

Cloud-Based Accounting and Real-Time Financial Reporting: An Institutional Reorientation of Accounting Practice

Stanley Ogoun¹; Tokoni Stephen Ogoriba²

¹Professor

^{1,2}Department of Accounting, Faculty of Management Sciences, Niger Delta University,
Wilberforce Island, Bayelsa State, Nigeria.

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Abstract: No doubt the evolving incursion of cloud-based accounting systems and real-time financial reporting (RTFR) has significantly altered the technological and organizational foundations of accounting practice. While, the extant research has largely framed these developments in terms of efficiency gains, cost reductions, and enhanced accessibility, such perspectives remain limited in their ability to explain the deeper institutional and epistemological transformations currently underway. This paper advances a theoretically grounded reconceptualization by positioning cloud accounting and RTFR as interdependent forces driving a fundamental reorientation of accounting systems, professional roles, and the temporal logic of financial reporting. This study was conducted via an integrative and critical review of interdisciplinary literature spanning accounting, information systems, and organizational theory. The outcome demonstrates that cloud accounting reconfigures the infrastructure of accounting by redistributing control, embedding governance within digital platforms, and altering organizational dependencies on technology providers. While RTFR transforms financial reporting from a periodic, verification-based process into a continuous, interpretive, and temporally fluid system of representation. The study argues that these transformations jointly shift the epistemic foundations of accounting from static representations of past economic events toward dynamic, continuously evolving constructs requiring ongoing interpretation. This shift elevates the importance of professional judgment, interpretive expertise, and ethical oversight while simultaneously introducing new challenges related to information overload, governance, and digital trust. The paper contributes to the literature by encouraging the adoption of continuous auditing frameworks and standards for system-based trust verification and supports accountants in acquiring skills to interpret continuously generated financial information while maintaining professional integrity.

Keywords: Accounting Epistemology, Digital Governance, Professional Reconfiguration, Accounting Infrastructure Transformation, Institutional Reorientation.

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I. INTRODUCTION

The accounting profession is being fundamentally reconfigured by the accelerating evolution of digital technologies. Among these, cloud computing and real-time data processing capabilities have emerged as particularly influential, reshaping how financial information is generated, processed, and communicated (Bhimani & Willcocks, 2014; Moll & Yigitbasioglu, 2019). Cloud-based accounting systems enable organizations to migrate traditional accounting functions to distribute digital infrastructures, facilitating remote access, scalability, and integration across organizational boundaries (Armbrust et al., 2010; Marston et al., 2011). In the same vein, real-time financial reporting

(RTFR) technologies allow financial information to be updated continuously, significantly reducing the temporal lag between economic activities and their representation in financial statements (Vasarhelyi et al., 2010; Alles et al., 2006).

Despite the increasing adoption of these technologies, much of the existing literature conceptualizes them primarily as tools for enhancing efficiency and operational effectiveness. Studies frequently highlight cost savings, improved data accessibility, and enhanced decision-making capabilities as key benefits of cloud accounting (Sultan, 2014; Dimitriu & Matei, 2015). Similarly, RTFR is often portrayed as an extension of continuous auditing and monitoring

systems that improve transparency and reduce information asymmetry (Alles et al., 2018; Gigler et al., 2014). While these perspectives provide valuable insights, they tend to treat technological change as a largely technical phenomenon, overlooking its broader implications for the institutional and epistemological foundations of accounting.

This paper argues that such a perspective is insufficient. The transition to cloud-based accounting and real-time reporting indicates both a technological upgrade and a core reorientation of accounting practice as a social and institutional system. Accounting has historically been structured around periodic reporting cycles, standardized procedures, and well-defined professional roles. These structures have provided stability, comparability, and legitimacy to financial reporting practices (Scott, 2014; DiMaggio & Powell, 1983). However, the introduction of continuous data flows and distributed digital infrastructures challenges these foundational assumptions, raising critical questions about how accounting information is produced, validated, and interpreted.

One of the most significant implications of cloud accounting is the redistribution of control over accounting systems. Traditional accounting systems were typically maintained within organizational boundaries, allowing firms to retain direct control over data storage, processing, and security. In contrast, cloud-based systems shift these functions to external service providers, introducing new dependencies and altering power dynamics between organizations and technology vendors (Bhimani & Willcocks, 2014; Islam et al., 2015). This shift has important implications for governance, risk management, and data sovereignty, particularly in contexts where regulatory frameworks are still evolving.

Concurrently, RTFR fundamentally alters the temporal structure of accounting. Traditional financial reporting has been characterized by periodicity, with financial statements prepared at regular intervals such as quarterly or annually. This periodic structure has enabled processes of verification, auditing, and standardization, ensuring the reliability and comparability of financial information (Bushman & Smith, 2001). However, RTFR disrupts this model by enabling continuous updates, thereby transforming financial reporting into an ongoing process rather than a discrete event. This paradigm births real issues of accounting information, including its reliability, interpretability, and usefulness for decision-making.

The implications of these developments extend beyond technical considerations to encompass the roles and identities of accounting professionals. As automation reduces the need for routine bookkeeping tasks, accountants are increasingly required to engage in higher-level activities such as data analysis, interpretation, and strategic decision-making (Warren et al., 2015; Frey & Osborne, 2017). This transformation challenges traditional notions of professional expertise and authority, necessitating new skills and competencies.

Given these complexities, a more robust theoretical framework is essential that can capture the multifaceted nature of digital transformation in accounting. This study addresses this gap by gleaning insights through a Meta analytical prism of the existing literature. By doing so, it seeks to provide a deeper understanding of how cloud accounting and RTFR jointly reshape accounting practice.

II. METHODOLOGY

➤ *Research Design*

This study was designed as a theory-oriented integrative review aimed at explaining how cloud-based accounting and real-time financial reporting are reshaping contemporary accounting practice. The choice of an integrative review was considered appropriate because the subject cuts across several bodies of knowledge, including accounting information systems, digital transformation, organizational theory, financial reporting, auditing, and professional practice. Rather than testing statistical relationships among variables, the study sought to consolidate existing knowledge, interrogate theoretical assumptions, and develop a coherent conceptual explanation of the institutional changes associated with digitally enabled accounting systems.

The integrative review approach enabled the study to move beyond a descriptive presentation of prior literature by critically examining how different streams of scholarship interpret cloud accounting and real-time financial reporting. This was necessary because existing studies often treat these technologies as separate technical innovations, whereas their combined influence suggests deeper transformations in infrastructure, professional judgment, governance, reporting temporality, and institutional legitimacy. The design therefore allowed the study to synthesize empirical findings, conceptual arguments, and theoretical perspectives into a broader explanatory framework.

In line with the aim of theory construction, the review emphasized interpretation, comparison, and conceptual integration. The inquiry was not limited to identifying the operational benefits of cloud accounting or real-time reporting. Instead, it examined how these technologies alter the structure of accounting work, the timing of financial information production, the location of control over accounting systems, and the role of accountants as interpreters of continuously generated financial data. This design provided the foundation for developing the propositions and conceptual model advanced later in the study.

➤ *Literature Search Strategy*

The literature search was conducted to obtain a broad and analytically useful body of scholarly materials relevant to cloud-based accounting, real-time financial reporting, digital accounting systems, continuous reporting, and institutional transformation in accounting. The search covered major academic databases and indexing platforms, including Scopus, Web of Science, Google Scholar, ScienceDirect, Emerald Insight, SpringerLink, Wiley Online Library, and other discipline-relevant academic repositories. These

sources were selected because they provide wide coverage of accounting, information systems, management, auditing, and technology-related research.

The search process used combinations of keywords that reflected both the technological and conceptual dimensions of the study. Search terms included “cloud accounting,” “cloud-based accounting systems,” “accounting information systems,” “real-time financial reporting,” “continuous reporting,” “continuous auditing,” “digital accounting transformation,” “accounting digitalization,” “cloud computing in accounting,” “financial reporting quality,” “accounting infrastructure,” and “digital governance in accounting.” These terms were combined in different ways to capture studies that directly addressed cloud accounting and real-time reporting, as well as studies that provided theoretical insight into institutional change, socio-technical transformation, temporality, and professional reconfiguration.

The search concentrated largely on literature published between 2010 and 2026 because this period reflects the rapid growth of cloud technologies, platform-based accounting systems, big data analytics, and continuous reporting capabilities in accounting practice. However, foundational theoretical works published before this period were retained where they provided essential conceptual grounding. This was particularly relevant for institutional theory, socio-technical systems thinking, temporality theory, and sensemaking theory, which provided the interpretive lenses used in the study.

The search was iterative rather than mechanical. Initial search results were screened for relevance, after which additional references were identified through backward and forward citation tracking. This procedure helped ensure that important studies were not excluded simply because they used different terminology. It also allowed the review to capture both mainstream accounting research and interdisciplinary contributions from information systems and organizational studies.

➤ *Study Selection Criteria*

The selection of studies was guided by clear inclusion and exclusion criteria to ensure that the reviewed materials were relevant, credible, and aligned with the objectives of the paper. Studies included where they addressed cloud accounting, cloud computing in accounting, accounting information systems, real-time financial reporting, continuous reporting, continuous auditing, financial reporting quality, digital governance, or the changing role of accounting professionals in technology-enabled environments. Both empirical and conceptual studies were considered, provided they offered substantive insight into accounting practice, reporting processes, governance structures, or professional transformation.

The review included peer-reviewed journal articles, conference papers, scholarly books, book chapters, and selected high-quality academic working papers where their arguments contributed directly to the subject of digital

accounting transformation. Attention was given to studies that examined the relationship between accounting technologies and issues such as timeliness, reliability, accessibility, transparency, information quality, stakeholder trust, internal control, professional judgment, and institutional legitimacy. Studies conducted in emerging economies were also considered important because the institutional challenges of cloud accounting and real-time reporting may be more visible in contexts where digital infrastructure and regulatory systems are still developing.

Materials were excluded where they focused solely on the technical architecture of cloud computing without linking such architecture to accounting, auditing, financial reporting, or organizational governance. Studies that discussed cloud computing in unrelated fields without accounting relevance were also excluded. Similarly, purely commercial commentaries, vendor publications, opinion pieces without academic grounding, duplicated studies, and publications lacking sufficient methodological or theoretical detail were not retained for detailed analysis. This filtering process ensured that the final body of literature remained focused on the conceptual and institutional concerns of the study.

The application of these criteria strengthened the consistency of the review process and reduced the likelihood of including sources that were only tangentially connected to the research problem. It also ensured that the analysis was based on studies capable of supporting a theoretically meaningful explanation of how cloud-based accounting and real-time financial reporting jointly reshape accounting practice.

➤ *Data Analysis and Synthesis*

The selected literature was examined using thematic analysis and interpretive synthesis. The purpose of the analysis was not simply to summarize what previous authors had written, but to identify patterns, tensions, conceptual overlaps, and theoretical implications across the reviewed studies. Each study was read with attention to its research focus, theoretical orientation, methodological approach, major findings, and contribution to understanding digital accounting transformation.

The analysis proceeded in stages. First, relevant ideas were extracted from the literature, particularly those relating to cloud accounting infrastructure, real-time reporting, accounting information quality, professional roles, governance, institutional pressures, data security, and stakeholder trust. Second, similar ideas were grouped into broader conceptual categories. Third, these categories were compared across studies to identify recurring themes and divergent interpretations. Finally, the themes were integrated into a conceptual explanation of how cloud accounting and real-time financial reporting interact to produce institutional reorientation in accounting practice.

Four broad analytical themes emerged from the synthesis. The first theme concerned infrastructural transformation, especially the movement from internally controlled accounting systems to externally hosted and

platform-mediated digital environments. The second theme related to temporal reconfiguration, reflecting the shift from periodic reporting cycles to continuous flows of financial information. The third theme addressed professional transformation, particularly the movement of accountants from routine record-keeping toward interpretation, governance, analytics, and advisory functions. The fourth theme focused on trust, governance, and institutional legitimacy, highlighting the importance of cybersecurity, assurance, embedded controls, and regulatory confidence in digitally mediated accounting systems.

The synthesis was therefore both descriptive and interpretive. While the study acknowledged the empirical findings of prior research, it also evaluated their deeper implications for accounting theory and practice. This approach enabled the study to construct a framework that explains not only what cloud accounting and real-time financial reporting do, but also how they alter the institutional, temporal, and epistemic foundations of accounting.

➤ *Theoretical Development Procedure*

The conceptual framework developed in this study emerged through an abductive process of theoretical reasoning. This means that the framework was not imposed mechanically on the literature, nor was it derived from a single theoretical tradition. Instead, the study moved iteratively between existing scholarship and theoretical interpretation in order to develop a coherent explanation of the institutional changes associated with cloud-based accounting and real-time financial reporting.

The first stage of theoretical development involved identifying the recurring concepts that appeared across the reviewed literature. These included digital accounting infrastructure, external platform dependence, embedded control, continuous data generation, professional interpretation, information reliability, governance, institutional pressure, and stakeholder trust. These concepts were then examined in relation to established theoretical lenses capable of explaining their significance.

Institutional theory was used to explain how organizations adopt digital accounting systems partly in response to regulatory expectations, professional norms, competitive pressures, and legitimacy concerns. Socio-technical systems thinking helped explain the interaction between technological platforms, organizational routines, professional roles, and governance arrangements. Temporality theory provided a basis for understanding how real-time reporting alters the time structure of accounting by replacing periodic closure with continuous information flows. Sensemaking theory supported the interpretation of accountants as professionals who help users derive meaning from complex and continuously changing financial information.

The second stage involved connecting these theoretical insights to the major themes identified in the literature. Cloud accounting was interpreted as an infrastructural and

governance transformation because it shifts accounting systems from internally managed arrangements toward externally hosted digital ecosystems. Real-time financial reporting was interpreted as a temporal transformation because it changes the rhythm of financial reporting from periodic preparation to continuous monitoring and interpretation. Professional transformation emerged as a consequence of both developments, as accountants increasingly occupy roles involving oversight, analytics, judgment, and ethical mediation.

The final stage involved translating these relationships into a conceptual model and a set of theoretical propositions. These propositions explain how cloud accounting, real-time financial reporting, governance, trust, professional competencies, and institutional pressures interact to reshape accounting practice. This procedure enabled the study to contribute to theory building by moving beyond fragmented discussions of technology adoption toward an integrated explanation of accounting's institutional reorientation.

➤ *Ensuring Review Rigor*

Several measures were adopted to strengthen the credibility, transparency, and analytical quality of the review. First, the study relied on multiple scholarly databases and academic repositories to ensure that the review was not restricted to a narrow disciplinary or regional perspective. This broadened the evidence base and allowed the analysis to capture accounting, information systems, organizational, and governance-related scholarships.

Second, the review was guided by explicit inclusion and exclusion criteria. These criteria helped ensure that the selected studies were directly relevant to cloud accounting, real-time financial reporting, accounting digitalization, financial reporting quality, professional transformation, and institutional change. The use of such criteria improved consistency in the screening process and reduced the likelihood of including materials that lacked conceptual or methodological relevance.

Third, the selected studies were examined comparatively rather than independently. This allowed the review to identify areas of agreement, disagreement, and theoretical underdevelopment across literature. By comparing findings and arguments across different studies, the review was able to distinguish between commonly reported operational benefits and deeper institutional implications.

Fourth, both empirical and conceptual sources were included in the synthesis. Empirical studies provided evidence on adoption, reporting quality, performance outcomes, and implementation barriers, while conceptual and theoretical studies supported the development of broader explanations concerning infrastructure, temporality, governance, and professional identity. This combination enhanced the richness of the review and prevented the study from relying solely on either descriptive evidence or abstract theorization.

Finally, the interpretation of the literature was anchored in established theoretical perspectives. Institutional theory, socio-technical systems thinking, temporality theory, and sensemaking theory were used to guide analysis and support the development of the conceptual model. This theoretical grounding improved the coherence of the study and ensured that the resulting framework was analytically robust rather than merely descriptive. Collectively, these procedures enhanced the reliability, transparency, and scholarly defensibility of the review process.

➤ *Theoretical Foundations*

Understanding the relationship between cloud-based accounting and real-time financial reporting requires more than a narrow technological explanation. These developments do not merely introduce new tools into accounting practice; they modify the institutional conditions under which accounting information is generated, validated, interpreted, and trusted. For this reason, the study adopts a multi-theoretical orientation that draws from institutional theory, socio-technical systems theory, temporality theory, and sensemaking theory. Each theory explains a different dimension of the transformation taking place in contemporary accounting practice.

Institutional theory provides a basis for examining how accounting practices are shaped by formal rules, professional expectations, regulatory pressures, and shared norms within the organizational environment. Accounting has historically depended on institutionalized routines such as periodic reporting, audit verification, standardized measurement, and professional oversight. However, the adoption of cloud-based systems and real-time reporting technologies challenges these established patterns by introducing new expectations relating to immediacy, digital accessibility, system-based controls, and continuous disclosure. From this perspective, organizations adopt digital accounting systems not only because such systems promise technical efficiency, but also because they help organizations conform to emerging expectations of modernity, transparency, responsiveness, and legitimacy.

Socio-technical systems theory is also relevant because accounting technologies cannot be properly understood in isolation from the social and organizational arrangements in which they operate. Cloud accounting platforms may provide storage capacity, automation, remote access, integration, and processing speed, but their actual effects depend on organizational routines, professional competencies, internal control systems, managerial attitudes, regulatory requirements, and user interpretation. The theory therefore supports the view that digital accounting transformation is produced through the interaction between technological infrastructures and human practices. In this study, cloud accounting is treated as part of a wider accounting ecosystem in which technology, professional judgment, governance, and institutional rules interact continuously.

Temporality theory provides a useful explanation for the changes introduced by real-time financial reporting. Traditional accounting has been organized around fixed

reporting intervals, such as monthly, quarterly, and annual cycles. These cycles have shaped how accountants measure performance, close accounts, verify records, prepare reports, and communicate financial results. Real-time financial reporting disrupts this temporal arrangement by making financial information available continuously rather than periodically. As a result, accounting information becomes more immediate, fluid, and provisional. This creates new demands for interpretation, validation, and professional judgment because users are no longer dealing only with finalized periodic statements, but with dynamic streams of financial information that may change as underlying transactions evolve.

Sensemaking theory extends this analysis by explaining the role of accountants in interpreting complex information environments. Real-time reporting and cloud-enabled systems increase the speed, volume, and accessibility of accounting data. However, more data does not automatically result in better understanding. Users still require professional interpretation to distinguish relevant signals from excessive information, connect financial data to organizational context, and assess the implications of rapidly changing reports. In this respect, accountants remain central to financial reporting, not simply as record keepers, but as interpreters, validators, and communicators of financial meaning.

Taken together, these theoretical perspectives provide a comprehensive foundation for the study. Institutional theory explains the legitimacy and regulatory dimensions of digital accounting adoption. Socio-technical systems theory explains the interaction between technological platforms and organizational practices. Temporality theory explains the movement from periodic reporting to continuous reporting. Sensemaking theory explains why professional interpretation remains essential in digitally mediated accounting environments. Their integration supports the central argument of this study: cloud-based accounting and real-time financial reporting jointly produce an institutional reorientation of accounting practice by reshaping infrastructure, temporality, governance, professional roles, and the basis of trust in financial information.

➤ *Evolving Accounting Information Systems in a Digital Age*

Accounting Information Systems have undergone significant transformation as organizations increasingly rely on digital technologies to process, store, analyze, and communicate financial information. In their earlier form, accounting systems were largely designed to support transaction recording, bookkeeping, compliance, and periodic financial reporting. These systems were often located within the internal boundaries of organizations and were managed through relatively centralized control structures. Under this arrangement, accounting information was produced through structured procedures, manual controls, and clearly defined professional responsibilities.

The introduction of enterprise resource planning systems marked an important stage in the evolution of accounting information systems. By linking accounting functions with procurement, production, inventory, payroll,

sales, and other operational processes, enterprise systems expanded the role of accounting beyond financial record keeping. Accounting information became increasingly connected to broader organizational decision-making, enabling managers to use financial data for planning, control, performance evaluation, and strategic analysis. This shift gradually repositioned accounting from a backward-looking reporting function to a more integrated information and decision-support function.

Subsequent developments in cloud computing, big data analytics, artificial intelligence, platform technologies, and real-time processing have further changed the scope of accounting information systems. Contemporary accounting systems are no longer confined to internally installed software or localized databases. They increasingly operate through interconnected digital infrastructures that support remote access, automated processing, multi-user collaboration, system integration, and continuous data flows. This movement has altered not only the technical architecture of accounting systems but also the institutional assumptions surrounding control, professional authority, data ownership, and information reliability.

From an institutional perspective, the shift from organization-bound accounting systems to cloud-enabled platforms represents a major redistribution of control. In traditional systems, organizations exercised direct authority over data storage, system maintenance, security protocols, and reporting processes. In cloud-based arrangements, however, many of these functions are shared with or transferred to external technology providers. This creates new dependencies, new governance concerns, and new forms of accountability. Accounting information is therefore increasingly produced within a network of relationships involving firms, software vendors, regulators, auditors, professional accountants, and other stakeholders.

This development has important epistemic implications. Digital technologies do not simply accelerate existing accounting procedures; they reshape how accounting knowledge is produced and interpreted. When financial data are processed continuously, integrated across platforms, and accessed by multiple users in real time, accounting information becomes less static and more dynamic. The accountant's role consequently shifts from compiling historical records to interpreting evolving financial information, assessing system reliability, and ensuring that technology-generated outputs remain meaningful, ethical, and decision-useful.

Recent Nigerian and international studies confirm this transition. Existing research indicates that cloud accounting improves access to financial information, enhances timeliness, supports automation, strengthens data integration, and improves the quality of financial reporting. However, the same literature also identifies persistent constraints, especially in developing economies, including weak digital infrastructure, cybersecurity concerns, unstable internet connectivity, limited technical expertise, high implementation costs, and resistance to technological change.

These findings suggest that the evolution of accounting information systems is not purely technological. It is also shaped by institutional readiness, regulatory capacity, professional competence, and organizational willingness to redesign established accounting routines.

Therefore, the digital evolution of Accounting Information Systems should be understood as a structural and institutional transformation. Cloud accounting and real-time financial reporting expand the boundaries of accounting practice by changing how financial information is generated, where control over accounting systems is located, when reports are produced, and how accountants contribute professional value. This transformation provides the foundation for understanding cloud-based accounting as infrastructural change and real-time financial reporting as temporal reconfiguration.

A number of recent studies have examined the growing relevance of cloud accounting within Nigerian and developing economy contexts. Collectively, these studies suggest that cloud-based accounting is becoming an important mechanism for improving the quality, accessibility, and timeliness of financial information. For instance, studies focusing on Nigerian banking institutions have shown that the adoption of cloud accounting is associated with improved reporting quality through better data processing, enhanced access to financial records, greater compliance support, and improved managerial decision-making. Such studies generally emphasize that cloud accounting strengthens the qualitative characteristics of financial reporting, including relevance, reliability, comparability, timeliness, and faithful representation.

However, the evidence also suggests that the benefits of cloud accounting are not automatic. In the Nigerian context, adoption is often constrained by infrastructural and institutional weaknesses. These include unreliable internet services, inadequate information technology infrastructure, cybersecurity risks, privacy concerns, implementation costs, insufficient technical skills, and employee resistance to digital change. These constraints are particularly important because cloud accounting requires not only software adoption but also a supportive technological, regulatory, and organizational environment. Thus, the effectiveness of cloud accounting depends on the interaction between technological capability and institutional readiness.

Other studies have examined cloud-based Accounting Information Systems across firms and sectors, showing that digital accounting platforms can enhance information quality by reducing processing errors, supporting real-time access, improving transparency, enabling remote collaboration, and automating routine accounting tasks. These studies generally agree that cloud accounting contributes to accounting efficiency and financial reporting usefulness. Yet they also reveal that firms differ in their ability to derive value from cloud systems. The level of digital literacy, management support, staff training, cybersecurity investment, software integration, and organizational preparedness can determine whether cloud accounting produces meaningful

improvements or merely becomes a technical upgrade with limited institutional impact.

The literature further shows that cloud accounting influences the preparation of accounting professionals. Studies involving accounting firms and students indicate that awareness and acceptance of cloud accounting are increasing, but competence development remains necessary. As the profession becomes more technology driven, accountants are expected to understand cloud platforms, data security, system controls, automation, analytics, and digitally enabled reporting processes. This suggests that cloud accounting adoption has educational implications, as universities and professional bodies need to revise curricula and training programmes to reflect emerging digital competencies.

Taken together, the reviewed studies establish that cloud accounting is not merely a digital tool for improving operational efficiency. It represents a broader transformation in the structure and practice of accounting. It changes how financial data are processed, how accounting information is accessed, how internal control is embedded, how professionals perform their roles, and how organizations respond to institutional expectations. Nevertheless, literature remains limited in one important respect: many studies examine cloud accounting mainly in relation to reporting quality or organizational performance, while paying less attention to its deeper institutional, professional, and temporal consequences. This limitation creates the need for a more integrated conceptual explanation, particularly one that links cloud accounting with real-time financial reporting as mutually reinforcing dimensions of digital accounting transformation.

➤ *Cloud-Based Accounting as Infrastructural Transformation*

Cloud computing has become one of the central technologies for reshaping accounting systems in contemporary organizations. In accounting practice, cloud technologies allow financial data, software applications, processing functions, and storage resources to be accessed through internet-enabled platforms rather than through internally maintained physical infrastructure. This arrangement has transformed the way accounting information is created, stored, retrieved, shared, and controlled. While much of the literature emphasizes the operational benefits of cloud accounting, including lower cost, scalability, accessibility, automation, and processing efficiency, its deeper significance lies in its capacity to reorganize the infrastructure of accounting itself.

Cloud-based accounting represents an infrastructural transformation because it changes the location and control of accounting systems. Under traditional accounting arrangements, organizations typically maintained their accounting software, data repositories, and control procedures within their own internal systems. This allowed firms to exercise direct authority over system configuration, data security, access control, and reporting procedures. Cloud accounting modifies this arrangement by relocating significant aspects of accounting infrastructure to externally

hosted digital platforms. As a result, the control of accounting information becomes distributed across organizations, software providers, technology vendors, auditors, regulators, and professional users.

This redistribution of control creates both opportunities and risks. On one hand, cloud accounting can improve reporting timeliness, enhance data integration, reduce duplication, support multi-location access, and automate repetitive accounting functions. It can also strengthen internal control by embedding approval workflows, audit trails, validation checks, and compliance features into the system architecture. On the other hand, reliance on external platforms creates concerns relating to data sovereignty, cybersecurity, vendor dependence, privacy protection, service reliability, and regulatory oversight. These concerns are particularly significant in emerging economies where digital infrastructure, data protection enforcement, and cloud governance frameworks may still be developing.

From a socio-technical perspective, cloud accounting should not be interpreted as a neutral technology that produces uniform outcomes across organizations. Its effects depend on how the technology is embedded within organizational processes, professional routines, governance structures, and institutional environments. A cloud platform may provide technical functionality, but the quality of accounting outcomes depends on how accountants, managers, auditors, and system administrators use and govern the platform. This means that cloud accounting adoption requires more than software migration. It requires organizational redesign, internal control adjustment, staff training, cybersecurity planning, and professional adaptation.

Cloud accounting also has institutional implications. Organizations may adopt cloud systems not only because of internal efficiency considerations, but also because digital accounting has become associated with modern governance, transparency, responsiveness, and competitiveness. Firms may therefore experience pressure from regulators, industry norms, professional bodies, clients, investors, and competitors to adopt cloud-based systems. This means that cloud accounting adoption may reflect legitimacy-seeking behaviour as much as technical rationality. In this sense, cloud accounting becomes part of a broader institutional movement toward digitally mediated financial governance.

The empirical literature supports this interpretation. Studies reviewed in this paper show that cloud accounting can improve financial reporting quality by enhancing accuracy, timeliness, comparability, information access, automation, and decision usefulness. Evidence from Nigerian firms, SMEs, banks, and listed companies indicates that cloud-enabled accounting systems can support better reporting processes and operational performance. However, these benefits are strongly influenced by contextual factors such as digital readiness, staff competence, cybersecurity investment, internet stability, management commitment, system integration, and regulatory support. Therefore, cloud accounting should be understood not as a stand-alone

technical innovation, but as an accounting infrastructure that requires institutional alignment to function effectively.

In summary, cloud accounting transforms accounting infrastructure by shifting accounting systems from internally bounded arrangements to distributed digital platforms. It embeds governance into technological architecture, changes the locus of control, introduces new dependencies, and expands the professional responsibilities of accountants. This infrastructural transformation provides the technological foundation upon which real-time financial reporting becomes possible.

Recent empirical studies reinforce the view that cloud accounting transforms the infrastructure of accounting practice. Research on small and medium-sized enterprises, banking institutions, and listed firms generally indicates that cloud adoption improves financial reporting by supporting faster processing, centralized data storage, automated controls, remote access, and better integration of accounting information. These improvements are particularly relevant for organizations that operate across multiple locations or handle large volumes of financial transactions. By allowing financial data to be updated and accessed through shared digital platforms, cloud accounting reduces delays in reporting and improves the availability of accounting information for decision-making.

The reviewed evidence also shows that different cloud service models contribute to accounting outcomes in different ways. Software-based platforms tend to support routine accounting automation, financial statement preparation, transaction processing, and user accessibility. Platform-based services enhance system integration, customization, and collaborative workflows. Infrastructure-related services contribute to storage capacity, scalability, system reliability, and continuity of operations. Network-related services support connectivity and data exchange between organizational units. The combined effect of these service dimensions suggests that cloud accounting is not a single uniform technology, but a layered infrastructure that supports multiple accounting and governance functions.

Studies on cloud accounting adoption also emphasize the importance of organizational readiness. Firms that invest in staff training, cybersecurity, management support, internal control redesign, and system integration are more likely to experience improvements in reporting quality and operational efficiency. Conversely, organizations with weak technological infrastructure, poor user competence, limited management commitment, or inadequate security arrangements may fail to benefit fully from cloud accounting. This confirms the socio-technical nature of digital accounting transformation: technology creates potential value, but organizational and institutional conditions determine whether that value is realized.

The literature also highlights the role of trust and security in cloud accounting adoption. Because financial data are hosted and processed through externally managed platforms, users must have confidence in data integrity,

access control, system reliability, and privacy protection. Security mechanisms such as encryption, authentication, backup systems, disaster recovery arrangements, and audit logs become central to the credibility of cloud-based accounting. These mechanisms are not peripheral technical features; they are essential components of financial reporting trust. Without them, the shift to cloud accounting may increase organizational exposure to cyber risks, unauthorized access, data loss, and reputational damage.

Overall, the empirical evidence suggests that cloud accounting improves accounting practice when supported by adequate governance, infrastructure, competence, and institutional oversight. Its significance therefore extends beyond efficiency gains. It changes the material and institutional basis of accounting by relocating system control, embedding digital governance, creating new dependencies, and enabling continuous financial information processing. These features make cloud accounting a necessary foundation for understanding the emergence of real-time financial reporting.

➤ *Real-Time Financial Reporting and the Transformation of Accounting Temporality*

Real-time financial reporting represents a major shift in the way accounting information is produced, updated, communicated, and interpreted. Traditional financial reporting has historically been organized around fixed reporting periods, such as monthly, quarterly, semi-annual, and annual cycles. These reporting intervals provide the temporal structure within which transactions are recorded, accounts are closed, balances are verified, reports are prepared, and financial information is audited. In this conventional model, accounting information becomes meaningful largely after the reporting period has ended and the relevant measurement, classification, and verification processes have been completed.

Real-time financial reporting disrupts this long-established reporting rhythm by enabling financial information to be generated and accessed continuously. Instead of waiting for the end of a reporting period, users are increasingly able to obtain updated financial information as transactions occur or shortly after they are processed. This development changes the informational character of accounting. Financial reporting becomes less dependent on retrospective summaries and more connected to ongoing organizational activity. Consequently, accounting information begins to function as a continuously updated representation of organizational performance rather than as a periodic statement of completed financial events.

The temporal implication of this shift is significant. Periodic reporting provides a sense of closure, stability, and comparability because financial information is prepared within defined time boundaries. Real-time reporting, by contrast, introduces a more fluid and dynamic temporal structure. Financial information becomes provisional, subject to revision, and dependent on continuous system updates. While this improves timeliness and decision relevance, it also raises questions about verification, reliability, auditability,

and interpretive clarity. The value of real-time financial reporting therefore depends not only on speed but also on the ability of organizations to preserve the credibility and usefulness of continuously changing financial data.

From the perspective of temporality theory, real-time reporting changes the way time is organized within accounting practice. Traditional accounting operates through sequential logic: transactions occur, records are processed, accounts are closed, reports are prepared, and users interpret the results. Real-time financial reporting weakens this sequence by allowing reporting and interpretation to occur alongside ongoing transactions. This creates a more continuous accounting environment in which measurement, disclosure, monitoring, and decision-making occur almost simultaneously. The result is a reconfiguration of accounting temporality from periodic closure to continuous visibility.

This transformation also alters the role of accountants. In a periodic reporting environment, accountants devote substantial attention to preparing reports after transactions have been accumulated and organized. In a real-time environment, accountants must increasingly monitor live financial data, assess anomalies, interpret emerging patterns, and communicate the meaning of rapidly changing information. Professional judgment therefore becomes more important rather than less important. Although systems may automate data processing, accountants remain responsible for ensuring that continuously generated reports are contextually meaningful, ethically reliable, and useful for decision-making.

The literature reviewed in this study suggests that real-time reporting improves managerial responsiveness, strengthens access to timely financial information, and supports faster decision-making. Cloud-enabled accounting systems contribute to this process by providing the infrastructure through which updated financial information can be processed and accessed across locations. However, the literature also shows that real-time reporting introduces several challenges, including information overload, cybersecurity risks, weak digital infrastructure, uneven user competence, and the possibility that speed may be prioritized over verification. These constraints are particularly important in developing economies where technological and regulatory infrastructures may not yet fully support continuous reporting systems.

Accordingly, real-time financial reporting should not be understood merely as faster reporting. It represents a deeper transformation in the temporal logic of accounting. It changes when financial information becomes available, how users engage with reports, how accountants exercise judgment, and how organizations manage the tension between immediacy and reliability. This temporal reconfiguration is central to the institutional reorientation of accounting practice because it challenges the conventional assumption that credible accounting information must be produced only within fixed reporting cycles.

Recent studies on real-time financial information and cloud-enabled accounting environments show that continuous access to financial data can improve organizational decision-making. The evidence suggests that when financial information is updated more frequently, managers are better positioned to respond to operational changes, liquidity pressures, cost movements, revenue fluctuations, and emerging risks. This strengthens the relevance of accounting information because users can rely on more current data rather than waiting for periodic reports that may no longer reflect present conditions.

However, the benefits of real-time reporting are mediated by the quality of the systems that produce the information. Cloud-based accounting platforms can support real-time reporting by integrating transaction processing, automated updates, data storage, analytics, and reporting dashboards. Where these systems are reliable, secure, and properly integrated, they can enhance accuracy, timeliness, and reporting flexibility. Where they are weakly implemented, however, they may produce fragmented information, inconsistent records, user confusion, or increased exposure to data risks. This suggests that real-time financial reporting depends on the strength of the underlying digital accounting infrastructure.

The reviewed studies also indicate that organizational performance may improve when digital accounting systems enhance the speed and quality of financial information. Evidence from banking and other business contexts suggests that computerized systems, accounting software, cloud platforms, and integrated reporting tools can contribute to better operational efficiency and improved financial management. These outcomes are linked to reduced processing delays, improved data accessibility, greater accuracy, and better coordination of financial information across organizational units.

Nevertheless, the literature cautions that real-time reporting does not automatically guarantee better decisions. Continuous information flows may overwhelm users if organizations lack the professional capacity to interpret the data. The speed of reporting may also create pressure to act before information has been adequately verified. In addition, developing economies may face constraints arising from poor internet connectivity, inadequate digital infrastructure, limited technical expertise, weak cybersecurity arrangements, and insufficient regulatory guidance. These factors can affect the reliability and usefulness of real-time financial reporting.

Taken together, the empirical evidence suggests that real-time financial reporting is most effective when supported by strong cloud infrastructure, competent users, sound governance, and reliable assurance mechanisms. Its main contribution lies in transforming accounting from a delayed reporting process into a continuous information environment. However, this transformation requires organizations to balance timeliness with verification, accessibility with security, and system automation with professional interpretation.

➤ *Professional Transformation and the Changing Role of Accountants*

The digital transformation of accounting has profound implications for the roles, responsibilities, and professional identity of accountants. As cloud-based accounting systems, automation tools, analytics platforms, and real-time reporting technologies become more embedded in organizational practice, the accountant's work is increasingly shifting away from routine transaction processing and manual record preparation. Activities such as data entry, ledger posting, basic reconciliation, payroll calculations, invoice processing, and standard report generation can now be performed more efficiently through digital systems.

This does not imply that the accountant becomes less relevant. Rather, the nature of professional relevance is changing. In digitally enabled accounting environments, accountants are increasingly expected to provide higher-level contributions involving interpretation, judgment, governance, system oversight, risk assessment, strategic decision support, and ethical evaluation. The professional value of the accountant therefore moves from merely producing accounting information to ensuring that system-generated information is accurate, reliable, meaningful, and aligned with organizational and regulatory expectations.

Cloud accounting contributes to this transformation by relocating many accounting processes into shared digital platforms. As a result, accountants must understand not only accounting standards and reporting requirements but also platform controls, user access rights, data security procedures, automated workflows, audit trails, and system-generated exceptions. Their responsibility increasingly includes monitoring how accounting systems function, evaluating whether embedded controls are adequate, and ensuring that digital outputs can be trusted by managers, auditors, regulators, and other stakeholders.

Real-time financial reporting further intensifies the need for professional interpretation. Continuous data flows create an accounting environment in which information is updated rapidly and may require immediate explanation. Accountants must therefore be able to distinguish between routine fluctuations and meaningful financial signals. They must also contextualize financial information, explain performance trends, identify anomalies, and guide users in making informed decisions based on current data. In this sense, real-time reporting expands the interpretive responsibility of accountants rather than replacing it.

The changing role of accountants also has implications for education and professional development. Traditional accounting training has emphasized bookkeeping, financial statement preparation, auditing procedures, taxation, and compliance. While these areas remain important, they are no longer sufficient on their own. Accountants working in cloud-enabled and real-time reporting environments require digital literacy, data analytics capability, cybersecurity awareness, platform governance knowledge, critical thinking, communication skills, and ethical judgment. Professional

bodies and universities therefore need to align accounting education with the realities of digital practice.

The reviewed studies indicate that awareness of cloud accounting is increasing among professionals and students, yet skill development remains uneven. Some organizations are adopting digital accounting tools more rapidly than their employees can fully understand or govern them. This creates a competence gap. Where accountants are not adequately trained, digital systems may be underutilized, misinterpreted, or poorly controlled. Conversely, where accountants develop strong digital and analytical competencies, cloud accounting and real-time reporting can enhance professional relevance and strengthen the decision-making value of accounting information.

Professional transformation therefore represents one of the central consequences of digital accounting adoption. Cloud-based systems and real-time reporting technologies reduce dependence on routine clerical work but increase reliance on professional expertise in interpretation, governance, assurance, and strategic analysis. The accountant becomes less of a historical record compiler and more of a digital information steward, governance actor, and institutional interpreter. This redefinition of professional roles is fundamental to understanding the broader institutional reorientation of accounting practice.

Empirical studies on accounting technology adoption show that digital tools influence both the quality of financial reporting and the nature of accounting work. Research on medium-sized enterprises, small businesses, ICT firms, and banking institutions indicates that cloud accounting systems, spreadsheets, payroll software, and related technologies can improve reporting accuracy, consistency, accessibility, and timeliness. These outcomes arise because digital tools automate routine processes, reduce manual errors, facilitate faster data processing, and support more organized financial records.

The evidence also shows that firms do not adopt or use accounting technologies uniformly. Some organizations rely heavily on basic tools such as spreadsheets and payroll systems because they are familiar, accessible, and cost-effective. Others adopt more advanced cloud-based accounting systems to support remote access, real-time updates, multi-user collaboration, and improved financial management. These differences suggest that technology use depends on organizational size, financial capacity, user competence, management commitment, perceived usefulness, and the complexity of business operations.

Studies focusing on Nigerian firms suggest that cloud-based accounting systems can improve financial reporting quality by strengthening data processing, reducing discretionary manipulation, improving internal control, and enhancing information reliability. However, the extent of improvement depends on the quality of implementation. Investments in cloud security, system integration, staff training, and management support appear to be important conditions for achieving meaningful reporting benefits. This

reinforces the argument that digital accounting transformation is organizational and professional, not merely technological.

Research on small businesses also indicates that cloud-based accounting software can improve financial management by enhancing accuracy, reducing processing delays, and supporting better decision-making. For smaller firms, these benefits are particularly important because resource constraints often limit their ability to maintain complex internal accounting infrastructures. Cloud platforms may therefore provide relatively affordable access to accounting capabilities that would otherwise require substantial internal investment.

Overall, the empirical literature supports the conclusion that accounting technologies are reshaping professional practice. However, the transformation is not limited to efficiency gains. As digital systems assume greater responsibility for routine processing, accountants must develop competencies in system governance, data interpretation, cybersecurity, compliance monitoring, and strategic advisory services. The future relevance of the profession therefore depends on the ability of accountants to move beyond manual processing and occupy higher-value roles within digitally mediated accounting environments.

➤ *Synthesis, Findings and Research Gap*

The reviewed literature demonstrates that cloud-based accounting and real-time financial reporting are reshaping accounting practice in several interconnected ways. Although many previous studies emphasize technical benefits such as speed, accessibility, cost reduction, automation, and improved reporting quality, a deeper reading of the evidence suggests that the transformation is more fundamental. Cloud accounting and real-time financial reporting are changing the infrastructure of accounting systems, the temporal structure of reporting, the nature of professional expertise, and the mechanisms through which trust and legitimacy are established in financial information.

First, the synthesis shows that cloud-based accounting has reconfigured accounting infrastructure. By relocating accounting software, data storage, processing capacity, and system controls to internet-enabled platforms, cloud accounting changes the traditional location of control. Organizations no longer depend solely on internally maintained systems. Instead, accounting processes increasingly operate through distributed digital environments involving firms, platform providers, users, auditors, regulators, and other stakeholders. This creates opportunities for improved efficiency, integration, automation, and accessibility, but it also introduces concerns about data security, platform dependence, privacy, and governance.

Second, the literature indicates that real-time financial reporting has altered the temporal logic of accounting. Traditional reporting depends on fixed periods and closure-based routines, while real-time reporting enables continuous updating and dissemination of financial information. This improves timeliness and strengthens the relevance of

accounting data for decision-making. However, it also creates new demands for verification, interpretation, and reliability. Continuous information flows may be useful only when organizations possess the professional and technological capacity to make such information meaningful and trustworthy.

Third, the reviewed studies show that digital accounting technologies are transforming the work of accountants. Automation reduces reliance on routine bookkeeping and repetitive processing, while cloud platforms and real-time reporting increase the need for analytical, interpretive, governance-oriented, and strategic competencies. Accountants are therefore expected to become system monitors, data interpreters, internal control evaluators, digital governance actors, and strategic advisers. This professional transformation requires new forms of education, training, and institutional support.

Fourth, the synthesis reveals that trust, governance, and institutional legitimacy are central to the success of cloud accounting and real-time reporting. Because financial information is increasingly produced through digital platforms and continuous systems, stakeholders must trust both the professional judgment of accountants and the technological systems that generate accounting output. Cybersecurity, audit trails, embedded controls, access management, regulatory oversight, assurance mechanisms, and ethical professional conduct therefore become essential components of digital reporting credibility.

Fifth, the evidence shows that institutional context matters. In emerging economies, the adoption and effectiveness of cloud accounting and real-time financial reporting are influenced by internet reliability, digital infrastructure, cybersecurity maturity, user competence, regulatory clarity, implementation costs, and organizational readiness. These contextual conditions affect whether digital accounting systems produce meaningful improvements or generate new risks. Therefore, the digital transformation of accounting cannot be evaluated independently of the institutional environment in which it occurs.

Despite these insights, several research gaps remain. The first gap is that much of the existing literature examines cloud accounting and real-time financial reporting separately. Cloud accounting is often studied in relation to reporting quality, cost efficiency, or organizational performance, while real-time reporting is discussed in relation to timeliness, continuous auditing, or decision usefulness. Limited attention has been paid to how the two technologies interact and reinforce each other as part of a broader transformation of accounting practice.

The second gap concerns the dominant technical orientation of existing studies. Many studies treat cloud accounting and real-time reporting mainly as tools for improving efficiency, accuracy, and access to information. While these outcomes are important, they do not fully explain how digital accounting technologies reshape control structures, professional authority, reporting temporality,

governance arrangements, and the epistemic status of accounting information. There is therefore a need for a more theoretically grounded explanation of the deeper institutional consequences of these technologies.

The third gap relates to the limited integration of theoretical perspectives. Existing studies frequently draw on technology adoption theories, information systems models, or performance-based frameworks, but fewer studies integrate institutional, socio-technical, temporal, and sensemaking perspectives into a single explanatory framework. This limits the ability of prior research to explain digital accounting transformation as a multidimensional process involving infrastructure, time, professional practice, governance, and legitimacy.

The fourth gap concerns the emerging economy context. Although studies from Nigeria and other developing economies are increasing, many still focus on adoption benefits and implementation barriers. More conceptual and empirical work is needed to explain how institutional weaknesses, regulatory uncertainty, infrastructural limitations, professional skill gaps, and cybersecurity concerns shape the adoption and effectiveness of cloud accounting and real-time reporting in these contexts.

This study responds to these gaps by developing an integrated conceptual framework that positions cloud-based accounting and real-time financial reporting as mutually reinforcing drivers of institutional reorientation. The framework explains how digital accounting transformation operates through infrastructural change, temporal reconfiguration, professional transformation, governance restructuring, and legitimacy formation. In doing so, the study moves beyond the narrow view of digital accounting as a technical efficiency project and presents it as a deeper transformation in the foundations of accounting practice.

III. CONCEPTUAL FRAMEWORK: CLOUD ACCOUNTING AND REAL-TIME FINANCIAL REPORTING AS INSTITUTIONAL REORIENTATION

The conceptual framework developed in this paper positions cloud-based accounting (CBA) and real-time financial reporting (RTFR) as interdependent institutional transformations that jointly reshape accounting practice, professional roles, and governance mechanisms. Drawing on the open-source literature interrogated, this framework posits that the technology incursions and disruptions are not merely efficiency-enhancing tools but drivers of systemic, epistemic, and temporal change within the accounting discipline.

➤ *Cloud Accounting as Infrastructural Disruption and Institutional Reorientation*

Cloud accounting represents a structural transformation of accounting infrastructure, relocating the locus of financial data and system control from the internal boundaries of organizations to distributed, externally hosted platforms. Traditional on-premises systems allowed organizations to maintain hierarchical control over financial data, ensuring

compliance, reliability, and oversight (Romney & Steinbart, 2018). In contrast, cloud accounting introduces shared control between organizations, software providers, and professional accountants tasked with governance, thereby reconfiguring authority within accounting systems (Bhimani & Willcocks, 2014; Granlund, 2011).

From an institutional perspective, cloud accounting alters the social norms, regulatory expectations, and professional legitimacy mechanisms that underpin accounting practice. According to DiMaggio and Powell's (1983) institutional isomorphism framework, organizations adopt cloud technologies not only to improve efficiency but also to gain legitimacy in increasingly digitalized environments. As cloud platforms standardize processes and embed governance mechanisms, organizations are pressured to align with these infrastructures, creating normative and coercive institutional pressures. Simultaneously, cloud systems embed control and compliance mechanisms directly into digital architectures, reducing reliance on episodic human intervention (Bhimani & Willcocks, 2014; Islam et al., 2015). This shift has profound implications for professional authority: accountants' expertise is increasingly exercised through interpretation and oversight rather than direct record maintenance. Thus, cloud accounting repositions the accountant as a governance and interpretive agent, bridging technological capabilities and organizational decision-making.

➤ *Real-Time Financial Reporting: Temporal Reconfiguration and Continuous Interpretation*

While cloud accounting transforms where and how accounting infrastructure operates, RTFR fundamentally reshapes when and how accounting knowledge is produced and interpreted. Traditional accounting is structured around discrete reporting cycles (quarterly, semi-annual, annual), which provide temporal boundaries for verification, audit, and decision-making (Bushman & Smith, 2001). These cycles create a rhythm of closure, certainty, and comparability, essential for establishing trust and professional credibility.

RTFR disrupts this temporal logic by enabling continuous data generation and dissemination, creating a financial reporting environment that is provisional, dynamic, and constantly evolving (Vasarhelyi et al., 2010; Alles et al., 2006). This continuous flow challenges established practices in accounting verification, audit sampling, and professional judgment because financial information is never fully "closed". Temporality theory emphasizes that time is socially constructed and structured within organizations (Orlikowski & Yates, 2002). By removing the discrete cycles, RTFR transforms financial reporting into a fluid interpretive activity, requiring accountants to continuously contextualize and validate information for decision-makers.

From an institutional standpoint, RTFR introduces new expectations for timeliness, responsiveness, and analytical oversight. Stakeholders increasingly demand real-time visibility, pressuring organizations to ensure system reliability, data integrity, and professional interpretive

capacity. The inability to meet these expectations can undermine trust and institutional legitimacy, particularly in volatile or highly regulated markets (Gigler et al., 2014; Bushman et al., 2004). Thus, RTFR repositions accountants as continuous interpreters of financial reality, a role that complements the governance and infrastructural oversight associated with cloud accounting.

➤ *Interdependence Between Cloud Accounting and RTFR*

Cloud accounting and RTFR are mutually reinforcing. Cloud infrastructures provide the technological backbone that makes RTFR feasible, offering scalable, networked environments capable of processing and distributing real-time financial information. Conversely, RTFR amplifies the institutional significance of cloud accounting by demanding continuous availability, reliability, and interpretive capacity. Without cloud infrastructure, RTFR would be technically and economically unfeasible, while without real-time demand, cloud accounting could remain primarily an efficient tool.

• *The Interdependence Can be Conceptualized Along three Dimensions:*

✓ *Infrastructure-Temporal Coupling:*

Cloud platforms host continuously updating financial data, while RTFR consumes this infrastructure to generate dynamic reports. This coupling redefines temporal boundaries of reporting, enabling instantaneous stakeholder access to financial performance (Vasarhelyi et al., 2010; Alles et al., 2018).

✓ *Governance-Interpretation Integration:*

Cloud accounting embeds governance into system architecture, while RTFR requires constant interpretation and sensemaking. Together, they create an environment where ethical oversight, regulatory compliance, and professional judgment are continuous rather than episodic (Bhimani & Willcocks, 2014; Weick, 1995).

✓ *Professional Reconfiguration:*

Accountants' roles shift from historical record-keeping to dynamic management of information integrity and strategic interpretation. Cloud systems handle transaction processing, while RTFR emphasizes timely analysis and narrative communication, jointly expanding the professional jurisdiction of accountants (Arnold & Sutton, 2018; Warren et al., 2015).

➤ *Theoretical Propositions*

Building on the institutional, socio-technical, and temporality perspectives underpinning this study, a series of propositions are advanced to explain how the interaction of cloud-based accounting and real-time financial reporting contributes to the institutional reorientation of accounting practice. These propositions provide a theoretical foundation for future empirical investigations and clarify the causal relationships embedded within the conceptual framework.

• *Proposition 1: Cloud Accounting and Infrastructural Reconfiguration*

✓ *P1:*

The adoption of cloud-based accounting systems increases the redistribution of accounting infrastructure control from internally managed organizational systems to externally governed digital platforms.

Traditional accounting systems are characterized by organization-centered control over data storage, processing, and reporting functions. Cloud accounting alters this arrangement by relocating system ownership, maintenance, and governance responsibilities to digital platform providers. Consequently, organizations become increasingly dependent on external infrastructures for financial information management, resulting in a fundamental reconfiguration of accounting governance structures.

• *Proposition 2: Cloud Accounting and Embedded Governance*

✓ *P2:*

Greater reliance on cloud-based accounting systems increases the institutionalization of embedded governance mechanisms through standardized digital controls, automated compliance procedures, and platform-based monitoring practices.

Cloud environments incorporate built-in control structures that shape organizational reporting practices and compliance processes. The integration of governance mechanisms within digital architecture reduces dependence on manual oversight and promotes system-driven accountability, thereby transforming how financial information is controlled, verified, and regulated.

• *Proposition 3: Real-Time Financial Reporting and Temporal Reconfiguration*

✓ *P3:*

The adoption of real-time financial reporting transforms accounting from a periodic reporting activity into a continuous process of financial information generation, dissemination, and interpretation.

Traditional accounting systems operate within fixed reporting cycles that provide temporal boundaries for verification and disclosure. RTFR compresses these boundaries by enabling ongoing updates of financial information, thereby shifting accounting practice toward continuous visibility and dynamic reporting environments.

• *Proposition 4: Real-Time Financial Reporting and Interpretive Complexity*

✓ *P4:*

Increased reliance on real-time financial reporting intensifies the need for professional interpretation and judgement due to the growing volume, velocity, and provisional nature of financial information.

Continuous reporting environments generate large quantities of constantly evolving financial data. As information becomes increasingly dynamic and less temporally stabilized, accountants must exercise greater analytical and interpretive judgement to ensure that stakeholders derive meaningful insights from rapidly changing information streams.

- *Proposition 5: Cloud Accounting and Professional Reconfiguration*

✓ P5:

The automation capabilities of cloud-based accounting systems reduce reliance on routine accounting activities while increasing demand for governance-oriented, analytical, and strategic professional competencies.

As cloud technologies automate transaction processing, record keeping, and routine reporting functions, professional accountants increasingly assume responsibilities relating to system oversight, risk management, data analytics, governance, and organizational decision support. This transition expands the professional jurisdiction of accountants beyond traditional bookkeeping functions.

- *Proposition 6: Interdependence of Cloud Accounting and RTFR*

✓ P6:

The combined adoption of cloud-based accounting and real-time financial reporting produces a synergistic effect that accelerates institutional transformation beyond the impact of either technology in isolation.

Cloud accounting provides the technological infrastructure that enables real-time reporting, while RTFR increases organizational dependence on cloud-enabled platforms. The interaction between these technologies creates mutually reinforcing changes in governance mechanisms, reporting practices, and professional roles, thereby accelerating the transformation of accounting institutions.

- *Proposition 7: Governance, Trust and Institutional Legitimacy*

✓ P7:

The positive effects of cloud accounting and real-time financial reporting on accounting effectiveness are strengthened when supported by robust governance structures, cybersecurity mechanisms, and assurance processes.

Stakeholder trust in digitally enabled accounting environments depends on confidence in data integrity, system reliability, and effective oversight. Organizations that

establish strong governance frameworks are more likely to achieve legitimacy and sustain confidence in continuously generated financial information.

- *Proposition 8: Institutional Pressures and Digital Accounting Adoption*

✓ P8:

Coercive, normative, and mimetic institutional pressures positively influence the adoption and diffusion of cloud accounting and real-time financial reporting practices.

Organizations increasingly adopt digital accounting technologies not only for efficiency gains but also to conform to evolving regulatory expectations, professional norms, competitor practices, and stakeholder demand. These institutional pressures shape both technology adoption decisions and the extent of implementation across organizations.

- *Proposition 9: Institutional Reorientation of Accounting Practice*

✓ P9:

The interaction of cloud-based accounting, real-time financial reporting, governance transformation, and professional reconfiguration collectively contributes to the institutional reorientation of accounting practice.

The cumulative effect of infrastructure transformation, temporal reconfiguration, and professional evolution reshapes the underlying logic of accounting. Accounting gradually shifts from a system designed primarily for retrospective recording and periodic reporting toward a dynamic institutional process centered on continuous information production, interpretation, governance, and strategic value creation.

This study contributes to accounting scholarships by developing a theoretically integrated explanation of how cloud-based accounting and real-time financial reporting jointly reshape the institutional foundations of accounting practice. Unlike prior studies that examine these technologies separately or primarily from efficiency-oriented perspectives, this study conceptualizes them as mutually reinforcing drivers of institutional reorientation. By integrating insights from Institutional Theory, socio-technical perspectives, and temporality theory, the study advances a set of propositions explaining how digital accounting technologies transform accounting infrastructure, reporting temporality, professional expertise, governance mechanisms, and organizational legitimacy. These propositions provide a foundation for future empirical testing and theory development within digital accounting research.

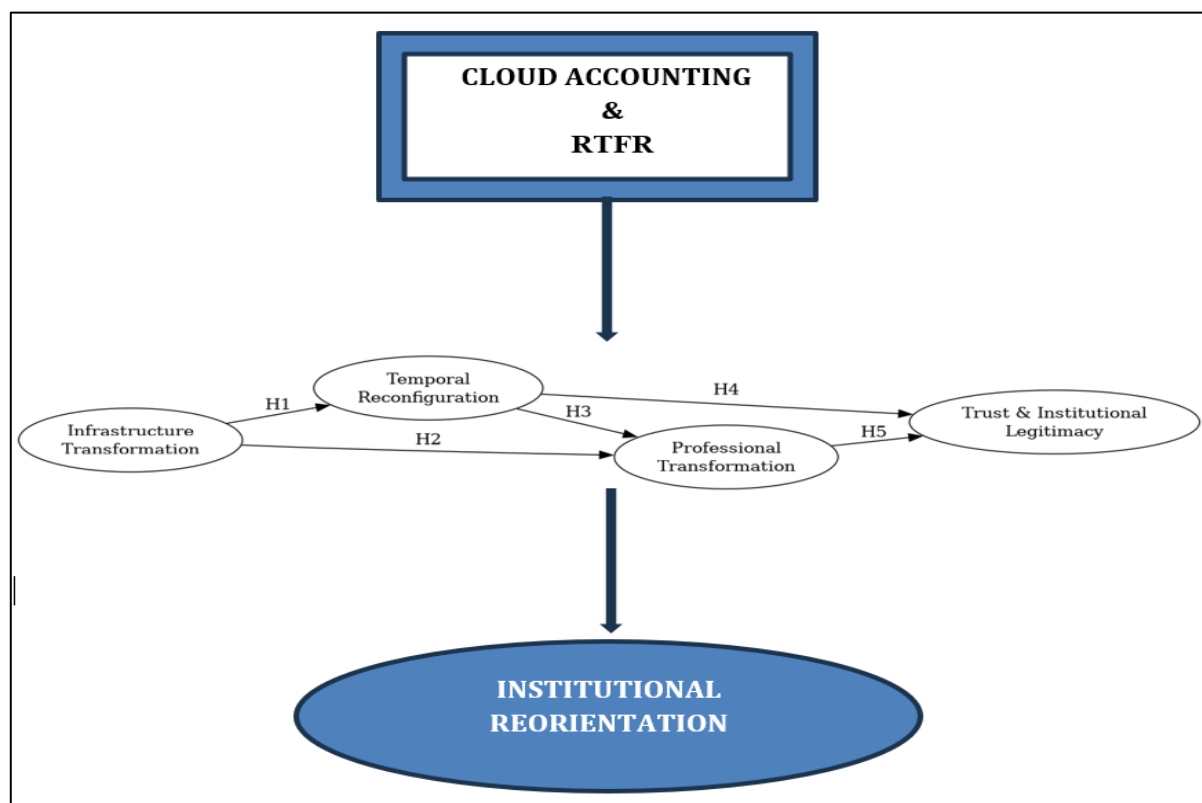
➤ *Conceptual Model*

Fig 1 Conceptual Model

- *It Illustrates how Cloud Accounting and RTFR Together Drive Institutional Reorientation Through:*

- ✓ Infrastructure Transformation: Redistribution of control, embedded governance, and technological standardization.
- ✓ Temporal Reconfiguration: Continuous reporting cycles, provisional information, and dynamic interpretive processes.
- ✓ Professional Transformation: Shift from operational execution to governance, interpretation, and strategic advisory roles.
- ✓ Trust and Institutional Legitimacy: Stakeholder expectations, reliability assurance, and ethical oversight embedded within technological and temporal structures.

- *This Framework Suggests Several Implications for Practice:*

- ✓ Professional Development: Accountants must acquire skills in system governance, data interpretation, and ethical oversight.
- ✓ Regulatory Design: Policymakers should design rules and standards that address the continuous and distributed nature of modern accounting systems.
- ✓ Organizational Strategy: Firms must treat cloud accounting and RTFR as governance and institutional projects, not merely technical implementations.
- ✓ Stakeholder Trust Management: Continuous assurance, transparent reporting, and embedded controls are critical for sustaining trust in real-time environments.

IV. CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

➤ *Conclusion*

This study examined the emergence of cloud-based accounting and real-time financial reporting as transformative forces within contemporary accounting practice. Rather than treating these developments as isolated technological improvements, the study explored their broader implications for accounting systems, professional activities, governance structures, and reporting processes. Drawing upon insights from accounting, information systems, organizational studies, and institutional theory, the analysis demonstrates that digital technologies are redefining the environment within which accounting information is created, interpreted, and utilized.

The review indicates that cloud-based accounting extends beyond the automation of accounting activities. By relocating core accounting functions to distributed digital platforms, it modifies traditional arrangements relating to system control, data management, compliance monitoring, and organizational accountability. Consequently, accounting information is increasingly produced within technology-enabled ecosystems that involve platform providers, organizations, regulators, auditors, and professional accountants.

The study further establishes that real-time financial reporting introduces a fundamental change in the temporal structure of accounting. Financial information is no longer

generated solely within periodic reporting cycles but can be produced and disseminated continuously. This development enhances informational relevance and responsiveness while simultaneously increasing the need for professional interpretation, verification, and assurance.

A further conclusion emerging from the review is that digital accounting transformation changes the nature of professional accounting work. Routine processing activities are becoming increasingly automated, whereas strategic analysis, data interpretation, governance oversight, risk evaluation, and ethical decision-making are becoming more central to professional practice. The accountant therefore occupies an increasingly important role as a mediator between complex digital systems and organizational decision-makers.

Overall, the study concludes that cloud-based accounting and real-time financial reporting should be viewed as interconnected institutional developments that collectively reshape the infrastructure, temporality, governance, and professional foundations of accounting. Their significance lies not only in improving operational efficiency but also in redefining how accounting functions within digitally enabled organizations.

➤ *Implications for Accounting Practice*

The findings of this study reveal several important implications for accounting practice, professional development, organizational governance, and financial reporting systems.

- *Professional Competence and Career Development*

The digitalization of accounting activities requires a corresponding evolution in professional competencies. Modern accounting professionals must possess capabilities that extend beyond traditional bookkeeping, compliance, and financial statement preparation. Increasing emphasis must be placed on analytical reasoning, digital governance, information systems management, cybersecurity awareness, data analytics, and strategic decision support. As accounting systems become increasingly technology driven, professional relevance will depend largely on the ability to generate insight from continuously available information rather than merely processing transactions.

- *Governance and Internal Control Systems*

The diffusion of cloud-based accounting requires organizations to reconsider traditional approaches to governance and internal control. Because accounting processes increasingly operate through externally hosted digital infrastructures, effective oversight must incorporate technology governance, access control procedures, cybersecurity protocols, data protection measures, and ongoing monitoring mechanisms. Organizations can no longer rely exclusively on periodic control reviews. Instead, governance systems must be designed to support continuous supervision and assurance.

- *Financial Reporting and Stakeholder Confidence*

Continuous reporting environments have significant implications for information users. Greater access to timely financial information can improve decision quality, transparency, and accountability. However, stakeholders also require confidence that rapidly generated information remains accurate, secure, and appropriately verified. Therefore, trust in digital accounting environments increasingly depends on both technological reliability and professional oversight. This reinforces the importance of auditability, transparency, cybersecurity, and ethical conduct.

- *Organizational Decision-Making*

Organizations implementing cloud accounting and real-time reporting can achieve substantial informational advantages. Faster access to financial information improves organizational responsiveness, facilitates proactive risk management, strengthens resource allocation decisions, and supports strategic planning. Nevertheless, managers must ensure that decision-making processes incorporate adequate verification and contextual interpretation to prevent overreliance on raw data streams.

- *Emerging Economy Considerations*

The implications of digital accounting transformation are particularly important in developing economies. Challenges relating to digital infrastructure, internet reliability, cybersecurity preparedness, regulatory capacity, technical expertise, and implementation costs may influence the effectiveness of cloud-based accounting and continuous reporting initiatives. Policymakers and professional institutions must therefore support the development of enabling environments capable of facilitating sustainable digital accounting adoption.

➤ *Recommendations*

Based on the findings of this study, several recommendations are proposed for regulators, professional bodies, organizations, and educational institutions.

- *Regulatory Authorities*

Regulators should develop comprehensive standards and policy frameworks specifically addressing cloud-based accounting systems, real-time financial reporting environments, digital assurance practices, data governance, and cybersecurity requirements. Regulatory guidance should be sufficiently flexible to accommodate technological innovation while maintaining the credibility, comparability, and reliability of financial reporting.

- *Professional Accounting Bodies*

Professional associations should redesign training programmes to align with emerging digital realities. Continuous professional development initiatives should focus on cloud governance, digital auditing, cybersecurity awareness, data analytics, artificial intelligence applications, information assurance, and ethical challenges associated with technology-enabled accounting environments. The profession must proactively prepare practitioners for increasingly digital roles.

- *Business Organizations*

Organizations should approach cloud accounting and real-time reporting implementation as strategic transformation initiatives rather than routine technology acquisitions. Successful implementation requires investments in employee capability development, digital governance frameworks, cybersecurity infrastructure, risk assessment mechanisms, and integrated internal control systems. Strong leadership commitment and organizational readiness are essential for realizing the benefits of digital accounting technologies.

- *Universities and Educational Institutions*

Accounting curricula should be revised to reflect the changing realities of professional practice. Alongside traditional accounting subjects, students should be exposed to database management, accounting analytics, digital governance, cloud technologies, cybersecurity principles, and emerging accounting technologies. Such curriculum enhancement will ensure that future accounting professionals possess competencies relevant to modern organizational environments.

- *Future Researchers*

Future studies should move beyond technology adoption perspectives and examine the broader institutional, governance, behavioral, and epistemological implications of digital accounting systems. Particular attention should be devoted to empirical testing of the propositions developed in this study, especially within emerging-market environments where institutional conditions may significantly shape digital accounting outcomes.

➤ *Relevance of the Study*

This study contributes to accounting literature by providing an integrated explanation of how cloud-based accounting and real-time financial reporting collectively influence the evolution of accounting practice. Existing research frequently examines these technologies separately and often concentrates on efficiency outcomes, operational improvements, or technology adoption factors. The present study takes a broader perspective by conceptualizing both technologies as interconnected drivers of institutional transformation within accounting.

A significant contribution of the study lies in its emphasis on accounting infrastructure and temporality. The research demonstrates that digital accounting technologies alter not only the mechanisms through which accounting information is generated but also the timing, interpretation, governance, and institutional significance of financial information. This provides a richer understanding of digital accounting transformation than approaches focused exclusively on operational effectiveness.

The study also contributes to understanding professional change within the accounting discipline. By highlighting the transition from routine processing roles toward governance-oriented, interpretive, analytical, and strategic responsibilities, the framework offers a

contemporary perspective on the future of accounting expertise in digitally enabled organizations.

Another important contribution lies in the incorporation of emerging economy realities into discussions of digital accounting transformation. The analysis recognizes that technological adoption is shaped by institutional conditions, infrastructural capacity, regulatory effectiveness, professional competence, and organizational readiness. As a result, the framework provides a basis for context-sensitive research capable of explaining variations in digital accounting outcomes across jurisdictions.

Finally, the study advances a unified conceptual framework that links infrastructural transformation, temporal reconfiguration, governance evolution, professional adaptation, and institutional legitimacy into a coherent explanation of accounting change. This integrated perspective provides a foundation for future theoretical development and empirical inquiry concerning the continuing digital transformation of accounting practice.

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