

Bridging the expectation performance gap in fraud detection: A systematic review of external auditors' responsibilities, audit failures, and regulatory responses

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Abstract

Financial statement fraud remains a persistent threat to the integrity of global capital markets despite extensive auditing standards and regulatory reforms. This study systematically reviews literature on external auditors' responsibilities in fraud detection and evaluates why significant audit failures continue to occur. Following the Preferred Reporting Items for Systematic Reviews and Meta Analyses framework, 1,232 studies were initially identified from Google Scholar and Crossref, of which 32 studies published between 2002 and 2025 met the inclusion criteria. The findings reveal a persistent expectation and performance gap between auditing standards, particularly ISA 240, and actual audit practice. Although auditors are required to obtain reasonable assurance that financial statements are free from material misstatement due to fraud, high profile corporate failures such as Enron, Wirecard, Carillion and Steinhoff demonstrate recurring deficiencies in fraud detection. The synthesis identifies four dominant factors influencing audit effectiveness: regulatory environment, auditor independence, professional competence and scepticism, and the complexity of fraud schemes. The review further shows that audit failures are driven not only by technical limitations but also by behavioural biases, institutional pressures and increasing fraud sophistication. Regulatory reforms such as the Sarbanes Oxley Act and CLERP 9 have improved compliance but have not eliminated audit deficiencies. The study contributes a multidimensional conceptual framework integrating behavioural, institutional and technological perspectives to explain persistent audit failures. It concludes that improving fraud detection requires a shift from compliance based auditing toward a more integrated approach that combines behavioural insight, enhanced professional training and advanced audit technologies such as artificial intelligence and data analytics.

Keywords: Audit Fraud, ISA 240, Auditor Independence, Professional Scepticism, Financial Reporting, Systematic Review

JEL Classification: M42, G38, K22

1. Introduction

Financial statement fraud remains one of the most significant threats to the integrity of global capital markets because it undermines investor confidence, distorts resource allocation, and weakens public trust in corporate reporting. Despite substantial improvements in auditing standards, corporate governance frameworks, and regulatory oversight following major corporate scandals, fraudulent financial reporting continues to occur across both developed and emerging economies. High-profile corporate collapses—including Enron in the United States, Carillion in the United Kingdom, Wirecard in Germany, and Steinhoff International in South Africa—demonstrate that material fraud may persist for years despite external audits conducted in accordance with internationally recognized auditing standards. These recurring failures have renewed scholarly and professional debate regarding whether auditors possess the necessary tools, independence, and professional scepticism required to detect sophisticated financial statement fraud (Healy & Palepu, 2003; Sikka, 2009; Knechel, 2016).

External auditors serve an essential public interest function by enhancing the credibility of financial statements through the provision of independent assurance. Under International Standard on Auditing (ISA) 240, auditors are required to obtain reasonable assurance that financial statements are free from material misstatement arising from fraud or error while exercising professional scepticism throughout the audit process. Nevertheless, ISA 240 explicitly acknowledges that even properly planned and executed audits cannot guarantee the detection of all fraud because management may deliberately conceal evidence through collusion, override of internal controls, document falsification, or increasingly sophisticated financial engineering. Consequently, the effectiveness of fraud detection depends not only on compliance with auditing standards but also on auditors' professional judgment, independence, competence, and the broader institutional environment in which audits are performed (International Auditing and Assurance Standards Board, 2023). The auditing profession has undergone substantial regulatory reforms during the past two decades. Legislative initiatives such as the Sarbanes–Oxley Act (SOX) in the United States, mandatory audit partner rotation requirements in several jurisdictions, strengthened corporate governance codes, and enhanced oversight by audit regulators were intended to restore confidence following major accounting scandals. While these reforms have improved audit documentation, internal control reporting, and regulatory monitoring, evidence regarding their effectiveness in improving fraud detection remains mixed. Empirical studies suggest that audit quality is influenced not only by regulatory requirements but also by auditor independence, audit tenure, client pressure, organizational culture, behavioural biases, and the increasing complexity of fraud schemes (Tepalagul & Lin, 2015; Knechel, 2016; Brown-Liburd, Issa & Lombardi, 2015).

Recent technological developments further complicate the fraud detection landscape. Digital transactions, artificial intelligence, cryptocurrencies, complex corporate structures, and cross-border operations have created new opportunities for financial manipulation while simultaneously

offering auditors advanced analytical tools capable of identifying anomalies in large datasets. Although data analytics, continuous auditing, and machine learning have demonstrated considerable potential for enhancing audit effectiveness, their adoption remains uneven across jurisdictions and audit firms, particularly within developing economies (Appelbaum, Kogan, Vasarhelyi & Yan, 2017; Kokina & Davenport, 2017). These developments suggest that traditional audit methodologies may require substantial adaptation to remain effective in increasingly technology-driven business environments.

Although a substantial body of literature has examined auditor responsibilities, professional scepticism, auditor independence, audit failures, and regulatory reforms, existing evidence remains fragmented across jurisdictions and disciplinary perspectives. Many studies focus on individual corporate scandals or specific regulatory interventions without integrating broader insights into why auditors continue to experience persistent difficulties in detecting financial statement fraud. Consequently, there remains limited understanding of how institutional, behavioural, regulatory, and technological factors collectively shape auditors' effectiveness in fulfilling their fraud-related responsibilities. Against this background, this study conducts a systematic literature review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to synthesize global evidence on external auditors' responsibilities relating to fraud detection. Specifically, the review examines how international auditing standards define auditors' responsibilities, evaluates the effectiveness of current audit practices in detecting fraud, identifies the principal barriers limiting audit performance, and assesses the effectiveness of regulatory reforms implemented following major corporate failures. By integrating evidence across multiple jurisdictions, this review contributes to the auditing literature by providing a comprehensive understanding of the persistent expectation–performance gap in fraud detection and by identifying emerging research directions concerning behavioural auditing, audit technology, regulatory policy, and professional competence. The study contributes to the literature in three important ways. First, it provides an integrated synthesis of evidence spanning more than two decades of auditing research rather than focusing on isolated fraud cases or individual jurisdictions. Second, it develops a multidimensional framework linking auditor independence, professional competence, regulatory oversight, behavioural factors, and fraud complexity to audit effectiveness. Third, it identifies emerging opportunities for future research, particularly concerning artificial intelligence, forensic analytics, continuous auditing, and behavioural interventions aimed at strengthening auditors' capacity to detect increasingly sophisticated financial statement fraud.

2. Methodology

2.1 Research Design

This study adopted a Systematic Literature Review (SLR) approach to examine external auditors' responsibilities in detecting financial statement fraud and to synthesize evidence on persistent audit failures. The review followed the Preferred Reporting Items for Systematic Reviews and Meta-

Analyses (PRISMA 2020) guidelines to ensure transparency, reproducibility, and methodological rigor. The SLR approach was considered appropriate because it allows for the integration of findings from diverse methodological traditions, including empirical studies, conceptual papers, and regulatory reports, thereby enabling a comprehensive understanding of the audit fraud detection landscape.

2.2 Search Strategy

A structured search strategy was developed to identify relevant literature published between 2002 and 2025, capturing the post-Enron regulatory reform era. The following academic databases were used: Google Scholar and Crossref. Search terms included combinations of keywords such as “external audit AND fraud detection”, “ISA 240 AND auditor responsibility”, “audit failure AND financial fraud”, “auditor independence AND fraud risk”, and “fraud detection AND auditing standards”. Boolean operators (AND, OR, NOT) were used to refine search results and improve relevance.

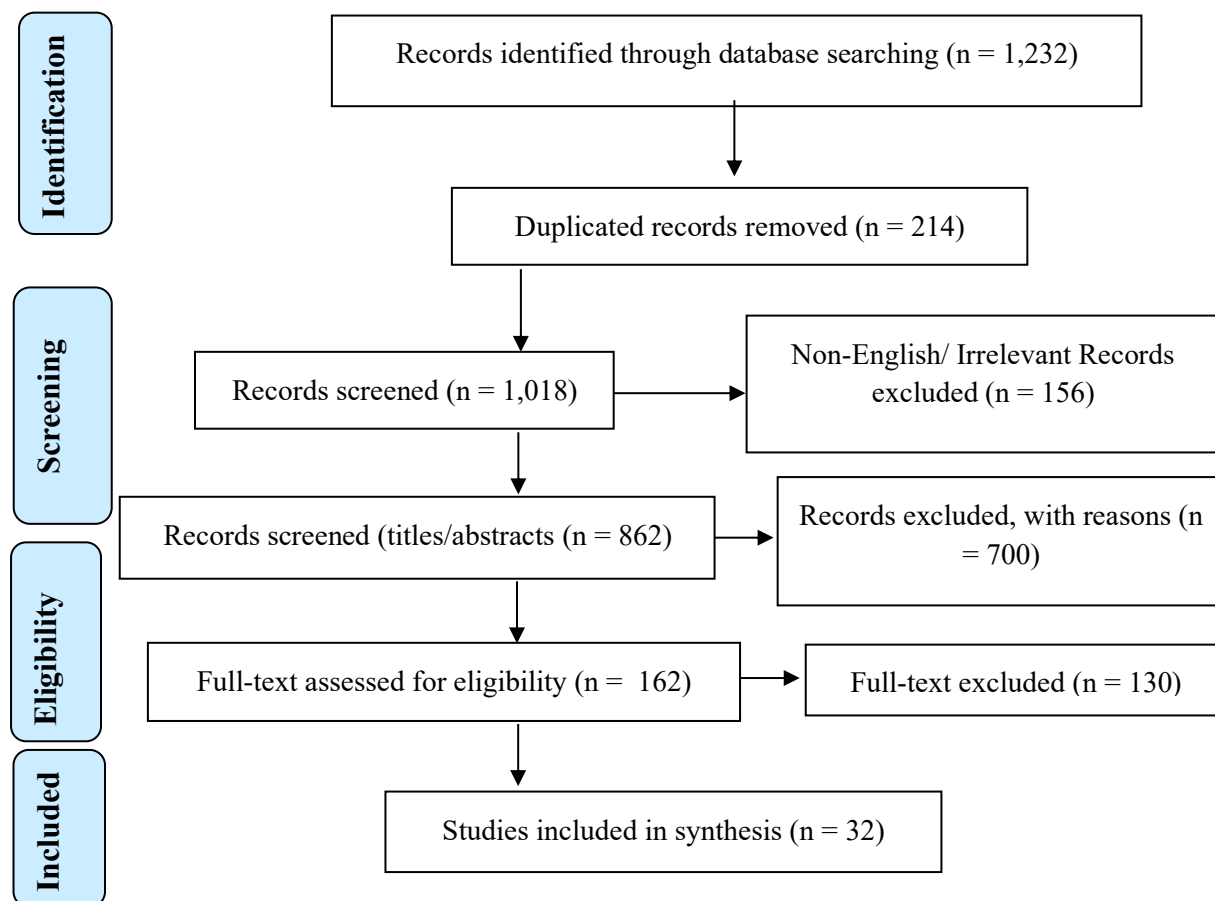
2.3 Inclusion and Exclusion Criteria

Studies were included if they focused on external auditors’ responsibilities in fraud detection, discussed financial statement fraud in auditing contexts, examined ISA 240 or related auditing standards, were published in English between 2002 and 2025, and included peer-reviewed articles, regulatory reports, or high-quality grey literature. Studies were excluded if they focused solely on internal auditing or forensic accounting without external audit relevance. Also, the review excluded non-academic opinion pieces without theoretical or empirical grounding, published before 2002, and non-English publications.

2.4 Study Selection Process

The screening process followed PRISMA guidelines. The initial search identified 1,232 studies. EndNote was used to remove duplicates of 214 after which title and abstract screening was done to identify studies that are relevant to audit fraud responsibility. Full-text review of 162 articles were assessed, and finally, 32 studies met eligibility criteria. Rayyan software was used to support blind screening and reduce selection bias. That is, to ensure validity and reliability, PRISMA framework guided reporting, dual screening reduced selection bias, clear inclusion/exclusion criteria ensured consistency, and cross-jurisdictional sampling enhanced generalizability as presented in Figure 1.

Figure 1. PRISMA Flow Diagram of the Identification Screening and Selection Process of Included Studies



2.5 Data Extraction and Analysis

A structured data extraction form was developed to capture author(s) and year, country/jurisdiction, research design, regulatory framework (e.g., ISA 240, SOX), key findings, and identified audit limitations.

Thematic synthesis was applied to analyse the data. Four major themes were identified: regulatory environment, auditor independence, professional competence and scepticism, and complexity and concealment of fraud schemes. An integrative synthesis was then developed to identify cross-cutting relationships among themes.

Table 1 organizes the final studies into key analytical themes: regulatory environment, auditor independence, professional competence, fraud complexity, and technology and analytics.

Table 1. Summary of Included Studies Based on Thematic Classification

Theme	Key Authors	Main Contribution
Regulatory Environment	Boo & Sharma (2008); Hossain (2013); Keay (2014)	Shows mixed effectiveness of regulatory reforms in improving audit quality
Auditor Independence	Tepalagul & Lin (2015); Moore et al. (2006); Hope & Langli (2010)	Identifies economic dependence and behavioural bias as key threats
Professional Competence	Nelson (2009); Fouad et al. (2009); Ocansey (2025)	Emphasizes scepticism and continuous learning as core audit skills
Fraud Complexity	Kenyon & Tilton (2012); Cressey (Fraud Triangle)	Shows increasing sophistication of fraud schemes
Technology & Analytics	Appelbaum et al. (2017); Kokina & Davenport (2017)	Highlights AI and big data as emerging audit tools

Table 2 presents real-world audit failure cases (Enron, Wirecard, Carillion, Steinhoff). It shows how fraud was executed, why auditors failed, and the practical relevance of theoretical findings. It strengthens the argument by linking literature to real-world audit breakdowns.

Table 2. Major Corporate Fraud Cases Reviewed

Case	Country	Key Fraud Mechanism	Audit Failure Issue
Enron	USA	SPVs, debt concealment	Independence + collusion
Wirecard	Germany	Fake cash balances	Verification failure
Carillion	UK	Aggressive revenue recognition	Weak scepticism
Steinhoff	South Africa	Related-party manipulation	Control override

3. Results

3.1 Theoretical Foundations of Auditor Responsibility for Fraud Detection

External auditing is grounded in the principle that independent assurance enhances the credibility of financial reporting by reducing information asymmetry between managers and stakeholders. Traditionally, Agency Theory has provided the dominant explanation for the existence of external auditing, arguing that managers (agents) may pursue personal interests that conflict with those of shareholders (principals), thereby creating incentives for financial statement manipulation (Jensen & Meckling, 1976). External auditors therefore function as independent monitoring mechanisms that reduce agency costs by verifying the fairness of financial statements.

However, agency theory alone provides an incomplete explanation for auditors' performance in fraud detection. Financial statement fraud increasingly involves sophisticated concealment strategies, collusive arrangements, and complex financial engineering that challenge traditional audit procedures. Consequently, behavioural perspectives have become increasingly relevant. Moore et al. (2006) introduced Moral Seduction Theory, arguing that auditors' judgments may be unconsciously influenced by long-standing client relationships rather than deliberate misconduct. Their work suggests that compromised independence often arises through gradual psychological bias rather than intentional ethical violations.

Similarly, Issue-Cycle Theory explains how public attention to audit failures tends to fluctuate over time. Following major corporate scandals, regulators typically introduce extensive reforms designed to restore investor confidence. However, as public scrutiny declines, enforcement intensity often weakens, allowing similar governance failures to re-emerge (Moore et al., 2006). This cyclical pattern helps explain why significant audit failures continue to occur despite repeated regulatory reforms following Enron, WorldCom, Carillion, Wirecard, and Steinhoff.

Institutional Theory further complements these perspectives by suggesting that auditors operate within regulatory, professional, and organizational environments that shape their behaviour. Audit quality is therefore influenced not only by individual competence but also by institutional pressures arising from regulators, professional bodies, audit firms, and clients (DiMaggio & Powell, 1983). These competing pressures may simultaneously encourage regulatory compliance while discouraging auditors from challenging influential clients.

Collectively, these theoretical perspectives suggest that effective fraud detection depends on considerably more than technical compliance with auditing standards. Instead, audit effectiveness reflects the interaction between regulatory oversight, professional competence, auditor independence, behavioural judgement, organizational culture, and the evolving complexity of financial fraud. This review adopts these complementary theoretical perspectives to synthesize existing evidence regarding auditors' responsibilities in fraud detection.

3.2 Auditor Responsibilities under International Auditing Standards

The primary responsibility of external auditors is to obtain reasonable assurance that financial statements are free from material misstatement arising from fraud or error. This responsibility is principally defined by International Standard on Auditing (ISA) 240, which requires auditors to maintain professional scepticism throughout the audit, identify fraud risk factors, assess management override of internal controls, and design audit procedures responsive to identified fraud risks (IAASB, 2023).

Importantly, ISA 240 distinguishes the responsibilities of auditors from those of management. While management bears primary responsibility for preventing and detecting fraud through effective governance and internal control systems, auditors are responsible for independently assessing whether material fraud may exist within the financial statements. Consequently, auditing standards recognize that auditors provide reasonable—not absolute—assurance because fraud involving collusion, document falsification, or management override may remain difficult to detect even when audits comply fully with professional standards.

The auditing profession has responded to recurring corporate failures through continuous revisions of auditing standards, emphasizing enhanced professional scepticism, expanded fraud risk assessment procedures, improved documentation requirements, and stronger communication with audit committees. Nevertheless, persistent corporate scandals indicate that compliance with auditing standards does not necessarily translate into effective fraud detection, suggesting that additional institutional and behavioural factors influence audit outcomes (Knechel, 2016). This observation forms the basis for the subsequent thematic review.

3.3 Regulatory Environment and Auditor Effectiveness

The regulatory environment plays a central role in determining audit quality because it establishes the legal, professional, and institutional framework within which auditors perform their responsibilities. Strong regulatory oversight enhances auditor accountability, strengthens professional independence, and improves investor confidence in audited financial statements. Nevertheless, empirical evidence suggests that the effectiveness of regulation depends not only on the existence of standards but also on the consistency of their enforcement.

Boo and Sharma (2008) argue that regulatory oversight can partially substitute for corporate governance mechanisms by reducing information risk and improving monitoring. Their findings indicate that firms operating within highly regulated industries often exhibit stronger audit quality because external regulation supplements internal governance structures. Similarly, Hossain (2013) reports that Australia's Corporate Law Economic Reform Program (CLERP 9) significantly improved auditor independence by limiting conflicts associated with non-audit services.

However, regulation alone cannot eliminate audit failures. Keay (2014) criticizes the United Kingdom's "comply or explain" approach, arguing that voluntary governance mechanisms may become ineffective when regulatory enforcement remains weak. Likewise, Butler and Ribstein

(2006) contend that although the Sarbanes–Oxley Act substantially strengthened internal control requirements, it also imposed considerable compliance costs while producing mixed evidence regarding improvements in fraud detection.

International evidence further demonstrates that regulatory effectiveness varies considerably across jurisdictions. Leung and Cooper (2009) found substantial differences in compliance with internal auditing standards across Asia-Pacific countries, while Khanna and Widyawati (2011) showed that stronger environmental regulatory enforcement increased organizational self-auditing behaviour in the United States. These findings collectively suggest that regulatory quality depends not merely on legislative reforms but on consistent enforcement, institutional capacity, and organizational commitment to transparency. Hence, effective regulation should be viewed as a necessary but insufficient condition for improving auditors' ability to detect financial statement fraud.

3.4 Auditor Independence and Fraud Detection

Auditor independence has long been regarded as the cornerstone of audit quality because it underpins the credibility, objectivity, and reliability of audit opinions. Independence enables auditors to exercise professional judgement without undue influence from management or other stakeholders, thereby increasing the likelihood of identifying material misstatements arising from fraud. Consequently, both international auditing standards and professional codes of ethics emphasize independence in appearance and independence in fact as essential prerequisites for effective auditing.

Despite its theoretical importance, maintaining auditor independence remains one of the profession's greatest challenges. Modern audit engagements frequently involve long-term client relationships, substantial audit fees, and the provision of non-audit services, all of which may create economic dependence and impair auditor objectivity. Although auditors are expected to remain impartial, economic incentives may consciously or unconsciously influence professional judgement, particularly when retaining valuable clients becomes a commercial priority.

Moore et al. (2006) provide one of the most influential behavioural explanations for impaired auditor independence through Moral Seduction Theory. They argue that auditors rarely compromise their independence through deliberate misconduct. Instead, unconscious psychological biases gradually emerge as auditors develop familiarity with clients, making them increasingly receptive to management explanations and less likely to challenge aggressive accounting practices. This behavioural perspective extends beyond traditional economic theories by demonstrating that compromised independence may result from cognitive bias rather than intentional ethical violations.

Similarly, Tepalagul and Lin (2015), in their comprehensive review of auditor independence research, identify four principal threats to audit quality: economic dependence on clients,

prolonged audit tenure, extensive provision of non-audit services, and close auditor–client relationships. Their synthesis demonstrates that although empirical findings remain mixed, each factor has the potential to weaken both actual and perceived auditor independence. The authors therefore conclude that independence should be viewed as a multidimensional construct influenced simultaneously by organizational incentives, professional ethics, regulatory oversight, and behavioural judgement.

However, evidence regarding audit tenure remains inconclusive. Proponents of mandatory audit firm rotation argue that periodic changes reduce familiarity threats and encourage fresh professional scepticism. Jackson, Moldrich, and Roebuck (2008), however, report that longer audit tenure may actually improve audit quality because auditors accumulate client-specific knowledge that enhances risk assessment and improves going-concern reporting. Similar findings are reported by Hope and Langli (2010), who find little evidence that long auditor–client relationships necessarily impair independence among privately held Norwegian firms operating within relatively low-litigation environments. These contrasting findings suggest that mandatory rotation alone may not consistently improve fraud detection and that its effectiveness depends on institutional context.

Evidence from emerging economies reinforces the importance of organizational governance in safeguarding auditor independence. Minh Duc et al. (2019) find that corporate governance practices within audit firms exert a stronger influence on auditor independence than external regulatory requirements alone. Their study demonstrates that audit firm culture, leadership commitment to ethical conduct, quality control systems, and professional supervision collectively strengthen auditors' ability to resist client pressure. This finding suggests that internal governance mechanisms may complement external regulation in promoting audit quality.

The collapse of several multinational corporations further illustrates the practical implications of compromised independence. In the Enron scandal, Arthur Andersen's extensive consulting relationships with its audit client raised significant concerns regarding conflicts of interest and reduced professional scepticism (Healy & Palepu, 2003). Similarly, investigations following the Wirecard collapse questioned whether prolonged auditor–client familiarity contributed to auditors' failure to independently verify fabricated bank confirmations and complex third-party transactions (Knobloch et al., 2022). Comparable concerns emerged following the Carillion and Steinhoff scandals, where auditors were criticised for insufficiently challenging management assumptions despite numerous warning signals.

Collectively, the literature suggests that auditor independence cannot be understood solely as compliance with ethical regulations. Rather, independence reflects the interaction between behavioural judgement, organizational culture, regulatory oversight, economic incentives, and professional ethics. Consequently, strengthening fraud detection requires not only stricter independence requirements but also institutional mechanisms that encourage critical thinking,

reinforce professional scepticism, and reduce commercial pressures that may compromise audit judgement.

3.5 Professional Competence, Professional Scepticism and Auditor Performance

Professional competence represents another critical determinant of auditors' ability to detect financial statement fraud. While auditing standards establish minimum procedural requirements, effective fraud detection depends largely on auditors' technical expertise, analytical reasoning, professional scepticism, and continuous learning. As financial reporting becomes increasingly complex, auditors must possess competencies that extend beyond traditional accounting knowledge to include forensic investigation, information technology, data analytics, behavioural assessment, and risk evaluation.

Professional competence has traditionally been conceptualized as the combination of knowledge, technical skills, ethical values, and professional judgement required for effective practice. Fouad et al. (2009) propose a developmental competency framework demonstrating that professional expertise evolves progressively through education, supervised experience, reflective practice, and continuous professional development. Their model emphasizes that competence should not be viewed as a static qualification but rather as a lifelong process of professional learning.

Similarly, Dunst, Trivette, and Deal (2010) demonstrate that experiential learning approaches significantly improve professional performance compared with traditional classroom-based instruction. Their findings indicate that field-based training, reflective practice, and continuous feedback produce greater improvements in professional competence than one-time seminars or lecture-based professional development programmes. Although their research focuses on professional education generally, its implications are directly relevant to auditing, where practical experience remains essential for recognising subtle fraud indicators.

Professional scepticism represents an equally important dimension of auditor competence. ISA 240 requires auditors to maintain a questioning mind throughout the audit, critically evaluate audit evidence, and remain alert to circumstances indicating possible fraud. However, empirical evidence consistently demonstrates that auditors frequently exhibit insufficient scepticism, particularly when management enjoys a strong reputation or when previous audits have not revealed significant misstatements.

Nelson (2009) conceptualises professional scepticism as the interaction between sceptical judgement and sceptical action. His behavioural model argues that auditors may possess sceptical attitudes but nevertheless fail to perform additional audit procedures because of time pressure, client relationships, organizational culture, or budget constraints. Consequently, professional scepticism should be understood not merely as an individual personality trait but as an organizational capability influenced by institutional incentives.

The increasing digitalization of business transactions has further expanded the competencies required of contemporary auditors. Organizations now generate vast quantities of structured and unstructured data that cannot be effectively analysed using conventional sampling techniques. Consequently, auditors increasingly require competencies in artificial intelligence, machine learning, blockchain auditing, continuous auditing, and advanced data analytics to identify unusual transaction patterns indicative of financial fraud (Appelbaum et al., 2017; Kokina & Davenport, 2017).

The literature therefore suggests that future professional development should integrate behavioural training, forensic accounting techniques, data analytics, cybersecurity awareness, and artificial intelligence into traditional auditing curricula. Such interdisciplinary competencies will enable auditors to respond more effectively to increasingly sophisticated fraud schemes that exploit technological innovation and global business complexity. Hence, professional competence should no longer be viewed simply as compliance with professional qualification requirements. Instead, it represents a dynamic combination of technical expertise, behavioural judgement, technological capability, ethical reasoning, and lifelong learning that collectively determines auditors' effectiveness in detecting financial statement fraud.

3.6 Complexity and Concealment of Fraud Schemes: Challenges for Modern Auditing

The complexity of financial statement fraud has increased substantially over the past two decades, creating significant challenges for auditors charged with detecting material misstatements. Contemporary fraud schemes are no longer limited to simple accounting manipulations but increasingly involve complex corporate structures, sophisticated financial instruments, cross-border transactions, shell companies, digital assets, and coordinated collusion among multiple actors. These developments have widened the gap between auditors' statutory responsibilities and their practical ability to identify fraudulent activities using conventional audit procedures.

The Fraud Triangle, developed by Donald R. Cressey, remains one of the most influential frameworks for understanding fraudulent behaviour. The model proposes that fraud occurs when three conditions coexist: pressure, opportunity, and rationalization. Although this framework continues to guide fraud risk assessments under ISA 240, subsequent research suggests that it inadequately captures the complexity of modern corporate fraud, particularly where sophisticated technological systems and organizational cultures facilitate concealment.

Recognizing these limitations, Jonathan Marks introduced the Fraud Pentagon Theory, extending the Fraud Triangle by incorporating competence and arrogance as additional determinants of fraudulent behaviour. More recently, the Fraud Hexagon Model has further expanded the theoretical framework by adding collusion as a critical element, reflecting the increasing prevalence of coordinated fraudulent activities involving multiple individuals across organizational boundaries. These theoretical developments suggest that auditors must evaluate not

only financial indicators but also organizational culture, governance quality, executive behaviour, and technological vulnerabilities when assessing fraud risk.

Empirical evidence demonstrates that fraud concealment techniques continue to evolve alongside regulatory reforms. Kenyon and Tilton (2012) classify financial fraud into several categories, including fraudulent financial reporting, asset misappropriation, concealed liabilities, fictitious revenues, and improper expense recognition. Each category employs distinct concealment mechanisms requiring specialized detection strategies. Traditional analytical procedures—including ratio analysis, trend analysis, and substantive testing—remain valuable; however, they are increasingly insufficient when fraudsters exploit complex financial engineering, digital transactions, or artificial intelligence to disguise fraudulent activities.

Recent corporate failures illustrate the growing sophistication of financial statement fraud. The Enron scandal involved extensive use of special-purpose entities to conceal debt and inflate profitability, while Wirecard relied on fabricated third-party bank confirmations and fictitious cash balances distributed across multiple international jurisdictions. Similarly, Steinhoff International employed complex related-party transactions and accounting irregularities that remained undetected despite repeated external audits. In each case, auditors largely complied with established audit procedures yet failed to identify fraud because traditional evidence-gathering techniques proved inadequate against sophisticated concealment strategies. These cases demonstrate that audit failures frequently arise not from the absence of professional standards but from the increasing asymmetry between fraud sophistication and conventional audit methodologies. As organizations adopt advanced digital technologies, fraudulent activities likewise become increasingly technology-enabled, requiring auditors to acquire new technical competencies beyond traditional accounting expertise.

The rapid digital transformation of business has further intensified these challenges. The widespread adoption of enterprise resource planning systems, cloud computing, blockchain technologies, cryptocurrencies, and electronic commerce has fundamentally altered financial reporting processes. Consequently, auditors now encounter massive volumes of structured and unstructured data that exceed the analytical capacity of traditional sampling-based audit methods.

Emerging technologies offer considerable opportunities to address these challenges. Artificial intelligence (AI) and machine learning algorithms enable auditors to analyse complete transaction populations, identify unusual behavioural patterns, detect anomalies, and continuously monitor organizational risks with substantially greater efficiency than conventional audit techniques. Appelbaum et al. (2017) argue that advanced data analytics enhances auditors' ability to identify high-risk transactions by combining predictive modelling with continuous monitoring. Likewise, Kokina and Davenport (2017) contend that AI has the potential to transform audit planning, fraud risk assessment, and substantive testing by automating repetitive audit procedures while allowing auditors to concentrate on higher-level professional judgement.

Blockchain technology presents another significant opportunity for strengthening fraud detection. Because blockchain transactions are recorded on immutable distributed ledgers, they reduce opportunities for unauthorized alterations, improve transaction traceability, and facilitate real-time verification of accounting records. Although blockchain cannot eliminate fraud entirely, its integration into accounting systems may substantially reduce opportunities for document manipulation and enhance audit transparency (Dai & Vasarhelyi, 2017).

Despite these technological advances, several challenges remain. Many audit firms, particularly small and medium-sized practices and those operating in developing economies, lack the financial resources, technological infrastructure, and specialist expertise required to implement advanced analytical tools effectively. Furthermore, regulatory guidance concerning AI-assisted auditing continues to evolve, creating uncertainty regarding auditors' responsibilities when relying upon automated decision-support systems. Ethical concerns relating to algorithmic bias, data privacy, cybersecurity, and professional accountability also require careful consideration before AI technologies can be fully integrated into audit practice.

In all, the literature suggests that the future effectiveness of fraud detection will depend upon auditors' ability to combine professional scepticism with advanced technological capabilities. Rather than replacing professional judgement, emerging technologies should complement auditors' expertise by improving risk identification, enhancing analytical procedures, and supporting more informed audit decisions. Consequently, future auditing standards, professional education programmes, and regulatory frameworks should emphasize digital competencies alongside traditional auditing skills to ensure that auditors remain capable of responding to increasingly sophisticated fraud schemes.

3.7 Conceptual Framework

The preceding literature demonstrates that auditors' effectiveness in detecting financial statement fraud cannot be explained by a single factor. Instead, fraud detection represents a multidimensional process shaped by interactions among regulatory institutions, auditor characteristics, organizational governance, fraud complexity, and technological capability. Existing studies have largely examined these factors independently, creating fragmented knowledge regarding their combined influence on audit outcomes.

To address this gap, this review proposes an integrated conceptual framework that synthesizes evidence from the literature into five interrelated constructs influencing auditors' fraud detection effectiveness. The first construct is the regulatory environment, which establishes the legal and professional framework governing audit practice. Effective regulation strengthens auditor accountability through auditing standards, oversight mechanisms, inspection regimes, and enforcement actions. However, regulation alone cannot guarantee successful fraud detection unless accompanied by consistent implementation and institutional support. The second construct is auditor independence, which enables objective evaluation of audit evidence without undue

influence from economic incentives or client relationships. Independence operates both as an ethical principle and as a behavioural characteristic shaped by organizational culture, governance structures, and professional values. The third construct is professional competence and professional scepticism. Competence encompasses auditors' technical knowledge, forensic accounting expertise, analytical reasoning, technological capability, ethical judgement, and commitment to continuous professional development. Professional scepticism serves as the behavioural mechanism through which competence is translated into effective audit decision-making. The fourth construct comprises the complexity and concealment of fraud schemes. Fraud complexity moderates the relationship between auditor capability and fraud detection because increasingly sophisticated concealment techniques reduce the effectiveness of traditional audit procedures. Consequently, auditors require progressively advanced analytical methods and forensic capabilities to respond effectively. Finally, technological capability is introduced as an enabling construct. Emerging technologies—including artificial intelligence, machine learning, blockchain, continuous auditing, and advanced data analytics—strengthen auditors' ability to identify anomalies, evaluate risk, and investigate suspicious transactions. Rather than replacing professional judgement, these technologies enhance auditors' capacity to exercise informed scepticism within increasingly complex business environments.

Drawing upon these relationships, the proposed framework suggests that auditors' fraud detection effectiveness is jointly determined by institutional, behavioural, technological, and organizational factors. Improvements in any single dimension are unlikely to eliminate audit failures unless accompanied by complementary improvements across the broader auditing ecosystem. Accordingly, this systematic review synthesizes empirical evidence within this multidimensional framework to examine how these interacting factors collectively explain the persistent expectation–performance gap in fraud detection observed across international audit practice. Table 3 summarizes the proposed theoretical model, showing the independent variables (regulation, independence), mediators (competence, scepticism), moderator (fraud complexity), outcome (fraud detection effectiveness), and enabling factor (technology).

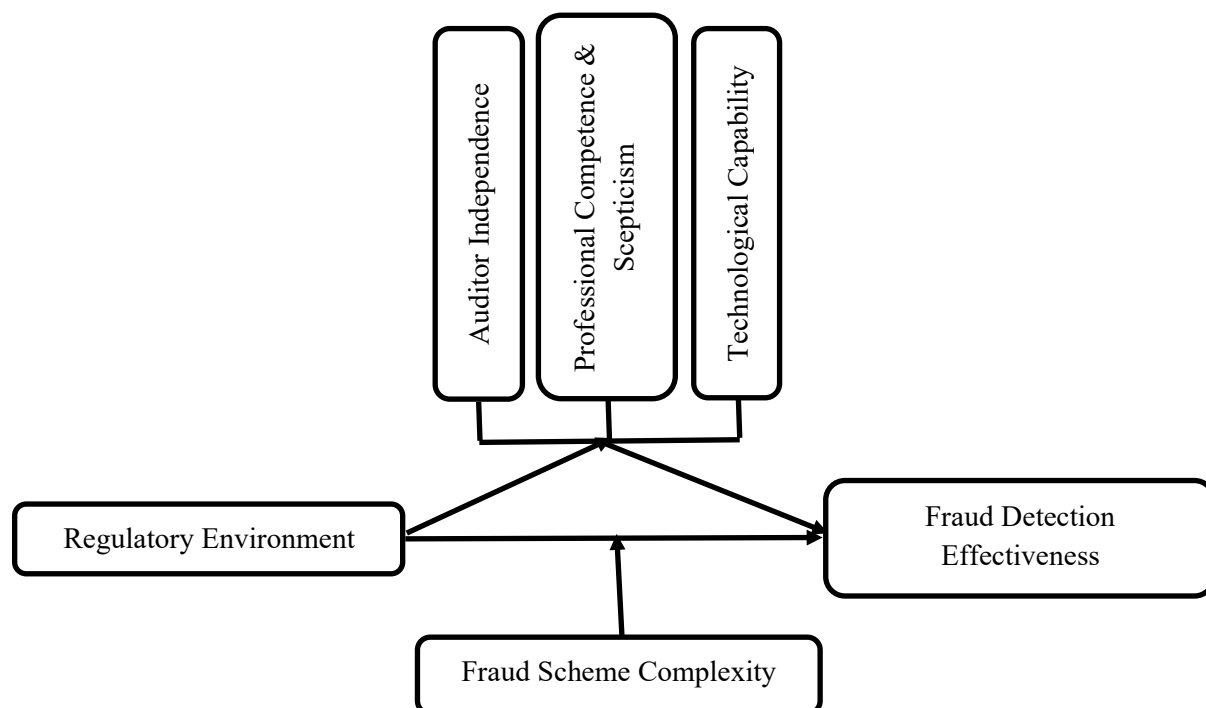
Table 3. Conceptual Framework Variables

Construct	Role in Model	Description
Regulatory Environment	Independent variable	Laws, ISA standards, enforcement
Auditor Independence	Mediator	Freedom from client influence
Professional Competence	Mediator	Skills, scepticism, training

Construct	Role in Model	Description
Fraud Complexity	Moderator	Increases detection difficulty
Technology Capability	Enabler	AI, analytics, blockchain, Continuous Auditing
Fraud Detection Effectiveness	Dependent variable	Audit success in detecting fraud

The conceptual model in Figure 2 provides an integrative framework that explains why auditors continue to experience fraud detection failures despite regulatory reforms. Such a framework is more consistent with the expectations of leading journals in auditing and accounting research.

Figure 2. Proposed Conceptual Framework



4. Synthesis of Findings and Critical Discussion

4.1 The Expectation–Performance Gap in Audit Practice

A central finding emerging from the reviewed literature is the persistent expectation–performance gap in external auditing. International Standards on Auditing, particularly ISA 240, clearly assign auditors the responsibility of obtaining reasonable assurance that financial statements are free from

material misstatement due to fraud. However, empirical evidence consistently demonstrates that auditors frequently fail to detect significant fraud even in highly regulated environments and under conditions of apparent compliance with professional standards.

Major corporate scandals such as Enron, Wirecard, Carillion, and Steinhoff illustrate this gap in practice. In each case, auditors issued unqualified opinions despite the existence of significant financial irregularities. This suggests that audit failure is not merely a deviation from standards but may reflect deeper structural and behavioural limitations embedded within the auditing ecosystem. As Knechel (2016) argues, audit effectiveness is constrained not only by technical procedures but also by institutional pressures, cognitive limitations, and the inherent complexity of financial reporting systems.

4.2 Interdependence of Key Determinants

The synthesis of literature reveals that auditor performance in fraud detection is shaped by an interdependent system of factors rather than isolated variables. Although prior research often examines independence, competence, regulation, and fraud complexity separately, this review shows that these factors interact dynamically in practice. For example, strong regulatory frameworks such as the Sarbanes–Oxley Act may enhance documentation and internal control compliance, but their effectiveness is weakened when auditor independence is compromised through economic dependence or long-term client relationships. Similarly, even highly competent auditors may fail to detect fraud when confronted with sophisticated concealment strategies that exceed the limits of traditional audit tools. This interdependence supports institutional and behavioural perspectives, which suggest that audit outcomes emerge from the interaction between individual cognition and institutional environments rather than from compliance with standards alone (Moore et al., 2006; DiMaggio & Powell, 1983).

4.3 Why Regulatory Reforms Have Produced Limited Outcomes

A critical insight from the literature is that major regulatory reforms have produced incremental rather than transformative improvements in fraud detection. While reforms such as ISA updates, audit inspection regimes, CLERP 9, and SOX have strengthened governance structures and improved audit documentation, they have not eliminated high-profile audit failures.

One explanation is that regulatory reforms tend to focus on procedural compliance rather than behavioural change. As Butler and Ribstein (2006) argue, regulatory interventions often increase audit complexity and compliance costs without fundamentally improving auditors' ability to detect sophisticated fraud. Similarly, Keay (2014) highlights that governance systems relying on “comply or explain” mechanisms may lack enforcement depth, reducing their effectiveness in practice. These findings suggest that regulation alone cannot address behavioural issues such as over-reliance on management representations, reduced scepticism in long-standing client relationships, or unconscious bias in audit judgement.

4.4 Behavioural Limitations and Cognitive Bias in Auditing

A growing body of literature highlights that audit failure is not solely a technical issue but also a behavioural and cognitive phenomenon. Auditors operate under time pressure, fee constraints, and client relationship expectations that may influence their willingness to challenge management assertions. Moore et al. (2006) demonstrate that auditors may experience gradual cognitive drift, where familiarity with clients reduces sceptical judgement over time. This finding is reinforced by behavioural auditing research which shows that auditors often rely on heuristics and prior expectations rather than systematically evaluating contradictory evidence (Nelson, 2009). These behavioural constraints are particularly significant in environments where audit firms depend heavily on a small number of large clients. In such contexts, maintaining independence becomes not only a professional obligation but also an economic challenge.

4.5 Technological Disruption and the Emerging Audit Gap

An important emerging theme is the widening gap between fraud sophistication and audit capability. While fraud schemes have become increasingly digital, cross-border, and data-driven, many audit methodologies remain grounded in traditional sampling and retrospective analysis techniques. Although technologies such as AI, machine learning, and continuous auditing offer promising solutions, their adoption remains uneven. Appelbaum et al. (2017) and Kokina and Davenport (2017) argue that advanced analytics can significantly enhance fraud detection by enabling full-population testing and anomaly detection. However, the literature also shows that many audit firms lack the infrastructure, expertise, and regulatory clarity required for effective implementation. This creates a transitional phase in auditing where technological innovation exists but is not yet fully integrated into standard audit practice, thereby maintaining persistent vulnerability to fraud.

4.6 Research Gap and Contribution of this Study

Despite extensive research on auditor independence, fraud detection techniques, and regulatory reforms, the literature remains fragmented. Most studies examine isolated dimensions of audit failure rather than integrating behavioural, institutional, technological, and fraud-related factors into a unified explanatory framework.

Accordingly, this systematic review addresses three key gaps: fragmentation of knowledge, limited behavioural integration, and insufficient attention to technological transformation. The review revealed that existing studies are siloed across disciplines and jurisdictions, limiting comprehensive understanding of audit failure mechanisms. Also, traditional audit literature overemphasizes technical compliance while underexploring cognitive and behavioural determinants of auditor judgement. Further, emerging audit technologies are not yet fully integrated into fraud detection theory, despite their increasing relevance in practice.

By synthesizing global evidence across 2002–2025, this study provides a multidimensional framework that explains how regulatory, behavioural, technological, and fraud-related factors interact to shape audit effectiveness. This provides a stronger theoretical basis for understanding why audit failures persist despite repeated reforms.

4.7 Implications for Policy, Practice, and Research

The findings of this review have several important implications for policy makers, practitioners, and researchers. Regulators should move beyond compliance-based frameworks toward enforcement mechanisms that actively strengthen behavioural accountability and independence safeguards. Additionally, audit firms must invest in continuous, scenario-based training that enhances professional scepticism and integrates forensic and technological competencies into everyday audit work. More so, future studies should empirically test the proposed conceptual framework using mixed-method approaches, particularly focusing on how AI adoption, audit firm culture, and behavioural biases jointly influence fraud detection outcomes.

5. Conclusion and Recommendations

5.1 Conclusion

This systematic literature review set out to examine the evolving responsibilities of external auditors in detecting financial statement fraud, while assessing why persistent audit failures continue to occur despite the existence of robust auditing standards such as ISA 240 and extensive regulatory reforms across jurisdictions. Drawing on 17 studies published between 2002 and 2025, the review synthesized evidence from developed and emerging economies, integrating empirical studies, conceptual papers, and regulatory analyses to provide a comprehensive understanding of the expectation–performance gap in auditing practice.

The findings demonstrate a clear and persistent divergence between the theoretical expectations of auditing standards and the practical realities of audit execution. While auditing frameworks explicitly require auditors to obtain reasonable assurance regarding the absence of material misstatements due to fraud, real-world evidence indicates that significant frauds continue to go undetected for extended periods. High-profile corporate collapses such as Enron, Wirecard, Carillion, and Steinhoff illustrate that compliance with auditing standards does not necessarily translate into effective fraud detection.

The review further establishes that audit failure is multidimensional and systemic rather than isolated or incidental. Key contributing factors include weakened auditor independence due to economic and relational pressures, inconsistent application of professional scepticism, inadequate professional competence in dealing with complex fraud schemes, and the increasing sophistication of financial manipulation techniques. These factors are further reinforced by institutional and regulatory environments that vary widely across jurisdictions.

Importantly, the study demonstrates that traditional auditing theories—particularly agency theory—are insufficient on their own to explain persistent audit failures. Instead, behavioural theories such as moral seduction theory, combined with institutional and technological perspectives, provide a more comprehensive explanation of auditor performance in fraud detection.

In all, the review concludes that despite decades of regulatory reform, audit failures persist because the auditing environment has evolved more slowly than the complexity of financial fraud. This imbalance has created a sustained expectation–performance gap that cannot be resolved through compliance-based reforms alone.

5.2 Recommendations

Based on the synthesis of findings, the following recommendations are proposed for policy, practice, and future research.

Regulatory bodies should move beyond purely compliance-oriented auditing reforms and adopt behaviourally informed regulatory frameworks. This includes strengthening enforcement mechanisms, enhancing audit inspection regimes, and ensuring that penalties for audit failure are sufficiently deterrent. In addition, regulators should consider updating auditing standards to explicitly incorporate emerging technological risks, including algorithmic manipulation, digital asset fraud, and AI-assisted financial misreporting. Standards such as ISA 240 should evolve to reflect not only traditional fraud risks but also technology-enabled fraud environments.

Audit firms should prioritize continuous professional development programs that emphasize real-world fraud detection scenarios rather than theoretical instruction alone. Training should integrate forensic accounting, behavioural auditing, and data analytics to enhance auditors' ability to identify complex fraud patterns. Firms should also strengthen internal governance structures to protect auditor independence. This includes reducing excessive reliance on large clients, improving audit partner rotation policies, and reinforcing ethical compliance systems that minimize familiarity threats. Furthermore, audit firms must accelerate the adoption of advanced audit technologies, including artificial intelligence, machine learning-based anomaly detection, and continuous auditing systems. However, these tools should complement rather than replace professional judgement and scepticism.

Accounting and auditing education programs should be redesigned to reflect the changing nature of fraud risk. Curricula should incorporate interdisciplinary training that combines accounting, information systems, data analytics, behavioural science, and forensic investigation techniques. Greater emphasis should also be placed on developing professional scepticism as a core competency, not merely a regulatory requirement. This involves training students and professionals to critically evaluate evidence, challenge assumptions, and recognize cognitive biases in audit judgement.

Future research should focus on empirically testing the integrated conceptual framework proposed in this study. In particular, there is a need for longitudinal studies examining the impact of regulatory reforms on actual fraud detection outcomes rather than compliance indicators. Further, behavioural studies exploring how cognitive bias and client familiarity influence auditor judgement in real audit settings. Furthermore, empirical investigations into the effectiveness of AI-driven audit tools in improving fraud detection accuracy. Moreover, comparative cross-country studies assessing how institutional environments shape audit effectiveness in both developed and developing economies. Additionally, future research should explore how audit quality is influenced by the interaction between human judgement and machine-based decision systems, particularly as artificial intelligence becomes more embedded in audit processes.

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