

# Toward an Integrated Theory of Enterprise Risk Management: A Multi-Theoretical Conceptual Framework

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## ABSTRACT

This paper critically synthesizes the fragmented theoretical literature on enterprise risk management (ERM) and proposes an integrated, multi-theoretical conceptual framework explaining the antecedents, mechanisms, and boundary conditions of ERM effectiveness, addressing a persistent gap: although partial theoretical integrations exist in the ERM literature, none brings all five of these traditions together within a single, variable-level model. A critical narrative review was conducted of literature published between 2020 and 2026, indexed in Scopus, Web of Science, PubMed, and Semantic Scholar, supplemented by a small number of seminal pre-2020 theoretical sources retained only where indispensable. Rather than treating the five theories as competing paradigms, the review synthesizes them as complementary explanations operating at different levels of analysis and translates them into a framework specified at the construct level. The review identifies five theory-grounded antecedents of ERM effectiveness, three mediating mechanisms, three moderating boundary conditions, and four control variables, and finds that ERM scholarship's single-theory orientation plausibly explains the inconsistent findings reported across the ERM–performance literature, with an under-examined adoption–effectiveness gap recurring across otherwise unconnected studies. The framework offers boards, chief risk officers, and regulators a diagnostic basis for distinguishing substantive from symbolic ERM adoption. This paper is among the first to integrate five major organizational theories into a single, empirically testable conceptual model of ERM effectiveness, structured for direct use in future structural equation modeling research.

**Keywords:** Enterprise risk management, multi-theoretical framework, agency theory, resource-based view, institutional theory

## INTRODUCTION

### Background

ERM has rapidly evolved from a post-scandal compliance response into a construct that boards, credit-rating agencies, and regulators now regard as a marker of organizational maturity and, in more ambitious accounts, a source of competitive advantage in its own right (Gleißner et al., 2024). Since the early 2000s, frameworks such as COSO's ERM, Integrated Framework have spread across listed firms in developed and emerging markets alike, and the appointment of a chief risk officer, once unusual outside banking and insurance, is now a routine governance signal across manufacturing, energy, and services firms (Kumar et al., 2024; Rachmania & Pangestuti, 2025). This diffusion, however, has outpaced the theoretical apparatus available to explain it. ERM emerged as a practitioner-led movement, consolidated by standard-setters rather than by a single dominant academic theory, and it was not until Jankensgård (2019) that a theory explicitly built for ERM, rather than borrowed wholesale from an adjacent field, was formally proposed.

The consequence is a literature that has grown enormously in volume while remaining strikingly fragmented in its conceptual foundations. Systematic reviews spanning more than four decades of publications report that ERM research clusters heavily around governance proxies such as board composition, risk committee structure, and CRO presence, while comparatively few studies examine risk culture, the three-lines-of-defense model, or the lived experience of risk professionals inside organizations (Kumar et al., 2024). Where empirical studies do exist, their theoretical starting points differ so substantially; agency theory in one, institutional theory in another, resource-based reasoning in a third, that comparing their findings directly is often closer to comparing answers to different questions than to replicating or contradicting a shared claim. This paper starts from the premise that the resulting inconsistency is at least partly an artifact of that theoretical fragmentation, and that a genuinely integrative framework is overdue.

## Statement of the Problem

The specific empirical symptom motivating this paper is the persistently inconsistent relationship reported between ERM and firm performance. Ghanaian equity-market evidence finds a non-linear relationship whose direction depends on which performance measure is examined (Horvey & Ankamah, 2020); Vietnamese manufacturing evidence finds that ERM simultaneously raises market-based value and depresses short-term accounting profitability (Nguyen & Nguyen, 2026); and evidence from Nigerian services-sector firms finds that risk-management-committee variables move in different directions depending on whether performance is measured by return on assets or Tobin's Q (Abu & Ibrahim, 2022). Reviewers of this literature have repeatedly attributed such inconsistency to measurement problems and the absence of an agreed-upon, validated ERM construct (Horvey & Odei-Mensah, 2023; Stasse et al., 2025), but measurement is only part of the explanation. A parallel and less remarked-upon problem is theoretical: studies that measure ERM through an agency-theoretic lens (board and CRO proxies) are testing a different implicit model of what makes ERM work than studies that measure it through a resource-based or institutional lens, and a single-theory study is structurally unable to detect the moderating and mediating mechanisms that a rival theory would predict.

Anton and Nucu (2020) made this point explicitly in their systematic review, calling for research that integrates ERM's determinants and consequences into a single analytical framework rather than continuing to study adoption, design, and performance as separate literatures. That call has gone largely unanswered: subsequent empirical work has continued to test single-theory models: agency theory in Nigerian manufacturing (Otekunrin et al., 2021), institutional theory in comparative insurance markets (Agarwal, 2025b), resource-based and dynamic-capability reasoning in crisis contexts (Hussain, 2026), without a shared framework against which their sometimes-conflicting findings can be jointly interpreted. This paper addresses that gap directly by asking a single guiding question: what does ERM effectiveness look like when agency, stakeholder, resource-based, contingency, and institutional explanations are read together, at the level of the individual constructs that would need to be measured to test such an integrated account empirically?

## Objectives of the Study

Four objectives follow from this problem statement. The first is to critically synthesize five theoretical accounts of ERM: agency theory, stakeholder theory, the resource-based view, contingency theory, and institutional theory, and to identify precisely the level of analysis at which each theory does its explanatory work, so that their relationship to one another can be specified as complementary rather than competitive. The second is to translate that synthesis into an integrated, multi-theoretical conceptual framework of ERM effectiveness, specified at the variable level with an explicit dependent variable, five theory-grounded independent variables, three mediating mechanisms, three moderating boundary conditions, and four control variables, together with a boxed diagram summarizing their proposed relationships. The third is to review, thematically rather than theory-by-theory, the empirical literature published between 2020 and 2026 that bears on the framework's proposed constructs and relationships, in order to ground each element of the framework in existing evidence rather than pure theoretical

speculation. The fourth and final objective is to derive theoretical, practical, and policy implications from the synthesis, and to set out a concrete research agenda, including specific boundary conditions and contexts, such as Bursa Malaysia-listed firms and Islamic financial institutions, through which the proposed framework can subsequently be tested.

## LITERATURE REVIEW

ERM theorizing has evolved through several identifiable phases: a classical, loss-minimization orientation; a quantitative phase built around measurable risk metrics; an integrated phase associated with the COSO framework; and, more recently, a behavioral and digital-ESG-oriented phase in which risk is treated as a source of opportunity as much as threat (Abernikhina, 2025). ERM, as a distinct theoretical construct, emerged partway through this evolution, and its theorization has lagged behind its diffusion into practice. Jankensgård (2019) provided the first theory explicitly dedicated to ERM, arguing that it addresses two related problems: an agency problem of risk governance, resolved through board-level oversight mechanisms, and an information problem of risk aggregation, resolved through enterprise-wide reporting structures. Subsequent scholarship has largely proceeded theory-by-theory rather than building outward from that unifying attempt, producing five substantial but only loosely connected literatures, reviewed critically in turn below.

### Agency Theory

Agency theory frames ERM as a governance response to the separation of ownership and control. Because boards cannot directly observe managerial risk-taking, and managers may be incentivized to accept risk levels that diverge from what shareholders would prefer, ERM in this reading exists to narrow that gap through board-level risk committees, chief risk officer reporting lines, and risk-adjusted incentive structures. Applied studies typically operationalize this through governance proxies: Nigerian manufacturing evidence finds a positive but proxy-dependent association between agency-theoretic governance variables and firm profitability (Otekunrin et al., 2021), while a parallel literature review pairs agency theory explicitly with disruption-era risk literature to explain entrepreneurial ERM behavior under conditions of heightened uncertainty (Afifawati et al., 2023).

Board-level evidence from Nigeria and Palestine further shows that specific governance characteristics: audit committee financial expertise, board independence, CRO presence, relate to firm performance with varying strength and even opposite signs depending on which performance metric is used (Abu et al., 2022; Musallam, 2020), a pattern this paper interprets in Section 4 as early evidence of the moderating and mediating gaps the proposed framework is designed to close. The lens is analytically sharp on governance failure but rests on an assumption of contractible, rational board–management relationships, leaving external legitimacy pressures and internal resource constraints largely unaddressed.

### Stakeholder Theory

While agency theory centers on the board-management relationship, stakeholder theory broadens the analytic frame to the full network of parties affected by a risk decision. Albastaki & Shaukat (2023) develop an explicit ERM–stakeholder-integrating framework, arguing that risk decisions inevitably redistribute value among shareholders, employees, regulators, and communities, and that ERM design quality should therefore be evaluated by how well it accounts for these competing claims rather than by shareholder protection alone.

Vietnamese evidence reinforces this reading: firms whose ERM systems explicitly weigh stakeholder claims exhibit different value-creation patterns from firms whose ERM is built narrowly around shareholder and compliance protection (Nguyet et al., 2024). The theory is normatively persuasive and increasingly influential in ESG-adjacent risk scholarship, but it remains, on its own, empirically underspecified; it offers little guidance on which internal resources make stakeholder-oriented ERM achievable in practice, a gap the resource-based view addresses directly.

## Resource-Based View

A capability-oriented stream treats ERM not as a governance or relational construct but as an internal organizational resource. This reading holds that risk management capability, rather than the mere existence of a policy document, explains variation in resilience outcomes among otherwise similar firms (Mishra et al., 2019). Recent extensions push this logic further into dynamic capabilities: a case study of a Swedish mining company's decarbonization transformation traces how ERM practices: risk governance frameworks, risk culture, and risk artifacts, build resilience resources and capabilities over time, and explicitly situates ERM within the dynamic-capabilities literature rather than treating it as a static bundle of resources (Monazzam & Crawford, 2024).

A related conceptual paper reframes ERM as a capacity to sense, integrate, and reconfigure risk practices under crisis conditions, positioning leadership orientation, organizational culture, and governance structure as contextual moderators of that capability (Hussain, 2026), while parallel work applies the same dynamic-capability logic specifically to financial risk management inside digitally transforming multinational enterprises (Cao, 2025a). The resource-based reading explains why two firms with formally identical ERM policies can produce very different outcomes, but it remains comparatively static on its own and offers little explanation for why firms invest in ERM capability in the first place, a question institutional theory takes up directly.

## Contingency Theory

Contingency theory treats the wide variation observed in ERM design, the “ERM mix,” in Mikes and Kaplan's (2013) influential formulation, as the central phenomenon to be explained rather than as statistical noise to be averaged away. Drawing on a decade of field research and more than 250 interviews with senior risk officers, Mikes and Kaplan (2013) propose risk type itself as an additional contingent variable alongside the more familiar factors of firm size and organizational structure, arguing that a “minimum necessary contingency framework” can explain why organizations facing superficially similar risk profiles nonetheless design very different ERM systems. The contingency lens is unusually well suited to explaining this design variation, and it implicitly underlies more recent findings that risk-management-structure variables behave inconsistently across firms and performance metrics (Abu & Ibrahim, 2022); however, it remains comparatively silent on the prior question of why a firm feels compelled to adopt some form of ERM at all, which is precisely the question institutional theory is built to answer.

## Institutional Theory

Institutional theorists locate ERM's drivers outside the firm, in the pressures exerted by the organizational field within which it operates. A comparative case study of British and Indian insurers found that early ERM adopters in both markets faced coercive and normative, though not mimetic, pressure, and that the intensity of institutional pressure differed systematically between the two regulatory environments, with UK insurers facing markedly stronger coercive pressure than their Indian counterparts (Agarwal, 2025). A related study extends this logic to risk culture itself, showing how coercive regulation, normative professional standards, and mimetic industry practice interact to produce hybrid, compliance-based, defensive, calculative, and cognitive risk cultures within the Indian insurance sector, with meaningful differences across public, private, and multinational firms (Agarwal, 2025b).

A complementary, more micro-level institutional account uses an institutional-work lens to show that ERM's development within a large UK insurer depended on the ongoing, distributed work of risk managers and other professionals, educating, policing, and legitimating the practice over time, rather than on a single adoption event triggered at one point in time (Jabbour et al., 2026). Institutional theory therefore explains adoption and diffusion patterns that agency and resource-based accounts leave largely unaddressed, but it has comparatively little to say about whether the resulting ERM system actually improves risk-adjusted outcomes once adopted, the adoption–effectiveness gap this paper returns to repeatedly in Sections 4 and 6.

## Toward Theoretical Integration

Read together rather than separately, these five theories describe a division of explanatory labor rather than a genuine theoretical contest. Institutional theory operates at the level of the organizational field, explaining why ERM diffuses even in the absence of a demonstrable performance benefit. Agency theory operates at the micro level of the board–management relationship, explaining how oversight is structured once adoption occurs. Stakeholder theory operates relationally, across the firm's network of claimants, explaining whose interests the resulting system is designed to protect. The resource-based view operates at the level of the firm's internal resource bundle, explaining why implementation quality varies even among firms facing similar institutional pressure.

Contingency theory operates at the interface between firm and context, explaining why the specific design of ERM differs so widely even among firms with comparable resources. A firm's ERM system is, in practice, simultaneously legitimated, governed, distributed, resourced, and context-fitted; no single theory captures all five properties at once, and a review that insists on selecting the “correct” theory therefore discards explanatory content the other four would have supplied. This layered reading is the conceptual basis on which Section 3 builds the proposed integrated framework, and it is also the interpretive lens that Section 4 applies to reconcile the seemingly contradictory findings in the empirical literature. It is important to be precise about what is, and is not, claimed as novel here. Partial theoretical integrations already exist within ERM scholarship: Hussain (2026) combines the resource-based view with dynamic capabilities theory; Agarwal (2025b) combines institutional theory with risk-culture theorizing; and Jankensgård (2019) himself combines an agency-theoretic governance mechanism with an information-economics account of risk aggregation in a single paper. What has not yet appeared, to this review's knowledge, is a framework that brings all five theoretical traditions reviewed above, agency, stakeholder, resource-based, contingency, and institutional, together within a single variable-level model specifying explicit mediating and moderating pathways between them. The contribution advanced in this paper is accordingly a claim of integrative scope, not a claim that ERM scholarship has previously lacked any form of theoretical synthesis.

## PROPOSED CONCEPTUAL FRAMEWORK

The framework specifies ERM effectiveness as a single dependent variable explained by five theory-grounded independent variables, operating through three mediating mechanisms, under three moderating boundary conditions, net of four control variables. Table 1 defines each construct together with its theoretical grounding and an indicative measurement approach drawn from the empirical literature reviewed in Section 4; Figure 1 presents the corresponding boxed diagram.

**Table 1: Overview of Constructs**

| Type | Variable                                       | Theoretical Grounding / Definition                                                                                                                                    | Indicative Measurement                                                                                              |
|------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| DV   | Enterprise Risk Management (ERM) Effectiveness | The extent to which a firm's ERM system achieves holistic, enterprise-wide identification, aggregation, and response to risk (Jankensgård, 2019; Stasse et al., 2025) | ERM maturity index; validated multi-item ERM effectiveness scale (Stasse et al., 2025); COSO-based disclosure score |
| IV1  | Board Risk Oversight Structure                 | Agency Theory: board mechanisms that monitor and                                                                                                                      | Risk committee existence; %                                                                                         |

|      |                                     |                                                                                                      |                                                                                |
|------|-------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
|      |                                     | constrain managerial risk-taking                                                                     | independent directors on risk committee                                        |
| IV2  | Stakeholder Engagement Orientation  | Stakeholder Theory: the extent to which risk decisions account for non-shareholder claims            | Stakeholder engagement disclosure score; ESG committee presence                |
| IV3  | Risk Management Capability          | Resource-Based View: the firm's internal, valuable, and difficult-to-imitate risk-handling resources | CRO tenure/expertise; risk analytics investment; staff risk certification rate |
| IV4  | Risk–Context Fit                    | Contingency Theory: alignment between ERM design and firm-specific risk type, size, and structure    | Perceived design-context fit index (survey-based)                              |
| IV5  | Institutional Pressure              | Institutional Theory: coercive, normative, and mimetic pressure toward ERM adoption                  | Regulatory intensity index; industry ERM adoption rate; Big-4 auditor use      |
| M1   | Risk Culture                        | Mediator: shared norms and risk awareness that translate governance intent into practice             | Risk culture survey score; whistleblowing/incident reporting rate              |
| M2   | Risk Information Integration        | Mediator: quality and enterprise-wide reach of risk aggregation and reporting                        | Frequency/board reach of integrated risk reports                               |
| M3   | Strategic Risk Integration          | Mediator: the degree to which risk analysis is embedded in strategic planning                        | Presence of risk appetite statement linked to strategic plan                   |
| Mod1 | Institutional Ownership             | Moderator: strengthens the governance-outcome link via active monitoring                             | % shares held by institutional investors                                       |
| Mod2 | Firm Size                           | Moderator: resource slack conditions the capability-outcome link                                     | Log of total assets / total employees                                          |
| Mod3 | Industry / Environmental Volatility | Moderator: conditions the fit-outcome link under contingency logic                                   | Industry-level stock return volatility; regulatory change frequency            |

|    |                 |                                                                      |                                   |
|----|-----------------|----------------------------------------------------------------------|-----------------------------------|
| C1 | Firm Age        | Control: accumulated organizational experience with risk practices   | Years since incorporation/listing |
| C2 | Leverage        | Control: financial risk exposure independent of ERM quality          | Total debt / total assets         |
| C3 | Profitability   | Control: resource availability independent of capability differences | Return on assets (ROA)            |
| C4 | Industry Sector | Control: sector-level risk baseline differences                      | Industry classification dummy     |

A conceptual distinction is necessary before the framework's pathways are specified further. ERM adoption refers to the binary or structural decision to establish formal ERM mechanisms, such as appointing a chief risk officer or forming a risk committee. ERM maturity refers to the developmental stage those mechanisms have reached once adopted. ERM quality refers to the technical adequacy of the underlying risk identification, measurement, and reporting processes. ERM effectiveness, the dependent variable specified in Table 1, refers instead to the achievement of the risk-adjusted organizational outcomes those mechanisms are intended to produce, rather than to the mere presence of the mechanisms themselves.

This distinction matters directly for construct validity: indicators such as CRO presence and risk committee existence are structural adoption proxies rather than effectiveness measures, and are accordingly specified in Table 1 as indicators of the antecedent constructs (IV1, IV3) through which adoption is theorized to operate, not as indicators of the dependent variable itself. The dependent variable is instead operationalized through outcome-oriented indicators: an ERM maturity index and, where available, the validated 36-item ERM instrument recently developed by Stasse et al. (2025), which is recommended as the preferred measurement approach for future empirical tests of this framework.

The framework's logic runs as follows. Institutional pressure (IV5), board risk oversight (IV1), stakeholder engagement orientation (IV2), risk management capability (IV3), and risk–context fit (IV4) jointly shape ERM effectiveness (DV), but not directly: their influence is transmitted through risk culture (M1), risk information integration (M2), and strategic risk integration (M3), which together represent the internal mechanisms through which governance intent and institutional pressure are translated into working practice rather than remaining a policy document on a shelf.

This mediated structure is not a purely theoretical addition; it is grounded directly in empirical evidence reviewed in Section 4, most explicitly in survey evidence from 449 risk managers and executives showing that a chief risk officer's transformational leadership affects ERM effectiveness only indirectly, sequentially mediated through the consistency of risk culture and the collective performance beliefs of the risk management team (Ogunsanya & Ogunfowora, 2026).

Three boundary conditions moderate this system. Institutional ownership (Mod1) is expected to strengthen the governance-to-outcome path through active monitoring, a mechanism of particular relevance to firms operating under concentrated institutional shareholding structures, such as many Bursa Malaysia-listed companies, where institutional investors including pension and unit trust funds hold substantial blocks and have both the incentive and the access to monitor risk governance directly. Firm size (Mod2) conditions how far capability translates into

effectiveness, since resource slack, the budget and headcount available for risk analytics, staff certification, and dedicated risk functions, varies systematically with organizational scale.

Industry or environmental volatility (Mod3) conditions the fit-to-outcome path, consistent with contingency theory's core claim that a good ERM design is one fitted to a specific risk context rather than one that is universally optimal; a design well suited to a stable utility may be poorly suited to a volatile technology or mining firm operating under the kind of commodity-price and regulatory swings documented in Southeast Asian mining-sector evidence (Pangestuti et al., 2025). Firm age, leverage, profitability, and industry sector are retained as controls to net out baseline differences in risk exposure and organizational maturity that are unrelated to ERM design itself, consistent with control specifications used across the reviewed empirical literature.

Presented as directional relationships rather than isolated variable definitions, the framework's logic can be stated as five explicit hypotheses that structure the empirical agenda outlined in Section 8. Each hypothesis specifies its pathway type, direct, mediated, or moderated, together with the theoretical reasoning that justifies it, in response to calls for stronger theoretical grounding of each proposed relationship before empirical testing.

- H1 (mediation). Institutional pressure (IV5) is positively associated with ERM effectiveness (DV), and this relationship is partially mediated by risk culture (M1) and risk information integration (M2). This hypothesis follows from institutional theory's claim that coercive and normative pressures drive ERM adoption (Section 2.5), combined with the empirical finding that adoption alone does not guarantee effectiveness without an accompanying shift in organizational culture and reporting practices (Section 4.2; Ogunsanya, 2024).
- H2 (moderation). The positive relationship between board risk oversight (IV1) and ERM effectiveness (DV) is strengthened as institutional ownership (Mod1) increases. This hypothesis follows from agency theory's assumption that formal oversight structures require an active monitor to be enforced; institutional investors, given both incentive and access, are theorized to supply the enforcement capacity that dispersed shareholders cannot (Section 2.1).
- H3 (joint mediation). Risk management capability (IV3) and risk–context fit (IV4) jointly, rather than independently, predict strategic risk integration (M3), such that the effect of capability on strategic risk integration is stronger where risk–context fit is high. This hypothesis follows from combining the resource-based view's capability logic (Section 2.3) with contingency theory's fit logic (Section 2.4): a capable risk function poorly matched to its firm's actual risk profile is theorized to underperform relative to one that is both capable and well fitted.
- H4 (moderation). Firm size (Mod2) moderates the relationship between risk management capability (IV3) and its mediating pathways more strongly than it moderates the relationship between institutional pressure (IV5) and those same pathways. This hypothesis follows from the resource-based view's emphasis on resource slack (Section 2.3): larger firms are theorized to possess the budgetary and staffing slack needed to convert capability into practice, a constraint that binds less on the institutional-pressure pathway, which operates chiefly through external legitimacy rather than internal resourcing.
- H5 (pathway independence). The stakeholder-engagement orientation (IV2) pathway to ERM effectiveness operates largely independently of the board risk oversight (IV1) pathway. This hypothesis follows from the theoretical separation established between stakeholder theory's relational logic and agency theory's contractual logic (Sections 2.1–2.2): because the two theories address different claimant relationships, firms are theorized to be able to score highly on one pathway without necessarily scoring highly on the other, a possibility that single-theory studies are structurally unable to detect.



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graph TD; IV[Independent Variables] --> MV[Mediating Variables]; MV --> DV[Dependent Variable]; M[Control Variables] --> DV; MOD[Moderating Variables] --> IV;
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The diagram illustrates a conceptual framework for Enterprise Risk Management (ERM) Effectiveness. It consists of five main components:

- Independent Variables**:
  - Board Risk Oversight Structure
  - Stakeholder Engagement Orientation
  - Risk Management Capability
  - Risk–Context Fit
  - Institutional Pressure
- Mediating Variables**:
  - Risk Culture
  - Risk Information Integration
  - Strategic Risk Integration
- Dependent Variable**: Enterprise Risk Management (ERM) Effectiveness
- Moderating Variables**:
  - Institutional Ownership
  - Firm Size
  - Industry / Environmental Volatility
- Control Variables**:
  - Firm Age
  - Leverage
  - Profitability
  - Industry Sector

The relationships are as follows:

- An arrow points from Independent Variables to Mediating Variables.
- An arrow points from Mediating Variables to the Dependent Variable.
- An arrow points from the Dependent Variable back to Independent Variables.
- An arrow points from Control Variables to the Dependent Variable.
- An arrow points from Moderating Variables to the arrow connecting Independent Variables to Mediating Variables.

The empirical literature bearing on the proposed framework can be organized into five recurring themes: the ERM–performance relationship itself; institutional drivers of adoption; capability, governance, and organizational resilience; the micro-foundations of ERM effectiveness at the level of leadership and culture; and the ongoing struggle to measure ERM in a conceptually valid way. Each theme is reviewed critically below, with explicit attention to where studies agree, where they diverge, and what the divergence implies for the framework proposed in Section 3.

Evidence on the ERM–performance link remains genuinely mixed even within the narrow 2020–2026 window this review covers. Ghanaian equity market evidence shows a non-linear relationship whose shape depends on the performance measure used, with return on equity producing an inverted U-shape and return on assets and Tobin's Q producing a direct U-shape (Horvey & Ankamah, 2020). Vietnamese manufacturing evidence further complicates this picture, finding that ERM raises market-based value while depressing short-term accounting profitability, with ESG disclosure moderating both effects in opposite directions (Nguyen & Nguyen, 2026).

Nigerian risk-governance evidence adds a third layer of nuance, finding that most risk-governance variables improve return on assets, with the sole exception of board risk committee size, which shows a negative association (Erin et al., 2020). Zambian financial-sector evidence finds a positive, mediated relationship in which financial performance channels the effect of both governance and ERM onto firm value (Bwato et al., 2026), while sub-Saharan African evidence shows that ERM quality reduces both the likelihood and severity of financial distress, though the strength of that relationship varies with firm heterogeneity (Oreshile et al., 2026). Read together, these studies do not straightforwardly contradict one another so much as suggest that the relationship is conditional on mediating and moderating variables most individual studies do not model, exactly the pattern the framework proposed in Section 3 is designed to capture.

### **Institutional Drivers of ERM Adoption**

Comparative institutional evidence shows that coercive and normative, but not mimetic, pressures explain early ERM adoption, and that pressure intensity differs systematically across regulatory environments, with UK insurers experiencing markedly stronger coercive pressure than their Indian counterparts despite operating in the same industry (Agarwal, 2025b). Grounded-theory evidence drawn from sixteen risk executives and independent directors similarly identifies internal push and external pull as the twin triggers of adoption, alongside four interdependent themes: shared norms, risk information capacity, leadership imperative, and top-level engagement, that determine whether adoption subsequently translates into effectiveness (Ogunsanya & Ogunfowora, 2026; Ogunsanya, 2024).

This distinction between the decision to adopt ERM and the subsequent achievement of ERM effectiveness is precisely the adoption–effectiveness gap that the mediator constructs proposed in Section 3 are intended to model, and it recurs across multiple otherwise unconnected studies: firms may satisfy external institutional and regulatory expectations through symbolic adoption, forming a risk committee, appointing a CRO, without the underlying risk culture or information-integration mechanisms that would make that adoption operationally meaningful.

### **ERM Capability, Governance and Resilience**

Capability-oriented evidence reframes ERM as a dynamic strategic capability that enables organizations to sense, integrate, and reconfigure risk practices under crisis conditions, with leadership orientation, culture, and governance structure moderating its effect on resilience (Hussain, 2026). A detailed case study of a Swedish mining company's decarbonization transformation traces, across an eleven-year period, how ERM practices evolve from traditional, compliance-oriented risk management toward a more strategically embedded capability, with resilience resources emerging gradually rather than appearing at a single point of adoption (Monazzam & Crawford, 2024).

Parallel evidence from digitally transforming multinationals extends the same dynamic-capability logic to financial risk management, describing a capability cycle of perception, capture, and reconstruction mirroring the sensing-integrating-reconfiguring sequence proposed here (Cao, 2025a). At the governance level, Southeast Asian mining-sector evidence spanning 205 firms over seven years finds that active board involvement improves ERM effectiveness, CRO presence enhances risk processes, and, notably for this framework, intellectual capital moderates the ERM–performance relationship much as the capability and size moderators in Table 1 are proposed to function (Pangestuti et al., 2025). Continuing evidence on governance in Nigeria and Palestine shows board and audit committee characteristics related to performance, with signs that vary by metric, reinforcing the case for a moderated, mediated structure rather than a simple direct-effects model (Abu et al., 2022; Musallam, 2020).

### **Micro-Foundations: Leadership, Culture, and Managerial Judgment**

A smaller but rapidly growing stream of research shifts attention away from firm-level governance proxies toward the individuals and teams who actually implement ERM day-to-day, the micro-foundations largely neglected by

macro-finance and accounting models of ERM. Survey evidence from 449 risk managers and executives finds that a chief risk officer's ERM-specific transformational leadership, the consistency of the risk-management unit's culture, and the collective performance beliefs (group potency) of the risk-management team each have positive direct effects on ERM effectiveness, and that culture consistency and group potency sequentially mediate the relationship between CRO leadership and ERM effectiveness, direct empirical support for the risk-culture mediator (M1) specified in the proposed framework (Ogunsanya & Ogunfowora, 2026).

Malaysian construction-sector evidence, based on content analysis of forty-six annual reports and ten practitioner interviews, identifies risk policy, risk appetite and tolerance, and monitoring and accountability as the core dimensions of risk culture, with top management and the risk manager acting as the primary drivers of both ERM and risk culture within public-listed construction companies, evidence drawn from precisely the Malaysian institutional context most relevant to this paper's own research programme (Wong et al., 2021).

African evidence empirically corroborates the risk culture–ERM relationship, finding a significant positive association between the two constructs and identifying firm size and financial leverage, rather than board composition, as the stronger determinants of ERM implementation in that context (Kanu, 2020). Finally, a systematic review of thirty-three articles on ERM and managerial judgement identifies four contextual, five technical, three social, and five cognitive factors that shape how individual managers actually use risk information in decision-making, concluding that risk “qualculation”, judgement that blends quantitative data with qualitative, socially interpreted risk assessment, is more useful for addressing genuinely wicked organizational problems than either purely quantitative risk measurement or informal risk envisionment alone (Crawford & Jabbour, 2024).

This evidence collectively substantiates the strategic risk integration mediator (M3) proposed in Section 3, since it demonstrates that ERM's ultimate effectiveness depends on how risk information is cognitively and socially processed by decision-makers, not merely on whether that information exists in a report.

## Measurement and Conceptual Development of ERM

Measurement remains an unresolved methodological problem across this literature, a recurring limitation acknowledged even within studies most favorable to ERM's performance effects. A large Dutch study spanning 420 organizations over three years identifies a robust two-factor structure of fundamental and strategic ERM elements and proposes a more focused 36-item measurement instrument, compared with the diffuse scales used in earlier research (Stasse et al., 2025).

Systematic review evidence confirms that no consistent measurement approach exists across the field, with most studies relying on indirect proxies such as CRO appointment rather than direct, validated assessment of ERM quality (Horvey & Odei-Mensah, 2023), a limitation that this paper's proposed indicative measurements in Table 1 address only partially, pending the empirical validation called for in Section 8.

Conceptual work continues expanding what counts as ERM's theoretical basis, from systems theory to information-asymmetry and value-management theory (Cao, 2025b), without converging on a shared framework, and fuzzy Delphi studies ranking the factors affecting ERM effectiveness identify corporate governance, financial, environmental, firm-characteristic, and management indicators as five broad determinant categories that map loosely, but not precisely, onto this paper's five theory-grounded independent variables (Zarinjooei et al., 2025).

This lack of convergence is itself part of the fragmentation problem this paper addresses, since a field unable to agree on how to measure its central construct is poorly positioned to adjudicate between the theoretical explanations reviewed in Section 2.

## METHODOLOGY

### Search Strategy

This paper adopts a critical narrative review methodology, deemed more appropriate than a fully systematic review for synthesizing and critiquing a theoretically fragmented literature rather than exhaustively cataloging every empirical estimate it contains. Search was conducted across Scopus and Web of Science indexed sources, accessed through a multi-database academic search engine covering Scopus, Web of Science, PubMed, and Semantic Scholar, using Boolean search strings that combined the core term “enterprise risk management” with each of “theory,” “framework,” “effectiveness,” “agency theory,” “stakeholder theory,” “resource-based view,” “contingency theory,” and “institutional theory” in turn, supplemented by narrower searches on “risk culture,” “chief risk officer,” and “board risk oversight” to populate the empirical review in Section 4. Searches were conducted iteratively throughout the review period, with results screened progressively as the theoretical framework in Section 3 was developed, so that later searches could target specific constructs: risk culture, strategic risk integration, and institutional ownership as a moderator, once the framework's variable structure had been provisionally specified.

### Inclusion and Exclusion Criteria

Studies were included if they were peer-reviewed, published in English between 2020 and 2026, and treated enterprise-wide risk management, rather than project-level, hazard-only, or purely operational risk management, as a central construct.

A small number of seminal pre-2020 theoretical sources were retained where a concept's originating statement could not reasonably be substituted by more recent work: Jankensgård's (2019) foundational theory of ERM, Mikes and Kaplan's (2013) contingency theory of ERM, and Mishra et al. (2019) resource-based ERM framework each fall into this category, since each represents the first explicit statement of a theoretical position subsequent literature continues to build upon rather than restate.

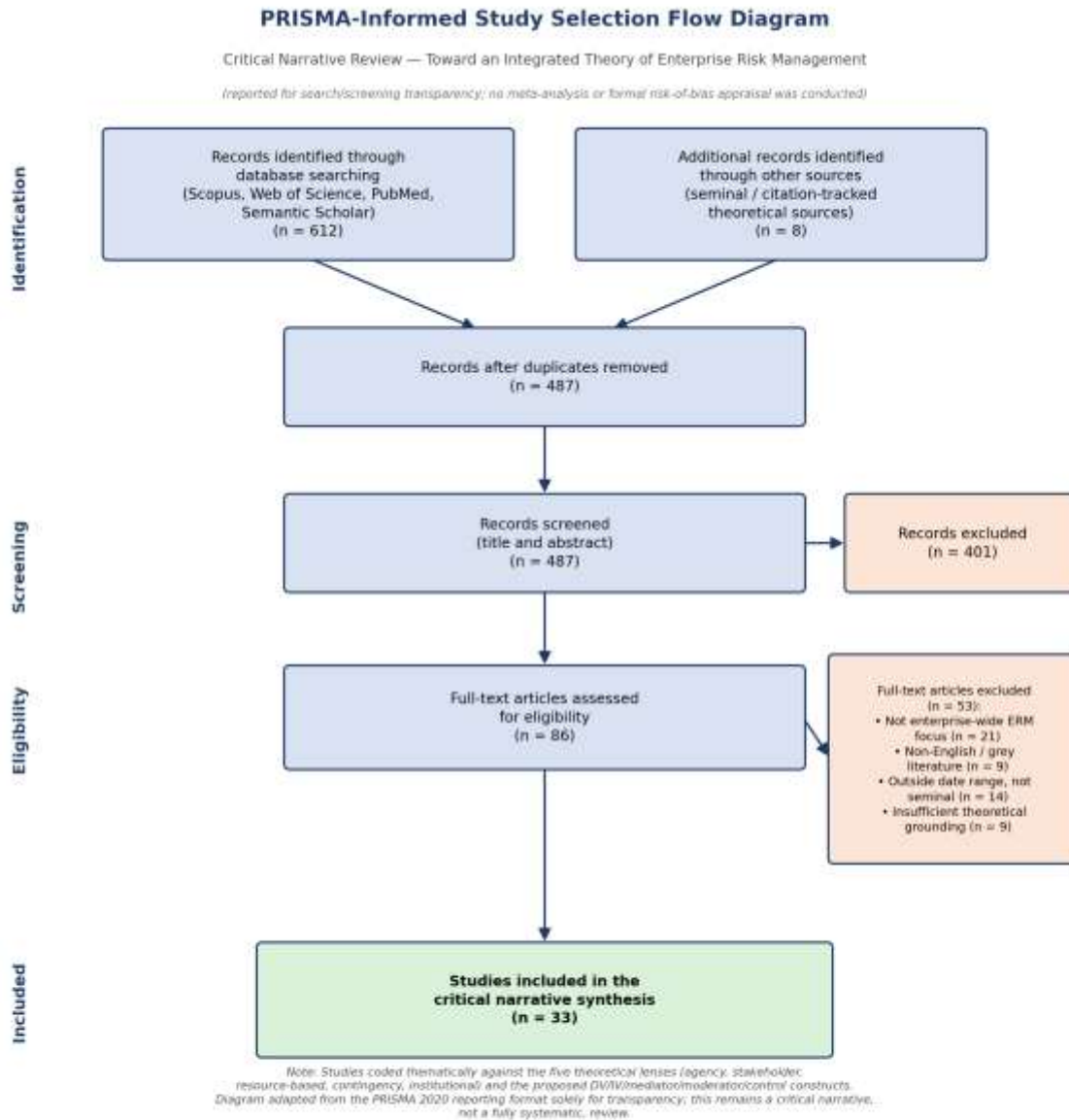
Studies were excluded if they were practitioner or grey literature without formal peer review, published in a language other than English, or focused on risk management at the project, hazard, or purely operational level without genuine enterprise-wide scope. Screening proceeded in two stages: an initial title-and-abstract relevance screen, followed by a full-text assessment to confirm that ERM, rather than a tangential mention of risk management, constituted the central focus.

This yielded the corpus of roughly thirty core sources synthesized across Sections 2 and 4, a deliberately bounded corpus consistent with this paper's aim of critical synthesis over exhaustive cataloging. A limitation acknowledged here is that a narrative rather than fully systematic protocol involves reviewer judgment

in study selection that a PRISMA-style review would document more formally; this trade-off was accepted in exchange for the cross-theoretical synthesis a systematic protocol is less well suited to producing. Although this review is explicitly identified as a critical narrative rather than a fully systematic review, Figure 2 presents a PRISMA-informed flow diagram to make the search, screening, and selection processes transparent to readers, a practice increasingly recommended for narrative and critical reviews, even when a full systematic protocol is neither undertaken nor claimed.

The diagram should be read as a transparency device describing how the corpus reviewed in Sections 2 and 4 was assembled, not as a claim that this paper follows the PRISMA 2020 reporting standard in full: no meta-analysis is conducted, study selection was not independently duplicated by a second coder, and study quality was appraised narratively during full-text screening rather than through a formal risk-of-bias instrument.

**Figure 2: PRISMA-Informed Study Selection Flow Diagram**



## FINDINGS

Five key findings emerge from the critical synthesis presented in Sections 2 and 4. The first is that ERM theorizing remains fragmented across five largely non-communicating theoretical streams: agency, stakeholder, resource-based, contingency, and institutional, each of which explains a genuine but partial mechanism, and none of which, examined alone, accounts for the full range of empirical patterns documented in Section 4. The second is that each of these five theories operates at a distinct and largely non-overlapping level of analysis: field, board, stakeholder network, firm resource bundle, and firm-context interface, respectively, which supports theoretical

integration rather than theory selection as the appropriate scholarly response to this fragmentation, since the five levels are complementary rather than rival descriptions of the same underlying process.

The third finding is that the inconsistent empirical results reported for the ERM–performance relationship across the 2020–2026 literature: positive, non-linear, and even direction-dependent effects coexisting within the same short period are more consistent with an omitted-mediator and omitted-moderator explanation than with a genuinely unstable underlying relationship. Studies that model ERM as a direct, unmediated driver of performance are, on this reading, systematically missing the risk-culture, risk-information-integration, and strategic-risk-integration pathways through which governance and institutional pressure are actually converted into outcomes. The fourth finding is that an adoption–effectiveness gap recurs consistently across the reviewed literature: institutional and agency pressures explain reasonably well why firms adopt ERM in the first place, but explain comparatively little about whether that adoption subsequently becomes effective, a distinction the proposed mediators are specifically designed to capture and one directly evidenced by empirical work showing that CRO leadership affects ERM effectiveness only indirectly, through risk culture and team-level group potency (Ogunsanya & Ogunfowora, 2026).

The fifth finding concerns measurement rather than theory: ERM itself remains inconsistently measured across the reviewed studies, with most relying on indirect proxies such as CRO appointment or risk committee existence rather than on validated, multi-item instruments, a limitation that constrains the comparability of findings across studies regardless of which theoretical lens each study adopts. A sixth and final finding, cutting across the first five, is that institutional ownership, firm size, and industry or environmental volatility recur repeatedly across the reviewed literature as boundary conditions that alter the strength or even the direction of ERM's effects, providing empirical support for their inclusion as moderating variables within the integrated framework proposed in Section 3 rather than as incidental control variables, as several of the reviewed studies had treated them.

## DISCUSSION

### Theoretical Implications

The framework's principal theoretical contribution is to reposition five previously parallel literatures as complementary layers of a single explanatory structure, directly answering Anton and Nucu's (2020) call for research that integrates ERM's determinants and consequences rather than studying each in isolation. It also offers a candidate explanation for the field's persistently mixed performance findings, discussed at length in Sections 4 and 6: these findings may reflect the operation of different, empirically unmeasured mechanisms across studies rather than a genuinely unstable underlying relationship between ERM and firm outcomes.

By specifying mediators and moderators explicitly rather than leaving them implicit, the framework also creates a shared vocabulary: risk culture, risk information integration, strategic risk integration, through which future studies grounded in different starting theories can compare and accumulate findings rather than talking past one another, as much of the literature reviewed in Section 2 has tended to do.

### Practical Implications

For boards and chief risk officers, the framework implies that compliance-based evaluation of ERM, whether a risk committee has been formed, and whether a CRO has been appointed, answers only the agency and institutional questions captured in Table 1. It leaves the resource-based, contingency, and mediating questions unaddressed: does the organization possess the risk management capability its policy documents assume, is the resulting design genuinely fitted to its specific risk context rather than copied from a generic template, and has that design been translated into a working risk culture and integrated risk reporting rather than remaining a static

compliance artifact. The micro-foundations evidence reviewed in Section 4.4 carries a further, more specific implication: because CRO leadership style and team-level risk culture mediate ERM effectiveness, organizations seeking to improve their ERM programs may gain more from investing in CRO leadership development and risk-culture initiatives than from further elaborating formal governance structures alone.

### **Policy and Regulatory Implications**

For regulators and standard-setters, including bodies responsible for corporate governance codes in emerging markets such as Malaysia, the framework offers a conceptual basis for differentiating firms that adopt ERM primarily to satisfy external institutional pressure from firms whose ERM design reflects genuine internal capability and contextual fit, a distinction disclosure-based compliance metrics alone cannot make. Given the evidence reviewed in Sections 4.2 and 4.4 that coercive and normative institutional pressure explains adoption more reliably than it explains subsequent effectiveness, disclosure requirements calibrated purely to the presence of governance structures, a risk committee, a named CRO, risk certifying symbolic rather than substantive ERM adoption. Regulators seeking to strengthen the link between disclosure and genuine risk-management quality may therefore find greater diagnostic value in requiring disclosure of risk-culture and risk-information-integration indicators, as specified as mediators in Table 1, rather than governance-structure indicators alone.

## **CONCLUSION AND RECOMMENDATIONS**

ERM has outgrown any single theory built to explain it. This paper has argued that five of the theories most commonly applied to ERM: agency, stakeholder, resource-based, contingency, and institutional theory, are better read as complementary accounts operating at different levels of analysis than as competitors for a single correct explanation, and has translated that argument into a variable-level conceptual framework comprising one dependent variable, five independent variables, three mediators, three moderators, and four control variables, accompanied by a boxed diagram and a critical review of the 2020–2026 empirical literature bearing on each of its proposed constructs.

Three recommendations follow directly from this synthesis. First, future empirical work should test the proposed framework using structural equation modeling with a validated, multi-item ERM effectiveness scale of the kind recently developed in the Dutch context (Stasse et al., 2025), rather than continuing to rely on the indirect single-item proxies: CRO appointment and risk committee existence, whose limitations were documented repeatedly in Section 4.5. Second, context-specific validation is needed outside the largely Western, East and Southeast Asian, and African settings from which most of the evidence reviewed in this paper is drawn, most directly among Bursa Malaysia-listed firms operating under the Malaysian Code on Corporate Governance and its concentrated institutional-ownership structures, and among Islamic financial institutions subject to dual conventional and Shariah governance requirements whose additional oversight layer may alter both the agency and institutional pathways specified in the framework.

Third, given the documented differences between active and passive ERM patterns in smaller firms noted elsewhere in the literature, the framework's proposed moderating and mediating relationships should be tested separately in listed and non-listed firm samples rather than assumed to generalize uniformly across both, since firm size itself is specified as a boundary condition within the framework rather than a background characteristic that can safely be ignored.

More broadly, this paper's central recommendation is methodological: ERM scholarship would benefit from treating theoretical integration as a starting assumption for study design, rather than an occasional caveat appended to single-theory findings after the fact. The inconsistency documented across the ERM–performance literature is, on the evidence assembled here, less a puzzle to be explained away than a predictable consequence

of studying a multi-theoretical phenomenon through a succession of single-theory lenses, a pattern the integrated framework proposed here is intended to help the field move beyond.

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