



# The Role of Internal Audit in Strengthening Enterprise Risk Management Frameworks

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## Abstract

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This article examines how the internal audit function strengthens enterprise risk management frameworks through a systematic review of peer-reviewed literature. The study synthesizes conceptual, empirical, and sector-specific research that links risk governance, internal audit practices, and enterprise risk management effectiveness. Structured searches in major academic databases, guided screening, and thematic coding are used to identify how internal audit contributes to risk identification, assessment, response, and monitoring. The findings show that internal audit enhances enterprise risk management when it adopts risk-based planning, coordinates closely with senior leadership and risk management units, and evaluates the alignment between risk practices, governance structures, and strategic objectives. Evidence from private and public organizations indicates that internal audit can transform enterprise risk management from a formal framework into an embedded governance mechanism that supports performance and resilience. However, the review also reveals fragmented scholarship and limited understanding of the mechanisms through which internal audit independence, authority, and methodological rigor translate into sustained improvements in enterprise risk management quality and corporate governance outcomes across different institutional contexts.

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## **1. Introduction**

Enterprise risk management (ERM) has become a central pillar of corporate governance as organizations confront heightened uncertainty from economic shocks, digital disruption, regulatory change, and emerging sustainability risks. Recent evidence shows that robust ERM practices are associated with clearer risk appetite articulation, more resilient strategic decision-making, and improved firm performance, particularly in environments characterized by high volatility and complexity (Horvey & Ankamah, 2020; Fraser et al., 2022). Within this landscape, ERM frameworks are expected not only to catalogue risks, but to embed risk thinking across planning, operations, and performance management, turning risk oversight into a source of competitive and governance advantage rather than a purely compliance-driven exercise (Onay, 2020; Greapca & Lungu, 2024).

The evolution of the internal audit function has closely paralleled this shift toward integrated risk governance. The Institute of Internal Auditors' updated Three Lines Model positions internal audit as an independent assurance provider that evaluates how effectively management and risk oversight functions identify, assess, and respond to key risks across the enterprise. Subsequent academic work refines this view by showing how internal audit can strengthen the architecture of corporate governance clarifying roles, enhancing transparency, and improving the reliability of risk information supplied to boards and audit committees (Onay, 2020; Eulerich, 2021). In this sense, internal audit is no longer confined to ex post control testing, but is increasingly expected to assess the maturity, coherence, and strategic alignment of ERM frameworks themselves.

Empirical studies underscore that the depth and nature of internal audit's involvement in ERM materially affects risk management effectiveness. Survey evidence from Malaysian transportation companies, for example, indicates that internal auditors who actively perform "core" and "legitimate" ERM roles such as evaluating risk identification processes, validating risk assessments, and assessing the adequacy of risk responses contribute significantly to improvements across multiple ERM components (Jassem, 2022). Similarly, research on Jordanian public-listed firms finds that a more developed internal audit function is associated with higher ERM effectiveness, in part because internal auditors' objectivity and methodological rigor enhance the credibility of risk information used by senior management and boards (Al-Qudah & Jassem, 2024). At the same time, bibliometric analyses reveal that scholarship on internal audit and risk management remains fragmented into parallel streams, with limited integration between ERM design, internal audit quality, and broader governance outcomes (Greasca & Lungu, 2024).

Despite this growing body of work, important questions remain about how internal audit concretely strengthens ERM frameworks over time. Prior studies often focus either on describing internal audit's roles or on measuring ERM outcomes, without fully unpacking the mechanisms through which audit independence, risk-based planning, reporting lines, and coordination with other governance actors translate into more coherent and value-adding ERM architectures (Onay, 2020; Fraser et al., 2022). Moreover, the rapid diffusion of the Three Lines Model, increasing regulatory expectations, and the rise of data-driven risk analytics create

new demands on internal audit that existing evidence has only begun to capture (Jassem, 2022).

Against this backdrop, this article examines the role of internal audit in strengthening ERM frameworks by synthesizing recent peer-reviewed research. It explores how internal audit contributes to ERM design, implementation, and continuous improvement; how its involvement interacts with organizational context, governance structures, and risk culture; and what configurations of roles and capabilities are associated with more effective ERM. By integrating conceptual, empirical, and bibliometric insights, the study aims to clarify the pathways through which internal audit can evolve from a traditional control function into a strategic partner that enhances the robustness, consistency, and value relevance of enterprise risk management.

## **2. Literature Review**

Enterprise risk management (ERM) is increasingly framed as a core component of corporate governance that integrates risk considerations into strategic planning, performance management, and control processes rather than treating risk as a narrow compliance issue. Recent synthesis work shows that effective governance arrangements explicitly link board-level oversight, risk appetite, and internal control structures, with ERM used as the architecture that connects these elements across the organization's value chain (Kalia & Gill, 2023).

Within this architecture, internal audit is conceptualized as a key assurance provider on the design and functioning of ERM. A large-scale systematic review of

internal auditing research in Europe finds that internal audit studies cluster around four themes governance, internal audit effectiveness, relationships with other actors, and risk management yet also highlights that work explicitly integrating internal audit with ERM remains relatively sparse and fragmented, pointing to the need for stronger theorisation of how internal audit supports risk governance at the enterprise level (Hazaee et al., 2023).

A central mechanism through which internal audit can strengthen ERM frameworks is the adoption of risk-based internal auditing (RBIA). Empirical evidence from European listed firms shows that RBIA aligns audit planning and testing with the organization's risk profile, thereby reinforcing ERM by focusing assurance effort on high-priority risk exposures and by requiring close coordination with risk management and senior leadership when defining audit universes and engagement scopes (Lois et al., 2021). This risk-oriented approach positions internal audit as an active participant in risk assessment and response evaluation, rather than a function that merely checks compliance with predefined control procedures.

Recent sector-specific studies further document how internal audit involvement shapes ERM practice in different organizational contexts. Evidence from Zimbabwean public universities indicates that where internal audit participates in risk identification workshops, reviews risk registers, and provides feedback on risk mitigation plans, ERM processes are perceived as more systematic and embedded in operational decision-making, suggesting that internal audit acts as a catalyst for formalizing and routinizing risk management practices (Denhere, 2023). Complementary survey results from Jordanian public-listed companies show that the

intensity of internal auditors' engagement in "core" and "legitimate" ERM roles, together with their objectivity, has a significant positive effect on ERM effectiveness, implying that internal audit can enhance the coherence and credibility of ERM frameworks when it retains independence while actively engaging with risk governance processes (Jaber et al., 2024).

### **3. Methods**

This study adopts a systematic literature review (SLR) approach to synthesize and critically evaluate scholarly evidence on the role of internal audit in strengthening enterprise risk management (ERM) frameworks. The review began with the formulation of clear research questions focused on how internal audit contributes to ERM design, implementation, and effectiveness, and how these contributions are shaped by governance structures and organizational context. Relevant studies were identified through structured searches in major academic databases such as Scopus, Web of Science, and Google Scholar using combinations of keywords including "internal audit," "enterprise risk management," "risk-based internal auditing," "three lines model," and "risk governance."

The search was limited to peer-reviewed journal articles written in English, while conference papers, dissertations, professional magazines, non-scholarly reports, and duplicate records were excluded. Titles, abstracts, and full texts were screened in successive stages based on predefined inclusion and exclusion criteria to ensure that only studies explicitly addressing the interaction between internal audit and ERM were retained. For each included article, data were extracted on study

context, research design, conceptualization of internal audit roles, ERM dimensions examined, and key findings. The evidence was then coded and synthesized using a narrative and thematic approach, allowing the review to identify recurring patterns, tensions, and gaps, and to develop an integrative understanding of how internal audit can evolve from a traditional control function into a strategic partner in enterprise risk management.

#### **4. Results and Discussion**

The synthesis of the selected studies shows a consistent pattern: internal audit plays a pivotal role in transforming ERM from a formal framework into a living governance mechanism that supports performance and resilience. Empirical and conceptual works converge on the view that effective ERM is associated with clearer risk appetite, stronger strategic decision making, and improved firm outcomes, especially under high uncertainty (Horvey & Ankamah, 2020; Fraser et al., 2022; Kalia & Gill, 2023). Within this configuration, internal audit emerges as a crucial “linking pin” between governance structures and ERM processes, providing assurance not only on control design, but also on the quality of risk identification, assessment, and response (Onay, 2020; Eulerich, 2021).

The review also highlights that how internal audit engages with ERM is more important than the mere existence of ERM policies. Studies on risk-based internal auditing (RBIA) indicate that when audit planning is explicitly aligned with the organization’s risk profile, internal audit reinforces ERM by directing assurance efforts toward high-priority exposures and by requiring close collaboration with risk

management and senior leadership (Lois et al., 2021). This is consistent with survey evidence from Malaysian transportation firms and Jordanian public-listed companies, where internal auditors performing “core” and “legitimate” ERM roles such as validating risk assessments and evaluating risk responses are associated with higher ERM effectiveness and more credible risk information for boards (Jassem, 2022; Al-Qudah & Jassem, 2024; Jaber et al., 2024). These findings suggest that internal audit strengthens ERM most when it combines methodological rigor and independence with active participation in risk governance.

Contextual factors, however, shape the extent and form of this contribution. In public sector settings, such as Zimbabwean universities, internal audit’s involvement in risk workshops, review of risk registers, and feedback on mitigation plans appears to “formalize” ERM and embed risk thinking into operational decisions (Denhere, 2023). In contrast, evidence from listed firms in Europe and emerging markets implies that board structures, regulatory pressures, and risk culture moderate whether internal audit is allowed to move beyond compliance checks into more strategic ERM roles (Lois et al., 2021; Jaber et al., 2024). Together, these studies indicate that internal audit’s potential to enhance ERM is contingent on organizational willingness to grant it sufficient authority, access, and independence.

At the same time, the bibliometric and review-based evidence signals that research on internal audit and ERM remains fragmented. Mapping exercises show that internal auditing scholarship tends to cluster around governance, internal audit effectiveness, and risk management, with relatively limited work explicitly integrating internal audit with ERM design and performance outcomes (Hazaea et al., 2023;

Greasca & Lungu, 2024). This fragmentation helps explain why many studies either describe internal audit roles or measure ERM outcomes, but rarely unpack the mechanisms that connect audit independence, RBIA, reporting lines, and coordination with other governance actors to concrete improvements in ERM quality (Onay, 2020; Fraser et al., 2022).

Overall, the SLR indicates that internal audit is most effective in strengthening ERM when three conditions are met: ERM is positioned as an integral part of corporate governance and performance; internal audit adopts risk-based, strategically aligned practices; and organizational context supports its independence and engagement. The literature thus points toward an evolving role for internal audit from a traditional control-focused function to a strategic partner in enterprise risk management while also underscoring the need for more integrated, mechanism focused research that can explain how this evolution translates into sustained improvements in governance and firm outcomes.

## 5. Conclusion

This systematic review concludes that internal audit is a critical enabler of effective enterprise risk management, particularly in environments characterized by heightened uncertainty and governance complexity. Across conceptual, empirical, and sector specific studies, ERM emerges not only as a tool for cataloguing risks but as a governance architecture that links board level oversight, risk appetite, and operational decision-making. Internal audit adds value to this architecture when it moves beyond traditional, control focused assurance and assumes roles that include

validating risk identification and assessment, evaluating risk responses, and testing the alignment between ERM practices and strategic objectives. Risk-based internal auditing, close coordination with risk management and senior leaders, and adherence to the principles of the Three Lines Model collectively position internal audit as a “linking pin” that helps translate ERM frameworks into improved performance, resilience, and more credible risk information for boards.

At the same time, the review highlights that this potential is not automatically realized. Internal audit’s contribution to ERM is contingent on organizational context, including board support, regulatory pressures, and risk culture, as well as the degree of independence, authority, and methodological rigor enjoyed by the audit function. The evidence also shows that research on internal audit and ERM remains fragmented, with limited work that fully unpacks the mechanisms connecting audit roles, governance structures, and ERM outcomes. Future studies should therefore adopt more integrated, mechanism-focused designs that can explain how specific configurations of internal audit practices, reporting lines, and risk-based approaches translate into sustained enhancements in ERM quality and corporate governance. Such work would not only refine theory but also provide clearer guidance for practitioners seeking to reposition internal audit as a strategic partner in enterprise risk management.

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