



Audit Synergy and IFRS Compliance: A Governance Triad Framework for Firm Resilience and Failure Prevention

FASUA, Kayode Olushola¹ & SINEBE, Michael Tonbraladoh²

ANAN University, Kwall, Plateau State, Nigeria

Kalovick1@gmail.com

Delta State University, Abraka, Nigeria

Corresponding author: michaelssinebe@gmail.com

Publication Date: 2026/06/22

Abstract

Corporate failures have raised doubts about whether internal audit, external audit and compliance with International Financial Reporting Standards (IFRS) protect firms or merely satisfy regulatory form. This conceptual paper aimed to propose and justify a governance triad framework in which the three mechanisms form one assurance system conditioned by institutional enforcement. The study followed a purposive, structured conceptual review of 25 sources published between 2021 and 2026, coded them thematically, classified each as direct or adjacent evidence, and derived five propositions from agency, stakeholder and institutional theories. The review showed that direct evidence existed for single mechanisms and, in one review of 71 studies, for interplay among audit monitors, but that no source tested the three mechanisms and enforcement together. The three-way synergy was therefore presented as a theoretical proposition and not as an established finding. The framework contributed a theory-based account of three interaction channels, an enforcement boundary condition, a specification that separated continuous financial soundness from binary failure, and a construct and measurement scheme with expected signs for later testing. A protocol for extending or replicating the review was also specified, so that the evidence base could be checked and enlarged. It offered guidance to researchers, regulators, audit committees and professional bodies in emerging economies. The study had limits. The corpus was purposive and not exhaustive, the propositions were untested, and the proposed measures were disclosure-based and unvalidated.

Keywords: *Internal audit; External audit; IFRS compliance; Audit quality; Internal control systems; Corporate failure*

JEL classification: *M41; M42; M48; G34; G38*

Introduction

Research problem and timeliness

Corporate failure is rarely a surprise to those who study controls. It tends to follow weak monitoring, discretionary reporting and assurance that was present in form but thin in substance. When a firm collapses after receiving an unqualified audit opinion and publishing statements prepared under IFRS, the shortfall cannot be put down to a missing rule. It lies in how the safeguards work together. Whether internal audit, external audit and IFRS compliance protect firms or only satisfy regulatory expectation has therefore become a central question for boards, regulators and scholars (Carnegie et al., 2024; Wehrhahn & Velte, 2024).

The question is more pressing than it was a decade ago. Digital tools have changed how internal and external auditors gather evidence, and recent work reports a move from periodic verification towards continuous monitoring (Ayoub et al., 2025; Usul & Alpay, 2025).

The Institute of Internal Auditors issued its Global Internal Audit Standards in January 2024, and Lenz and O'Regan (2024) argue that the revision missed the chance to move the profession from rules-driven to principles-based standards. Artificial intelligence, blockchain and virtual environments widen what must be audited and raise fresh doubts about transparency and professional judgement (Al-gnbri, 2022; Black & Gerard, 2025; Rehnema, 2025). A framework built for a slower and more bounded reporting environment cannot be assumed to hold under these conditions.

Nigerian evidence shows the practical stakes. Studies of listed firms link audit committee independence, audit firm size and auditor type to reporting quality (Ahmed et al., 2025), and link audit committee technology expertise to the timeliness of reporting (Yahaya, 2026). Research on the Central Bank of Nigeria asks whether internal control systems detect fraud (Kanu et al., 2026). Each of these studies isolates one mechanism and one outcome. How the

mechanisms behave together, or when one of them is weak, falls outside their designs.

Knowledge gap

The gap has four parts. First, the three mechanisms are studied in separate traditions. Internal audit research concentrates on standards, digitalisation and risk management (Lenz & O'Regan, 2024; Ayoub et al., 2025). External audit research concentrates on quality, independence and reporting credibility (Al Astal et al., 2024; Hashim & Abbood, 2025). Work on IFRS asks about comparability and its dependence on governance and compliance processes (Dewianawati & Setiawan, 2026; Odetunde et al., 2021).

Second, the nearest integrative review, by Wehrhahn and Velte (2024), covers 71 empirical studies of audit committees, external auditors and internal control systems published between 2005 and 2022. It establishes that these actors influence one another. Its object is the monitoring relationship, however, and not the reporting standard that the monitors apply, so compliance with that standard is not modelled as a component of the system. Third, the literature disagrees on whether recent reforms change practice. Several studies describe internal audit as a strategic partner (Usul & Alpay, 2025; Masoud, 2025), while Lenz and O'Regan (2024) see continuity beneath new labels. Fourth, work on IFRS carries an untested assumption, namely that adoption yields reporting quality. Evidence that governance conditions the outcome (Dewianawati & Setiawan, 2026), and the view that accounting is a social and moral practice as well as a technical one (Carnegie et al., 2024), has not been turned into an explicit boundary condition for a joint model of the three mechanisms.

A governance triad is needed because every pairing of the mechanisms leaves a gap. Work that studies internal and external audit together, such as Wehrhahn and Velte (2024), treats the reporting standard as background. Work on external audit and reporting quality, such as Ahmed et al. (2025), treats the internal function as background. Only a joint frame can ask whether the reporting standard that both functions apply is itself sustained or undermined by them, and whether that loop holds under weak enforcement. The triad is a proposal about the unit of analysis, and it earns its place only if later tests show that the joint terms explain more than the separate ones.

Objectives and research questions

The study has three objectives. It seeks to explain how internal audit effectiveness, external audit quality and IFRS compliance each relate to firm outcomes, to develop a theory-based account of how the three combine, and to identify the institutional conditions under which the combination strengthens or weakens. Three research questions follow from them. RQ1 asks how each mechanism relates to control quality, reporting credibility, transparency and, ultimately, organisational resilience and the avoidance of failure. RQ2 asks whether the mechanisms reinforce one another and through which channels. RQ3 asks which

institutional conditions govern the strength of those channels.

Contribution and structure

The study makes three kinds of contribution, stated separately. Theoretically, it integrates agency, stakeholder and institutional theories through three channels, so that each theory informs identified constructs and propositions (Table 1), and it sets institutional enforcement as an explicit boundary condition. Methodologically, it classifies evidence as direct or adjacent, aligns propositions, equations and measures, and specifies separate model families for continuous distress and binary failure. Practically, it gives audit committees, regulators and professional bodies a way to examine assurance as a system and not as separate functions. The study does not claim to be the first to link audit and compliance to firm outcomes. Its claim is narrower. The joint treatment of the three mechanisms, with enforcement as a boundary condition, is not tested in the corpus reviewed. Section 2 reviews the literature and develops the framework. Section 3 sets out the data and methodology. Section 4 synthesises the evidence and assesses the propositions. Section 5 discusses them, including their significance, relevance and limits, and Section 6 concludes.

Literature Review and Theoretical Development

Internal audit: from control function to strategic actor

In the scholarly account, internal audit has moved from a verification task towards a governance role. Work on digital transformation reports that data analytics, automated controls and continuous auditing let internal auditors monitor risk as it arises, not after the event (Ayoub et al., 2025; Usul & Alpay, 2025). On that reading the function supports adaptability and long-term resilience. Masoud (2025) adds an outcome dimension. Studying Libya's public sector, the author examines how sustainable innovation moderates the link between internal audit effectiveness and sustainability auditing practices, and so ties the function to results beyond compliance. Risk-based auditing models point the same way by embedding preventive controls in financial systems and aligning audit work with strategic objectives (Akomolafe et al., 2023; Ikponmwoba et al., 2022).

The optimistic account has a weak point, which is the assumption that a wider remit brings more influence. Lenz and O'Regan (2024) contend that the 2024 Global Internal Audit Standards leave the rules-driven character of the profession largely intact, a case of old wine in new bottles. Studies of internal control and fraud detection in Nigerian public institutions, such as Kanu et al. (2026), keep attention on a practical question, which is whether a function that exists on paper detects wrongdoing in practice.

The two readings can be reconciled. Internal audit changes in concept faster than in practice, and the gap is widest where enforcement and organisational support are weakest. Competence, incentives and the quality of coordination with other monitors shape what the function achieves (Wehrhahn & Velte, 2024). For

the framework developed here, internal audit is therefore treated as a necessary but conditional source of control quality, whose contribution depends on how it connects to the other mechanisms.

External audit quality in an era of complexity

External audit supplies independent assurance and narrows the information gap between management and outsiders. DeAngelo (1981) defined audit quality as the joint probability that an auditor discovers a breach in the accounting system and reports it, a definition that makes both competence and independence part of quality. Nigerian evidence shows that audit firm size, auditor type and audit committee independence relate positively to reporting quality among listed non-financial firms (Ahmed et al., 2025). Work on creative accounting and on banks links strong external audit to less opportunistic reporting (Al Astal et al., 2024; Hashim & Abbood, 2025). Kaczmarczyk et al. (2025) place audit within a wider system of control and regulation, which anticipates the systemic view taken here.

Independence and market structure explain why quality is uneven. Economic dependence on clients and competition for engagements can weaken professional scepticism, and the effect of the external auditor depends on the audit committee and the internal control system around it (Wehrhahn & Velte, 2024). Technology offers a partial remedy. Automated analysis of large transaction volumes can surface anomalies that sampling would miss (Ebirim et al., 2024), and Black and Gerard (2025) introduce a special issue that sets out research directions for audit technologies. Reliance on automated systems brings its own risks. Rehnema (2025) argues that autonomous systems and blockchain can erode transparency, accountability and professional judgement. The debate is unsettled, and it matters here because the benefit of technology depends on the human judgement that remains in the loop.

IFRS compliance and the limits of uniformity

IFRS is often described as a device for harmonised reporting, on the expectation that a common rulebook yields comparable statements. That expectation has two weaknesses. The first is that standards are interpreted and applied inside institutions. Dewianawati and Setiawan (2026) report that corporate governance shapes how far financial reporting frameworks contribute to sustainable financial outcomes in emerging markets, so the rulebook does not work alone. The second is that IFRS is principles-based. Principles leave room for managerial judgement, which can be used to reflect economic substance or to manage reported results. The standard therefore reshapes information asymmetry instead of removing it, and it passes part of the burden to assurance providers.

That burden falls on both audit functions. Internal auditors test whether judgements are made and documented consistently within the firm, and external auditors form an independent opinion on them. Odetunde et al. (2021) take a systems approach to financial compliance and external auditor relationships in growing enterprises, which treats compliance as an organisational process and not a filing event. Carnegie

et al. (2024) describe accounting as a technical, social and moral practice rather than a neutral technique, a view that supports reading compliance as something that can be substantive or merely formal. The risk of formal compliance is greatest where enforcement is weak, and the resulting statements may look comparable while conveying little.

Digitalisation, sustainability and emerging risks

Digital and sustainability agendas change what auditors do and what they are asked to assure. Shahimi et al. (2025) and Ebirim et al. (2024) describe a shift from periodic verification to continuous, analytics-driven assurance. Al-gnbri (2022) examines the metaverse and concludes that it is a vertical rather than a horizontal development, since audit objectives stay the same while new digital assets create demands for measurement, disclosure and evidence collection. Sustainability adds a further layer. Arustamyan (2025) discusses the role of audit in sustainable development strategy, and Masoud (2025) connects internal audit effectiveness with sustainability auditing practices. Neiroukh and Çağlar (2025) associate information systems quality in management accounting with corporate sustainability and stress the part played by reporting accuracy and governance in realising that value.

Synergy among audit mechanisms and a critical evaluation of the evidence

A smaller body of work treats the audit functions as a connected system. Wehrhahn and Velte (2024) review 71 empirical studies and conclude that audit committees, internal auditors and external auditors influence one another's incentives and competencies, and that deeper collaboration among them can yield synergy effects and economies of scale in monitoring. Odetunde et al. (2021) and Kaczmarczyk et al. (2025) likewise describe reporting, compliance and auditor relationships as linked, particularly as firms grow. Sagoe et al. (2025) study the synergy between internal control mechanisms and audit functions in relation to financial outcomes. Risk-based and enterprise risk management approaches deepen the connection by building predictive and preventive controls into financial systems (Akamolafe et al., 2023; Ikponmwoba et al., 2022).

Three features of this work stand out. The coordination literature is mostly about relationships among monitors and not about the reporting standard they monitor. The evidence on outcomes is thin, because most studies measure reporting quality or control quality and not resilience or failure. And the systemic claim is usually asserted and not derived from a stated mechanism. These features motivate the integration set out next.

The strengths and weaknesses of the principal studies explain where the gaps lie. Wehrhahn and Velte (2024) offer breadth and a structured procedure, since their review covers 71 empirical studies, yet its scope excludes the reporting standard. Ahmed et al. (2025) use a panel of 53 listed non-financial firms observed between 2012 and 2022 and a causal design, which gives statistical discipline, but they examine one country, one family of audit characteristics and one outcome. Masoud (2025) tests a moderating

mechanism, which is closer to the logic of interaction, though the setting is a single public sector. Lenz and O'Regan (2024) give a sharp normative critique of the 2024 Standards without empirical evidence on practice, and the conceptual contributions on risk-based auditing (Akomolafe et al., 2023; Ikponmwoba et al., 2022) and on autonomous audit systems (Rehnema, 2025) propose mechanisms that remain untested.

Four kinds of gap follow. The methodological gap is that single-mechanism regressions and perception surveys cannot detect interaction, and reviews have not graded evidence against a stated mechanism. The contextual gap is that the evidence comes mainly from Nigerian and Libyan settings and from developed-market review work, with little comparison across enforcement regimes. The population gap is that public-sector studies (Kanu et al., 2026; Masoud, 2025) and listed-firm studies (Ahmed et al., 2025; Yahaya, 2026) are rarely connected, so it is unclear whether one framework serves both. The theoretical gap is that agency, stakeholder and institutional arguments are used separately, as the sources above show, and no account explains how they jointly govern the audit system. The study responds to all four.

The literature supports the three-way relationship only in part. The relationship rests on three pairwise links. For internal and external audit, the review by Wehrhahn and Velte (2024) provides direct evidence of mutual influence. For IFRS with external audit, and for IFRS with internal audit, the corpus holds only adjacent work on compliance and auditor relationships (Odetunde et al., 2021) and on governance conditions (Dewianawati & Setiawan, 2026). For the three together there is no direct evidence. The three-way claim is therefore a theoretical inference from direct evidence on one link and adjacent evidence on two, and it is stated as such throughout.

Theoretical integration

Agency theory explains why monitoring exists. Jensen and Meckling (1976) show that the separation of ownership and control creates costs that monitoring and bonding can reduce, and audit is a standard monitoring device. The theory predicts that auditors reduce opportunism, and Nigerian studies on audit characteristics and audit committee expertise are consistent with that logic (Ahmed et al., 2025; Yahaya,

2026). What it does not explain is why the same audit structures produce different results across settings, or how several monitors combine. It also centres on the owner and so overlooks the wider users of audit output. Stakeholder theory addresses the second gap. Freeman (1984) argues that firms answer to a wider group than shareholders. Audited statements are read by regulators, lenders, employees and communities, and work on audit, risk management and governance in relation to financial stability and sustainable financial outcomes reflects that breadth (Putri, 2025; Dewianawati & Setiawan, 2026). The theory justifies a wider definition of firm outcomes, which here includes resilience and the avoidance of failure. It does not say how assurance mechanisms should be configured to serve those users. Institutional theory supplies the boundary condition. DiMaggio and Powell (1983) explain how organisations converge on structures under coercive, mimetic and normative pressures, which can produce adoption without substantive change. Lenz and O'Regan (2024) raise exactly this concern for internal audit standards, and the IFRS literature raises it for reporting standards (Dewianawati & Setiawan, 2026). Institutional theory therefore predicts that compliance may be symbolic where enforcement is weak.

The three theories are linked through a stated mechanism and not simply listed. Agency theory identifies the monitoring problem. Stakeholder theory defines whom the monitoring must serve and what counts as a good outcome. Institutional theory specifies when formal monitoring becomes real. Three channels connect the audit mechanisms. In the information channel, internal audit improves the reliability of the information that external auditors later test. In the validation channel, external audit confirms or challenges the internal control system and so disciplines the internal function. In the anchoring channel, IFRS provides the common reporting architecture that both functions apply, and it depends in turn on both to constrain judgement. Enforcement quality governs all three channels. The integration adds what each theory lacks alone, which is a testable account of why the combined effect should exceed the sum of its parts and why it should fade when one part is hollow.

Table 1 shows which theory informs which construct and proposition.

Table 1. Theoretical roles, constructs and propositions

Theory	Core claim used	Constructs informed	Propositions
Agency theory (Jensen & Meckling, 1976)	Separation of ownership and control creates costs that monitoring reduces	IAE and EAQ as monitors; control quality and reporting credibility	P1, P2
Stakeholder theory (Freeman, 1984)	Firms answer to a wider group, so outcomes include resilience and the avoidance of failure	FS and FAIL; IFRS as information for wider users	P3 and outcome definitions
Institutional theory (DiMaggio & Powell, 1983)	Formal adoption can occur without substantive change under coercive, mimetic and normative pressure	IFRS (substantive or formal); ENF	P3, P5
Integration through three channels	Information, validation and anchoring channels link the mechanisms	Interaction terms	P4, P5

Note. Source. Authors' synthesis (2026)

Conceptual framework and propositions

Six constructs are defined, and Table 5 gives their measures. Internal audit effectiveness (IAE) is the capacity of the internal audit function to deliver independent, competent and supported assurance on risk and control (Masoud, 2025; Wehrhahn & Velte, 2024). External audit quality (EAQ) follows DeAngelo (1981), as the probability that the external auditor detects and reports a breach. IFRS compliance (IFRS) means substantive application of the applicable standards, as distinct from formal adoption (Dewianawati & Setiawan, 2026; Carnegie et al., 2024). Institutional enforcement and governance quality (ENF)

is the moderating condition. Three outcome terms are kept apart. Firm resilience is the conceptual umbrella, the capacity of a firm to absorb shocks without sustained impairment. Financial soundness (FS) is a continuous state, the inverse of distress risk. Firm failure (FAIL) is a binary event, such as delisting for financial reasons, regulatory suspension or insolvency proceedings. Distress and failure are related but not interchangeable, because many distressed firms survive and some firms fail abruptly, so each has its own model family. Intermediate outcomes, namely control quality, reporting credibility and transparency, link the mechanisms to FS and FAIL.

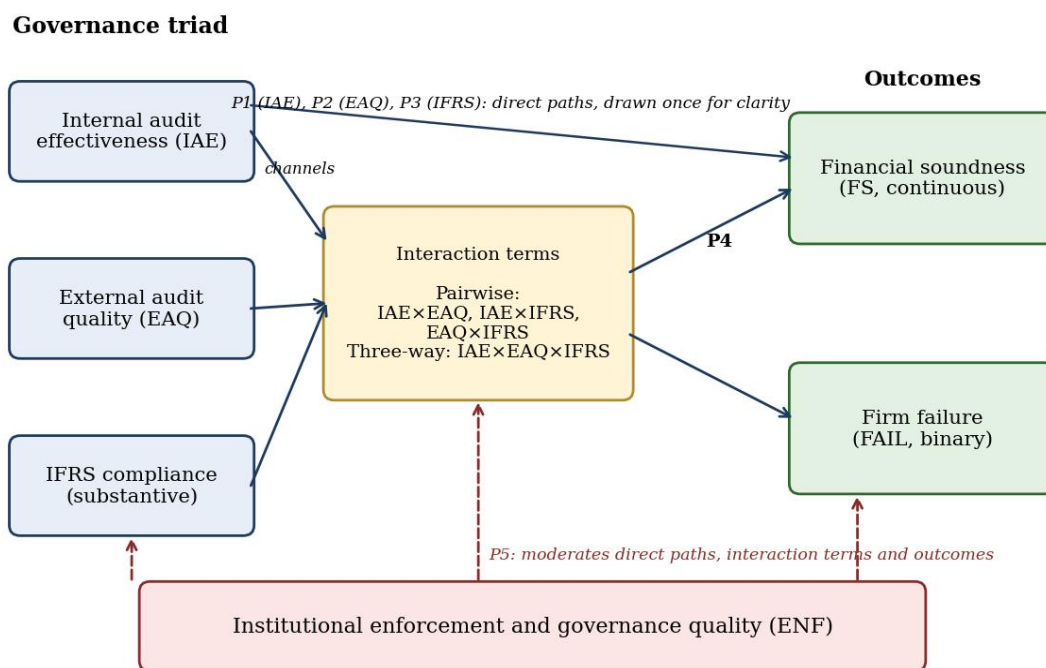


Figure 1. The governance triad framework

Note. Solid arrows are direct paths and interactions. Dashed arrows show moderation by enforcement. P1 to P5 refer to the propositions. Source. Authors' synthesis (2026)

Figure 1 shows the paths. Each mechanism has a direct path to FS and FAIL, labelled P1, P2 and P3. The pairwise interactions among the mechanisms and the three-way triad term represent the information, validation and anchoring channels (P4). ENF acts on each direct path and on the triad term, shown by the dashed arrows (P3 and P5). Every arrow corresponds to a term in Equations 1 to 3, as listed in Table 6.

Five propositions follow, and Table 6 gives the matching model terms. P1 states that internal audit effectiveness is positively associated with financial soundness and negatively associated with firm failure, through control quality. P2 states the same for external audit quality, through reporting credibility. P3 states the same for IFRS compliance, through transparency and comparability, and adds that the association strengthens as enforcement and governance quality rise. P4 states that the three mechanisms are complementary, so that their combination is associated with soundness more strongly, and with failure less strongly, than the

sum of their separate associations. P5 states that this complementarity is stronger where enforcement is strong, so that weakness in any one mechanism reduces the benefit of the other two most where enforcement is weak. All five are propositions for testing. None is a finding.

Data and Methodology

Research design and its justification

The study is conceptual. It collects and analyses no primary data, and none of its claims rests on a statistical test. It follows a purposive, structured conceptual review, in which published evidence is organised by theme, classified by its relation to the research question and used to derive theory-based propositions. The stance towards sources is interpretive, since they are read for the mechanisms they imply, and the reasoning is abductive, moving between evidence and theory until the propositions fit both. Table 2 compares the design with its alternatives. The choice is

the authors' judgement and is made against the research objectives, which ask how mechanisms

combine and under what conditions, and not how large an effect is in a given sample.

Table 2. Alternative research designs and the basis for selection

Design	What it would answer	Decision and reason
Systematic review with meta-analysis	A pooled effect size for each mechanism	Rejected. The sources mix empirical, conceptual and review work, and their outcome measures are not commensurable.
Panel study of listed firms	Effect sizes and interaction terms	Deferred. The interaction structure needs theorising first, which this study supplies, and Section 3.5 specifies the test.
Survey with PLS-SEM	Practitioners' perceptions of audit effectiveness	Rejected. It measures perception and not outcomes, and it is exposed to common-method bias.
Single or multiple case study	Process detail on how auditors coordinate	Rejected for now. It cannot establish the general boundary conditions sought, but it is recommended for later work.
Purposive structured conceptual review with proposition development	How mechanisms combine and when	Selected. It consolidates dispersed evidence, supports theory building and keeps the evidence base transparent.

Note. Source. Authors' Assessment (2026)

Corpus assembly, selection and appraisal

The corpus was assembled purposively and not through a systematic database search. Table 3 states the criteria applied to every source, and Table 4 lists all 25 retained sources with their setting, type, constructs and evidence role, so that each classification can be inspected and contested. The authors did not keep a

screening log of records read and discarded, so no flow diagram of records identified, screened and excluded is reported, and the study makes no claim of exhaustive or systematic coverage. The 25 retained sources are therefore the evidence base, and the conclusions are limited to what that base can support.

Table 3. Selection criteria, appraisal and replication protocol

Element	Applied to the present corpus	Protocol for extension or replication
Period and language	Published 2021 to 2026, in English	Same window, extended to the search date
Relevance	Addresses at least one of internal audit, external audit, IFRS or reporting compliance, enforcement or governance conditions, or related outcomes (control quality, reporting quality, distress)	Title and abstract screened against the same rule by two reviewers, with disagreements settled by discussion
Source type	Journal articles, scholarly book chapters and one professional commentary	Peer-reviewed articles and scholarly chapters, with grey literature coded separately
Sources searched	Not logged	Scopus, Web of Science Core Collection, Business Source Complete and African Journals Online, with citation tracking in Google Scholar
Search strings	Not logged	(“internal audit” OR “internal control”) AND (“external audit” OR “audit quality”) AND (IFRS OR “reporting quality” OR “financial reporting standard”) AND (enforcement OR “regulatory quality” OR governance) AND (fail OR distress OR resilience); and (synerg OR complement* OR interplay OR coordination) AND “internal audit” AND “external audit”

Element	Applied to the present corpus	Protocol for extension or replication
Appraisal	Each source coded for setting, type, construct and evidence role (Table 4), using the definitions in Section 3.3	Same coding frame, with a PRISMA-style flow of records identified, screened, excluded and retained
Outcome of selection	25 sources retained	Counts to be reported when the protocol is run

Note. The right-hand column specifies how the evidence base can be extended or replicated. It was not used to generate the present corpus. Source. Authors' design (2026)

The coding of evidence role is the central appraisal step. A source is coded D1 when it reports direct evidence on one of the three mechanisms and an outcome, D2 when it reports direct evidence on interplay among audit monitors, and A when it is adjacent, meaning that

it is conceptual, normative, contextual or concerned with a related construct. No source is coded as direct evidence on the triad, because none tests the three mechanisms together. The classification is the authors' judgement.

Table 4. Corpus matrix

Source	Setting	Type	Constructs	Role
Ahmed et al. (2025)	Nigeria, listed non-financial firms	Empirical panel	EAQ, reporting quality	D1
Akomolafe et al. (2023)	General	Conceptual model	IA, risk-based audit	A
Al Astal et al. (2024)	General	Book chapter	EAQ, creative accounting	A
Al-gnbri (2022)	General	Normative article	Audit in virtual environments	A
Arustamyan (2025)	General	Article	Audit, sustainability	A
Ayoub et al. (2025)	General	Literature review	IA, digital transformation	A
Black & Gerard (2025)	General	Special-issue editorial	Audit technologies	A
Carnegie et al. (2024)	General	Framework and agenda	Accounting as social practice	A
Dewianawati & Setiawan (2026)	Emerging markets	Journal article	Governance, reporting	A
Ebirim et al. (2024)	General	Review article	Audit technology	A
Hashim & Abbood (2025)	Banks	Journal article	EA, IA, performance	A
Ikponmwoba et al. (2022)	General	Conceptual framework	Internal control, risk	A
Kaczmarczyk et al. (2025)	General	Book chapter	Audit, control, regulation	A
Kanu et al. (2026)	Nigeria, public sector	Journal article	Internal control, fraud	A
Lenz & O'Regan (2024)	Global profession	Professional commentary	IA standards	A
Masoud (2025)	Libya, public sector	Empirical study	IAE, sustainability audit	D1
Neiroukh & Çağlar (2025)	General	Journal article	Information systems, reporting	A
Odetunde et al. (2021)	Growing firms	Systems approach	Compliance, EA relations	A
Putri (2025)	Infrastructure industry	Journal article	Audit, risk, stability	A

Source	Setting	Type	Constructs	Role
Rehnema (2025)	General	Journal article	Autonomous audit systems	A
Sagoe et al. (2025)	General	Journal article	Internal control, audit functions	A
Shahimi et al. (2025)	General	Book chapter	IA, future studies	A
Usul & Alpay (2025)	General	Journal article	IA, digital transformation	A
Wehrhahn & Velte (2024)	International literature	Review of 71 studies	AC, EA, internal control	D2
Yahaya (2026)	Nigeria, listed firms	Journal article	AC IT expertise, timeliness	A

Note. IA is internal audit, EA is external audit, AC is audit committee. Role codes are defined in Section 3.2. Source. Authors' compilation (2026)

Analytical procedure

Analysis followed the thematic approach described by Braun and Clarke (2006). Each source was coded for the construct studied, its setting, its evidence type, the direction of any reported association and the factors said to condition it, and codes were grouped into themes and checked against the sources. A proposition was derived only where a direction recurred across sources, a theory supplied a mechanism and a condition could be named. Statements in Section 4 are labelled so that the reader can tell what prior studies report from what the authors deduce, and the status of each proposition is given in terms of that distinction and not on a scale of strength.

Trustworthiness and limits of the design

Several steps protect credibility. Sources of different types were compared so that a claim did not rest on one genre. Evidence that conflicts was reported and not smoothed over, as Section 5.1 shows, and claims about outcomes that no source measures were labelled as inference. The coding of every source is displayed in Table 4. The design cannot offset publication bias, because the corpus contains only published work, and it cannot validate the framework empirically. These limits are returned to in Section 5.5.

Proposed empirical design for later testing

The framework implies an empirical design, which is proposed and not estimated. No coefficient is reported. The observation unit is the firm-year. The proposed sample is listed non-financial firms on one exchange, observed over at least eight years that begin after IFRS reporting became mandatory for such firms in the chosen jurisdiction, so that reporting regimes are not mixed. Financial firms are excluded because distress scores and reporting requirements differ. A single-country sample holds the enforcement regime nearly constant, so enforcement then varies mainly over time, and a second sample of listed firms from several Sub-Saharan African countries is needed to identify moderation by enforcement with cross-country variation.

The outcome is specified in two forms, and the choice precedes the estimator. Financial soundness (FS) is continuous and is measured by a distress score on which higher values mean lower distress risk. Firm failure (FAIL) is binary and equals 1 in the year a firm is delisted for financial reasons, suspended by the regulator or enters insolvency proceedings. Distress is a state and failure is an event, so they are modelled separately and their results are not pooled. Resilience, the conceptual umbrella of the framework, is represented by both. Table 5 defines every variable, and Table 6 maps each proposition to model terms.

Table 5. Construct definitions, measures and expected signs

Variable	Conceptual definition	Operational measure and coding	Expected sign (FS)	Supporting source
FS	Financial soundness, the inverse of distress risk	Altman Z-score adapted for non-manufacturing firms, from annual reports; higher is sounder	Dependent variable	Altman (1968)
FAIL	Firm failure as an event	1 in the year of financial delisting, regulatory suspension or insolvency proceedings, 0 otherwise; regressors lagged one year	Dependent variable (negative signs expected)	Shumway (2001)

Variable	Conceptual definition	Operational measure and coding	Expected sign (FS)	Supporting source
IAE	Capacity of internal audit to give independent, competent, supported assurance	Additive index from 0 to 4 of four disclosed items (Section 3.5), equal weights	Positive	Masoud (2025); Wehrhahn & Velte (2024)
EAQ	Probability that the external auditor detects and reports a breach	1 if the auditor is a Big Four firm, 0 otherwise; non-audit fee ratio and tenure in robustness checks	Positive	DeAngelo (1981); Ahmed et al. (2025)
IFRS	Substantive application of applicable IFRS requirements	Items met divided by applicable items, from a disclosure checklist, range 0 to 1	Positive	Dewianawati & Setiawan (2026); Carnegie et al. (2024)
ENF	Strength of institutional enforcement and governance	Multi-country, the mean of World Bank regulatory quality and rule of law scores; single-country, the annual count of published regulator enforcement actions per listed firm	Amplifies positive terms	DiMaggio & Powell (1983)
X	Controls	Log total assets, leverage, listing age, largest shareholder's stake, audit committee independence and size, industry dummies	Not applicable	Wehrhahn & Velte (2024)

Note. All measures are proposed for later testing and no estimates are reported. Source. Authors' design (2026)

Equation 1 states the full continuous model for firm i in year t , with every main effect, pairwise interaction, three-way interaction and enforcement interaction written out.

$$FS_{it} = \beta_0 + \beta_1 IAE_{it} + \beta_2 EAQ_{it} + \beta_3 IFRS_{it} + \beta_4 (IAE \times EAQ)_{it} + \beta_5 (IAE \times IFRS)_{it} + \beta_6 (EAQ \times IFRS)_{it} + \beta_7 (IAE \times EAQ \times IFRS)_{it} + \beta_8 ENF_{it} + \beta_9 (IAE \times ENF)_{it} + \beta_{10} (EAQ \times ENF)_{it} + \beta_{11} (IFRS \times ENF)_{it} + \beta_{12} (IAE \times EAQ \times IFRS \times ENF)_{it} + \gamma' X_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (1)$$

Here μ is a firm effect, λ is a year effect, ε is the error term, and X and γ are the control vector and its coefficients. Let Z denote the vector of the twelve regressors that β_1 to β_{12} multiply in Equation 1. Equation 2 is the dynamic version, which adds the

lagged dependent variable and applies when soundness persists over time. Equation 3 is the failure model, in which Λ is the logistic distribution function and the regressors are lagged one year.

$$FS_{it} = \alpha FS_{i,t-1} + \beta' Z_{it} + \gamma' X_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (2)$$

$$\Pr(\text{FAIL}_{i,t+1} = 1) = \Lambda(\theta_0 + \theta' Z_{it} + \delta' X_{it} + \lambda_t) \quad (3)$$

Moderation by enforcement is represented only by the interaction terms β_9 to β_{12} , since a main effect of ENF alone does not test moderation. In a single-country sample ENF varies only by year, so its main effect is absorbed by the year effects while the interaction terms remain identified. The variables IAE, EAQ, IFRS and ENF are mean-centred before products are formed, and variance inflation factors are reported.

Table 6. Alignment of propositions, model terms and expected signs

Proposition	Model terms	Expected sign on FS	Expected sign on FAIL
P1	β_1 (IAE main effect)	Positive	Negative (θ_1)
P2	β_2 (EAQ main effect)	Positive	Negative (θ_2)
P3	β_3 (IFRS main effect); β_{11} (IFRS $\times$ ENF)	Positive; positive	Negative; negative
P4	$\beta_4, \beta_5, \beta_6$ (pairwise); β_7 (three-way)	Positive	Negative
P5	$\beta_9, \beta_{10}, \beta_{11}$ (mechanism $\times$ ENF); β_{12} (triad $\times$ ENF)	Positive	Negative

Note. Signs on FAIL refer to the coefficients θ in Equation 3. Source. Authors' design (2026)

Measurement, estimation and validation

Internal audit effectiveness is scored from four items disclosed in annual reports. The first is functional independence, whether the function reports to the board or a board committee. The second is competence,

whether the head holds a recognised professional qualification. The third is resourcing, whether dedicated in-house staff are disclosed. The fourth is coverage, whether a risk-based annual plan that includes financial reporting and information systems is

disclosed. Each item is coded 1 if disclosed and 0 otherwise, and the index is the unweighted sum, with a principal-components weighting used as a robustness check. These items reflect independence, competence and resources, the conditions that Wehrhahn and Velte (2024) identify as shaping internal audit results. The first item overlaps conceptually with audit committee oversight, because the same reporting line can appear in both. The index is therefore validated by reporting item correlations and variance inflation factors against audit committee independence and size, which enter X, and by dropping each item in turn. Non-disclosure is coded 0, which may understate effectiveness where practice exceeds disclosure, so a robustness check restricts the sample to firms with an internal audit disclosure section.

Auditor size is a proxy for quality and not a direct measure. DeAngelo (1981) links size to independence, since a large auditor has more to lose from compromising, and Ahmed et al. (2025) find auditor characteristics relevant to reporting quality in Nigeria. A Big Four indicator is nonetheless coarse, and in markets where most listed firms use a Big Four auditor it has little variation. Non-audit fees are available only where disclosed, and tenure may raise quality through client knowledge or lower it through familiarity, so tenure carries no expected sign and is entered in a nonlinear form in robustness checks.

The IFRS checklist draws on the recognition, measurement and disclosure requirements of the standards that apply to each firm in each year, such as those on revenue, leases, financial instruments, impairment and provisions. A requirement that does not apply to a firm is removed from both numerator and denominator, and a firm with fewer than ten applicable items is excluded. Each applicable item scores 1 if met and 0 if not. Because a disclosure checklist captures substantive application only in part, the score is reduced where the auditor's report refers to non-compliance. Two coders independently code a random 20 percent subsample. Agreement is assessed with Cohen's (1960) kappa, a value of at least 0.70 is required as the threshold for substantial agreement (Landis & Koch, 1977), and disagreements are settled by discussion and then by a third coder.

Estimation follows the outcome. For FS, a Hausman test chooses between fixed and random effects. If cross-sectional dependence or serial correlation is found and the panel is long enough, Driscoll and Kraay (1998) standard errors are used, and if the panel is short, standard errors are clustered by firm. If reverse causation is plausible, for example because sounder firms buy better audits, Equation 2 is estimated by the two-step system GMM of Blundell and Bond (1998), with the Hansen test, the second-order autocorrelation test and an instrument count below the number of firms reported. For FAIL, Equation 3 is a discrete-time hazard model in the manner of Shumway (2001), estimated as a logit on firm-year observations until failure, with standard errors clustered by firm. If failures are rare, a complementary log-log specification is used as a check. Robustness checks use alternative measures of each construct and placebo outcomes.

Results: Synthesis of Evidence and Assessment of Propositions

This section reports what the synthesis found. It is not an empirical test. Statements under the label Reported describe what prior studies state, and statements under the label Deduction are the authors' own inferences, so the two are never mixed.

The evidence base

Of the 25 sources, two give direct evidence on one mechanism and an outcome (Ahmed et al., 2025; Masoud, 2025), one gives direct evidence on interplay among audit monitors (Wehrhahn & Velte, 2024), and 22 are adjacent. None tests the three mechanisms together or includes enforcement as a moderator of their combination. The evidence is densest for external audit quality and thinnest for IFRS compliance and for interactions. This pattern governs how every claim below is worded.

Internal audit and firm outcomes (P1)

Reported. Digital and analytical tools extend what the function can see and how fast it can respond (Ayoub et al., 2025; Usul & Alpay, 2025), and risk-based designs embed prevention in financial processes (Akomolafe et al., 2023; Ikponmwoba et al., 2022). Masoud (2025) links internal audit effectiveness to sustainability auditing in one public sector. Lenz and O'Regan (2024) caution that revised standards may change labels more than practice, and Wehrhahn and Velte (2024) show that results depend on competence, incentives and the function's relationship with the audit committee and external auditor.

Deduction. Internal audit is expected to raise control quality where the function is competent, supported and connected to other monitors, and through control quality to improve soundness and reduce failure. No source measures the function against distress or failure, so P1 is a proposition that rests on inference from control and risk outcomes.

External audit and reporting credibility (P2)

Reported. Nigerian evidence shows that audit firm size, auditor type and audit committee independence relate positively to reporting quality (Ahmed et al., 2025). Work on creative accounting and on banks reports less opportunistic reporting where external audit is strong (Al Astal et al., 2024; Hashim & Abbood, 2025), and Wehrhahn and Velte (2024) place the external auditor within a monitoring network whose quality depends on audit committee and internal control characteristics.

Deduction. The link to misstatement, distress and failure is inferred. Most sources measure reporting quality, which precedes the avoidance of misstatement without being the same thing. Client dependence and market competition qualify the expectation, and technology cuts both ways, improving detection (Ebirim et al., 2024) while raising concern about reliance on automated judgement (Rehnema, 2025).

IFRS compliance and control reinforcement (P3)

Reported. Governance quality shapes how far reporting frameworks lead to sustainable outcomes (Dewianawati & Setiawan, 2026), compliance depends on the organisational processes and auditor relationships around it (Odetunde et al., 2021), and accounting is a social and moral practice as well as a technical one (Carnegie et al., 2024).

Deduction. No source measures substantive compliance and relates it to control quality or failure. The proposed link rests on reasoning from the principles-based design of the standard. Principles allow judgement, judgement calls for assurance, and assurance quality depends on the internal and external functions. The expectation that enforcement strengthens the link follows from institutional theory and is untested.

Interaction among the mechanisms (P4 and P5)

Reported. Wehrhahn and Velte (2024) report mutual influences among audit committees, internal auditors

and external auditors and point to synergy effects from deeper collaboration. Odetunde et al. (2021) and Kaczmarczyk et al. (2025) describe compliance, reporting and auditor relationships as interdependent, and Sagoe et al. (2025) examine the synergy between internal control mechanisms and audit functions in relation to financial outcomes.

Deduction. The three-way relationship is the authors' inference from three pairwise links. The information and validation channels link internal and external audit and have direct support only in the review by Wehrhahn and Velte (2024). The anchoring channel links IFRS to both functions and has no direct support. If internal controls are weak, the information reaching the external auditor is less reliable. If external audit is compromised, IFRS-based statements lose credibility. If IFRS adoption is only formal, the information on which both audit functions work is thin. These statements are consistent with the sources but measured by none, so P4 and P5 are propositions for testing and not findings.

Assessment of the propositions

Table 7 separates what prior studies report from what the authors deduce, and gives the status of each proposition.

Table 7. Assessment of propositions: prior evidence and conceptual deduction

Proposition	Reported in prior studies	Authors' deduction	Status
P1	Masoud (2025) on sustainability auditing; conceptual work on risk-based and digital internal audit	Control quality is the route to soundness and lower failure risk	Partly direct for one outcome; inference for distress and failure
P2	Ahmed et al. (2025) on reporting quality; work on creative accounting	Reporting credibility lowers misstatement and failure risk	Direct for reporting quality; inference for failure
P3	Dewianawati & Setiawan (2026) and Odetunde et al. (2021) on conditional compliance	Substantive compliance raises transparency, and enforcement strengthens the link	Indirect support; inference for the enforcement effect
P4	Wehrhahn & Velte (2024) on interplay among monitors	The three mechanisms are complementary and the triad term is positive	Inference; indirect support for pairwise interplay only
P5	Lenz & O'Regan (2024) and Dewianawati & Setiawan (2026) on symbolic adoption	Complementarity is strongest where enforcement is strong	Inference only

Note. Source. Authors' synthesis (2026)

The pattern is clear. The single-mechanism propositions have partial direct support, and the propositions that carry the study's distinctive claim, interaction and enforcement moderation, rest on inference. That is the gap the specification in Section 3.5 is designed to close, and it is the reason the framework is offered as a proposition and not as an established result.

Discussion

Comparison with prior studies

At the national level, Nigerian studies single out audit committee independence, audit firm size and auditor type for reporting quality (Ahmed et al., 2025), audit committee technology expertise for reporting timeliness (Yahaya, 2026), and internal control for fraud detection in a public institution (Kanu et al., 2026). The synthesis agrees with each on direction and adds that such single-mechanism effects are likely to depend on the other mechanisms, a point their designs cannot test. Regionally, Masoud (2025) ties internal

audit effectiveness to sustainability auditing in Libya's public sector, with sustainable innovation as moderator. The framework agrees that the value of internal audit depends on organisational conditions and extends the logic to external audit and the reporting standard. Internationally, Wehrhahn and Velte (2024) are closest in aim. They show that audit committees, internal auditors and external auditors interact. The present study agrees, and extends their view by adding IFRS as the anchoring element and enforcement as the boundary condition.

Two contradictions deserve attention. The first concerns digital change. Ayoub et al. (2025) and Usul and Alpay (2025) present digitalisation as strengthening internal audit, while Lenz and O'Regan (2024) stress continuity beneath new labels and Rehnema (2025) stresses the risk to professional judgement. The synthesis suggests that they describe different parts of one process. Tools raise capability, and capability yields results only where judgement and enforcement stay intact. Al-gnbri (2022) supports this reading by treating new technologies as auxiliary tools while audit objectives remain unchanged. The second contradiction concerns firm performance. Some studies tie governance and control to sustainable financial performance (Dewianawati & Setiawan, 2026), while others measure intermediate qualities such as timeliness (Yahaya, 2026). Differences in what is measured, and not necessarily in what is true, appear to explain the inconsistency, which is why the proposed specification separates intermediate quality from final outcomes.

Theoretical and practical significance assessment

Theoretically, the study makes three advances. It turns the loose claim that audit mechanisms are synergistic into a mechanism-based account with three channels, so that the claim can be wrong. It extends agency theory from a single monitor to a joint assurance system whose output, the reported statements, is produced by several parties. And it uses institutional theory to set a boundary condition, so that the framework predicts when synergy disappears and not only when it exists. The stakeholder element widens the dependent variable from financial results to resilience and the avoidance of failure, which is what those who rely on audited statements care about (Freeman, 1984; Putri, 2025).

Practically, the framework changes the unit of analysis from the audit function to the assurance system. For audit committees, that means mapping what internal and external auditors each cover and where they overlap or leave gaps, which is the collaboration that Wehrhahn and Velte (2024) recommend. For regulators, it means judging IFRS compliance by substantive indicators and not by the fact of adoption (Dewianawati & Setiawan, 2026; Carnegie et al., 2024). For professional bodies, it means pairing training in analytics with the reinforcement of scepticism (Rehnema, 2025; Ayoub et al., 2025). Without the study, the field would continue to evaluate each mechanism against outcomes it cannot fully control for, and to explain failures after the fact as the weakness of

one actor when the weakness may lie in their combination.

Research relevance

Researchers and academics gain five testable propositions and a panel specification, together with a coding frame that later reviews can reuse. Regulators and enforcement bodies, including those such as the Financial Reporting Council of Nigeria, gain an argument for prioritising enforcement of substantive compliance, since the framework locates the failure of formal adoption in weak enforcement (Dewianawati & Setiawan, 2026; Lenz & O'Regan, 2024). Standard-setters at the International Accounting Standards Board and the Institute of Internal Auditors gain a reason to ask whether principles-based standards come with the assurance capacity to constrain judgement.

Audit committees and managers gain a practical test, which is whether internal and external audit plans are reconciled, a coordination issue that the review of Wehrhahn and Velte (2024) treats as a source of economies of scale. Practitioners gain a case for investing in the connection between functions and not only in each function's tools (Ebirim et al., 2024; Shahimi et al., 2025). Policymakers and development partners in emerging economies gain a warning that adopting international standards without enforcement capacity can produce an appearance of accountability (Carnegie et al., 2024; Masoud, 2025). Society gains indirectly, through a lower risk of collapse that harms creditors, employees and communities.

Novelty and value added

The contribution is incremental, and it is stated in three separate parts. The theoretical part is a mechanism-based integration of three theories with enforcement as a boundary condition. The methodological part is the classification of evidence as direct or adjacent and a specification in which propositions, equations and measures are aligned. The practical part is a way for audit committees and regulators to examine assurance as a system. Measured against the nearest integrative work, Wehrhahn and Velte (2024), this study adds the reporting standard, the boundary condition and a separation of distress from failure. It does not claim priority. The corpus reviewed contains no test of the three mechanisms together, but the corpus is purposive, so the absence of such a test elsewhere cannot be asserted. A systematic search along the protocol in Table 3 is needed before any claim of uniqueness could be made.

Limitations and boundary conditions

The study is conceptual, so no proposition has been tested and the statuses in Table 7 describe the state of the literature and not the size of any effect. The corpus is purposive, small and heterogeneous, includes professional commentary and book chapters alongside journal articles, and over-represents Nigerian and Libyan settings. It was not assembled through a logged search, so coverage cannot be shown to be complete. Published work carries publication bias. Several outcomes, notably distress and failure, are inferred

from intermediate measures. Constructs overlap, since internal control quality is both an outcome of internal audit and an input to external audit, which any empirical test will have to separate. The proposed measures are disclosure-based and unvalidated, and non-disclosure may understate practice. The framework applies to firms that report under IFRS within a functioning audit environment, and it makes no claim for settings without such an environment.

A further boundary concerns time. Most of the evidence is recent, and the 2024 Global Internal Audit Standards took effect only in January 2025, so their practical consequences are not yet visible in published work (Lenz & O'Regan, 2024). The framework should therefore be revisited as evidence on the revised standards and on automated assurance accumulates. Finally, the classification of sources as direct or adjacent in Table 4 is a transparent but subjective device, and other reviewers applying different thresholds could classify some sources differently. The classification is offered to show where evidence is thinnest, not as a measure of truth.

Future research agenda

Five directions follow from the gaps identified. The first is a direct test of the interaction propositions. The question is unresolved because no study in the corpus models the three mechanisms jointly. The theory is the channel account in Section 2.6, the method is the panel design in Section 3.5 applied to listed Nigerian firms and then to a multi-country sample, and the new knowledge would be whether the combined association exceeds the sum of the parts.

The second is the role of enforcement. It matters because P3 and P5 make enforcement the boundary condition, yet no source measures it as a moderator. Institutional theory and decoupling arguments (DiMaggio & Powell, 1983) are the guide, a cross-country panel with an enforcement indicator is the method, and the contribution would be an estimate of how far symbolic compliance weakens the system.

The third concerns digital assurance. The question is whether automated tools improve or erode scepticism, on which Ayoub et al. (2025) and Rehnema (2025) disagree in emphasis. Experimental and field designs, grounded in agency and institutional theory, could identify the conditions under which reliance on automation helps or harms. The fourth is process research on how internal and external auditors and audit committees coordinate, using interviews and case studies, building on the monitoring-network view of Wehrhahn and Velte (2024), to show how the validation channel works in practice. The fifth extends the framework to sustainability assurance and new domains such as virtual environments (Arustamyan, 2025; Masoud, 2025; Al-gnbri, 2022), moving from normative argument to empirical test. Together these form an agenda in which each step tests part of the framework.

Conclusion

Overall contribution statement

This study addressed the problem of whether internal audit, external audit and IFRS compliance protect firms or only satisfy regulatory form. It identified a specific gap, which is that the three mechanisms have been studied separately and that the conditions under which they reinforce or undermine one another have not been theorised. It proposed a governance triad with information, validation and anchoring channels, and five propositions that include interaction and enforcement-moderation claims. It integrated agency, stakeholder and institutional theories so that each informs identified constructs, and it added institutional enforcement as a boundary condition. The review found that direct evidence exists for single mechanisms and for interplay among audit monitors, but not for the three mechanisms together, so the triad remains a proposition. A specification with aligned propositions, equations and measures, and with separate models for continuous soundness and binary failure, was provided so that later studies can test it.

The contribution matters because it changes how audit failure can be explained. Failure may reflect weakness in the connections among actors and standards and not only the weakness of one actor, and where enforcement is weak those connections may be the first to become formal. Because the study is conceptual and its propositions are untested, its value lies in giving later empirical work a clear and falsifiable target.

Three claims follow from the review, each stated as a proposition and not as a result. The first is that the audit mechanisms are better understood as a system than as separate controls, a claim with direct pairwise support in Wehrhahn and Velte (2024) and adjacent support in Odetunde et al. (2021). The second is that the reporting standard belongs inside that system, because its principles-based design transfers part of the burden of constraint to the audit functions (Dewianawati & Setiawan, 2026). The third is that institutional enforcement may decide whether the system works in substance or only in form, a point on which the institutional and compliance literatures converge (DiMaggio & Powell, 1983; Carnegie et al., 2024). Whether these claims hold in data is the task the next generation of studies must take up.

Recommendations

Four recommendations follow from the framework, and each rests on directional and untested evidence. Regulators and standard-setters should assess IFRS compliance by substantive indicators and strengthen enforcement, because the framework expects formal adoption alone to deliver weak outcomes. Boards and audit committees should reconcile internal and external audit plans and share information between the functions, in line with the collaboration that Wehrhahn and Velte (2024) recommend. Professional bodies should develop analytics skills and reinforce professional scepticism together, because technology helps only where judgement is retained (Rehnema, 2025; Ebirim et al., 2024). In emerging economies, capacity building for auditors and regulators should

accompany the adoption of international standards (Carnegie et al., 2024; Masoud, 2025).

References

- Ahmed, I., Mohammed, D., & Koholga, O. (2025). Audit characteristics and financial reporting quality: Evidence from listed non-financial companies in Nigeria. *ADSU International Journal of Applied Economics, Finance and Management*, 10(4), 178–193. <https://ajaejm.adsu.edu.ng/index.php/journals/article/view/309>
- Akomolafe, O., Agu, M. U., & Bello, A. (2023). A conceptual model for implementing risk-based auditing in strategic financial management. *International Journal of Advanced Multidisciplinary Research and Studies*, 3(6), 2274–2286.
- Al Astal, A. Y. M., Ateeq, A., Milhem, M., Alzorai, M., Ali, S. A., & Ali, R. (2024). Navigating financial integrity: The role of external audits in mitigating creative accounting practices. In *Innovative and intelligent digital technologies; Towards an increased efficiency* (Vol. 1, pp. 423–430). Springer.
- Al-gnbri, M. K. (2022). Accounting and auditing in the metaverse world from a virtual reality perspective: A future research. *Journal of Metaverse*, 2(1), 29–41. <https://dergipark.org.tr/tr/pub/jmv/article/1110671>
- Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(4), 589–609. <https://doi.org/10.1111/j.1540-6261.1968.tb00843.x>
- Arustamyan, L. (2025). The role of audit in sustainable development strategy. *Economics, Finance and Accounting*, 1(15), 84–84.
- Ayoub, E. L., Charef, F., & Bourjila, M. (2025). The impact of digital transformation on the internal audit function: A literature review. *International Journal of Accounting Finance Auditing Management and Economics*, 6(7), 354–366.
- Black, S., & Gerard, G. J. (2025). Accelerating the future of audit technologies: Introducing the special issue and emphasizing future research directions. *International Journal of Accounting Information Systems*, 56, Article 100740. <https://doi.org/10.1016/j.accinf.2025.100740>
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115–143. [https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Carnegie, G. D., Gomes, D., Parker, L. D., McBride, K., & Tsahuridu, E. (2024). How accounting can shape a better world: Framework, analysis and research agenda. *Meditari Accountancy Research*, 32(5), 1529–1555. <https://doi.org/10.1108/MEDAR-06-2024-2509>
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20(1), 37–46. <https://doi.org/10.1177/001316446002000104>
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183–199. [https://doi.org/10.1016/0165-4101\(81\)90002-1](https://doi.org/10.1016/0165-4101(81)90002-1)
- Dewianawati, D., & Setiawan, E. (2026). Corporate governance influence on sustainable financial management in emerging markets. *Jurnal Ilmiah Manajemen Kesatuan*, 14(1), 1107–1118.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Driscoll, J. C., & Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *Review of Economics and Statistics*, 80(4), 549–560. <https://doi.org/10.1162/003465398557825>
- Ebirim, G. U., Unigwe, I. F., Oshioke, E. E., Ndubuisi, N. L., Odonkor, B., & Asuzu, O. F. (2024). Innovations in accounting and auditing: A comprehensive review of current trends and their impact on US businesses. *International Journal of Science and Research Archive*, 11(1), 965–974.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
- Hashim, S. G., & Abbood, M. S. (2025). The role of external and internal auditing in practicing audit and oversight on the effectiveness of financial performance in banks. *International Journal of eBusiness and eGovernment Studies*, 17(1), 139–163.
- Ikponmwoba, A. S. S. O., Chima, O. K., Ezeilo, O. J., Ojonugwa, B. M., & Adesuyi, M. O. (2022). A conceptual framework for financial risk prediction and internal controls in post-merger entities. *International Journal of Scientific Research in Science and Technology*, 9(5), 817–836.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kaczmarczyk, A., Luty, P., & Piotrowska, K. (2025). Audit, control, regulation. In B. Nita & P. Wanicki (Eds.), *Digital transformation in accounting: Modern technologies and ethical dilemmas reshaping financial management and reporting* (pp. 39–53).
- Kanu, N. O., Ugwuodiora, O., Onmonya, L. O., & Azu, N. P. (2026). Effectiveness of internal control system on fraud detection in Nigerian public sector: A study of the Central Bank of Nigeria. *Veredas do Direito*, 23(4), Article e4940.

- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159–174. <https://doi.org/10.2307/2529310>
- Lenz, R., & O'Regan, D. J. (2024). The global internal audit standards: Old wine in new bottles? *EDPACS*, 69(3), 1–28. <https://doi.org/10.1080/07366981.2024.2322835>
- Masoud, N. (2025). Moderating effect of sustainable innovation on internal audit effectiveness and sustainability auditing practices: Evidence from Libya's public sector. *International Journal of Financial Studies*, 13(2), Article 69. <https://doi.org/10.3390/ijfs13020069>
- Neiroukh, N., & Çağlar, D. (2025). Information systems quality and corporate sustainability: Unpacking the interplay of financial reporting, artificial intelligence, and green corporate governance. *Systems*, 13(7), Article 537. <https://doi.org/10.3390/systems13070537>
- Odetunde, A., Adekunle, B. I., & Ogeawuchi, J. C. (2021). A systems approach to managing financial compliance and external auditor relationships in growing enterprises. *IRE Journals*, 4(12), 326–345.
- Putri, A. N. (2025). Audit and risk management in maintaining financial stability in infrastructure industry. *Jurnal Riset Akuntansi dan Keuangan*, 13(3), 551.
- Rehnema, R. (2025). The future of financial auditing: An innovative approach with autonomous systems and blockchain. *International Journal of Business Management and Entrepreneurship*, 4(3), 60–69.
- Sagoe, A. A., Ashun, A. K., & McMurtrey, M. (2025). The synergy between internal control mechanisms and audit functions for optimal financial outcomes. *Journal of Accounting and Finance*, 25(3), Article 2025135.
- Shahimi, S., Zainuldin, M. H., & Oon, E. Y. N. (2025). Future-proofing business: The changing landscape of internal audit. In *Future of business in Asia: Exploring pathways to tomorrow's business landscape* (pp. 193–212). Springer.
- Shumway, T. (2001). Forecasting bankruptcy more accurately: A simple hazard model. *The Journal of Business*, 74(1), 101–124. <https://doi.org/10.1086/209665>
- Usul, H., & Alpay, B. Y. (2025). Digital transformation in internal audit: Paradigm shifts, emerging risks, and strategic resilience. *European Journal of Digital Economy Research*, 6(1), 23–36.
- Wehrhahn, C., & Velte, P. (2024). The relationship between audit committees, external auditors, and internal control systems: A literature review and a research agenda. *Journal of Financial Reporting and Accounting*. Advance online publication. <https://doi.org/10.1108/JFRA-05-2024-0312>
- Yahaya, O. A. (2026). Audit committee IT expertise and financial reporting timeliness among listed firms in Nigeria. *Journal of Applied Business Research*, 13(3), 151–179.