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(AIJBES)**www.gaexcellence.com/aijbbs**WHY CLOUD ACCOUNTING DOES NOT
AUTOMATICALLY REDUCE FRAUD: A CONCEPTUAL
FRAMEWORK FOR SMES**Budi Septiawan^{1*}, Intan Salwani Mohamed², Yuslina Zakaria³, Atang Hermawan⁴¹Faculty of Economics and Business, Universitas Pasundan, Indonesia

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Abstract:

This study develops a conceptual framework linking cloud accounting adoption and fraud risk in small and medium-sized enterprises (SMEs). Prior studies have not reached a clear conclusion on whether cloud accounting adoption reduces fraud risk. To address this gap, the framework shifts attention from technology adoption itself to the organizational mechanisms that determine its post-adoption outcomes. Cloud computing vision is positioned as a strategic antecedent of cloud accounting adoption, while fraud prevention mechanisms explain how technological capabilities may be translated into lower fraud risk. The framework further proposes that organizational conditions influence the effectiveness of this process. The concept of decoupling explains why adopting cloud accounting does not necessarily lead to better fraud prevention when the technology is not substantively integrated into organizational practices and control systems. The study therefore argues that cloud accounting adoption alone is insufficient to reduce fraud risk. Its effectiveness depends on the alignment between technological capabilities, fraud prevention mechanisms, and organizational conditions. The framework contributes to the literature by providing a socio-technical explanation of how and under what conditions cloud accounting may contribute to fraud risk reduction in SMEs.

DOI: 10.35631/AIJBES.829041 **Keyword:**Cloud Accounting; Fraud Risk; Fraud Prevention Mechanisms;
SMEs; Socio-Technical Systems TOE Framework

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Introduction

The rapid digitalization of business processes has significantly transformed the operational landscape of small and medium-sized enterprises (SMEs), particularly in the domain of financial management and accounting systems. Among these technological advancements, cloud accounting has emerged as a critical innovation, enabling SMEs to access real-time financial information, improve data accessibility, and enhance operational efficiency. As part of the broader cloud computing paradigm and aligned with Industry 4.0 developments, cloud accounting systems offer scalable, flexible, and cost-effective solutions that are particularly attractive for resource-constrained SMEs (Khayer et al., 2020; Putri et al., 2025).

Despite these advantages, SMEs remain vulnerable to financial fraud because of structural and organizational limitations. Prior studies highlight that SMEs often operate with limited internal control systems, inadequate segregation of duties, and high dependence on owner-managers, all of which may increase exposure to fraudulent activities (Adeboye, 2024; Rahman et al., 2025). The adoption of digital accounting technologies does not automatically compensate for these weaknesses because their effectiveness depends on how they are implemented, integrated, and governed within the organization (Hakami, 2025). Thus, while cloud accounting provides technological capabilities that may support fraud prevention, adoption alone does not guarantee lower fraud risk.

Prior studies have not reached a clear conclusion on whether cloud accounting adoption reduces fraud risk. On the one hand, cloud-based systems may improve transparency, real-time monitoring, and audit trails, thereby strengthen accountability and reduce opportunities for manipulation (Albaz et al., 2026). On the other hand, cloud technologies may introduce risks related to unauthorized access, data breaches, system misuse, and cyber-related fraud (Nagahawatta et al., 2021; Nguyen Phu et al., 2025; Bruse et al., 2025). These contrasting perspectives suggest that the relationship between cloud accounting adoption and fraud risk is not straightforward and cannot be explained solely by the presence of technology.

Theoretically, much of the literature on cloud accounting in SMEs has relied on the Technology–Organization–Environment (TOE) framework to explain why organizations adopt technological innovations (Kamal et al., 2023; Khayer et al., 2020). Although TOE provides a useful explanation of technological, organizational, and environmental determinants of adoption, its primary emphasis remains on the adoption decision itself. Less attention has been given to explaining how adoption translates into post-adoption organizational outcomes,

particularly fraud prevention. The central theoretical gap is therefore not simply whether SMEs adopt cloud accounting, but how and under what organizational conditions adoption can contribute to lower fraud risk.

Addressing this gap requires moving beyond a technology-deterministic view in which technological adoption is assumed to automatically improve organizational outcomes. Fraud prevention depends not only on technological capabilities but also on organizational practices, internal controls, audit mechanisms, and governance arrangements (Adeboye, 2024; Hakami, 2025). In this study, fraud prevention mechanisms (FPM) are therefore positioned as the organizational mechanism through which cloud accounting capabilities may contribute to fraud risk reduction. Organizational conditions further influence whether these capabilities are effectively integrated into fraud prevention practices. The concept of decoupling helps explain why formal adoption of cloud accounting may not lead to better fraud prevention when the technology is not substantively embedded in organizational processes and control systems.

Accordingly, this study develops a conceptual framework explaining why cloud accounting adoption does not automatically reduce fraud risk in SMEs. The framework links Technology–Organization–Environment factors and cloud computing vision to cloud accounting adoption and extends the adoption process toward its post-adoption fraud outcomes. More importantly, it positions fraud prevention mechanisms as the mechanism connecting technological adoption with fraud risk and considers organizational conditions as factors influencing the effectiveness of this process.

This study makes three main contributions. First, it extends the discussion of cloud accounting beyond adoption by distinguishing technological adoption from its fraud-related outcomes. Second, it identifies fraud prevention mechanisms as the organizational mechanism through which cloud accounting capabilities may be translated into lower fraud risk. Third, it explains why this translation may vary or fail by incorporating organizational conditions and the decoupling perspective. Together, these contributions provide a socio-technical explanation of how and under what conditions cloud accounting may contribute to fraud risk reduction in SMEs.

Literature Review

Cloud Accounting in SMEs

Cloud accounting refers to the deployment of accounting systems through cloud computing infrastructure, enabling organizations to process, store, and access financial data via the internet rather than on local servers. This technological innovation is characterized by real-time reporting, high accessibility, scalability, and system integration, making it particularly suitable for SMEs operating under resource constraints (Andayani et al., 2026; Samuel & Thamaraiselvi, 2025). By leveraging cloud-based platforms, SMEs can streamline financial processes, enhance data visibility, and support more timely and informed decision-making.

From a benefits perspective, cloud accounting is widely associated with improved operational efficiency, reduced IT infrastructure costs, and enhanced transparency in financial reporting (Dlamini, 2025; Khayer et al., 2020). The ability to access up-to-date financial information from any location also facilitates collaboration between business owners, accountants, and auditors. However, despite these advantages, the literature consistently highlights critical risks

associated with cloud adoption. These include data security vulnerabilities, privacy concerns, and potential system misuse, particularly in environments with limited technical expertise (Nagahawatta et al., 2021; Nguyen Phu et al., 2025). As such, cloud accounting introduces a dual effect while it enhances technological capability, it simultaneously creates new risk exposures that may influence fraud dynamics.

TOE Framework and Technology Adoption SMEs

The Technology–Organization–Environment (TOE) framework remains one of the most widely adopted theoretical lenses for examining technology adoption in organizational settings. The framework categorizes adoption determinants into three dimensions: technological context (e.g., relative advantage, compatibility, complexity), organizational context (e.g., firm size, organizational readiness, top management support), and environmental context (e.g., competitive pressure and regulatory environment) (Kamal et al., 2023; Mujalli et al., 2024).

Empirical studies applying the TOE framework in SMEs consistently focus on explaining intention to adopt and actual adoption decisions of cloud-based systems. For instance, perceived technological benefits and organizational readiness are frequently identified as key drivers of cloud accounting adoption (Andayani et al., 2026). While TOE provides a robust explanation of why firms adopt technology, its explanatory power tends to diminish beyond the adoption stage. In particular, the framework offers limited insight into post-adoption outcomes, such as whether technology adoption leads to tangible improvements in organizational performance or risk mitigation. This limitation is especially relevant in the context of fraud, where outcomes are influenced by complex interactions beyond technological factors alone.

Cloud Adoption and Fraud

The relationship between cloud adoption and fraud has been examined through two contrasting perspectives in the literature. The first is the optimistic perspective, which posits that cloud-based systems can reduce fraud through enhanced automation, improved transparency, and stronger audit trails. Real-time data processing and system-generated logs are believed to increase accountability and reduce opportunities for manipulation, thereby strengthening internal monitoring mechanisms (Dlamini, 2025).

In contrast, the risk-oriented perspective emphasizes that cloud adoption may introduce new vulnerabilities that could facilitate fraud. Prior studies indicate that cloud environments are susceptible to risks such as unauthorized access, data manipulation, and cyber-related fraud, particularly when security controls are inadequate (Priyadarshinee et al., 2016). Furthermore, organizations may develop over-reliance on automated systems, assuming that technology alone can prevent irregularities, which can weaken human oversight and internal control vigilance. Emerging research also highlights that cloud-based systems may shift fraud from traditional internal practices toward more sophisticated digital forms, thereby complicating detection and prevention efforts (Bruse et al., 2025). Taken together, these perspectives suggest that the impact of cloud adoption on fraud is inherently ambiguous and highly contingent on contextual and organizational factors.

Fraud in SMEs

SMEs exhibit distinct structural characteristics that increase their susceptibility to fraud. The literature consistently identifies weak internal control systems, limited financial and human resources, and centralized decision-making structures as key contributors to fraud risk in SMEs (Rahman et al., 2025). In many cases, owner-managers exercise dominant control over financial operations, which reduces the effectiveness of oversight mechanisms and increases the likelihood of opportunistic behavior.

Additionally, SMEs often lack formalized procedures and adequate segregation of duties, both of which are critical elements in fraud prevention. The absence of structured governance frameworks further exacerbates the problem, limiting the organization's ability to detect and respond to fraudulent activities effectively (N'Guilla Sow et al., 2018). Consequently, even when advanced technologies such as cloud accounting are implemented, these underlying organizational weaknesses may persist, undermining the potential benefits of technological adoption in reducing fraud.

Fraud Prevention Mechanisms (FPM)

Fraud prevention mechanisms (FPM) encompass the set of organizational practices designed to prevent, detect, and mitigate fraudulent activities. These mechanisms typically include internal control systems, audit functions, and governance practices. Internal controls, particularly those aligned with frameworks such as COSO, play a critical role in ensuring the integrity of financial reporting and minimizing opportunities for fraud (Adeboye, 2024).

Moreover, the presence of effective audit functions both internal and external enhances organizational accountability and strengthens monitoring processes. Governance practices, including oversight by management and adherence to regulatory standards, further contribute to reducing fraud risk. Importantly, the literature emphasizes that the effectiveness of fraud prevention is not determined by technology alone, but by how well technological tools are integrated with organizational control mechanisms (Hakami, 2025).

Therefore, cloud accounting should be viewed as an enabling technology rather than a standalone solution. Without robust fraud prevention mechanisms, the adoption of cloud systems may fail to produce meaningful reductions in fraud risk. This reinforces the argument that fraud prevention is fundamentally a socio-technical outcome, shaped by the interaction between technology, organizational processes, and control structures.

Theoretical Gap

Despite the growing body of literature on cloud accounting adoption and fraud in SMEs, several critical theoretical limitations remain insufficiently addressed. These limitations highlight the need for a more integrative perspective that moves beyond adoption-centric explanations toward outcome-oriented understanding. This study identifies four key theoretical gaps.

Adoption–Impact Gap

The first major limitation lies in the disconnect between technology adoption and organizational outcomes, particularly in the context of fraud. the technology–organization–environment (TOE) framework has been extensively applied to explain the determinants of cloud accounting adoption in SMEs, focusing primarily on factors influencing adoption intention and decision-making (Kamal et al., 2023; Khayer et al., 2020). However, its explanatory scope largely ends at the point of adoption.

Recent studies acknowledge that TOE-based research often overlooks post-adoption outcomes, including performance, risk mitigation, and fraud prevention (Nguyen Phu Et Al., 2025). this creates a missing causal chain, where the transition from “adoption” to “impact” remains theoretically underdeveloped. While adoption is frequently treated as a proxy for success, there is limited empirical or conceptual justification that adoption alone leads to meaningful organizational improvements.

In the context of fraud, this gap becomes particularly problematic, as reducing fraud is not merely a function of adopting technology but depends on how that technology is embedded and utilized within organizational processes. Therefore, the assumption that cloud accounting adoption directly leads to fraud reduction represents an oversimplification that lacks theoretical grounding.

Technology Determinism Bias

A second gap arises from the implicit technology determinism bias present in much of the existing literature. many studies assume that technological innovations such as cloud accounting inherently improve transparency, strengthen controls, and consequently reduce fraud risk (Dlamini, 2025; Vo Van et al., 2024). This perspective suggests a linear and deterministic relationship between technology and organizational outcomes.

However, emerging research challenges this assumption by demonstrating that technology alone does not guarantee improved control or reduced fraud. instead, outcomes are contingent upon how technology is implemented, governed, and integrated into organizational routines (Hakami, 2025). For instance, cloud systems may enhance data availability, but without proper oversight, they can also facilitate unauthorized access or manipulation (Priyadarshinee et al., 2016).

This indicates that fraud reduction is not an automatic consequence of technological advancement but rather a context-dependent outcome shaped by organizational practices. Overreliance on technological solutions may even create a false sense of security, leading to weaker human monitoring and increased exposure to risk. Consequently, the prevailing technology-centric view fails to capture the complexity of fraud as a socio-organizational phenomenon.

Lack of Mediating Mechanisms

The third gap concerns the absence of mediating mechanisms in explaining the relationship between Cloud Accounting Adoption (CAA) and fraud outcomes. Existing studies tend to model this relationship as a direct link, implicitly assuming that adoption translates into

reduced fraud risk. however, empirical evidence increasingly suggests that this relationship is non-linear and often insignificant, indicating the presence of missing explanatory variables.

Prior research highlights that Fraud Prevention Mechanisms (FPM) such as internal controls, audit functions, and governance structures play a crucial role in shaping fraud outcomes (Adeboye, 2024; Hakami, 2025). These mechanisms determine whether technological capabilities are effectively translated into control improvements. Without adequate internal controls, the benefits of cloud accounting may not materialize, and in some cases, may even exacerbate vulnerabilities.

This suggests that the relationship between CAA and fraud should be conceptualized as indirect rather than direct, mediated by organizational control systems and practices. the omission of such mediating variables represents a significant theoretical limitation and contributes to inconsistent findings in the literature.

Neglect of SME Contextual Realities

The fourth gap relates to the insufficient consideration of SMEs-specific characteristics in existing theoretical models. SMEs operate under unique conditions, including informal processes, limited resources, and low levels of control maturity, which fundamentally shape the effectiveness of technology adoption (Rahman et al., 2025).

Many studies apply generalized frameworks such as TOE without adequately accounting for these contextual constraints. As a result, the role of organizational weaknesses such as lack of segregation of duties, absence of formal governance structures, and limited audit capabilities is often underexplored. These factors are critical in determining fraud risk and may significantly weaken the impact of technological interventions.

Furthermore, SMEs may adopt cloud accounting in a symbolic or superficial manner, without fully integrating it into their operational and control systems (Samuel & Thamaraiselvi, 2025). This creates a situation where technology adoption exists without corresponding improvements in organizational practices, reinforcing the notion that technology alone is insufficient to address fraud risks in SMEs.

Synthesis of Theoretical Gaps

Collectively, these gaps point to a fundamental limitation in the current literature: the overemphasis on adoption as an endpoint rather than a process leading to outcomes. The absence of a clear linkage between adoption, organizational mechanisms, and fraud outcomes has resulted in fragmented and inconclusive findings.

This study addresses these limitations by proposing a conceptual shift from a technology-centric to a socio-technical perspective, where cloud accounting adoption is viewed as an enabling condition rather than a determinant of fraud reduction. By incorporating mediating mechanisms and contextual factors, the study aims to bridge the gap between technology adoption and actual organizational impact, particularly in the context of fraud in SMEs.

Conceptual Framework

This study proposes a conceptual framework explaining why cloud accounting adoption does not automatically reduce fraud risk in small and medium-sized enterprises (SMEs). The framework distinguishes between the factors that lead SMEs to adopt cloud accounting, the organizational mechanism through which technological capabilities may influence fraud risk, and the contextual conditions that determine whether this mechanism operates effectively. In this framework, the Technology–Organization–Environment (TOE) factors and cloud computing vision (CCV) explain the antecedents of adoption, cloud accounting adoption (CAA) represents the technological implementation, fraud prevention mechanisms (FPM) represent the organizational translation mechanism, and fraud risk represents the post-adoption outcome. Decoupling is used as an explanatory lens to explain why formal adoption may fail to produce substantive fraud prevention outcomes.

Antecedents: From TOE Factors to Cloud Accounting Adoption

The framework begins with the premise that cloud accounting adoption is shaped by strategic perceptions arising from technological, organizational, and environmental conditions. The TOE framework identifies technological characteristics, organizational readiness, and environmental pressures as important factors influencing organizational technology decisions (Tawfik et al., 2023; Tornatzky et al., 1990).

Rather than linking these factors directly to adoption, this study positions cloud computing vision (CCV) as the strategic cognition through which decision-makers interpret the value and relevance of cloud technologies. CCV reflects the extent to which cloud technologies are perceived as strategically valuable and aligned with organizational objectives. Prior studies highlight the importance of managerial perception and strategic vision in translating contextual pressures and organizational capabilities into technology adoption decisions (Rawashdeh et al., 2023; Tajudeen et al., 2022). Accordingly, TOE factors shape CCV, which subsequently influences cloud accounting adoption.

Core Relationship: Cloud Accounting Adoption and Fraud Risk

Cloud accounting provides technological capabilities that may support fraud prevention, including real-time information, greater data visibility, automated processing, and improved auditability (Fareed Shaqqour et al., 2021; Nawaiseh et al., 2024). However, these capabilities do not automatically translate into lower fraud risk. Cloud environments may also introduce vulnerabilities related to unauthorized access, system misuse, data manipulation, and cyber-related threats (Ma, 2023; Priyadarshinee et al., 2016).

Therefore, the framework does not assume that cloud accounting adoption alone directly produces fraud risk reduction. Instead, the effect of adoption depends on whether technological capabilities are translated into effective organizational fraud prevention practices.

Therefore, this study conceptualizes the CAA–Fraud relationship as problematized rather than deterministic, reinforcing the argument that technological adoption does not automatically translate into improved risk outcomes.

Mediating Mechanism: Fraud Prevention Mechanisms (FPM)

Fraud prevention mechanisms (FPM) represent the key organizational mechanism linking cloud accounting adoption to fraud risk. FPM includes internal controls, audit practices, monitoring procedures, and governance arrangements designed to prevent and detect fraudulent activities (Adeboye, 2024; Hakami, 2025).

Cloud accounting can provide information, automation, and monitoring capabilities that strengthen these mechanisms, but the technology itself does not perform the organizational control function. Its fraud-related benefits emerge when technological capabilities are incorporated into effective control, audit, and governance practices. Accordingly, this framework proposes that the relationship between cloud accounting adoption and fraud risk operates primarily through fraud prevention mechanisms. In other words, CAA enables technological capabilities, FPM translates these capabilities into organizational controls, and effective FPM contributes to lower fraud risk.

Moderating Role of Organizational Conditions

The translation of cloud accounting capabilities into effective fraud prevention mechanisms is also influenced by organizational conditions. In this framework, organizational readiness and digital literacy are treated as contextual conditions that moderate the relationship between cloud accounting adoption and fraud prevention mechanisms.

Organizational readiness reflects the availability of financial, human, and technological resources required to integrate cloud accounting into organizational processes (Khayer et al., 2020). Digital literacy reflects the ability of managers and employees to use cloud-based systems effectively and appropriately (Nguyen Phu et al., 2025). When these conditions are stronger, SMEs are more capable of translating cloud accounting capabilities into effective monitoring and fraud prevention practices. When they are weak, technological adoption may remain underutilized and provide limited improvements in fraud prevention.

In this framework, internal control strength is incorporated within FPM rather than treated as a separate moderator, because internal controls constitute part of the organizational mechanisms through which fraud is prevented. This distinction reduces conceptual overlap and clarifies the respective roles of the mediator and contextual conditions.

Decoupling as an Explanatory Lens

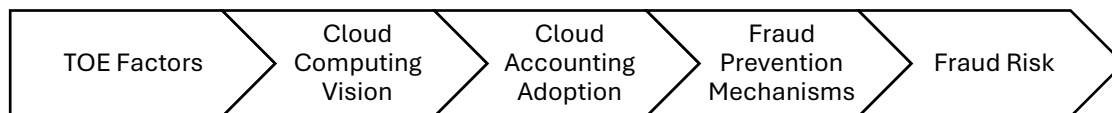
The concept of decoupling explains why cloud accounting adoption does not necessarily lead to better fraud prevention. Drawing on institutional theory, decoupling occurs when formal organizational adoption is not accompanied by substantive implementation in organizational routines and practices (Bromley & Powell, 2012; Meyer & Rowan, 1977).

In SMEs, cloud accounting may therefore be formally adopted without being fully integrated into internal controls, monitoring activities, audit practices, or governance processes. Under such conditions, adoption exists in form, but its technological capabilities are not effectively translated into fraud prevention mechanisms. This creates a decoupling between formal technology adoption and substantive fraud prevention outcomes.

Accordingly, decoupling is not treated as an additional predictor, mediator, or moderator in the framework. Instead, it provides an explanatory lens for understanding why the expected transition from cloud accounting adoption to effective fraud prevention may fail.

Synthesis of the Framework

Overall, the proposed framework follows the sequence:



Within this sequence, fraud prevention mechanisms mediate the relationship between cloud accounting adoption and fraud risk, while organizational readiness and digital literacy moderate the extent to which cloud accounting adoption strengthens fraud prevention mechanisms. Decoupling explains why formal adoption may fail to produce substantive fraud prevention outcomes when cloud accounting is not effectively integrated into organizational control practices.

This structure extends technology adoption research beyond the adoption decision and provides a socio-technical explanation of how and under what organizational conditions cloud accounting may contribute to lower fraud risk in SMEs.

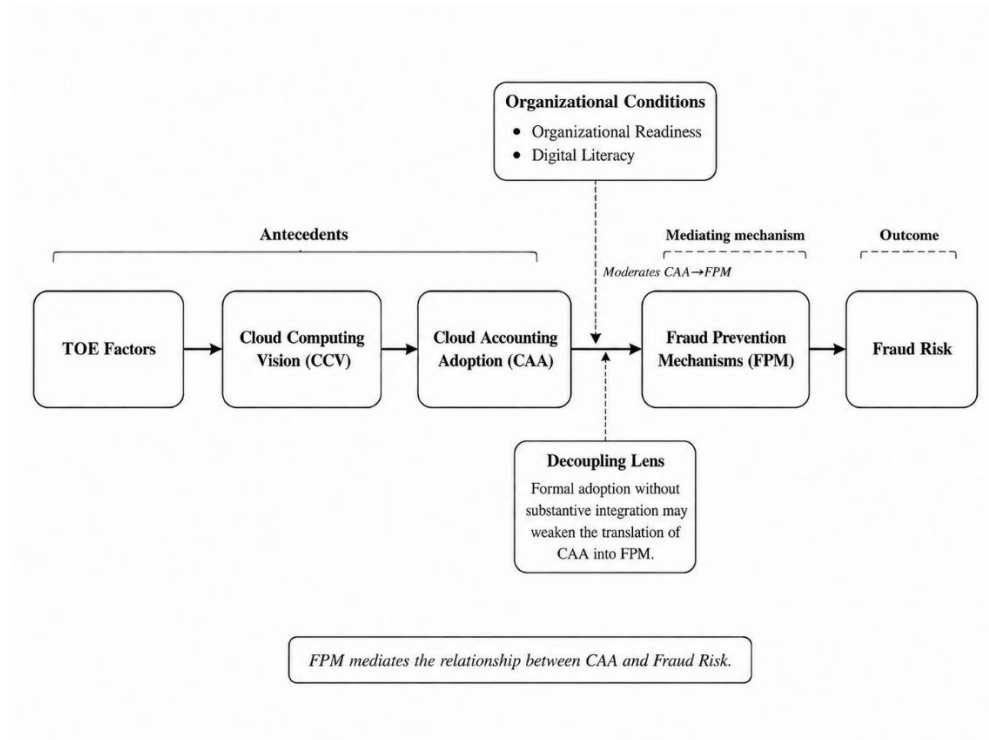


Figure.1 Proposed Conceptual Framework

Propositions Development

Building on the proposed conceptual framework, this study develops seven propositions explaining how cloud accounting adoption may contribute to fraud risk reduction in SMEs. The propositions distinguish between the antecedents of adoption, the organizational mechanism through which technological capabilities are translated into fraud prevention, the contextual conditions influencing this process, and the possibility of decoupling between formal adoption and substantive outcomes.

TOE Factors and Cloud Computing Vision

The Technology–Organization–Environment (TOE) framework suggests that technological, organizational, and environmental conditions influence how organizations perceive and respond to technological innovation (Khayer et al., 2020; Tornatzky et al., 1990). In this framework, these contextual factors do not directly determine cloud accounting adoption. Instead, they shape managerial perceptions and strategic interpretations of cloud technologies. Cloud computing vision (CCV) represents the extent to which decision-makers perceive cloud technologies as strategically valuable and aligned with organizational objectives. Prior research highlights the importance of managerial perception and strategic vision in translating contextual drivers into technology-related decisions (Rawashdeh et al., 2023; Tajudeen et al., 2022).

Proposition 1 (P1): TOE factors positively shape cloud computing vision in SMEs.

Cloud Computing Vision and Cloud Accounting Adoption

Cloud computing vision provides the strategic orientation that connects contextual conditions with actual technology adoption. SMEs whose decision-makers perceive cloud technologies as strategically valuable are more likely to incorporate cloud-based accounting systems into their operations. Prior studies demonstrate that perceived technological value, strategic alignment, and managerial support are important determinants of cloud technology adoption (Andayani et al., 2026; Nguyen Phu et al., 2025; Rawashdeh et al., 2023).

Proposition 2 (P2): cloud computing vision positively influences the adoption of cloud accounting in SMEs

Cloud Accounting Adoption and Fraud: A Core Tension

Cloud accounting provides capabilities such as real-time information, automated processing, greater data visibility, and improved auditability that may support fraud prevention (Abu-Dabseh et al., 2025; Fareed Shaqqour et al., 2021). However, adoption itself does not guarantee that these capabilities will be incorporated into effective monitoring and control practices. Cloud environments may also introduce vulnerabilities associated with unauthorized access, system misuse, and cyber-related threats (Ma, 2023; Priyadarshinee et al., 2016). Therefore, cloud accounting adoption should not be regarded as a direct or automatic determinant of lower fraud risk.

Proposition 3 (P3): cloud accounting adoption does not have a direct significant effect on fraud reduction in SMEs.

Mediating Role of Fraud Prevention Mechanisms

The fraud-related benefits of cloud accounting depend on how its technological capabilities are translated into organizational control practices. Fraud prevention mechanisms (FPM), including internal controls, audit practices, monitoring procedures, and governance arrangements, provide the organizational mechanism through which cloud accounting capabilities may contribute to lower fraud risk (Adeboye, 2024; Hakami, 2025). Cloud accounting may strengthen the availability and quality of information used for monitoring and control, while effective FPM convert these technological capabilities into substantive fraud prevention outcomes. Thus, the effect of cloud accounting adoption on fraud risk is expected to operate through fraud prevention mechanisms rather than through adoption alone.

Proposition 4 (P4): Fraud prevention mechanisms mediate the relationship between cloud accounting adoption and fraud risk, such that cloud accounting adoption contributes to lower fraud risk through stronger fraud prevention mechanisms.

Moderating Role of Organizational Conditions

The ability of SMEs to translate cloud accounting capabilities into effective fraud prevention mechanisms depends on their organizational conditions. Organizational readiness reflects the availability of financial, technological, and human resources required to integrate cloud systems into organizational processes (Khayer et al., 2020). Digital literacy reflects the ability of managers and employees to use digital technologies effectively and appropriately (Nguyen Phu et al., 2025). When these conditions are stronger, SMEs are better able to incorporate cloud accounting capabilities into monitoring, control, and fraud prevention practices. Conversely, limited organizational readiness or digital literacy may weaken this translation process.

Proposition 5 (P5): Organizational readiness and digital literacy positively moderate the relationship between cloud accounting adoption and fraud prevention mechanisms, such that the relationship is stronger when these organizational conditions are higher.

Decoupling Between Adoption and Fraud Prevention Outcomes

Institutional theory suggests that formal adoption does not always lead to substantive implementation in organizational routines and practices (Bromley & Powell, 2012; Meyer & Rowan, 1977). In SMEs, cloud accounting may be formally adopted while remaining weakly integrated into internal controls, monitoring activities, audit procedures, and governance processes. Under such circumstances, technological adoption exists in form but does not generate the organizational mechanisms required to achieve the expected fraud prevention benefits. This represents a decoupling between formal technology adoption and substantive fraud-related outcomes.

Proposition 6 (P6): When cloud accounting adoption is not substantively integrated into fraud prevention practices, decoupling between formal adoption and fraud risk reduction is more likely to occur.

Fraud Risk Reduction as a Socio-Technical Outcome

Taken together, the framework suggests that fraud risk reduction cannot be attributed to technology alone. Socio-technical systems theory emphasizes that organizational outcomes arise from the alignment between technological systems and organizational structures, practices, and human capabilities (Bostrom & Heinen, 1977; Trist, 1981). In the context of

cloud accounting, lower fraud risk therefore depends on the alignment between technological adoption, effective fraud prevention mechanisms, and organizational conditions that support their implementation.

Proposition 7 (P7): Fraud risk reduction from cloud accounting adoption is a socio-technical outcome arising from the alignment between technological capabilities, fraud prevention mechanisms, and supporting organizational conditions.

Table.1 Summary of Propositions of Conceptual Framework

Proposition	Statement	Theoretical basis
P1	TOE factors positively shape cloud computing vision (CCV) in SMEs.	The TOE framework explains how technological, organizational, and environmental conditions shape organizational perceptions and responses to technological innovation (Khayer et al., 2020; Tornatzky et al., 1990). Strategic cognition further translates these contextual factors into technology-related orientations (Rawashdeh et al., 2023; Tajudeen et al., 2022).
P2	Cloud computing vision positively influences cloud accounting adoption (CAA) in SMEs.	Strategic vision, perceived technological value, and managerial interpretation influence organizational technology adoption decisions (Rawashdeh et al., 2023; Andayani et al., 2026; Nguyen Phu et al., 2025).
P3	Cloud accounting adoption alone does not necessarily reduce fraud risk in SMEs.	Cloud accounting may enhance transparency, monitoring, and auditability, but adoption alone does not ensure that these capabilities are translated into effective fraud prevention and may also introduce new technological vulnerabilities (Fareed Shaqqour et al., 2021; Ma, 2023; Priyadarshinee et al., 2016).
P4	Fraud prevention mechanisms mediate the relationship between cloud accounting adoption and fraud risk, such that cloud accounting adoption contributes to lower fraud risk through stronger fraud prevention mechanisms.	Internal controls, audit practices, monitoring procedures, and governance mechanisms translate technological capabilities into substantive fraud prevention outcomes (Adeboye, 2024; Hakami, 2025).
P5	Organizational readiness and digital literacy positively moderate the relationship between cloud accounting adoption and fraud prevention mechanisms, such that the	Organizational resources and digital capabilities determine the extent to which cloud accounting can be integrated into monitoring and control practices (Khayer et al., 2020; Nguyen Phu et al., 2025).

relationship is stronger when these organizational conditions are higher.

- P6 When cloud accounting adoption is not substantively integrated into fraud prevention practices, decoupling between formal adoption and fraud risk reduction is more likely to occur. Institutional theory explains that formal adoption may become separated from substantive organizational practices, producing limited performance or control outcomes (Meyer & Rowan, 1977; Bromley & Powell, 2012).
- P7 Fraud risk reduction from cloud accounting adoption is a socio-technical outcome arising from the alignment between technological capabilities, fraud prevention mechanisms, and supporting organizational conditions. Socio-technical systems theory argues that organizational outcomes emerge from the alignment between technical systems and organizational structures, practices, and human capabilities (Bostrom & Heinen, 1977; Trist, 1981).
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