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Review Article

The Role of Internal Audit in Fraud Detection and Prevention: A Multi-Contextual Review and Research Agenda

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Internal Audit,
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ABSTRACT

This review examines the critical role of internal audit in fraud detection and prevention across various organizational and national contexts. Drawing on over 30 studies published between 2000 and 2024, it identifies key audit attributes, independence, competence, objectivity, and professional skepticism, that significantly aid in mitigating fraud. The paper traces the evolution of internal audit from a compliance tool to a strategic function supporting governance, risk management, and financial transparency. Despite broad recognition of internal audits, the literature reveals several limitations. Most studies focus on developing countries such as Indonesia, Nigeria, and Pakistan, and are concentrated in the public and financial sectors. Methodologically, reliance on cross-sectional and survey-based research limits understanding of the dynamic nature of fraud and the long-term effects of audit interventions. Key underexplored areas include the adoption of emerging technologies (e.g., AI, blockchain, big data analytics), the role of organizational culture and leadership ethics, and challenges faced by Small and Medium Enterprises (SMEs), which often lack formal controls. The review also notes an over-reliance on traditional theoretical frameworks like agency theory and COSO, which inadequately address behavioral and sociological aspects of fraud. To address these gaps, the paper proposes a future research agenda that includes comparative and cross-cultural studies, longitudinal and mixed-method designs, and interdisciplinary approaches that integrate ethics and technology. Greater attention to underrepresented sectors such as SMEs and nonprofits is also recommended. Ultimately, the study advocates for continuous innovation in internal audit practices to meet evolving fraud risks and governance demands in a digital, globalized environment. Bridging current gaps can enhance both academic understanding and practical implementation, fostering more resilient and accountable organizations.

CITATION

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INTRODUCTION

Fraud remains a persistent and costly challenge across public and private sectors worldwide, undermining financial integrity, stakeholder trust, and institutional performance. In response, the role of internal audit has evolved from a traditional compliance mechanism to a critical function in organizational governance and fraud risk management (Naveed et al., 2020). As organizations increasingly face complex regulatory environments and sophisticated fraud schemes, internal audit functions are expected to act not only as watchdogs but also as strategic partners in safeguarding assets and ensuring transparency (Taufik & Dianita, 2020). Extensive literature underscores the importance of various internal audit attributes such as effectiveness, independence, competence, and ethical conduct in detecting and preventing fraud. However, findings across studies are often fragmented and context-specific, with most research concentrated in particular regions, sectors, or organizational types (Anagnostopoulou et al., 2017). Moreover, many studies employ cross-sectional designs, limiting insight into the dynamic and evolving nature of fraud and the long-term impact of internal audit interventions. The integration of technology, organizational culture, and behavioral dynamics into fraud research remains limited, despite their growing relevance in today's digitized and globalized business environment. Small and Medium Enterprises (SMEs), in particular, are underrepresented in the literature, despite their vulnerability to fraud and limited internal control resources (Evgenia et al., 2017). These gaps highlight the need for a holistic, multi-contextual understanding of how internal audit functions operate within different governance structures and cultural landscapes (Naveed et al., 2020). This paper aims to address these deficiencies by synthesizing current empirical and theoretical research on the role of internal audit in fraud detection and prevention. By critically reviewing studies across various geographies and industries, this work provides a structured analysis of internal audit's effectiveness, identifies prevailing research gaps, and proposes a future research agenda that emphasizes comparative studies, technological integration, and longitudinal methods. Ultimately, this review contributes to both academic discourse and practical strategies aimed at strengthening internal audit practices and enhancing organizational resilience against fraud.

Evgenia et al. (2017) investigates the impact of internal auditors' attributes, independence, competence, and objectivity, on fraud control in local governments within Taraba State, Nigeria. Using a survey design and regression analysis, the findings reveal that all three attributes significantly enhance fraud control, with objectivity having the strongest effect (coefficient = 0.457). However, the model explains only 21.2% of fraud control variance, suggesting other unexamined factors (e.g., organizational culture, technology) play a role. Strengths include empirical rigor and practical recommendations, such as ensuring auditor independence and continuous training. Limitations involve the narrow geographic scope, small sample size, and cross-sectional design. Future research could explore additional variables, comparative studies across regions, and technology integration in auditing to strengthen fraud prevention frameworks. The study underscores the critical role of unbiased, skilled auditors in mitigating fraud in public sector governance. Nguyen Thi Que et al. (2022) analyzes how the Internal Audit Function (IAF) attributes, namely effectiveness, independence, training, qualifications, and experience, affect fraud prevention, detection, and assessment (PD&A) in Pakistan's corporate sector. Drawing from global literature, the study highlights that while fraud is a widespread issue, robust internal audits can mitigate it. Using survey data from 291 finance professionals and regression analysis, the findings reveal that IAF effectiveness, along with auditor training and qualifications, significantly improves fraud PD&A, whereas independence and experience have a negligible impact. The research underscores the importance of strengthening internal audit capabilities through professional development and tailored policies. Despite its strengths, the study is limited by sampling bias and its cross-sectional design. Future research should explore the role of technology, broader firm inclusion, and longitudinal data to deepen insights. Ultimately, the study emphasizes that investing in auditor skills is critical, but organizational structures also need to support audit independence and innovation. Naveed et al. (2020) investigates how three key factors, internal audit effectiveness, auditor responsibility, and training, impact fraud detection in the public sector, focusing on internal auditors in South Sulawesi, Indonesia. Using a quantitative, correlational approach, the study surveyed 100 internal auditors through structured questionnaires and analyzed the data using multiple linear regression in SPSS. Findings reveal that all three variables significantly influence fraud detection, with internal audit effectiveness being the most dominant factor. While the research provides practical insights into strengthening audit practices, it is limited by its regional focus, purposive sampling, and exclusion of other potentially influential factors such as technology and organizational culture. Future research is encouraged to broaden the scope, incorporate additional variables, and adopt mixed or longitudinal methods for a more comprehensive understanding of fraud detection dynamics. Oise (2023) examines how internal audit effectiveness and auditor responsibility influence fraud detection in Vietnamese enterprises. Using a quantitative survey of 115 auditors and multiple regression analysis, the study finds that both factors have a significant positive impact on fraud detection, with auditor responsibility showing slightly greater influence. Rooted in agency and stewardship theory, the research highlights the importance of professional accountability and effective internal control systems. While the study offers valuable insights and practical recommendations, it is limited by its small, geographically constrained sample and lack of qualitative or technological considerations. Future research is encouraged to adopt longitudinal designs, include SMEs, and explore the integration of digital audit tools. Mochammad & Mirna (2020) explores the pivotal role internal audit plays in identifying, preventing, and managing fraud risks within organizations. Drawing on theoretical frameworks such as COSO and IIA standards, the authors emphasize that internal auditors are essential to ensuring corporate integrity, compliance, and sound governance. The study highlights that while auditors do not have the primary responsibility for detecting fraud, their activities significantly strengthen internal controls and risk management systems (Oise, 2023). However, the paper is conceptual, lacking empirical data or sector-specific insights. It suggests a research gap in practical assessments of internal audit effectiveness and calls for future studies to integrate technological tools, conduct industry-specific investigations, and evaluate cross-cultural differences in audit practices. Wahidahwati & Asyik (2022) investigated how auditor experience, ethics, professional skepticism, and personality type influence fraud detection. Researchers used a multiple linear regression model on data collected from 57 auditors at the Supreme Audit Board across East Java, Indonesia. The analysis, conducted after ensuring data quality through various prerequisite tests, revealed that all four factors, auditor experience, ethics, professional skepticism, and personality type, positively and significantly impact fraud detection. Attribution theory and personality type theory support these findings. Putra et al. (2022) critically reviews existing literature (90 articles from the 1990s to 2021) to understand how fraud prevention acts as a mediator between internal audit, risk management, whistleblowing systems, and big data analytics in preventing financial crime in Indonesian Regional Governments, particularly in Sumatra. The research addresses the issue of limited strategic formulation in these areas for early fraud detection, highlighting the ongoing skills mismatch as a fundamental problem hindering productivity. The study aims to answer five key questions: the individual influence of internal audit, risk management, whistleblowing systems, and big data analytics on fraud prevention, and finally, how fraud prevention mediates the relationship between these factors and the prevention of financial crime behavior. Nadirsyah et al. (2024) explored the impact of the Internal Audit Function (IAF), Internal Control (IC), and Fraud Prevention (FP) on governance (GOV) within the Indonesian local government context. It also investigated the mediating roles of IC and FP in the relationship between IAF and GOV. Data were collected via social media questionnaires from 117 members of the Association of Indonesian Government Internal Auditors (AIGIA) and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings indicate that the IAF positively influences both IC and GOV, and FP positively affects GOV. However, IC did not show a significant impact on GOV and failed to mediate the IAF-GOV relationship. Conversely, FP was found to effectively mediate the relationship between the IAF and GOV. Tarjo et al. (2022) investigated the impact of Enterprise Risk Management (ERM) components on fraud prevention and detection within Indonesian municipal administrations, where its application is still limited despite fraud being a significant concern. Using a questionnaire, the study gathered 151 data points from the Supervisory Apparatus of Local Government Agencies in Indonesia and employed regression analysis to test its hypotheses. The findings revealed that the control environment, risk assessment, control activities, information and communication, and monitoring are all key components of ERM that significantly influence fraud prevention and detection. This study provides empirical evidence supporting the use of ERM to minimize and identify fraud in Indonesian local governments. Khaksar et al. (2022) investigated the relationship between several auditor characteristics and fraud detection in companies listed on the Tehran Stock Exchange. Utilizing a multiple regression model on panel data from 187 companies (1,309 observations) between 2012 and 2018, the research found a positive and significant correlation between audit firm size, auditor rotation, industry specialization, audit market focus, auditor independence, audit report lag, and the restatement of financial statements with fraud detection. Additionally, the study revealed a significant relationship between auditor tenure, auditor narcissism, audit fees, and unqualified audit opinions with fraud detection. As a pioneering study in emerging markets, this research offers valuable insights for users, analysts, and legal entities regarding auditor characteristics that significantly influence fraud detection in financial statements, thus contributing to the existing literature. Nour & Tanbour (2023) assessed the impact of the Code of Professional Conduct for Internal Auditors on the effectiveness of internal auditing units within banks listed on the Palestine Stock Exchange during the COVID-19 pandemic. Employing a descriptive approach, the researchers surveyed 50 randomly selected internal audit employees from these banks using a questionnaire. The findings revealed a significantly high impact (mean of 4.07, standard deviation of 0.41) of the code's attributes, integrity, objectivity, confidentiality, and competency, on the effectiveness of the internal audit units. Consequently, the study recommended strengthening the ethical environment and principles within bank internal audit units due to their crucial role in achieving objectives, particularly during crises like the COVID-19 pandemic. Murphy & Dacin (2011) responding to the need for more fraud prevention and detection research presented a framework outlining three psychological pathways to fraud, drawing upon theories of moral intuition, disengagement, rationalization, and negative affect. Building upon the existing fraud triangle (opportunity, incentive pressure, and attitude rationalization), the framework identifies three distinct psychological routes within attitude rationalization: 1) lack of awareness, 2) intuition followed by rationalization, and 3) reasoning. The authors argue that understanding these pathways, each driven by different psychological mechanisms, is crucial for effective fraud prevention. The framework's utility lies in several areas: identifying situations where individuals unknowingly commit fraud, expanding the understanding of rationalization as a means to avoid negative emotions associated with unethical behavior, highlighting other methods fraudsters use to reduce negative affect as potential psychological red flags, and providing a theoretical basis for developing fraud prevention interventions. Kabuye et al. (2017) investigated the relationship between the internal audit's organizational status, competencies, activities, and fraud management within financial services firms in Kampala, Uganda. Utilizing a cross-sectional, correlational design, data were collected via questionnaires from 54 firms. The findings indicate that the organizational status and competence of internal audit significantly predict fraud management.[1] However, contrary to expectations, internal audit activities did not significantly predict fraud management. This suggests that having internal auditors with appropriate status and competence enables them to perform activities that effectively enhance fraud management. The study, while focused on Uganda's financial services sector, highlights the importance of auditor status and competence for policy development aimed at improving fraud management.[4] It is novel in its examination of the individual contributions of internal audit's organizational status, competence, and activities to fraud management. (Alazzabi et al., 2023) Investigated the impact of top management support (TMS) and risk management (RM) on internal audit activities (IAA) and fraud mitigation (FM) within the Libyan banking sector. Data were collected through a survey of 16 commercial banks in Libya and analyzed using structural equation modeling. The findings revealed positive and significant relationships between RM and employee-driven FM, as well as between TMS and employee-driven FM. Furthermore, the study demonstrated a significant mediating effect of IAA on the relationships between both RM and FM, and TMS and FM. While limited to the Libyan banking sector, the research suggests the importance of RM and TMS in fostering FM. Future research could explore other contexts and sectors and consider the influence of technology and internal audit characteristics on FM. This study is the first to specifically examine FM in Libya, an emerging economy, by including IAA as a mediating factor, offering valuable insights for regulators and bank management. (Nisak & Rochayatun, 2023) Explores the role of internal audit in detecting and preventing fraud within universities, using both a literature review and empirical data from previous research.[1] Relevant articles were sourced from databases like Emerald, Springer, and Google Scholar using specific keywords. The findings indicate that empirical evidence supports the necessity of internal audit for both fraud detection and prevention in universities. Internal audits are crucial for assisting universities in establishing effective controls by evaluating their efficiency and effectiveness and promoting continuous improvement.[2] Furthermore, internal audit contributes to universities achieving their objectives by designing, assessing, and enhancing risk management, governance processes, and the effectiveness of internal controls. Internal audit also acts as a supervisory function in preventing and detecting fraudulent activities within universities (G. P. Oise et al., 2025).[3] The implications of this research are intended to serve as evaluative material to optimize the role of internal audit in universities, thereby strengthening their capacity to detect and prevent fraud. (Purnamasari & Amaliah, 2015) Investigates the impact of religiosity and spirituality in the workplace on preventing fraud among auditors at the Development Financial Controller (BPKP) in West Java, Indonesia. The study addresses the research gap concerning the limited exploration of fraud prevention through religious and spiritual values, contrasting it with the more common positive economic approach. Using Moderated Regression Analysis on data collected from 30 auditors, the study reveals a positive and significant relationship between both religiosity and spirituality in the workplace and fraud prevention. The findings suggest that integrating religious and spiritual values into the workplace can significantly contribute to fraud prevention efforts. The authors recommend further research with larger samples across different organizational contexts and the inclusion of moderating variables like organizational culture and moral evaluation for a more comprehensive understanding of fraud prevention. Roemkenya & Indah (2021) investigated the impact of internal audit and internal control on fraud prevention at PT Pos Indonesia (Persero) Bandung. Employing a verification method and surveying all 91 employees in Bandung City, the researchers used SPSS Ver25.00 to analyze the data. The findings indicate that both internal audit and internal control significantly influence fraud prevention, contributing 68.8% to its effectiveness. The study's limitation is its focus solely on

PT Pos Indonesia (Persero) in Bandung City. However, it is expected to offer valuable insights for the company to enhance its fraud prevention strategies and provide additional information for relevant stakeholders. Mochammad & Mirna (2020) examined the effect of internal audits on fraud prevention at the Selaawi Garut Unit Bank (BRI). It sought to determine the adequacy of internal audits and their impact on preventing fraud. The study included all 31 employees of the bank, and data were analyzed using simple linear regression. The results revealed that internal audit has a significant effect on fraud prevention. The study recommends that the internal audit department at BRI Selaawi Garut enhance the quality of their analytical procedures in areas like fraud auditing, preliminary surveys, audit programs, and auditor selection. The findings also suggest avenues for future research by incorporating additional variables. Roussy & Perron (2018) analyzed post-Sarbanes-Oxley Act literature (2005 to mid-2017) on internal audit using a multimethod and multitheoretical approach to identify existing knowledge and gaps. The review organized the literature into three themes: the multiple roles of internal audit, internal audit quality (IAQ), and the practice of internal audit. The authors found that while a significant amount of literature exists, the first two themes are still evolving, and the third is just emerging. The review highlights key research gaps: (i) a lack of clarity regarding the actual roles of internal audit, which prior literature suggests has become a broad "jack of all trades" in governance; (ii) a dominant focus on external auditor perspectives in IAQ research, potentially misrepresenting how stakeholders more directly involved with internal audit perceive and evaluate its quality; and (iii) a fragmented understanding of the actual practices, accountability, and ethical considerations within internal audit, resulting in an incomplete overall picture. The authors propose future research directions to address these identified gaps. James, (2003) investigated how the internal audit reporting structure and sourcing arrangement influence lending officers' perceptions of the internal audit function's ability to prevent financial statement fraud. The survey results indicated that in-house internal audit departments reporting to senior management were perceived as less effective in preventing fraud compared to those reporting solely to the board of directors' audit committee. This finding is particularly relevant given the SEC's consideration of making the audit committee directly responsible for internal auditor oversight. Interestingly, the study found no significant difference in perceived fraud prevention capabilities between outsourced internal audit teams and in-house departments when both reported to the audit committee. While outsourcing might increase perceived audit expertise, this did not significantly boost user confidence, possibly because users believe outsourced teams lack the in-depth company knowledge of in-house departments. Alayli (2022) focused on internal control challenges within Small and Medium Enterprises (SMEs) in Lebanon, noting their greater vulnerability to and lesser ability to absorb employee losses compared to large corporations. Despite SMEs supposedly being better equipped for internal control, the issue is sensitive and rarely discussed in Lebanon. The research surveyed 400 individuals, with 308 responses analyzed using SPSS. The findings emphasize the urgent need for monitoring systems in modern businesses, as these frameworks influence performance evaluations. The study highlights that a company's operational environment shapes its management's mindset, and the monitoring setup forms the foundation for internal control. Consequently, the research considered organizational culture, working styles, and employee ethics. The data for the report was gathered by a subset of the executive board and representatives from each board committee, as requested by the board of directors. Aziz & Othman (2021) investigated the impact of using detection and prevention tools for career fraud on combating and preventing fraud, as well as reducing its risks, within the Palestinian Ministry of Health (MOH) in the Gaza Strip, Palestine. Researchers employed questionnaires and a descriptive-analytical approach, surveying 501 supervisory employees. Using a stratified random sample and multiple regression, the study found a positive perception among respondents regarding the application levels of job fraud detection and prevention tools within the MOH, along with significant interest in these tools during work implementation. Key recommendations included the Palestinian National Authority developing laws to prevent conflicts of interest in the health sector, particularly regarding job duplication for government doctors. The study also urged the MOH to adopt and immediately implement health sector governance principles to ensure transparency, disclosure, and accountability, thereby effectively protecting stakeholders and addressing all forms of job fraud within established legal frameworks. The objective of this review is to critically examine existing research on the role of internal audit in fraud detection and prevention across various organizational and national settings. It aims to identify essential internal audit attributes such as independence, competence, and objectivity that contribute to fraud mitigation, while also evaluating the methodological and contextual limitations present in current studies. Additionally, the review highlights emerging trends and theoretical frameworks, including psychological and technological perspectives, and proposes a comprehensive research agenda to address existing gaps and broaden the scope of internal audit practices.

MATERIALS AND METHODS

This study adopts a systematic, multi-stage methodological approach designed to offer a robust synthesis of the internal audit's role in fraud detection and prevention. Integrating structured narrative review principles with thematic coding, quality appraisal, and gap analysis, this methodology balances conceptual depth with empirical rigor.

Research Design

The study follows a structured narrative review framework, drawing on the systematic literature review (SLR) tradition to minimize selection bias while maintaining flexibility to incorporate diverse evidence types. This hybrid model ensures reproducibility through explicit protocols, accommodates empirical and conceptual studies, and enables critical interrogation of theoretical and methodological patterns across the literature.

Data Collection Protocol

A comprehensive search strategy was employed using major academic databases Scopus, ScienceDirect, Emerald, and Google Scholar, with preference given to Scopus-indexed sources to ensure academic quality. The review spans publications from 2000 to 2024, capturing developments in internal audit practices, fraud typologies, and evolving regulatory frameworks. Key Boolean search strings combined core terms (e.g., "internal audit", "IA function") with outcome variables ("fraud detection", "financial misconduct") and moderating constructs ("independence", "technology integration"). Inclusion and exclusion criteria were rigorously applied to filter studies (Table 1).

Table 1: Inclusion and exclusion criteria

Factor	Inclusion	Exclusion
Study Type	Empirical, conceptual, meta-analyses	Editorials, non-peer reviewed
Geographic Focus	All regions	Non-English language studies
Sector	Public/private, all industries	Non-organizational contexts
Methodological Rigor	Clear research design	Lacking empirical/theoretical base

A total of 30+ peer-reviewed studies were retained after title/abstract screening and full-text review, based on thematic relevance, citation impact, and methodological rigor (Figure 1).

Analytical Framework

Thematic Coding

NVivo 12 was employed for structured qualitative analysis. First-cycle coding used inductive methods to identify emergent themes (e.g., auditor competence, structural independence), followed by second-cycle axial coding to map interrelations (e.g., linking independence to fraud detection outcomes). Descriptive statistics were generated to visualize publication trends and regional distributions.

Quality Appraisal

The Mixed Methods Appraisal Tool (MMAT) was used to assess study quality across paradigms:

1. Quantitative studies were evaluated for sample representativeness, measurement validity, and statistical robustness.
2. Qualitative studies were assessed for theoretical coherence and depth of interpretation.
3. Mixed-methods studies were reviewed for integration fidelity and consistency across strands.

Theoretical Integration

A conceptual matrix was constructed aligning findings with dominant frameworks such as agency theory and the COSO framework, while also incorporating emerging lenses like behavioral ethics and institutional theory to capture the socio-psychological and contextual dynamics of fraud.

Validation Measures: To ensure analytical robustness:

1. Inter-coder reliability was established at an 85% agreement rate through dual independent coding rounds.
2. Peer debriefing with internal audit practitioners validated interpretive consistency and professional relevance.
3. Triangulation was applied across:
   a. Methodologies (qualitative and quantitative evidence)
   b. Data sources (academic studies and gray literature)
   c. Geographies and sectors to enhance transferability

Gap Analysis Technique: A PRISMA-inspired flowchart was developed to track literature selection, followed by a structured gap analysis identifying:

Knowledge clusters (e.g., competence–fraud linkage)

Research deserts (e.g., audit technology in SMEs)

Contradictions (e.g., varying impact of auditor independence across regions)

Strengths and Limitations

1. 1.Comprehensive scope: Over 30 studies across 15+ countries and multiple sectors

2. Methodological pluralism: Integrates positivist and interpretivist approaches
3. Publication bias: Null or non-significant findings may be underrepresented
4. 4.Technology lag: Fast-paced developments in AI and audit tech may outstrip the latest empirical coverage

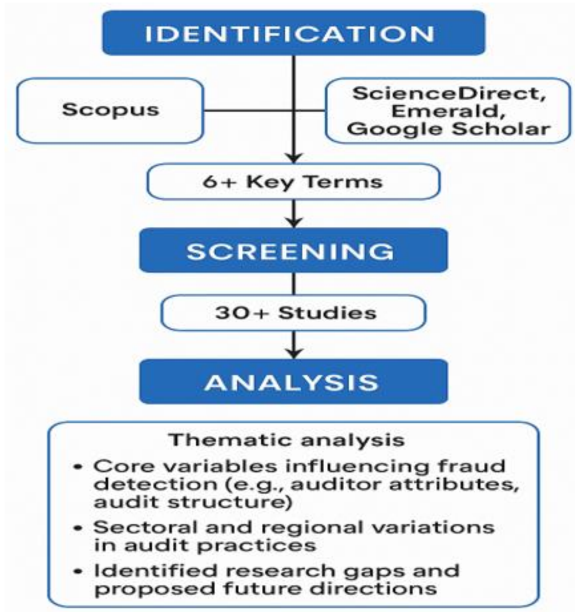

Figure 1: Flowchart of Systematic Literature Review

RESULTS AND DISCUSSION

The systematic review underscores the pivotal role of internal audit functions in fraud detection and prevention, emphasizing that effectiveness hinges on auditor attributes like independence, competence, objectivity, and ethical judgment. The review is structured around four key themes: first, the critical traits of effective auditors, where studies highlight how professional skepticism and ethical reasoning enhance fraud mitigation beyond technical skills alone. Second, it identifies regional and contextual disparities, as much of the literature is concentrated on public sectors in developing countries, limiting broader applicability, especially to SMEs and advanced economies. Third, methodological and theoretical shortcomings are noted, with a heavy reliance on cross-sectional designs and agency theory, while emerging behavioral and institutional perspectives remain underexplored. Finally, the review reveals untapped potential in leveraging technology and interdisciplinary approaches, suggesting that tools like big data analytics and psychological insights could significantly improve audit practices. For practitioners, this calls for targeted training, stronger governance, and tech integration; for researchers, it highlights the need for longitudinal studies, cross-regional comparisons, and behavioral experiments. Ultimately, the study concludes that while internal audit is vital for fraud control, advancing its effectiveness requires methodological innovation and broader contextual understanding. The existing body of literature strongly affirms that internal audit functions are instrumental in the detection and prevention of fraud, particularly when auditors possess attributes such as independence, competence, objectivity, and ethical conduct. Numerous empirical studies have demonstrated that well-structured and effective internal audit systems can significantly reduce fraud risks by improving internal controls, identifying irregularities, and enhancing compliance with regulatory requirements. Internal audit is increasingly viewed not merely as a compliance tool but as a strategic governance mechanism that contributes to risk management, accountability, and financial transparency. However, while this consensus on the importance of internal audit is well-established, the literature also reveals several critical gaps that constrain the field's development and limit its practical and theoretical contributions. A prominent limitation is the narrow geographic and sectoral focus of most studies. Research tends to be concentrated in specific developing economies such as Indonesia, Nigeria, and Pakistan, and often within the public sector or financial services industry. While these studies provide valuable localized insights, they limit the generalizability of findings across diverse national contexts and organizational environments. There is a pressing need for more comparative, cross-country analyses that can uncover universal patterns as well as culturally or institutionally specific dynamics in audit and fraud practices. Similarly, there is limited exploration of how internal audit functions operate in private sector organizations, nonprofit institutions, or sectors like healthcare and education, all of which face unique fraud-related risks. Another significant gap lies in the predominance of cross-sectional and survey-based research designs. Such methodologies, while useful for establishing correlations, do not allow for the examination of temporal changes in audit effectiveness or fraud patterns. As fraud is inherently dynamic, shaped by evolving financial practices, technological advancements, and regulatory landscapes, the use of longitudinal studies and mixed-method approaches is crucial. These designs can offer more nuanced, context-rich understandings of how internal audit contributes to fraud control over time and across organizational change processes.

One of the most underexplored yet increasingly critical areas is the integration of technology into internal audit functions. Emerging technologies such as big data analytics, artificial intelligence, blockchain, and continuous auditing platforms hold immense potential for enhancing fraud detection capabilities. Real-time anomaly detection, predictive analytics, and automated audit trails could revolutionize the way internal audits are conducted. However, very few studies have empirically assessed the impact or challenges of implementing such tools in various organizational contexts. This gap suggests a disconnect between audit practice and research, one that must be bridged to ensure that internal audit remains relevant and effective in a digital world. Closely related is the limited attention to organizational culture, leadership ethics, and whistleblower protection mechanisms in fraud-related audit research. While technical competence and independence are important, internal auditors often operate within environments shaped by hierarchical pressures, ethical climates, and implicit norms. Studies have shown that even the most skilled auditors may be constrained in their roles if they work in organizations that discourage transparency or retaliation against whistleblowers. There is, therefore, a critical need for research that integrates behavioral and organizational theories to understand how culture and leadership influence audit effectiveness and fraud outcomes. Small and Medium Enterprises (SMEs) represent another area where research is lacking. SMEs are particularly vulnerable to fraud due to limited resources, a lack of segregation of duties, and informal governance structures. Yet, most internal audit studies are based on large organizations with formal audit committees and established internal control systems. Understanding the unique challenges SMEs face and identifying scalable audit practices suitable for resource-constrained settings is essential for inclusive fraud prevention strategies.

Moreover, there is an over-reliance on traditional theoretical frameworks, such as agency theory and the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework, to explain audit-fraud dynamics. While these models provide foundational insights into principal-agent relationships and internal control systems, they do not fully account for the complex psychological, sociological, and ethical dimensions of fraudulent behavior. Recent developments in behavioral economics, organizational psychology, and moral cognition offer richer explanatory power, particularly regarding how individuals rationalize unethical behavior and how audit systems can be designed to address these deeper cognitive and emotional processes. To address these research gaps, future studies should pursue several key directions. First, comparative and cross-cultural research is needed to understand how internal audit practices vary across regions and governance systems. Second, longitudinal and experimental designs should be adopted to track the impact of audit interventions over time and under different organizational conditions. Third, technology-focused research should explore how digital tools are reshaping internal audit functions and assess their practical implementation challenges. Fourth, interdisciplinary approaches that integrate ethics, psychology, and information systems into audit research can provide more holistic insights into fraud dynamics. Finally, a greater focus on underrepresented organizational forms such as SMEs and nonprofits will enhance the inclusivity and practical relevance of internal audit literature. Internal audit remains a cornerstone of organizational fraud prevention strategies; its evolving role in modern governance requires continued empirical attention and theoretical innovation. By addressing these outlined gaps, scholars and practitioners can better align internal audit practices with contemporary fraud risks and governance challenges, ultimately contributing to more resilient, transparent, and accountable institutions.

CONCLUSION

This review consolidates empirical and theoretical insights into the critical role of internal audit in fraud detection and prevention, highlighting its evolution from a compliance tool to a strategic governance function. The synthesis of over 30 studies underscores that internal audit effectiveness hinges on key attributes such as independence, competence, objectivity, and professional skepticism, which collectively strengthen organizational resilience against fraud. However, the literature reveals significant limitations that constrain broader applicability and depth of understanding. A predominant focus on specific regions (e.g., Indonesia, Nigeria, Pakistan) and sectors (e.g., public sector, financial services) limits the generalizability of findings, while reliance on cross-sectional methodologies fails to capture the dynamic interplay between audit interventions and evolving fraud risks over time. Critical gaps persist in understanding the integration of technology (e.g., AI, blockchain, big data analytics) into audit practices, the influence of organizational culture and ethical leadership on fraud outcomes, and the unique vulnerabilities of SMEs, which often lack robust internal controls. Theoretical frameworks in existing research, such as agency theory and COSO, provide foundational insights but fall short in addressing the psychological, behavioral, and sociocultural dimensions of fraud. To advance the field, future studies should adopt longitudinal and mixed-method designs, comparative cross-cultural analyses, and interdisciplinary approaches that incorporate ethics, technology, and behavioral science. Emphasis on underrepresented sectors, such as SMEs, nonprofits, and emerging markets, will enhance the inclusivity and practical relevance of research. Ultimately, this review calls for a paradigm shift in internal audit research and practice, advocating for innovation, contextual adaptability, and holistic strategies to combat fraud. By addressing these gaps, scholars and practitioners can better align audit functions with contemporary challenges, fostering transparency, accountability, and organizational trust in an increasingly complex and digital global landscape.

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