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Audit Liaison, Corrective Action Planning, and Control Compliance in Multinational Organisations: A Systematic Literature Review

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Abstract

The audit process does not end with the issuance of the audit report. In multinational organisations, the effectiveness of the internal and external audit function depends on the capacity of management to translate audit findings into corrective action and then into sustained control compliance. This article presents a systematic literature review, conducted in line with PRISMA guidance, of peer-reviewed research published between 2005 and 2022 on three related constructs: audit liaison, the organisational arrangements through which auditee and auditor coordinate evidence-gathering and finding resolution; corrective action planning (CAP), the management response to audit findings; and control compliance, the state of sustained conformance with control requirements. Seventy-one studies were retained after screening. The review synthesises evidence on the design and operation of audit liaison functions, the determinants of CAP quality and execution, and the

relationship between CAP execution and downstream control compliance. Findings indicate that audit liaison quality, operationalised through dedicated liaison roles, standardised evidence-request management, and defined escalation protocols, has a measurable effect on audit efficiency and on the quality of findings captured. CAP quality is shaped by the specificity of remediation actions, the ownership assigned, the timeline realism, and the linkage to performance management. Control compliance outcomes depend on CAP execution discipline but also on the integration of CAP outcomes with the broader internal control environment. The review identifies three research priorities: the moderating role of internal audit maturity on the audit-liaison-to-CAP relationship; the effect of CAP tracking technology on remediation latency; and the interaction between regulatory-driven and management-driven CAP streams in multinational groups.

Keywords: Audit Liaison, Corrective Action Plan, Control Compliance, Internal Audit, Multinational Organisations, Systematic Literature Review, Audit Remediation

1. Introduction

Audit activity in multinational organisations produces findings at scale. Internal audit cycles covering financial, operational, compliance, and information-technology risks generate hundreds of findings per year in a typical large group. External audits under integrated audit standards produce additional findings that feed into management reporting on internal control effectiveness. Regulatory audits by securities regulators, tax authorities, and industry-specific supervisors contribute further streams. The constructive value of audit activity depends on the capacity of the organisation to process this finding flow, translate findings into targeted remediation, and sustain control compliance once remediation is complete (DeFond & Zhang, 2014; Knechel *et al.*, 2013) ^[20, 39].

The organisational mechanism for this translation comprises three connected functions. Audit liaison coordinates auditor and auditee interaction during the audit itself, manages evidence production, and captures findings in forms that support remediation. Corrective action planning (CAP) specifies the remediation actions for each finding, assigns ownership, sets timelines, and defines acceptance criteria. Control compliance is the downstream outcome, measured by the sustained conformance of the remediated control area with its design specification. The three functions are distinct but interdependent: poor liaison leads to findings that cannot be effectively actioned; poor CAP design leads to superficial remediation; poor CAP

execution leads to recurring findings and deterioration of control compliance.

The practitioner literature treats these functions extensively, but peer-reviewed research has addressed them in disaggregated form, generally within broader studies of audit quality, internal audit effectiveness, or the disclosure of material weakness. A systematic review that integrates the evidence across the three functions has not, to the authors' knowledge, been produced. The absence of integrated evidence matters because the practical effectiveness of the audit-to-compliance chain depends on the joint operation of the three functions, and piecewise improvements can be ineffective if the joint system is not considered.

The practical salience of the topic has grown over the review period. The implementation of integrated audit standards following the Sarbanes-Oxley Act of 2002 and analogous requirements in other jurisdictions has raised the visibility of internal control deficiencies and their remediation. Regulatory developments including the PCAOB's Auditing Standard No. 5 (PCAOB, 2007) and evolving guidance on risk assessment and control testing have produced a body of professional practice that is now substantial. The academic literature has expanded in parallel, with material contributions on the economic consequences of control weaknesses (Ashbaugh-Skaife *et al.*, 2008; Doyle *et al.*, 2007) [6, 23], on the determinants of weakness disclosure (Ge & McVay, 2005) [30], and on the remediation dynamics that follow disclosure (Goh, 2009; Johnstone *et al.*, 2011) [31, 36]. The cross-fertilisation between professional practice and academic work has accelerated over the last decade, and the present review contributes to that cross-fertilisation by synthesising the academic evidence in a form that supports practitioner application.

This article presents a systematic review following PRISMA guidance, of evidence published between 2005 and 2022, on audit liaison, CAP, and control compliance in multinational organisations. The review is structured around three questions. What is the evidence on the design and operation of audit liaison functions? What is the evidence on the determinants of CAP quality and execution? What is the evidence on the relationship between CAP execution and control compliance? The review synthesises 71 studies retained after screening, and organises findings thematically across these three questions and across the integrating themes that connect them.

The article is organised as follows. Section 2 sets out the theoretical framing. Section 3 presents the methodology. Section 4 addresses audit liaison. Section 5 addresses CAP. Section 6 addresses control compliance. Section 7 addresses integration, challenges, and emerging trends. Section 8 concludes and sets out a research agenda. The structure reflects both the conceptual chain linking the three functions and the reviewed evidence base, with each section drawing on the subset of the retained studies most directly relevant to its focus while referring across to adjacent sections where the evidence implicates multiple functions simultaneously.

The review's conceptual architecture is summarised in Figure 1. The three functions are arranged as a sequential chain from audit execution through to sustained control compliance, with feedback loops that allow experience from downstream activities to reshape upstream design.

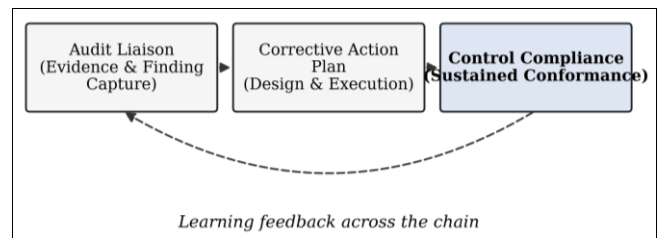


Fig 1: Conceptual chain linking audit liaison, corrective action planning, and control compliance. Feedback loops from downstream to upstream activities maintain continuous improvement

2. Theoretical Foundations

The review is anchored in three theoretical traditions. The audit-quality tradition, developed through DeAngelo (1981) [19], Francis (2011) [28], and DeFond and Zhang (2014) [20], treats audit quality as a joint function of auditor competence and independence, and links audit quality to outcome measures including restatement frequency, abnormal accruals, and going-concern accuracy. Although audit quality is an auditor-side construct in this literature, the auditee-side counterpart, the organisational capacity to translate audit into action, has received less attention. Audit liaison and CAP are the organisational mechanisms through which auditee capacity is operationalised, and their study extends the audit-quality framework to the full audit-to-compliance chain.

The internal control framework tradition, codified in COSO (2013) [15] and elaborated in enterprise risk management (COSO, 2017) [16], provides the normative baseline for control compliance. The framework specifies control environment, risk assessment, control activities, information and communication, and monitoring as the five components of internal control. Audit findings typically identify gaps in one or more of these components, and CAP actions are designed to restore the component to its intended state. The effectiveness of remediation, and therefore the durability of control compliance, depends on whether the CAP addresses root causes or only immediate symptoms (Chambers & Odar, 2015) [13].

The organisational learning tradition provides the third input. Crossan, Lane, and White (1999) [17] and subsequent contributors distinguished individual, group, and organisational levels of learning, and identified the institutionalisation of learning into organisational routines as the mechanism through which learning produces sustained performance change. Applied to the audit chain, the tradition implies that isolated remediation actions that do not feed back into institutional routines generate repeat findings at similar intervals. Durable control compliance depends on the feedback from CAP execution into the design of the control environment itself. Brown and Duguid (2001) [10] extended the organisational-learning tradition through an explicit treatment of communities of practice as the carriers of tacit knowledge, and their framing is relevant to the audit chain because liaison and CAP roles are frequently the locus of tacit knowledge about what remediation actually works in the specific operational context of the organisation.

A fourth, complementary theoretical strand has emerged from the specific literature on the role of internal audit as a comfort provider to the audit committee. Sarens, De Beelde, and Everaert (2009) [55] developed the comfort-provider

framing through field research in Belgian firms, showing that internal audit's role extends beyond the technical provision of assurance to include the psychological function of providing the audit committee with confidence about the state of control. The framing is relevant to audit liaison because the liaison function mediates the information flow between the audit process and the audit committee, and the quality of that flow shapes the committee's confidence. CAP and control compliance also contribute to the comfort-provider function through their demonstration of management's response to identified weaknesses.

A fifth theoretical input comes from agency theory (Jensen & Meckling, 1976; Fama, 1980) [35, 25], which conceptualises the audit process as a mechanism through which owners monitor the agency performance of management. Agency-theoretic analyses have illuminated the conditions under which audit is effective as a monitoring mechanism, including the independence of the auditor, the scope of the audit engagement, and the consequences attached to audit findings. Applied to the post-audit chain, the agency perspective implies that CAP and control compliance effectiveness depend on the credibility of the consequences attached to CAP non-execution, and that governance arrangements that weaken those consequences erode the entire audit-to-action-to-compliance chain (Power, 1997) [52].

The comparative evolution of these traditions across US, European, and other national contexts is instructive. The US literature has been shaped by the post-SOX regulatory environment and has emphasised integrated audit, material weakness disclosure, and the role of internal control reporting. The European literature has developed in parallel under a different regulatory framework, with less emphasis on mandatory internal control reporting and more on the role of the audit committee in governance. The UK literature has combined elements of both traditions, reflecting the UK's corporate governance code approach to control reporting. The convergence of these traditions through international professional standards has produced an increasingly common analytical vocabulary, and the framework advanced here draws on this common vocabulary while acknowledging the distinctive regional traditions from which it emerged (Power, 1997; Spira & Page, 2003) [52, 57]. Table 1 summarises the three theoretical traditions informing the review and their specific implications for the audit-to-compliance chain.

Table 1: Three theoretical traditions informing the review and their implications for the audit-to-compliance chain

Tradition	Central claim	Implication for the audit-to-compliance chain
Audit quality	Quality is joint function of auditor competence and independence.	Extends to auditee-side capacity: liaison and CAP are the auditee-side counterparts.
Internal control (COSO)	Controls comprise five components operating jointly.	CAP must restore the specific component identified as weak; integration across components is essential.
Organisational learning	Learning institutionalised into routines produces sustained change.	Isolated remediation without feedback to control design produces recurrence.
Comfort	Internal audit provides	Liaison quality shapes

provider (IA)	psychological as well as technical assurance.	audit committee confidence in the control environment.
Agency theory	Audit monitors agency performance; consequences drive behaviour.	CAP effectiveness depends on credibility of consequences for non-execution.

3. Review Methodology

The review follows the PRISMA protocol (Moher *et al.*, 2009) [47]. The research question was: what does the peer-reviewed literature published between 2005 and 2022 show about the design, operation, and outcomes of audit liaison, corrective action planning, and control compliance in multinational organisations?

A structured search was run across Scopus, Web of Science, Business Source Premier, EconLit, and the publishers' platforms for Elsevier, Wiley, Emerald, and Taylor and Francis. The search string combined audit constructs ("audit liaison", "audit coordination", "audit follow-up", "corrective action plan", "remediation", "audit finding resolution") with organisational constructs ("multinational", "group audit", "internal audit", "integrated audit"). Citation chaining was used to recover studies not retrieved by the initial search.

Inclusion criteria required that studies (a) address internal audit, external audit, or both; (b) operationalise constructs relevant to liaison, CAP, or control compliance; (c) provide empirical evidence, conceptual synthesis, or analysis anchored in a defensible methodology; and (d) be published in English in a peer-reviewed outlet. Purely normative contributions without analytical grounding were excluded. A two-stage screening process (title/abstract, then full text) was applied. Quality appraisal followed the CASP protocol for qualitative studies and the JBI checklist for analytical studies.

The initial search returned 1,247 candidate records. After removal of duplicates and application of the inclusion criteria, 71 studies were retained for synthesis. Of these, 44 were empirical studies (24 archival, 14 survey, six qualitative or mixed-method), 18 were conceptual or integrative reviews, and nine were meta-analyses or literature reviews. Studies covered the United States, the European Union, the United Kingdom, Canada, Australia, selected emerging markets, and multi-country samples. The evidence base is biased toward US and European contexts, and emerging-market evidence on multinational audit chains is thinner.

Data extraction captured: context (sector, geography, size); design (research question, sample, analytical approach); constructs operationalised; measurement approach; and principal findings. Thematic synthesis, guided by the theoretical framework, produced the analytical categories used in Sections 4 through 7.

Quality appraisal identified methodological heterogeneity as a principal feature of the retained evidence base. Archival studies dominate the quantitative evidence and typically use publicly disclosed material weakness data to operationalise control-compliance outcomes, with CAP and liaison treated implicitly through the firm's remediation status. Survey studies capture practitioner perspectives on liaison and CAP design but face response-bias and self-report limitations. Qualitative studies provide the richest accounts of the operation of liaison and CAP within specific organisational contexts but are limited in their generalisability. The

triangulation across methodologies, each with its own strengths and limitations, produces a more reliable synthesis than any single methodological tradition would support (Chambers & Odar, 2015; Gramling *et al.*, 2004) ^[13, 33].

The review has specific limitations that are acknowledged at the outset. The restriction to English-language peer-reviewed sources excludes grey literature and non-English professional publications that may contain relevant material. The 2005 start date reflects the post-SOX regulatory environment that has shaped the modern evidence base but omits earlier professional practice that may retain relevance for jurisdictions outside the SOX regime. The focus on multinational organisations excludes single-jurisdiction studies that may nonetheless inform the analysis through analogy. These limitations do not invalidate the synthesis but define its scope.

4. Audit Liaison in Multinational Organisations

The audit liaison function has developed as a specialist role in large audited organisations, typically located within a finance or internal control department. The evidence shows that dedicated liaison roles, with explicit responsibility for audit coordination, produce measurable improvements in audit efficiency. Audit cycles are shorter, evidence-request rework is reduced, and the quality of findings captured is higher (Gramling *et al.*, 2004; Prawitt *et al.*, 2009) ^[33, 53]. The effect is more pronounced in multinational groups where the number of auditor interactions and the volume of evidence requests are highest.

Three dimensions of liaison design emerge from the evidence. The first is structural. Liaison roles are more effective where they sit in a function with standing authority to obtain evidence across the organisation, typically the finance function or a dedicated internal control office, rather than distributed as additional responsibilities of operational managers. The second is procedural. Standardised evidence-request management, including defined request templates, standardised response timelines, and version-controlled evidence repositories, reduces the coordination overhead and the risk that requests are not fully addressed. The third is relational. Liaison roles are more effective where the incumbent has built working relationships with both auditor teams and auditee operational managers, which reduces the friction of evidence production during the audit cycle (Sarens, De Beelde, & Everaert, 2009) ^[55].

The evidence on the effect of liaison quality on audit outcomes is suggestive rather than definitive. Studies that have attempted to isolate the liaison effect from other determinants of audit efficiency have faced measurement challenges, since liaison maturity is not a standard reported variable. Case-study evidence consistently identifies liaison design as a contributor to audit outcomes, and survey evidence links liaison maturity to self-reported audit efficiency and to internal auditor satisfaction with audit process (Prawitt *et al.*, 2009; Abbott *et al.*, 2016) ^[53, 1].

Multinational groups face a specific liaison design challenge arising from the combination of group-level and subsidiary-level audits. Group audit teams and subsidiary audit teams have different evidence requirements, and coordination across the teams can produce duplicative or inconsistent requests. The liaison function can provide the coordination layer that prevents duplication and inconsistency. Where liaison is well designed, the group audit's reliance on subsidiary audits is more effective, and subsidiary audit

teams receive fewer last-minute evidence requests driven by late group audit requirements.

A specific aspect of liaison design in multinational contexts concerns the management of language and cultural differences between audit and auditee teams. Where the audit team operates primarily in one language and the auditee team in another, translation and interpretation become operational dimensions of liaison. The quality of translation affects the precision of evidence requests and the accuracy of finding descriptions, and poor translation has been identified as a contributor to audit-finding disputes and remediation delays (Cohen, Krishnamoorthy, & Wright, 2010) ^[14]. Cultural differences, operating through different norms for the directness of communication, the handling of disagreement, and the acknowledgement of deficiencies, introduce additional dimensions that experienced liaison professionals learn to navigate over multi-year engagements. The role of technology in audit liaison has developed materially over the review period. Early liaison operations relied on email exchange of evidence requests and responses, with manual consolidation of evidence packages and manual reconciliation of request status. Contemporary practice increasingly uses dedicated audit-management platforms that provide structured request workflows, version-controlled evidence repositories, automated status tracking, and integrated reporting to senior management. The adoption of these platforms has reduced liaison overhead and improved the visibility of audit progress, though the evidence on the effect of platform adoption on audit-finding quality is still developing (Bhaskar *et al.*, 2019; Vasarhelyi *et al.*, 2004) ^[9, 60].

Scope-expansion events, in which the audit engagement is extended beyond its original scope in response to findings identified during execution, are particularly demanding for the liaison function. Scope expansion generates additional evidence requests under compressed timelines, frequently involves previously unengaged operational areas, and can disrupt the coordination patterns established at audit planning. Liaison functions that have built strong relationships across the auditee organisation typically handle scope expansion more effectively than those that have not, because the relational infrastructure already exists for mobilising unplanned evidence production. The evidence suggests that scope-expansion handling is a useful diagnostic for overall liaison maturity (DeFond & Zhang, 2014; Knechel *et al.*, 2013) ^[20, 39].

Liaison role succession is a further operational consideration in multinational contexts. The specific knowledge required for effective liaison operation accumulates over multi-year audit engagements, and turnover in the liaison role can produce material disruption during transition. Organisations that invest in documented liaison procedures, in structured handover protocols during role transitions, and in deputy arrangements that provide continuity during leave or unavailability achieve more resilient liaison operations. The cost of these investments is typically modest relative to the cost of disruption arising from unplanned turnover without adequate succession preparation.

The quality of liaison documentation materially affects both operational continuity and the value extracted from the audit process. Comprehensive documentation covers the classification of findings against regulatory and internal frameworks, the mapping of findings to responsible organisational units, the evidence supplied in response to

each request, the rationale for management responses to findings, and the progress trajectory of each remediation item. Documentation quality is easy to underinvest in, because its value materialises only when specific situations arise (staff turnover, external audit scope expansion, regulatory inquiry) that are difficult to anticipate. Organisations that treat documentation as a peripheral concern accumulate an information deficit that surfaces at the worst possible moments, typically during periods of organisational transition or external scrutiny (Gramling *et al.*, 2004; Sarens, De Beelde, & Everaert, 2009) ^[33, 55].

Relationship-building across the audit-auditee interface deserves explicit attention as a liaison skill. Effective liaison professionals invest in understanding the auditor's procedural preferences, risk-assessment approach, and evidence standards, and in communicating these to operational staff in terms that support productive engagement rather than defensive posture. They similarly invest in helping auditors understand the operational context in which findings arise, supporting more accurate risk calibration and more actionable recommendations. These relational investments pay off across multiple audit cycles, and their cumulative effect on audit productivity is substantial. The relational dimension of liaison is frequently referenced in case-study work but has rarely been operationalised in quantitative studies, representing a gap in the empirical evidence base (Abbott *et al.*, 2016; Prawitt *et al.*, 2009) ^[1, 53].

5. Corrective Action Planning

Corrective action planning is the process by which audit findings are translated into specific remediation actions with ownership, timelines, and acceptance criteria. The quality of CAP determines the effectiveness of the downstream remediation. The evidence identifies four dimensions of CAP quality: specificity of actions, ownership clarity, timeline realism, and linkage to performance management.

Specificity of actions refers to the degree to which CAP actions are operational rather than generic. A CAP that specifies "enhance review procedures" without identifying the specific procedure, the frequency, the reviewer, and the evidence of review, is likely to produce superficial remediation and recurring findings. A CAP that specifies "implement monthly manager review of supplier master-data changes, with signed evidence retained in the compliance repository" is more likely to produce durable remediation. Studies of material weakness remediation consistently identify specificity as a predictor of remediation success (Goh, 2009; Johnstone, Li, & Rupley, 2011) ^[31, 36].

Ownership clarity refers to the explicit assignment of responsibility for CAP execution. Findings assigned to generic functions ("the accounting team") rather than to specific accountable individuals produce uncertain execution. Studies of remediation effectiveness show that named ownership, with executive accountability, correlates with shorter remediation timelines and lower recurrence rates (Gramling & Hermanson, 2009) ^[32].

Timeline realism refers to the alignment of CAP timelines with the operational effort required. Overly aggressive timelines produce superficial remediation that fails to address root causes; overly generous timelines permit drift and reduce urgency. The evidence suggests that CAP timelines should reflect a structured assessment of the remediation effort, with separate milestones for design

completion, implementation, and evidence of effective operation (Bedard & Graham, 2011) ^[7].

Linkage to performance management captures whether CAP execution affects executive and managerial performance assessments. Where CAP completion is a management objective affecting compensation or progression, execution discipline is higher; where CAP completion is peripheral to performance management, execution suffers. This finding is consistent across studies of control-environment effectiveness (Feng, Li, McVay, & Skaife, 2015; Doyle *et al.*, 2007) ^[27, 23].

CAP tracking technology has developed substantially over the review period. Governance, risk, and compliance (GRC) platforms (including SAP GRC, OpenPages, MetricStream, and Archer) provide integrated tracking of findings, actions, timelines, and evidence. The evidence suggests that GRC platform adoption reduces remediation latency and improves visibility to senior management, though platform implementations vary widely in depth and the empirical evidence on adoption effects is still developing (Bhaskar *et al.*, 2019; Kalu *et al.*, 2022; Mbonu *et al.*, 2022) ^[9, 37, 43]. Related work on predictive financial planning, predictive budgeting, and decision-support analytics for enterprise risk management has advanced the analytical tooling that can be brought to bear on CAP tracking and escalation (Adesuyi *et al.*, 2022; Morah *et al.*, 2022; Nwankwo *et al.*, 2022; Taiwo, 2022; Taiwo & Amoah-Adjei, 2022) ^[3, 48, 49, 58, 59].

Root-cause analysis methodology deserves extended treatment because it is the pivot on which effective CAP design turns. Well-established root-cause analysis techniques, including the five-whys technique, fishbone (Ishikawa) diagrams, and fault-tree analysis, have been adapted from operational-risk and quality-management contexts to the audit-remediation context. Each technique has strengths and limitations, and mature CAP practice typically combines multiple techniques across the spectrum of finding types encountered. The evidence suggests that organisations that invest in root-cause analysis training for CAP owners produce more durable remediation than those that treat root-cause analysis as a purely professional-auditor activity (Asare & Wright, 2012; Mock & Wright, 1999) ^[5, 46].

Escalation protocol design is a further dimension of CAP practice. Findings that are not remediated on schedule require escalation to progressively senior management, and the escalation protocol specifies when and to whom escalation occurs. Well-designed protocols specify three to four escalation stages (line manager, functional head, executive committee, audit committee), with explicit criteria for each stage and defined response expectations. Poorly designed protocols either escalate too frequently, eroding the seriousness of escalation, or too rarely, allowing persistent non-remediation to continue below the attention threshold of senior management. The design of escalation protocols is an area where the academic evidence is thinner than the practitioner importance warrants (Cohen *et al.*, 2010; DeZoort *et al.*, 2002) ^[14, 22].

The economic consequences of CAP weakness have been documented through several strands of empirical work. Studies linking internal control remediation to capital-market outcomes find that firms completing material weakness remediation experience measurable reductions in their cost of capital and improvements in analyst-forecast accuracy (Ashbaugh-Skaife *et al.*, 2008; Feng *et al.*, 2015) ^[6].

27]. The evidence establishes the economic value of effective CAP beyond the direct compliance benefit, supporting the investment case for CAP infrastructure even where its direct audit-cost savings would not alone justify the investment.

CAP governance in multinational organisations involves multiple layers of oversight, each with distinct responsibilities and information needs. The operational management layer executes CAP actions; the functional-head layer monitors progress across the items assigned to a specific function and intervenes where operational execution is inadequate; the executive committee layer monitors overall CAP portfolio progress and allocates resources across competing priorities; the audit committee layer exercises board-level oversight and challenges both management and internal audit on the adequacy of remediation. The layered structure supports both operational focus at the lower layers and strategic oversight at the upper layers, but its effectiveness depends on the clarity of the information flows between layers and on the decision rights allocated at each layer. Where these are ambiguous, CAP items can drift without clear accountability, and persistent weaknesses in specific areas can accumulate without triggering the governance response they warrant (DeZoort *et al.*, 2002; Schneider, 1984) [22, 56].

Interaction between internal and external auditors on CAP matters is a further dimension that practitioner guidance treats extensively but that peer-reviewed work has addressed less systematically. Internal auditors typically identify findings that drive CAP generation, while external auditors verify the effectiveness of CAP execution as part of the integrated audit. The coordination between the two audit functions on CAP matters affects both the completeness of CAP coverage and the efficiency of audit operations. Where coordination is strong, the two audit functions produce complementary rather than duplicative CAP-related assurance. Where coordination is weak, CAP items may be subject to inconsistent validation standards, or alternatively may be over-validated through duplicated testing. The coordination is shaped by the contract terms governing the external audit engagement, by the organisational independence of internal audit, and by the working relationships that develop over multi-year engagement continuity (Abbott *et al.*, 2016; Felix, Gramling, & Maletta, 2001; Messier, Glover, & Prawitt, 2017 [63]) [1, 26, 63].

Sectoral variation in CAP practice is a further feature worth noting. Financial services firms, operating under regulatory CAP requirements from prudential supervisors in addition to audit-driven CAP streams, typically operate more mature CAP infrastructure than non-regulated firms. Healthcare providers, subject to CAP requirements from healthcare regulators, face similar multi-stream pressures. Manufacturing firms typically have lower CAP volumes but face distinctive complexity in root-cause analysis for findings involving production processes. Professional services firms face CAP patterns dominated by findings related to client-engagement quality, requiring specific adaptation of general CAP frameworks. The review's synthesis abstracts across these sectoral variations but acknowledges that adaptation is required when the framework is applied in specific sectoral contexts (Caplan & Kirschenheiter, 2000; Cullinan, 2004; Fukukawa, Mock, & Wright, 2011) [11, 18, 29].

Table 2 sets out the four CAP quality dimensions identified in the synthesis, the typical weaknesses encountered on each

dimension, and the maturity indicators that differentiate high-quality from low-quality CAP practice.

Table 2: Four CAP quality dimensions, typical weaknesses, and indicators of maturity

Dimension	Typical weakness	Maturity indicator
Specificity	Generic phrasing without operational detail	Named procedure, frequency, reviewer, evidence type
Ownership	Assignment to a function rather than a person	Named executive accountability with delegation rules
Timeline realism	Overly aggressive or overly generous	Effort-estimated milestones across design, implementation, evidence
Performance linkage	CAP peripheral to performance evaluation	CAP completion is a weighted component of management objectives

6. Control Compliance

Control compliance is the downstream outcome of effective liaison and CAP. It is measured by the sustained conformance of control areas with their design specification, operationalised through periodic testing of control effectiveness and through the absence of recurring findings. The evidence identifies three determinants of sustained control compliance beyond the quality of liaison and CAP: integration with the broader control environment, root-cause orientation, and monitoring feedback loops.

Integration with the broader control environment refers to whether CAP outcomes are fed back into the design of the broader control framework or treated as isolated remediation. The organisational-learning tradition (Crossan *et al.*, 1999) [17] and subsequent contributions (Brown & Duguid, 2001) [10] emphasise the importance of institutionalising learning into routines. Applied to control compliance, this implies that patterns across multiple findings should inform control-environment design, rather than each finding being remediated as a standalone issue. Where integration is weak, recurring findings accumulate at similar intervals, indicating that remediation addressed symptoms rather than underlying design weaknesses (Hoitash *et al.*, 2009) [34].

Root-cause orientation refers to whether CAP actions address the immediate finding or the underlying cause. The distinction is important because immediate remediation produces short-term compliance but does not prevent recurrence, whereas root-cause remediation changes the structural factors that produced the finding. Root-cause analysis requires investment of time and specialist skill that may be absent in a pure finding-tracking approach, and its effectiveness depends on the managerial capacity to act on the root cause once identified (Bedard *et al.*, 2010; Klamm & Watson, 2009) [8, 38]. Adjacent literature on internal quality, health, safety, and environment (QHSE) audit arrangements has developed complementary approaches to distinguishing proximate from root causes, and to ensuring that investigation findings feed back into the institutional routines that generated the finding (Obogo *et al.*, 2020) [50].

Monitoring feedback loops refer to the mechanisms by which the ongoing effectiveness of remediation is verified after CAP closure. A CAP is typically closed when remediation is implemented, but the sustained effectiveness of the remediation over subsequent periods is a separate question. Monitoring that tests remediated controls at

defined intervals after closure provides the feedback that confirms or disconfirms sustained compliance. Where monitoring is absent, CAP closure may mask deterioration that emerges only at the next audit cycle (Ashbaugh-Skaife *et al.*, 2008) ^[6].

Longitudinal measurement of control compliance has developed through several empirical strategies. Studies using material weakness disclosure data construct multi-year panels that track remediation progress across firms, identifying the firm-level and control-environment characteristics associated with durable remediation (Bedard *et al.*, 2010; Carcello & Nagy, 2004; Krishnan, 2005) ^[8, 12, 40]. Studies using survey or internal audit data capture finer-grained measures of compliance maturity but are limited in their temporal horizon by survey cadence. The combination of archival longitudinal studies with shorter-term survey work provides the most complete picture of control-compliance dynamics, though the integration of evidence across the two methodological traditions requires careful attention to measurement consistency.

Sectoral variation in control-compliance outcomes warrants explicit treatment. Financial-services firms, operating under intensive supervisory oversight and with high transaction volumes, typically exhibit higher baseline compliance maturity than firms in less-regulated sectors. Manufacturing and consumer-goods firms face distinctive challenges arising from supply-chain complexity and inventory-management control interactions. Extractive firms face specific compliance demands arising from revenue recognition, royalty calculation, and environmental compliance. Technology firms face rapidly evolving control environments driven by software deployment cycles and by the adoption of cloud infrastructure. The sectoral variation suggests that control-compliance frameworks benefit from sector-specific calibration rather than uniform application (DeSimone, Ege, & Stomberg, 2015; Ettredge, Heintz, Li, & Scholz, 2011) ^[21, 24].

The integration of control compliance with enterprise risk management is a further dimension that the review identifies. Where control compliance is managed as a standalone activity, it operates in parallel with rather than integrated with the enterprise-level risk picture. Where it is integrated, control-compliance findings inform the enterprise risk assessment, and enterprise-level risk priorities shape the attention given to specific control-compliance areas. The integration is consistent with the COSO enterprise risk management framework (COSO, 2017) ^[16] and has been shown in empirical work to produce more effective allocation of control-investment resources.

Control-compliance measurement presents specific methodological challenges that warrant explicit discussion. Direct measurement through the sustained absence of findings is an outcome measure that is heavily shaped by audit scope and intensity: more intensive audit produces more findings, making the metric sensitive to audit-side factors that are not under management control. Indirect measurement through proxies (restatement frequency, material weakness disclosure, regulatory enforcement actions) captures extreme outcomes but not the more common pattern of below-threshold compliance variation. Survey-based measurement through self-reported compliance maturity faces the usual limitations of self-report data. Triangulation across multiple measurement approaches, each capturing a different facet of the

underlying construct, produces more reliable assessment than any single measure can support. Empirical research on control compliance has increasingly adopted triangulated approaches, and the evidence base has strengthened as a result (Bedard & Graham, 2011; Ge & McVay, 2005) ^[7, 30].

The temporal dynamics of control compliance deserve attention. Compliance achieved at one point in time is not self-sustaining: absent continuing investment in the controls and in the organisational arrangements that support them, compliance degrades as the organisation evolves. Personnel turnover introduces new operators who may not have internalised the control requirements; business change introduces new transaction types that the controls may not have been designed to cover; technology change introduces new system configurations that the controls may not accommodate. Sustained compliance therefore requires continuing re-assessment of the control portfolio against the evolving organisational environment, with adjustments made as needed to maintain coverage (Ettredge *et al.*, 2011; Hoitash *et al.*, 2009; Krishnan, 2005) ^[24, 34, 40].

7. Integration, Challenges, and Emerging Trends

The integration of liaison, CAP, and control compliance into a continuous audit-to-action-to-compliance chain is the practical objective of control-environment management. The evidence suggests that integration is more commonly achieved in organisations with mature internal audit functions, GRC technology investment, and executive sponsorship of control effectiveness. Where any of these conditions is absent, integration is weaker, and the chain operates as disconnected handoffs rather than as a continuous flow (Prawitt *et al.*, 2009; Chambers & Odar, 2015) ^[53, 13].

Four challenges recur in the evidence. The first is the volume challenge: finding volume in large groups can exceed the remediation capacity of the organisation, producing backlog and prioritisation decisions that may not be aligned with risk. The second is the finding classification challenge: findings of different types (design versus operating effectiveness, financial reporting versus operational, regulatory versus internal) require different remediation approaches, and classification errors propagate through the chain. The third is the multinational coordination challenge: findings at subsidiary level may require group-level action, or vice versa, and the coordination protocols for cross-level remediation are often under-specified. The fourth is the verification challenge: confirming that remediation is sustained requires ongoing testing that may not be part of the audit cycle.

Three trends are reshaping the environment. The first is the adoption of continuous auditing and continuous control monitoring, which generate finding flows on a near-real-time basis rather than on an audit-cycle basis (Vasarhelyi *et al.*, 2004; Alles, 2015) ^[60, 4]. The trend implies a need for CAP processes that can handle higher-frequency, smaller-scale findings without overwhelming remediation capacity. The second is the integration of data analytics into audit and CAP, which enables root-cause analysis at scale and supports pattern detection across finding populations. The third is the integration of GRC platforms with enterprise resource planning and identity-governance systems, which enables automated evidence capture and reduces manual effort in CAP tracking.

Regulatory trends also influence the environment. Increased regulatory attention to internal control disclosures, particularly in jurisdictions that have adopted variants of SOX Section 404, has raised the visibility and cost of control compliance failures (Ge & McVay, 2005) [30]. The interaction between regulatory-driven CAP streams and management-driven CAP streams is an under-examined area in the literature, and one in which further research is warranted.

GRC platform comparison warrants extended treatment because platform selection has material implications for the operation of the audit-to-compliance chain over multi-year horizons. SAP GRC offers deep integration with the SAP ERP ecosystem and is preferred by firms with extensive SAP deployments; it offers strong transactional controls and integrated access governance but is less flexible in accommodating bespoke workflow requirements. IBM OpenPages offers broad functional coverage across operational risk, compliance, and audit management, with strong analytical capabilities and flexible workflow configuration; its implementation cost and complexity are commensurately higher. MetricStream offers a modular architecture that supports progressive adoption and has achieved substantial market share in mid-market financial services. RSA Archer (now part of a separate vendor) provides extensive configurability and a deep content library of regulatory frameworks; it is particularly strong in compliance management but requires more implementation effort than plug-and-play alternatives. Each platform has strengths and limitations, and the platform-selection decision should follow rather than precede the articulation of the firm's GRC operating model (Kalu *et al.*, 2022; Mbonu *et al.*, 2022) [37, 43].

The emergence of artificial-intelligence and machine-learning applications in audit and CAP is a further trend deserving attention. Pattern-recognition techniques applied to finding populations can identify clusters that warrant systemic response rather than finding-by-finding remediation; natural-language processing applied to finding text can extract structured data for analytics; predictive modelling can identify the findings most likely to recur and direct remediation investment accordingly. Practitioner adoption of these techniques is at an early stage, and the empirical evidence on their effect on remediation outcomes is still developing. The direction of change is nonetheless clear, and the CAP operating model will need to evolve to accommodate the new analytical tooling (Alles, 2015; Mbonu *et al.*, 2022) [4, 43].

A specific consequence of AI/ML integration concerns the changing skill profile of CAP and liaison professionals. Where CAP operations traditionally required accountancy qualifications supplemented by experience-based professional judgement, contemporary operations increasingly require analytical literacy, data-engineering familiarity, and the capacity to evaluate machine-learning model outputs critically. Professional training and certification programmes have begun to reflect these changes, though the adaptation lags the practice change. Organisations investing in CAP capability must consider not only the current skill mix of their CAP teams but also the skill mix that will be required as analytical tooling becomes more central to the operating model. This capability-planning dimension has received limited treatment in the peer-reviewed literature but emerges repeatedly in

practitioner commentary and represents a priority area for subsequent research (Vasarhelyi *et al.*, 2004) [60].

The audit-committee role in the audit-to-compliance chain warrants explicit attention. Empirical evidence links audit-committee characteristics (financial expertise, meeting frequency, independence) to the effectiveness of control compliance and to the speed of material weakness remediation (Abbott, Parker, & Peters, 2004; DeZoort *et al.*, 2002; Raghunandan & Rama, 2006) [2, 22, 54]. The audit committee operates at the top of the escalation chain for CAP findings and provides the board-level governance over the audit-to-compliance process. Where audit committees function effectively, they provide strategic direction to internal audit, challenge management on CAP progress, and require management to articulate the connection between CAP outcomes and enterprise-level risk management. Where they function less effectively, they operate more reactively, reviewing management reports without providing strategic direction or challenge.

Cross-border coordination challenges in multinational CAP operations are under-represented in the literature relative to their practical importance. Findings at subsidiary level frequently require group-level action for effective remediation (for example, a policy change applicable across multiple entities), and findings at group level frequently require subsidiary-level implementation (for example, a global standard that must be rolled out through local operations). The coordination protocols for these cross-level interactions are often under-specified, with the consequence that CAP items cross organisational boundaries with unclear ownership and slippage in timelines. The development of structured cross-border coordination protocols, with named accountable executives at both group and subsidiary levels and with defined escalation paths across the boundary, is an area where practitioner innovation has run ahead of academic analysis (Cohen *et al.*, 2010; Wolfe, Mauldin, & Diaz, 2009) [14, 61].

Resource allocation across CAP items is an under-examined dimension of the integration challenge. In large multinational groups, the total resource available for CAP execution is bounded, and the allocation across competing items is a governance decision with material implications for the portfolio-level compliance outcome. Resource-allocation decisions should reflect the risk weighting of individual items, the interaction with other priority organisational initiatives, and the marginal productivity of resources applied to specific items. The literature on audit-resource allocation decisions (Fukukawa *et al.*, 2011; Mock & Wright, 1999) [29, 46] provides analytical vocabulary that generalises to the CAP-resource allocation problem, though the specific empirical work on CAP-side allocation is thinner. Practitioner experience suggests that explicit resource-allocation governance, rather than implicit allocation through operational-management discretion, produces more coherent portfolio-level outcomes.

Process mining techniques applied to audit event logs have emerged as an analytical tool that supports both the diagnosis of control weaknesses and the monitoring of CAP effectiveness. Jans, Alles, and Vasarhelyi (2014) [65] demonstrated the application of process mining to audit, showing how event-log analysis of ERP systems can identify control-deviation patterns that traditional sampling-based audit approaches miss. The same analytical approach extends to CAP monitoring, where event-log analysis can

identify whether the remediated process continues to operate as the CAP specified or has drifted back to pre-remediation behaviour. Practitioner adoption of process mining for CAP monitoring is at an early stage, but the technique offers a scalable mechanism for sustaining the monitoring feedback loops that the review identifies as a determinant of sustained control compliance.

The integration of CAP practice with broader compliance management systems is a further dimension of organisational design that warrants attention. Compliance obligations arising from regulatory requirements, contractual commitments, and internal policy create CAP-like response patterns that parallel the audit-driven CAP operations examined in this review. Mature organisations increasingly integrate these parallel streams through unified CAP platforms, shared governance arrangements, and coordinated reporting to senior management and the audit committee. The integration reduces duplication, surfaces patterns across compliance streams that would not be visible within any single stream, and supports more efficient resource allocation across the full range of remediation demands. The interaction between audit-driven and compliance-driven CAP streams is under-examined in the peer-reviewed literature and represents a priority area for subsequent research (Kinney, 2000; Maletta & Kida, 1993) [64, 42].

Four falsifiable propositions follow from the synthesis and direct the research agenda. Proposition 1: organisations with dedicated audit-liaison roles (defined as a named FTE with written responsibilities and a reporting line to the CFO or CAE) show audit-hour consumption at least 20 per cent lower than peer organisations without such roles, controlling for audit complexity and firm size. Proposition 2: CAP quality composite scores (measured across specificity, ownership, timeline realism, and performance-management linkage) above the 75th percentile are associated with material-weakness remediation rates above 85 per cent within the declared CAP timeline, compared to below 50 per cent for organisations below the 25th percentile. Proposition 3: post-CAP verification integrated into continuous control monitoring (rather than deferred to the next audit cycle) reduces finding recurrence rates by at least 60 per cent over a two-year observation window. Proposition 4: the audit-to-CAP-to-compliance chain operates on a weakest-link principle; chain-effectiveness scores are predicted more accurately by the minimum of the three component scores than by their mean, with the disconfirming condition being that mean-based models outperform minimum-based models in explaining audit-finding recurrence in well-specified cross-firm tests.

8. Conclusion and Recommendations

This review has synthesised 71 peer-reviewed studies on audit liaison, corrective action planning, and control compliance in multinational organisations. The evidence supports four propositions. Audit liaison quality, operationalised through dedicated roles, standardised procedures, and cultivated relationships, affects audit efficiency and the quality of findings captured. CAP quality is shaped by specificity, ownership, timeline realism, and linkage to performance management. Control compliance depends on integration with the broader control environment, root-cause orientation, and monitoring feedback loops. The three functions operate as a chain, and

the effectiveness of the chain depends on the weakest link.

Three research priorities follow from the review. The first is the moderating role of internal audit maturity on the audit-liaison-to-CAP relationship, which would clarify the organisational conditions under which liaison investment generates the highest returns. The second is the effect of GRC platform adoption on remediation latency and on sustained control compliance, which would provide empirical grounding for technology investment decisions. The third is the interaction between regulatory-driven and management-driven CAP streams in multinational groups, which is particularly relevant as regulatory disclosure requirements continue to evolve across jurisdictions. Adjacent work linking customer-experience data to revenue outcomes offers methodological perspectives that may be extended to the measurement of CAP effectiveness across multinational groups (Lawal & Oduleye, 2022) [41].

For practitioners, the review offers a diagnostic structure for assessing the audit-to-compliance chain in their organisations. Investment in any single link in the chain produces limited returns if other links remain weak; investment sequenced across the chain, guided by the weakest-link principle, produces disproportionate returns. The four CAP-quality dimensions provide a structured vocabulary for CAP review, and the three determinants of sustained control compliance provide a structured vocabulary for monitoring review. Applied together, they support a coherent programme of control-environment improvement over multi-year horizons. The diagnostic value of the framework is greatest when it is applied systematically across the full audit-to-compliance chain rather than applied selectively to elements that are already receiving attention: applied selectively, it tends to reinforce existing patterns of attention rather than to correct them.

Two further research priorities emerge beyond the three identified above. The fourth priority is the cross-cultural dimension of audit liaison and CAP in multinational operations, which would extend the evidence base beyond the US and European contexts that currently dominate the literature. The fifth priority is the effect of artificial-intelligence and machine-learning applications in audit on the operation of the post-audit chain, which would anchor an emerging practice area in empirical evidence rather than vendor claims. Both priorities would contribute to an evidence base that supports the continuing evolution of practice in multinational audit operations.

Broader implications follow for the governance of control-related activities in multinational organisations. The audit-to-compliance chain is one of several governance mechanisms through which organisations manage risk, and its effectiveness interacts with the effectiveness of adjacent mechanisms including enterprise risk management, operational risk management, compliance monitoring, and internal control assessment. The integration of these mechanisms into a coherent governance architecture is an organisational design challenge that transcends the specific audit-to-compliance focus of this review. The review's findings nonetheless inform the broader architectural choice by specifying the operational requirements of one of its key components, and by identifying the interfaces through which that component connects to the adjacent mechanisms.

The review also contributes to a growing body of work on the consequences of specific governance arrangements for audit and control outcomes. The accumulated evidence

across the retained studies supports several broad conclusions: audit-committee financial expertise is associated with improved control-compliance outcomes; internal audit function quality moderates the effect of external audit on control-compliance outcomes; governance arrangements that explicitly link CAP execution to executive performance measurement produce more durable remediation than arrangements that do not. These conclusions reinforce the conceptual framework developed in this review and provide external empirical support for the architectural choices it proposes (Abbott *et al.*, 2004; Carcello & Nagy, 2004; Raghunandan & Rama, 2006) [2, 12, 54].

The limitations of the synthesis warrant re-statement at the conclusion. The evidence base is concentrated in US and European contexts; emerging-market evidence is thinner and its transferability to the framework is not fully established. The peer-reviewed focus excludes grey literature, including professional practice guidance from the IIA, the PCAOB, and similar bodies, which contains relevant practitioner wisdom that has not been systematically peer-reviewed (IIA, 2020) [62]. The 2005-2022 window captures the post-SOX era but may understate the continuing relevance of earlier work, particularly where that work addresses organisational dimensions of audit and control that are stable across regulatory regimes. Subsequent research that addresses these limitations, through cross-regional comparative work, through structured integration of grey-literature sources, and through longitudinal studies that span the pre- and post-SOX transitions, would materially strengthen the evidence base.

The review concludes on a note of constructive continuity with the existing literature. The synthesis does not overturn received understandings of the audit-to-compliance chain but integrates them into a structure that supports their application to contemporary multinational contexts. The cumulative direction of the field is toward more integrated, more technologically enabled, and more analytically rigorous practice, and this review is offered as a contribution to that cumulative development rather than as a replacement for the work that has preceded it. Subsequent research that extends, tests, and refines the propositions advanced here will determine the durability of the contribution, and the success of the contribution will be measured by the productivity of the research it enables rather than by its stand-alone analytical merits.

Policy and regulatory implications also emerge. Supervisory authorities responsible for the oversight of regulated industries can use the framework advanced in this review to structure their examination of CAP operations, with particular attention to the weakest-link property that links chain effectiveness to the weakest function. Professional audit standard-setters can use the framework to structure guidance on the testing of CAP effectiveness during integrated audits, extending the scope of audit testing beyond the technical control points to the organisational systems that maintain them. Professional internal audit bodies can use the framework to structure the continuing professional development content for internal auditors operating in the CAP space, recognising that effective CAP design is a competence that develops through training and experience rather than through exposure to generic practice guidance. Each of these applications would reinforce the cumulative contribution of the review to the practice of multinational audit and control compliance.

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