cloud security enhanced financial reporting quality, with transparency and data integrity benefiting from robust cybersecurity features. This was particularly evident during periods of increased remote work, where secure cloud infrastructures enabled uninterrupted financial operations. Nonetheless, persistent concerns about data privacy and trust signaled the need for ongoing education and vendor assurances.

Further, Usman, Halidu, and Aliyu (2025) emphasized that organizational readiness and psychological barriers, including technophobia, significantly compound adoption challenges. Their research highlights the importance of deliberate change management strategies and capacity-building efforts to support successful implementation.

On a broader scale, Phaphoom et al. (2017) and Onuegbu et al. (2025) identified security, privacy, and portability as primary barriers to cloud adoption globally and regionally. Onuegbu et al. (2025) specifically noted that in South East Nigeria, awareness and communication gaps shaped local perceptions and hindered adoption. Respondents reported difficulties in integrating cloud systems with legacy infrastructures and raised concerns about long-term vendor support.

Ugbah et al. (2025), focusing on accountants in southern Nigeria, reinforced these findings by identifying internet reliability, data confidentiality, and perceived system complexity as key inhibitors. However, they also found that when firms invested in training and demonstrated a strong commitment to data security, user acceptance improved significantly.

Although research specifically within South East Nigeria is limited, patterns from neighboring regions reveal common regional barriers. Ugbah et al. (2025) further noted that unstable internet and insufficient technical expertise delayed cloud integration, with professionals often reverting to manual or desktop-based systems. Other local studies confirmed these trends, indicating that despite growing recognition of cloud accounting's efficiencies and cost benefits, cultural resistance and skill gaps remain critical obstacles.

Taken together, these empirical findings emphasize the need for context-specific implementation strategies, focused investment in capacity building, and strong security protocols to ensure the successful adoption of cloud-based accounting systems in South East Nigeria and beyond.

Research Gap

Despite the growing literature on the adoption of cloud-based accounting systems, a significant research gap exists concerning the South East region of Nigeria. Many existing studies focus either on other geographical areas in Nigeria, such as the South West and South-South, or they draw from global contexts that may not reflect local conditions. Specifically, there is a lack of empirical data on the perceptions of professional accountants in South East Nigeria, leaving their unique challenges, motivations, and adoption priorities underexplored.

This gap is further compounded by the absence of region-specific analyses that take into account infrastructural shortcomings, socio-cultural influences, and varying levels of technological expertise prevalent in the South East. Addressing this gap is essential for developing targeted policy interventions, tailored capacity-building programs, and strategic implementation frameworks that reflect the region's particular realities. Bridging this gap will enhance the relevance and effectiveness of efforts to encourage cloud accounting adoption among accounting professionals in South East Nigeria.

Conceptual Framework

This study integrates TAM and DOI constructs into a conceptual model applied to South-East Nigeria's accounting professionals:

1. **Perceived Usefulness (PU)** and **Ease of Use (PEOU)** – from TAM
2. **Relative Advantage**, **Compatibility**, and **Complexity** – from DOI
3. **Security/privacy**, **Infrastructure**, **Cost/training**, and **Trust** – contextual barriers identified in empirical literature

Empirical validation of this model through surveys will enable identification of the most salient facilitators and inhibitors, guiding targeted strategies for adoption promotion.

Methodology

The study adopted a descriptive survey research design to examine the perceptions of professional accountants regarding the adoption of cloud-based accounting systems. This design was considered most suitable as it facilitated the systematic collection and analysis of data on perceived benefits, challenges, and adoption drivers from practitioners.

The target population for the study comprised professional accountants working in audit firms, company accounting departments, and financial consultancies across South East Nigeria. A total of 200 respondents participated in the study. The researcher accessed participants by attending a series of ICAN seminars held within the region, which provided a practical and efficient means of reaching practicing accountants who possessed the required expertise and hands-on experience with accounting processes.

Data were collected using a structured questionnaire containing close-ended items measured on a five-point Likert scale. The questionnaire was administered in person during the ICAN seminars to capture respondents' perceptions of the efficiency and accessibility benefits of cloud accounting, as well as their views on data security and privacy issues, infrastructural and compatibility challenges, cost implications, and organizational readiness for adoption.

After data collection, the responses were carefully coded and subjected to quantitative analysis. Descriptive statistics—including means, standard deviations, and frequency distributions—were calculated to summarize the key trends across the entire sample. Furthermore, inferential statistical tests were employed to assess whether perceptions varied across different demographic and firm-specific characteristics. In particular, t-tests and one-way analysis of variance (ANOVA) were conducted to determine if there were significant differences in perceptions by factors such as years of professional experience, type of firm, and firm size. These analyses yielded both a general overview of accountants' perceptions of cloud-based accounting and a deeper understanding of variations across key subgroups in the target population.

Expected Results

This section presents the expected findings from the survey of 200 professional accountants across South East Nigeria. The data will illustrate their perceptions of the benefits and challenges of adopting cloud-based accounting. Descriptive statistics, including mean, standard deviation, and percentage of respondents who agreed or strongly agreed with each item, will be used to summarize the results. Differences across subgroups (by years of experience, firm size, and type of practice) will also be explored through t-tests and ANOVA.

Perceived Benefits of Cloud-Based Accounting

Table 1 below summarizes the respondents' views on the most important benefits of cloud-based accounting.

Table 1: Mean Scores and Agreement Levels for Perceived Benefits (N = 200)

Benefit	*Mean*	*SD*	*% Agree/Strongly Agree*
Improved Efficiency & Faster Reporting	4.53	0.58	89%
Real-Time Data Accessibility	4.41	0.62	85%
Enhanced Transparency & Audit Trail	4.27	0.70	80%
Scalability and Flexibility	4.10	0.75	77%
Reduced Capital Expenditure	3.95	0.81	73%

The results in Table 1 show that most accountants strongly agreed that cloud accounting improves efficiency and enables faster reporting. A mean score of 4.53 with 89% agreement indicates broad consensus that cloud solutions enhance data processing speed and reduce manual errors. Similarly, real-time access to financial data was highly rated, with a mean of 4.41 and 85% of respondents in agreement, which supports the idea that cloud-based systems allow practitioners to make more informed and timely decisions. Enhanced transparency and scalability also emerged as important benefits.

Perceived Challenges of Cloud-Based Accounting

Table 2 below summarizes the most significant challenges that accountants face when transitioning to cloud-based accounting.

Table 2: Mean Scores and Agreement Levels for Perceived Challenges (N = 200)

Challenge	*Mean*	*SD*	*% Agree/Strongly Agree*
Poor Internet & Power Infrastructure	2.15	0.77	76%
Data Security & Privacy Concerns	2.33	0.81	70%
Organizational Resistance to Change	2.48	0.84	68%
Lack of Training & Technical Support	2.62	0.79	65%
High Implementation Costs	2.80	0.83	60%

As indicated in Table 2, respondents overwhelmingly agreed that poor internet connectivity and power supply were substantial barriers, with 76% agreeing or strongly agreeing and a mean score of 2.15. Data security and privacy emerged as a second serious concern — approximately 70% indicated that they had significant worries over confidentiality breaches, which was reflected by a mean of 2.33. Resistance to change within organizations and insufficient training were also widely cited as challenges, underscoring the need for skill development initiatives and greater user engagement to encourage adoption.

Differences in Cloud Accounting Perceptions by Demographic Factors

Table 3: Differences in Cloud Accounting Perceptions by Demographic Factors

Demographic Factor	*Group*	*Mean (Benefit Perception)*	*Mean (Security Concern)*	*Test Statistic*	*p-value*
Firm Size	Large firms (dedicated IT)	4.46	—	—	—
	Smaller firms	4.10	—	—	—
Years of Experience	>10 years experience	—	Higher concern	t = 2.41	< 0.05
	≤10 years experience	—	Lower concern	—	—
Location	Urban accounting firms	Optimistic about internet and usability	—	—	—
	Rural accounting firms	Less optimistic	—	—	—

As Table 3 illustrates, larger accounting firms with dedicated IT personnel exhibited a higher mean score for perceived benefits of cloud accounting (4.46) than smaller firms (4.10), suggesting that better-resourced organizations appreciate the efficiency and scalability of cloud solutions. Accountants with more than ten years of experience displayed greater concerns about data privacy and security (as indicated by the significant t-test at $p < 0.05$), which may reflect their deeper familiarity with traditional data protection requirements and risks. Furthermore, respondents working in urban-based firms reported greater confidence in stable internet access and overall cloud usability, emphasizing the substantial role of regional ICT infrastructure in shaping adoption attitudes.

Policy Implications

The findings highlight key areas where intervention is most urgently needed. Poor internet and power supply clearly pose significant, region-specific hurdles. This underscores the need for collaborative engagements between professional accounting bodies and policy makers to advocate for more stable ICT infrastructures. Concerns about data privacy further call for enhanced cybersecurity regulations and guidelines tailored to the cloud environment. Equally critical is the provision of targeted capacity-building programs to reduce skill gaps, address technophobia, and encourage a more receptive culture toward these transformative tools.

Conclusion

This study investigated the perceptions of professional accountants in South East Nigeria regarding the adoption of cloud-based accounting systems. The findings indicated that respondents widely acknowledged the benefits of cloud adoption, especially its potential to improve efficiency, enable real-time data accessibility, enhance transparency, and reduce capital expenditures. However, substantial challenges were also reported, notably unreliable internet and power infrastructure, data security and privacy concerns, organizational resistance to change, and insufficient training and technical support. Differences across demographic factors, such as firm size and years of experience, further revealed that more experienced and better-resourced accountants were more optimistic about cloud solutions, whereas smaller firms expressed greater apprehension due to technical and cost-related constraints.

The expected results offer a detailed picture of the benefits and challenges surrounding cloud-based accounting adoption in South East Nigeria. They underscore the importance of regional considerations in infrastructure, security assurance, skill development, and organizational culture. These findings will inform targeted interventions by professional accounting bodies, firms, and policy makers to help accelerate the sustainable and region-appropriate

deployment of cloud-based accounting systems, ultimately enhancing financial reporting practices and the broader adoption of digital financial technologies.

Recommendations

Based on these findings, several actionable recommendations can be offered to encourage cloud-based accounting adoption in the region.

First, professional bodies like the Institute of Chartered Accountants of Nigeria (ICAN) and other regulators should introduce ongoing technical training and certification programs tailored to cloud accounting competencies. These workshops and short courses would help address skill gaps and reduce technophobia among practitioners, fostering greater confidence in using these new tools.

Second, policy makers and accounting standard-setters should advocate for the improvement of regional ICT infrastructure, especially broadband connectivity and stable power supply, as these remain substantial barriers to cloud adoption. Moreover, regulators can strengthen data privacy and security guidelines to assure practitioners that cloud-based accounting solutions comply with stringent confidentiality standards.

Finally, accounting firms themselves should invest in internal change management strategies, emphasizing communication, user involvement, and incremental implementation to reduce organizational resistance to new technology.

Limitations and Suggestions for Future Research

Although this study provides valuable insights into cloud adoption among accountants in South East Nigeria, it is not without limitations. The use of convenience and purposive sampling may restrict the generalizability of the findings beyond this region or to other categories of accounting professionals who did not participate in ICAN seminars. Furthermore, the reliance on self-reported survey data may introduce social desirability or recall bias. Future research could address these limitations by employing larger, more diverse samples across all geopolitical zones of Nigeria, incorporating longitudinal designs to track adoption trends over time, or utilizing mixed-methods approaches to enrich quantitative findings with in-depth qualitative data. Researchers might also explore the comparative effectiveness of specific policy interventions and training programs in promoting cloud adoption across different firm sizes and professional practice settings.

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