

# The Role Of Corporate Governance In Enhancing Enterprise Risk Management (ERM) Effectiveness In Saudi Insurance Companies

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## **Abstract**

This study investigates the role of corporate governance (CG) in enhancing the effectiveness of Enterprise Risk Management (ERM) in Saudi insurance companies. Despite the increasing importance of risk management in the insurance sector, empirical evidence on how governance mechanisms influence ERM in Saudi Arabia remains limited. Using a quantitative approach, data were collected from a survey of senior managers and board members of listed insurance companies. Structural equation modeling (SEM) was employed to analyze the relationships between corporate governance components, ERM effectiveness, and organizational performance. The findings indicate that effective governance mechanisms, including board independence, risk committees, and transparency, significantly improve ERM implementation, which in turn positively impacts organizational performance and sustainability. This study highlights the mediating role of ERM between corporate governance and performance outcomes, providing practical implications for policy makers and managers to strengthen risk management practices in the Saudi insurance sector

**Keywords:** Corporate Governance, Enterprise Risk Management, ERM Effectiveness, Insurance Companies, Saudi Arabia, Organizational Performance, Sustainability.

## **Introduction**

In recent years, the insurance sector in Saudi Arabia has experienced significant regulatory and structural transformations, largely driven by the efforts of the Saudi Central Bank and the implementation of Vision 2030 initiatives. These reforms have emphasized the importance of corporate governance (CG) and enterprise risk management (ERM) as critical mechanisms to ensure organizational sustainability, financial stability, and strategic alignment (Al-Swidi, Hu, & Hafeez, 2014). Corporate governance refers to the system by which companies are directed and controlled, involving the relationships among a company's board, management, shareholders, and other stakeholders (OECD, 2015). Effective governance mechanisms, including board independence, risk committees, and transparent reporting, are recognized as essential for enhancing ERM implementation and overall corporate performance (Beasley, Branson, & Hancock, 2015). Enterprise Risk Management is a structured, consistent, and continuous process applied across the organization to identify, assess, manage, and monitor risks in order to achieve strategic objectives (Fraser & Simkins, 2016). Recent studies indicate that the integration of CG and ERM significantly improves risk awareness, decision-making processes, and organizational resilience (Arena, Arnaboldi, & Azzone, 2010; Beasley et al, 2015). Despite the growing recognition of CG and ERM in global organizations, empirical evidence from the Saudi insurance sector remains limited. Understanding how corporate governance frameworks influence ERM effectiveness in this context is crucial, particularly as the sector navigates regulatory changes and competitive pressures. This study aims to fill this gap by empirically examining the role of governance mechanisms in enhancing ERM in Saudi insurance companies

## **Section One: Theoretical and Conceptual Methodological Framework of the Study**

## **Problem Statement**

The Saudi insurance sector has undergone substantial regulatory and structural changes in recent years, driven by Vision 2030 and evolving market demands. Despite these developments, many insurance companies still face challenges in effectively implementing Enterprise Risk Management (ERM) practices. Weak integration between corporate governance (CG) mechanisms and ERM processes often leads to suboptimal risk management, which can impact organizational performance, sustainability, and stakeholder confidence. While global research highlights the importance of governance in strengthening ERM, empirical evidence from the Saudi insurance context remains limited. Therefore, understanding how corporate governance influences ERM effectiveness in Saudi insurance companies is both timely and critical for improving risk management outcomes and ensuring long-term organizational resilience

## **Main Research Question**

How does corporate governance influence the effectiveness of Enterprise Risk Management in Saudi insurance companies?

## **Sub-Questions**

- 1-What is the impact of board structure and independence on ERM implementation in Saudi insurance companies?
- 2-How do risk committees and governance policies enhance ERM effectiveness in the Saudi insurance sector?
- 3-To what extent does the transparency and accountability of corporate governance practices affect organizational resilience and risk management outcomes?
- 4-What are the challenges faced by Saudi insurance companies in integrating governance mechanisms with ERM practices?

## **Study Objectives**

- 1-To examine the relationship between corporate governance mechanisms and the effectiveness of Enterprise Risk Management (ERM) in Saudi insurance companies
- 2-To assess the impact of board structure, independence, and risk committees on ERM implementation
- 3-To evaluate the role of transparency, accountability, and governance policies in enhancing organizational resilience and risk management outcomes
- 4-To identify challenges and barriers faced by Saudi insurance companies in integrating corporate governance with ERM practices
- 5-To provide practical recommendations for improving the alignment between corporate governance and ERM in the Saudi insurance sector

## **Scientific Significance of the Study**

- 1-This study contributes to the academic literature on corporate governance and ERM by providing empirical evidence from the Saudi insurance sector, which is currently underrepresented in global research
- 2-It helps in understanding the mechanisms through which governance enhances ERM effectiveness, offering a framework that can be applied in emerging markets with similar institutional and regulatory environments
- 3-The findings can fill gaps in knowledge regarding the integration of governance structures with risk management practices, particularly in a context influenced by Vision 2030 reforms

### **Practical Significance of the Study**

- 1-Provides Saudi insurance companies with evidence-based insights on how to strengthen ERM through effective governance mechanisms
- 2-Supports policymakers and regulators in designing frameworks and guidelines that promote better risk oversight, transparency, and accountability
- 3-Offers managers practical tools to improve organizational resilience, risk mitigation, and sustainability, thereby enhancing stakeholder confidence and financial stability
- 4-Assists in developing internal risk management culture by emphasizing the strategic role of governance in operational and strategic decision-making

### **Study Variables**

#### **Independent Variable:**

Corporate Governance Corporate governance refers to the mechanisms, processes, and structures through which a company is directed and controlled. In this study, it includes board structure, board independence, risk committees, and the associated policies and procedures that ensure effective oversight and strategic decision-making

#### **Mediating Variable:**

Enterprise Risk Management (ERM) Effectiveness ERM effectiveness represents the organization's ability to identify, assess, and manage risks in a systematic and integrated manner. It is expected to serve as a mediating variable that links corporate governance practices to organizational performance and sustainability outcomes

#### **Dependent Variable:**

Organizational Performance / Sustainability This variable encompasses both financial and non-financial performance indicators, the organization's capacity to respond effectively to risks, and its achievement of long-term sustainability goals

### **Main Hypothesis**

There is a statistically significant positive relationship between corporate governance and the effectiveness of enterprise risk management, which in turn impacts organizational performance/sustainability in Saudi insurance companies

### **Sub-Hypotheses**

- 1-There is a statistically significant positive relationship between board structure and ERM effectiveness
- 2-There is a statistically significant positive relationship between board independence and ERM effectiveness
- 3-There is a statistically significant positive relationship between risk committees and ERM effectiveness
- 4-There is a statistically significant positive relationship between policies and procedures and ERM effectiveness

### **Methodology**

**Study Sample:** The study sample consists of insurance companies listed in the Saudi stock market

**Data Collection Instrument:** A structured questionnaire was administered to risk managers and board members to collect relevant data

**Data Analysis Methods:** The collected data were analyzed using statistical methods, including Partial Least Squares Structural Equation Modeling (PLS-SEM), to test the study hypotheses

## **Section Two: Literature Review**

### **Amer Assiri (2024)**

**Results:** Amer Assiri found that board composition (e.g., number of members or diversity) and share ownership did not have a statistically significant relationship with risk management practices in Saudi insurance companies. Moreover, board shareholding did not show a significant impact on risk outcomes

**Conclusion:** This indicates that some traditional governance mechanisms (board composition and ownership) have limited direct influence on risk management within the Saudi insurance sector, at least according to the data of this study

### **Cipto Hartono & Dewi Hanggraeni (2024)**

**Results:** Analysis of data from 30 insurance companies in five ASEAN countries during 2018–2022 showed that the joint implementation of Enterprise Risk Management (ERM) and Good Corporate Governance (GCG) had no statistically significant positive effect on the financial performance of insurance companies, such as Return on Assets (ROA) and Return on Equity (ROE)

**Conclusion:** Despite theoretical assumptions linking governance and ERM to performance improvement, this study confirms that the relationship is neither simple nor automatic and may depend on other contextual or local factors

### **Alzughairi, F. (2024)**

**Results:** Analyzing international data of insurance companies (3,187 annual observations over 17 years), the study found that board diversity (gender, nationality, age, tenure, etc.) was associated with lower risk (e.g., bankruptcy risk, actuarial risks), and the quality of national governance (e.g., country-level governance strength) enhanced this effect

**Conclusion:** Governance mechanisms, particularly board diversity, can reduce major risks in insurance companies, though the evidence comes from diverse international contexts and is not specific to Saudi Arabia

### **Husaini & Rafika (2021)**

**Results:** The study found that independent boards had a significant positive effect on firm value, and the implementation of ERM also positively contributed to increasing firm value.

**Conclusion:** This supports the notion that well-designed governance (especially board independence) combined with risk management can create shareholder value. However, the study did not explore how governance affects the effectiveness of ERM itself as a mediating process

## **Enterprise Risk Management (ERM) Framework and Conceptual Foundations**

An Enterprise Risk Management framework consists of the following steps:

### **Establish Risk Appetite**

All banks have a buffer that protects them if losses in the future turn out to be larger than expected. This buffer, referred to as capital, is finite and limits the risk a bank can take. This limit is the bank's risk capacity. Once a bank knows its risk capacity, it can define its risk appetite. A bank's risk appetite describes how much of each risk they are prepared to take on. Risk appetite cannot exceed risk capacity. If the bank takes on too much risk and future losses are more significant than expected, capital is wiped out, and the bank could become insolvent. However, if the bank takes too little risk, it's likely to generate less revenue and income than it would otherwise, resulting in financial underperformance.

### **Identify Risks**

Risk identification is the basis of risk management in financial institutions. A bank can only manage risk once it's identified.

Identifying risks is an ongoing process as employees and risk managers go about their day-to-day tasks. A formal identification process often happens on an annual basis, however.

### **Assess Risks**

A bank needs to develop assessment criteria to be used by all business areas so that risks can be assessed consistently across the enterprise. Risk assessment has four stages.

An enterprise assesses risks on a standalone basis by ranking risks based on the assessment criteria.

An enterprise assesses how risks interact with each. Risks that seem minor in isolation can combine to cause considerable damage.

Risks then need to be prioritized. It is easier for an enterprise to assess how much risk appetite a risk event consumes once risks are ranked.

The final part of this stage is to determine how likely a risk is to occur and its impact on the enterprise if it does occur.

### **Respond to Risk**

An enterprise needs to decide on an appropriate response to the risks it has previously identified and assessed. If the risk has a high impact on the bank, the bank may choose to avoid that risk. This response could be appropriate when there is zero risk appetite for it.

A bank can take steps to reduce either the likelihood or impact of a risk event. If the risk is above a bank's particular risk appetite but still wants to accept some exposure to this risk, reducing risk could be the appropriate response. (COSO, 2017)

Risk transfer is the scenario where the bank moves the responsibility of the risk to a third party. Transferring risk does not reduce the likelihood or impact of an event but means the bank is protected from any negative impact of that risk. Hedging is an example of risk transfer.

Banks need to decide which risks they choose to accept. For example, a bank that decides to lend money to a customer has accepted the credit risk associated with this transaction.

### **Monitor Risk**

An effective monitoring process should assure senior management and the Board of Directors that existing risk controls are in place and employees within the enterprise are following these controls.

Any changes in the likelihood or impact of a risk should be updated in the bank's risk register.

An ERM framework is iterative, meaning once the process is completed, it starts again. Let's look at these steps.

## **Section Three: Theoretical Framework of the Study**

### **Definition of Enterprise Risk Management (ERM)**

Enterprise Risk Management (ERM) is defined as a comprehensive, integrated, and organization-wide framework designed to identify, assess, manage, and monitor risks that may affect the achievement of strategic and operational objectives. According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2017), ERM represents a structured and systematic process that aligns risk management with an organization's strategy, governance, and performance. Unlike traditional risk management approaches, which tend to address risks in isolated functional areas, ERM provides a holistic perspective that recognizes the interrelationships among various risk categories and their potential impact on organizational value. COSO (2017) emphasizes that ERM aims to enhance decision-making, improve resource allocation, support the development of a strong risk culture, and strengthen an organization's resilience against uncertainties. By integrating risk considerations into strategic planning, ERM enables organizations to proactively manage both financial and non-financial risks, thereby supporting long-term sustainability and performance.

ISO 31000 (2018) The International Organization for Standardization defines ERM as “a coordinated set of activities and processes designed to direct and control an organization with regard to risk.” (ISO, 2018)

Lam (2014) Lam describes ERM as “a risk management approach that integrates risk information across departments to support better strategic decision-making and create value for stakeholders.” (Lam, 2014)

Hoyt & Liebenberg (2011) Hoyt and Liebenberg define ERM as “a holistic framework that allows firms to manage all risks in an integrated way rather than in silos, improving efficiency and reducing overall risk exposure.” (Hoyt & Liebenberg, 2011)

Beasley, Branson & Hancock (2008) These authors describe ERM as “a structured and continuous process used throughout the organization to identify, assess, and manage risks that affect the achievement of objectives.” (Beasley et al., 2008)

## **Corporate Governance, Enterprise Risk Management, and Compliance**

### **Corporate Governance**

Corporate governance refers to the system of rules, structures, and processes through which organizations are directed and controlled. It encompasses board composition, independence, accountability, transparency, and oversight mechanisms. Effective governance ensures that managerial decisions align with the interests of shareholders and other stakeholders, thereby enhancing organizational stability and long-term value creation. Recent studies emphasize that strong governance frameworks improve decision-making quality, reduce agency conflicts, and enforce ethical and responsible corporate behavior (Nguyen et al., 2023; Alzughaibi, 2024). Moreover, governance mechanisms—particularly board diversity, independence, and active risk oversight—play a crucial role in shaping corporate risk policies, influencing how risks are identified, assessed, and mitigated across the organization (Orazalin & Mahmood, 2022). In regulated industries such as insurance and banking, governance is strongly linked to regulatory compliance, operational integrity, and market confidence.

### **Compliance**

refers to an organization's adherence to regulatory requirements, industry standards, and internal policies. It ensures that corporate activities follow legal expectations and ethical norms, thereby reducing exposure to regulatory penalties, operational breakdowns, and reputational damage.

Modern compliance systems go beyond legal conformity and support broader risk management objectives by embedding internal controls, monitoring mechanisms, and transparent reporting practices (Scholten & Elahi, 2022). In the context of corporate governance and ERM, compliance acts as a foundational pillar that aligns organizational conduct with governance expectations while strengthening the overall risk culture. Firms with strong compliance structures have been found to show improved operational performance, lower risk exposure, and stronger investor confidence (Cumming et al., 2023). Corporate governance, ERM, and compliance function as mutually reinforcing systems. Governance provides leadership and oversight, ERM offers a systematic risk-

management framework, and compliance ensures adherence to regulations and policies. Together, they create a risk-aware culture, improve accountability, and support sustainable organizational performance

### **The effect of effective corporate governance on the sustainability of Saudi insurance companies**

Effective corporate governance plays a pivotal role in advancing the sustainability of insurance companies by aligning board oversight, risk management, and strategic decision-making with environmental, social, and governance (ESG) objectives. Strong governance mechanisms including a well-structured and independent board, active risk and sustainability committees, clear policies and procedures, and robust disclosure practices contribute to better identification and mitigation of material sustainability risks, improved transparency, and stronger stakeholder trust, all of which are essential for long-term organizational resilience (Florio & Leoni, 2017; Hoyt & Liebenberg, 2011). In the Saudi context, recent regulatory reforms and governance frameworks have strengthened the formal requirements for board responsibilities, committee structures, and disclosure, creating an enabling environment for insurers to integrate sustainability into corporate strategy (Capital Market Authority, 2024). Empirical evidence from Saudi markets indicates a positive association between improved governance arrangements and sustainability-related outcomes (e.g., enhanced ESG disclosure and financial sustainability), suggesting that governance reforms can help translate sustainability intentions into measurable performance (Almubarak, 2023; Alharbi, 2024). Sector-specific studies focused on Saudi insurance companies show that the integration of governance with ERM (Enterprise Risk Management) and ESG practices supports better risk identification and management of climate, operational, and reputational risks issues that are material for insurers and that firms with clearer governance and stronger disclosure practices tend to show more advanced sustainability initiatives (Belgacem, 2025; Saudi Re, 2022). Moreover, corporate sustainability reporting and the establishment of sustainability committees have been linked to improved environmental performance and stakeholder engagement in Saudi firms, reinforcing the governance–sustainability linkage (Soussi et al., 2025). Mechanisms by which governance strengthens sustainability in insurers include: (1) embedding sustainability into the board’s strategic agenda and risk appetite; (2) creating specialized committees (risk, audit, sustainability) that monitor ESG exposures and controls; (3) enhancing disclosure and external assurance to increase accountability; and (4) integrating ERM with sustainability objectives so that non-financial risks receive the same systematic treatment as financial risks (Beasley et al., 2008; COSO, 2017). These mechanisms not only reduce downside risk exposure but also create value through reputation protection, regulatory alignment, and improved access to capital for insurers that demonstrate robust governance and sustainability performance (Hoyt & Liebenberg, 2011; Florio & Leoni, 2017). Nevertheless, the literature also cautions that governance is a necessary but not sufficient condition for sustainability outcomes. The effectiveness of governance depends on implementation quality, board capabilities (e.g., sustainability and risk expertise), firm-level resources, and the broader institutional context. Saudi insurers may therefore require targeted capacity building, enhanced board diversity, and stronger integration of ESG metrics into executive compensation and strategic KPIs to fully realise sustainability gains (Almubarak, 2023; Belgacem, 2025).

### **Legal and Regulatory Framework for Corporate Governance of Saudi Insurance Companies**

The governance of insurance firms in the Kingdom of Saudi Arabia is grounded in a layered regulatory architecture that combines the Cooperative Insurance Companies Control Law, implementing regulations, and sector-specific corporate governance rules issued by the insurance regulator (historically under Saudi Central Bank

and, more recently, the Insurance Authority). These instruments set mandatory governance standards for board composition, committees (including risk and audit committees), senior management appointments, internal controls, actuarial functions, disclosure obligations, and related risk-management arrangements to protect policyholders and market stability (Cooperative Insurance Companies Control Law, 2003/updated; the Insurance Authority Insurance Corporate Governance Regulation, n.d.; Saudi Central Bank Rulebook, n.d.). Such prescriptive requirements formally embed risk governance responsibilities at board and executive levels and require insurers to maintain appropriate governance structures that align with prudential objectives (Saudi Laws sama.gov.sa). Recent regulatory updates in Saudi Arabia have intensified the emphasis on governance transparency and risk oversight, reflecting international best practices and the objectives of financial-sector reform and market liberalization. For example, the Insurance Corporate Governance Regulation and related

Saudi Central Bank rulebook modules require explicit board oversight of ERM, appointment criteria for key officers (including the Chief Risk Officer), the establishment and terms of reference for risk and audit committees, and periodic reporting to the regulator measures designed to strengthen both microprudential safety and market confidence. These reforms mirror global trends that link robust governance frameworks to improved risk management and firm resilience in financial services. Empirical studies examining Saudi listed firms (including insurers) show that improvements in formal governance codes and regulatory enforcement have had measurable effects on disclosure, investor confidence, and in some contexts firm performance though the strength and direction of these effects vary across sectors and depend on implementation quality (Al-Faryan, 2023; Boshnak, 2023). International research further suggests that governance arrangements that explicitly integrate ERM into board oversight and strategic decision-making are more likely to reduce firm risk and enhance value (Hoyt & Liebenberg, 2011). Consequently, the Saudi insurance regulatory framework's prescriptive governance rules (board structure, committee mandates, actuarial and audit requirements, and CRO responsibilities) are an important institutional mechanism expected to facilitate more mature ERM practices within insurance companies while empirical outcomes will depend on enforcement, board capacity, and local market context

**Common challenges in implementing corporate governance in Saudi insurance companies** Implementing effective corporate governance in the Saudi insurance sector faces several recurring challenges. Below, each challenge is described concisely and supported with recent empirical or review evidence

1-Incomplete or uneven compliance with governance reforms Despite regulatory reforms, many Saudi insurance firms lag in fully adopting governance requirements (board composition, audit committee practices, disclosure). This partial compliance undermines governance effectiveness and investor confidence. (Al-Faryan & Alokla, 2023; Alsuyayfi et al., 2023)

2-Board composition and independence issues Questions about optimal board size, independence, and director expertise persist. Empirical findings are mixed: some reforms increasing independent directors have not always improved firm outcomes, and in some cases produced unintended effects. Weak board expertise in insurance-specific risks undermines oversight of ERM activities. (Al-Faryan & Alokla, 2023; Amer Assiri, 2024)

3-Limited board and risk-committee capacity for ERM Many boards and risk committees lack specialized knowledge (actuarial, capital modelling, reinsurance, ESG/ESRM). This reduces their ability to scrutinize complex risk-management models and to guide integrated ERM implementation. (Amer Assiri, 2024; Alsuyayfi et al., 2023)

4-Data availability and transparency constraints Sparse or low-quality data (internal risk metrics, historical loss data, timely disclosures) hamper risk identification, measurement, and validation of ERM effectiveness. Researchers and regulators note data gaps in the Saudi insurance market that limit both academic study and managerial decision-making. (Al-Faryan & Alokla, 2023)

5-Regulatory complexity and overlapping supervision Insurance firms in Saudi Arabia face multiple supervisory bodies (e.g., SAMA and CMA for listed insurers), which can create regulatory overlap or ambiguity in governance expectations—complicating compliance and raising implementation costs. (Orlando, 2021; SAMA Rulebook)

6-Cultural and organizational resistance to change Cultural factors and organizational inertia (resistance to decentralizing decision rights, reluctance to disclose sensitive information) slow the embedding of ERM into strategic planning and daily operations. Building a risk culture remains a major challenge. (Alsuyayfi et al., 2023; Orlando, 2021)

7-Resource constraints in smaller insurers Smaller or less capitalized insurers often lack the financial and human resources needed to implement robust governance and ERM frameworks (e.g., hiring CROs, investing in IT and modelling). This leads to heterogeneous governance quality across the sector. (Al-Faryan & Alokla, 2023; Orlando, 2021)

8-Contextual and institutional factors (Shariah, market structure) Shariah-compliant business models and the structure of the Saudi insurance market (market concentration, state ownership levels) create unique governance trade-offs that standard international governance prescriptions may not fully address. Tailoring governance to local institutional specifics is necessary. (Al-Faryan & Alokla, 2023; Alsuyayfi et al., 2023)

9-Post-crisis and macroeconomic pressures Economic shocks (e.g., COVID-19, oil-sector volatility) strain insurer capital and divert management attention away from long-term governance improvements toward short-term stability measures. This can delay or weaken governance and ERM reforms. (Orlando, 2021)

Types of Enterprise Risks and Their Impact on Saudi Insurance Companies Overview Insurance companies face a wide spectrum of enterprise risks that can affect solvency, profitability, reputation, and the ability to fulfil policyholder obligations. Effective Enterprise Risk Management (ERM) requires identifying these risk types, assessing their interactions, and embedding controls and governance to mitigate adverse outcomes (COSO, 2017). COSO

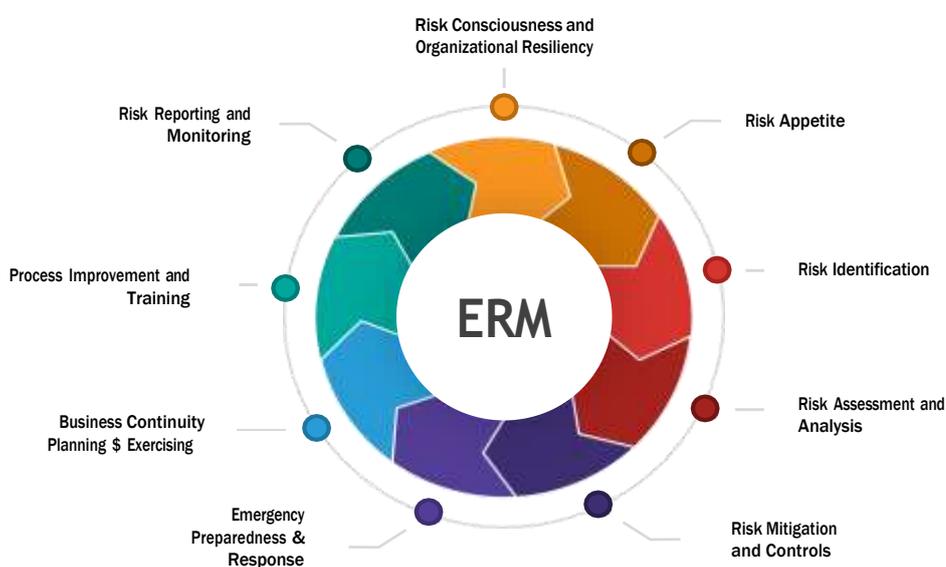


Figure (1) Key components of an ERM governance framework

**Major Types of Enterprise Risk (with relevance to Saudi insurers)**

1-Underwriting / Actuarial Risk Underwriting risk arises from incorrect pricing, adverse selection, or misestimation of claims frequency and severity. For insurance firms, persistent underwriting losses directly erode capital and can trigger regulatory intervention. Saudi insurers—especially those expanding product portfolios—must continually refine pricing models and actuarial assumptions to avoid solvency stress. (alpencapital.com)

1-Market Risk (Investment & Interest-rate risk) Insurers hold investment portfolios to back technical reserves. Fluctuations in market prices, interest rates, and asset valuations affect both the balance sheet and the match between assets and liabilities. The move toward a risk-based capital regime in Saudi Arabia increases the importance of robust asset–liability management for local insurers. (The Actuary Magazine)

3-Credit / Counterparty Risk Credit risk appears when reinsurers, brokers, or counterparties fail to meet obligations, or when large corporate policyholders default. In markets undergoing regulatory transition (e.g., changes to solvency rules), counterparty strength becomes a key factor in an insurer’s overall risk profile. alpencapital.com

4-Liquidity Risk Liquidity shortfalls may occur when claims spike unexpectedly or asset disposals are impaired. For Saudi insurers, sudden large claims (e.g., from catastrophes or major liability events) can stress liquidity if contingency funding and liquid asset buffers are insufficient under new regulatory expectations. [alpencapital.com](http://alpencapital.com)

5-Operational Risk (including process, people, and systems) Operational risk covers failures in processes, staff, IT systems, or third-party services. As Saudi insurers digitize products and distribution channels, operational risk—especially in claims processing and policy administration—becomes a materially significant driver of loss and reputational damage. Files ([itmam.sa](http://itmam.sa))

6-Cybersecurity and IT Risk Increasing digitalization exposes insurers to cyber incidents, data breaches, and system downtime. Cyber risk can produce direct financial losses and regulatory penalties and can severely harm customer trust—an especially important consideration in the rapidly modernizing Saudi market. [files.itmam.sa](http://files.itmam.sa)

7-Regulatory & Compliance Risk Regulatory change (e.g., from Saudi Central Bank or the Insurance Authority) and non-compliance with solvency, reporting, or consumer-protection rules create legal and financial risks. The Kingdom's ongoing regulatory reforms (e.g., progress toward risk-based capital) mean Saudi insurers must prioritise compliance-oriented governance and reporting capabilities. (The Actuary Magazine)

8-Reputational Risk Complaints, mis-selling, poor claims handling, or governance failures can damage an insurer's brand and distribution channels, reducing new business and retention—effects that can be long lasting in smaller or tightly networked markets. [tawuniya.com](http://tawuniya.com)

9-Strategic Risk (business model & competition) Shifts in customer preferences, new entrants (including bancassurance or insurtech), and changes in macroeconomic policy can render existing strategies sub-optimal. Saudi insurers face strategic risk from market consolidation and Vision-2030-driven transformations in the financial sector. [alpencapital.com](http://alpencapital.com)

10-ESG / Sustainability Risk Environmental, social, and governance (ESG) factors (e.g., climate risk, social expectations, governance standards) are increasingly material to insurers' long-term viability. Recent research shows that ESG integration affects underwriting, investment decisions, and disclosure practices in the Saudi insurance sector

### **How these risks interact and why ERM matters (Impacts on Saudi Insurers)**

Risks rarely occur in isolation. For example, a market shock can amplify liquidity pressure (market → liquidity), and a cyber incident can cascade into reputational, operational, and regulatory risk. ERM provides the governance, processes, and metrics required to: (a) capture risk interdependencies, (b) set enterprise-wide risk appetite, and (c) allocate capital and controls where they are most effective. Empirical and theoretical studies (and insurer valuation analyses) show that well-implemented ERM is associated with reduced volatility and improved firm value findings that are relevant for Saudi insurers as the market adopts more advanced solvency and governance requirements

### **Specific Saudi context and recent developments**

Regulatory change. SAMA and sector stakeholders have signaled a move to risk-based capital and enhanced supervisory frameworks in recent years; that shift raises the bar for capital modelling, reporting, and enterprise-level controls. Saudi insurers that fail to align ERM practices with new regulatory expectations may face higher capital charges and restricted growth. (The Actuary Magazine)

Market structure and consolidation. Sector consolidation, product diversification, and the growing role of Takaful products create both opportunities and new risk configurations that ERM must address. ([alpencapital.com](http://alpencapital.com))

Sustainability & ESG pressures. As Saudi firms disclose more ESG information and integrate sustainability in strategy, insurers must expand ERM beyond purely financial risks to include climate, social, and governance risks that affect underwriting and investments

### **Practical implications for governance and risk practice**

Strengthen board and senior oversight. Boards and risk committees should receive consolidated risk dashboards, scenario analyses, and capital-impact views to oversee enterprise exposures effectively (COSO, 2017). COSO

Enhance actuarial and ALM capabilities. Improved pricing, reserving, and asset–liability management reduce underwriting and market risk sensitivity

Invest in digital resilience. Robust cybersecurity, business-continuity planning, and operational controls reduce the likelihood and impact of IT-related incidents (. files.itmam.sa)

Align ERM with capital and regulatory reporting. ERM outputs should feed solvency assessments and internal capital models required by a risk-based capital regime. (The Actuary Magazine)

Integrate ESG into ERM. Treat ESG factors as quantifiable risk drivers—incorporating scenario analysis for climate or transition risk into underwriting and investment strategies

### **Gap-Analysis Tools and Strengthening Corporate Governance: Implications for Saudi Insurance Companies**

Effective enhancement of corporate governance in insurance firms requires a structured diagnosis of existing governance arrangements and ERM practices. Gap analysis identifies where practices deviate from best-practice frameworks (e.g., COSO ERM, ISO 31000) and provides a roadmap for targeted improvements. This approach has relevance in the Saudi insurance sector, where regulatory reforms and ESG expectations have increased the demand for stronger governance and integrated risk management. (COSO)

#### **Practical Tools for Gap Analysis The following tools are widely used in the literature and practice to assess governance and ERM maturity:**

Framework Benchmarking (COSO / ISO 31000 alignment): Compare current governance and ERM arrangements against COSO ERM principles (Governance & Culture; Strategy; Performance; Review & Revision; Information & Communication) and ISO 31000 guidelines to pinpoint missing elements and prioritize reforms. Organizations often use checklist-based gap matrices derived from these frameworks. (COSO)

Governance & ERM Maturity Models: Use multi-level maturity scales (e.g., ad-hoc → repeatable → defined → managed → optimized) to score board oversight, risk appetite articulation, policy coverage, risk identification, and monitoring processes. Maturity scoring helps translate qualitative weaknesses into measurable improvement targets

Board Evaluation and Capability Assessments: Structured board skill-matrix and performance evaluations identify gaps in expertise (actuarial, risk, compliance, IT/cybersecurity), independence, and time allocation areas shown to influence ERM effectiveness. Targeted board development plans then address these shortfalls

Risk Culture and Stakeholder Surveys: Employee and senior-management surveys assess risk awareness, tone-from-the-top, and communication effectiveness; results feed into training, incentives, and communication plans that strengthen governance practice implementation. COSO

**Policy & Procedure Gap Maps:** A detailed audit of existing policies, committee charters, and escalation protocols against required controls (e.g., committee terms of reference, clear CRO responsibilities, reporting lines) to remove ambiguity in oversight and operationalize governance. (COSO)

**External Assurance and Peer Benchmarking:** Use third-party reviews (external audit, actuarial review, governance advisors) and cross-country/peer benchmarking to validate internal assessments and to prioritize reforms with the highest impact on solvency and stakeholder confidence. Evidence suggests that governance improvements supported by external assurance increase market credibility in Saudi firms

**From Diagnosis to Strengthening Governance Actionable Interventions Based on gap findings, the following interventions are recommended and supported in the recent literature:**

**Clarify Roles & Elevate Risk Oversight:** Formalize the CRO role and elevate it in the organizational hierarchy (C-suite reporting to CEO/Board Risk Committee), and strengthen committee mandates (audit, risk, remuneration) so that oversight becomes more proactive than purely compliance-based. (COSO)

**Board Composition & Capacity Building:** Address skill gaps identified in board evaluations by recruiting directors with insurance, actuarial, risk-management, and digital/IT expertise; provide continuous training and structured onboarding. Empirical studies link board capabilities to improved ERM outcomes

**Embed ERM into Strategy & Capital Planning:** Integrate risk appetite into strategic planning and capital allocation (stress testing, scenario analysis). For insurers, aligning ERM with underwriting, reserving, and investment policies materially reduces volatility and improves stakeholder confidence. (COSO)

**Strengthen Disclosure & External Reporting:** Improve risk disclosures (including forward-looking risk appetite statements and ESG disclosures) and obtain external assurance where feasible; regulators in Saudi Arabia have emphasized improved governance and disclosure as part of recent reforms. (cma.gov.sa)

**Use Technology & Data Analytics:** Close gaps in risk identification and monitoring by deploying risk-data aggregation tools, dashboards for the board/CRO, and automated controls testing—practices associated with more mature ERM implementations. (COSO)

**Impact on Saudi Insurance Companies Evidence and Expected Outcomes** Empirical and policy literature indicates that closing governance gaps yields measurable benefits for insurance firms in Saudi Arabia and comparable markets:

**Improved Financial Resilience and Firm Value:** Studies on insurers show that mature ERM and stronger governance are associated with reduced cost of risk and higher firm valuation. (Foundational evidence in global insurance studies and emerging Saudi evidence.)(jstor.org )

**Regulatory Compliance and Market Confidence:** As Saudi regulators (CMA and related bodies) tighten governance and ESG expectations, companies that address governance gaps enhance investor confidence and access to capital. National reports note the centrality of governance reforms to market development. (cma.gov.sa)

**Operational Risk Reduction:** Targeted governance reforms—clear committee charters, stronger board oversight, and routine external assurance—reduce operational and actuarial errors, improving underwriting discipline and reserving practices

**Corporate Governance, Performance Assessment, and Compliance in Saudi Insurance Sector** Corporate governance plays a critical role in ensuring organizational performance and regulatory compliance, especially in the insurance sector where risk exposure is inherently high. Effective governance mechanisms, such as board

composition, audit committees, and ownership structure, contribute to stronger performance metrics and better compliance with regulatory standards

Several recent empirical studies provide evidence of this dynamic in the Saudi insurance market. For instance, *Do Publicly Listed Insurance Firms in Saudi Arabia Have Strong Corporate Governance?* examines 35 publicly listed Saudi insurance companies and finds that regulatory reforms affecting board composition and audit committee size have significant impacts on performance (ROA, ROE, Tobin's Q) and compliance behavior. Interestingly, the study reports that increasing the proportion of independent board members and audit committee members has a negative correlation with performance in certain models, suggesting complexities in how governance reforms translate into financial outcomes

Similarly, Lami (2024) investigates how transparency, balance of authority, and governance practices influence the performance and value of Saudi insurance companies. The study emphasizes that governance practices not only improve financial performance but also strengthen stakeholder trust and corporate reputation, thereby contributing to more sustainable and compliant business operations. (ajrsp.com )

Moreover, Alsuyayfi, Said, Ja'AFar, and Albada (2023) review the Saudi insurance sector's governance environment and highlight persistent gaps: weak regulatory enforcement, limited board independence, and challenges in aligning governance practices with risk management frameworks. These limitations adversely affect both operational performance and compliance with regulatory requirements

On a more micro level, Al-Dosari (2020) studies the Cooperative Insurance Company in Riyadh and finds that governance mechanisms such as board meetings, committee structures, and internal control systems significantly improve financial performance. However, the study also identifies obstacles to governance implementation, including limited regulatory oversight, lack of expertise, and poor internal accountability, which hinder full compliance. (sjcf.journals.ekb.eg)

These findings underscore that in the Saudi insurance sector, governance effectiveness is not only about formal structures but also about the quality of compliance and the cultural embedding of governance norms. By measuring governance performance through financial indicators (e.g., ROA, ROE), regulatory alignment, and board practices, researchers provide a multidimensional understanding of how governance drives both performance and compliance in this context

### **Corporate Governance Culture and Its Impact on Enterprise Risk Management in Saudi Insurance Companies**

Developing a strong corporate governance culture is critical for enhancing the effectiveness of Enterprise Risk Management (ERM) in organizations, particularly within the insurance sector in Saudi Arabia. A governance-oriented culture promotes transparency, accountability, and ethical decision-making, which in turn strengthens the organization's ability to identify, assess, and respond to risks effectively (Mallin, 2021)

Implementing ethical policies that support a sustainable work environment is an essential aspect of governance. These policies ensure that employees at all levels adhere to ethical standards, reducing the likelihood of operational, financial, or compliance risks while fostering long-term organizational sustainability (Kaptein, 2020). Moreover, embedding ethics into corporate culture encourages responsible behavior and reinforces trust among stakeholders

Internal communication mechanisms also play a pivotal role in improving corporate governance and ERM effectiveness. Effective communication channels enable the timely dissemination of risk-related information across departments, ensuring that risk awareness permeates the entire organization. Studies indicate that organizations with well-structured internal communication systems exhibit higher compliance with governance principles and more proactive risk management practices (Frigo & Anderson, 2011) In the context of Saudi insurance companies, these governance mechanisms—governance culture, ethical policy frameworks, and internal communication—have been shown to positively influence the maturity of ERM practices. Companies

that actively foster these aspects are better equipped to manage emerging risks, protect organizational value, and align their operations with regulatory expectations and sustainable business practices (Al-Zuhaibi, 2024)

### **Recent Trends in Governance, Risk Management, and Compliance (GRC)**

**Modern Trends in Governance, Risk, and Compliance** Recent research underscores a shift in corporate governance toward more dynamic and technology-driven models. In the context of risk management, this manifests in the rise of specialized governance committees, cross-functional risk oversight, and real-time risk monitoring (Alruwaili, 2024). These structures help firms better disclose financial risk and meet sustainability objectives through enhanced oversight and transparency. link. (springer.com) In addition, in the insurance sector, there is growing recognition of governance as a critical component of risk control. Alsuyayfi, Said, Ja' Afar, and Albada (2023) reviewed the Saudi Arabian insurance industry and identified persistent gaps in board effectiveness, regulatory compliance, and governance mechanisms, particularly under the evolving regulatory and market environment. ( HSTalks)

### **The Importance of Developing Flexible Governance Models for Future**

**Changes Flexibility in governance** is increasingly viewed as essential for staying resilient in a rapidly changing world. Technological advances, especially fintech and AI, are pushing traditional governance models to evolve. For example, Almubarak and Aljughaiman (2024) found that good governance practices are significantly associated with innovation in fintech in Saudi banks, suggesting that adaptive governance structures can foster innovation while managing new risks Another frontier is the convergence of governance, risk, and compliance frameworks tailored for emerging technologies. Eisenberg, Gamboa, and Sherman (2025) introduced the Unified Control Framework (UCF), which aligns risk management, regulatory compliance, and innovation (particularly AI) within a unified governance architecture. Their framework provides an integrated set of controls, enabling enterprise-wide oversight in a scalable manner

### **The Role of Innovation in Enhancing Sustainable Governance and Compliance**

Innovation is playing a pivotal role in reshaping governance and compliance. In the insurance and financial sectors, stakeholders are increasingly embedding ESG (Environmental, Social, Governance) principles into corporate strategies, with governance reforms serving as the foundation for sustainable practices (Al-Zughaybi, 2025). For instance, a very recent study in the Saudi insurance market demonstrated that ESG integration is gaining momentum, especially in the governance dimension, but social and environmental aspects still lag

Furthermore, technology such as blockchain is being leveraged to strengthen internal controls and compliance mechanisms. In a study by Kazan and Kocamış (2023), blockchain was shown to improve the efficacy of internal controls within the COSO framework, which may help insurers and financial firms maintain high compliance standards while innovating. (library.acadlore.com)

### **Implications for the Saudi Insurance Sector**

For Saudi insurance companies, these trends suggest that governance reforms should go beyond traditional board structures. Emphasizing audit and risk committees, fostering board diversity, and increasing technology adoption can strengthen risk management and compliance.

As ESG becomes more central, insurers in Saudi Arabia can leverage governance as a lever for sustainable growth, aligning with national strategic goals and regulatory pressures.

Investing in governance innovation (e.g., digital risk controls, AI governance, unified frameworks) can help Saudi insurers manage emerging risks (like cyber risks, AI-related compliance) while staying competitive

## The Importance of Governance in the Digital Economy: The Future of Corporate Governance in Saudi Insurance Companies

Corporate governance is undergoing a profound transformation in the digital age. As insurance companies in Saudi Arabia—and globally—embrace digital technologies, the role of governance is becoming even more central in managing both traditional and emerging risks. Digital transformation not only reshapes business models but also redefines risk exposures, decision-making processes, and stakeholder expectations

One of the key trends is the integration of InsurTech and e-commerce in the Saudi insurance sector, which aligns with the Kingdom’s Vision 2030 digital strategy. A recent study shows that the convergence of insurance technology and e-commerce is accelerating innovation while also introducing new governance challenges, such as cyber risk, data privacy, and regulatory compliance. [businessperspectives.org](https://www.businessperspectives.org) This implies that boards and risk committees need to evolve structurally and conceptually to keep pace (Almubarak & Aljughaiman, 2024)

Moreover, the digitalization of governance functions is not limited to operational efficiency; it also directly impacts risk management. Research on digitalization and governance indicates that boards must pay attention to artificial intelligence, blockchain, and other emerging technologies, as these bring new risks but also opportunities for control and transparency. [virtusinterpress.org](https://www.virtusinterpress.org) In the context of insurance, the digital transformation enhances risk identification and decision accuracy, but it also demands more from governance frameworks. A case study on Saudi insurance firms noted that digital transformation significantly improves risk management performance and decision-making but highlighted a gap in transparency mechanisms if governance structures do not adapt. [search. \(emarefa.net\)](https://www.emarefa.net)

Another dimension relates to the usage of electronic management systems in insurance companies. A study on the Saudi insurance sector found that digital insurance contributes to better customer interactions and operational efficiency but also requires governance to manage associated risks and ensure compliance. ([ajrsp.com](https://www.ajrsp.com))

From a forward-looking perspective, governance in digital insurance must not only monitor and control risks but also act as an enabler of innovation. According to a PwC report on the future of risk in insurance, the Chief Risk Officer (CRO) role in 2030 will involve integrating innovation risk—i.e., the risk of not innovating—into the governance mix. Rather than merely policing innovation, governance must support it by providing real-time risk insights and enabling informed decision-making. (PwC)

Finally, on a global governance standard level, the OECD has underscored how digitalization challenges traditional risk and governance frameworks. In its latest publication, it emphasizes that corporate governance bodies must adapt their risk oversight processes to account for cyber risks, digital asset risks, and systemic technological changes. (OECD)

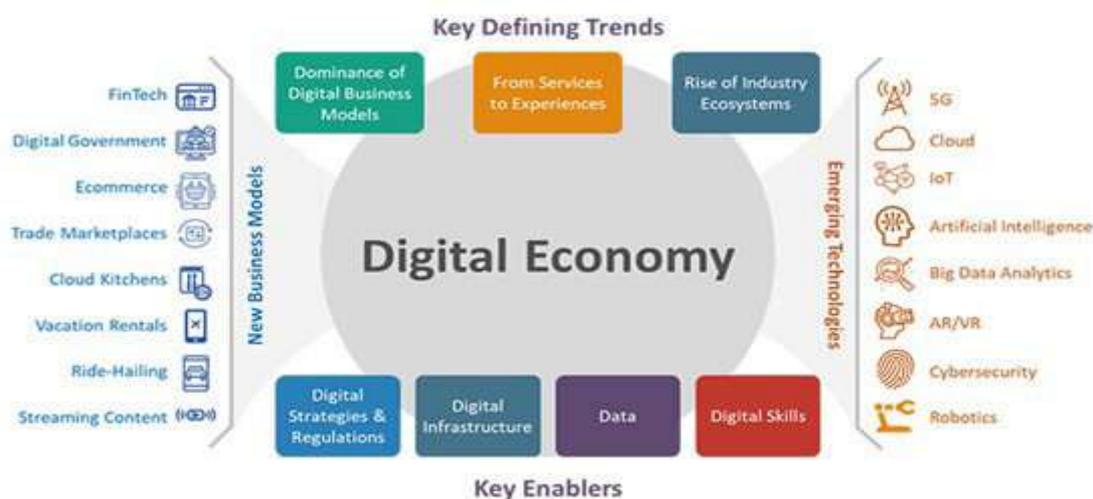


Figure (2) Key drivers for accelerating the development of the digital economy

**Section Four: Practical Analysis of Data, Hypotheses, Results, and Recommendations**

**Hypotheses Testing**

**Main Hypothesis**

There is a statistically significant positive relationship between corporate governance and the effectiveness of enterprise risk management, which in turn impacts organizational performance/sustainability in Saudi insurance companies

**The hypothesis consists of three interrelated elements:**

1-Corporate Governance: Refers to the systems, structures, and policies established by companies to ensure sound management, operational oversight, protection of shareholders’ rights, and effective strategic decision-making

2-Effectiveness of Enterprise Risk Management (ERM) Refers to the company’s ability to identify, assess, and address risks in a way that minimizes potential losses and enhances available opportunities.

3-Organizational Performance/Sustainability: Performance includes both financial and non-financial outcomes of the company, such as profitability, growth, reputation, and long-term business continuity (sustainability)

The potential responses to the questionnaire items were measured using a five-point Likert scale. The scale ranges from the highest weight of (5), which represents the response option “Strongly Agree”, to the lowest weight of (1), which represents “Strongly Disagree”. Three intermediate weights fall between these two extremes. The purpose of using this scale is to allow respondents to select the most accurate answer according to their assessment. Table (A) presents the key for the measurement scale

Statistical Significance	Weighted Relative Weight	Relative Weight	Level of Agreement
High level of agreement	5 – 4.2	5	Strongly Agree
Agreement	4.2 – 3.4	4	Agree
Neutral opinion	3.4 – 2.6	3	Neutral
Level of disagreement	2.6 – 1.6	2	Disagree
Strong level of disagreement	1.8 – 1	1	Strongly Disagree

Table (A): Key of Relative Weight and Weighted Relative Weight for the Five-Point Likert Scale

Source: Prepared by the researcher based on field study data, 2025

Based on the weights shown in Table (A) above, the hypothetical mean for the study is calculated as the sum of the item scores divided by the number of points:

**Hypothetical Mean**=  $5 \times 1 + 2 \times 3 + 4 \times 5 \div 5 = 15 \div 5 = 3$  Accordingly, if the mean score of an item exceeds the hypothetical mean (3), this indicates that the respondents agree with the statement

**Reliability and Consistency Test**

Reliability refers to the stability of the measurement scale and its internal consistency, meaning that the scale produces the same results with an equal probability if it is reapplied to the same sample. In other words, a

reliable instrument yields consistent or compatible results each time the measurement is repeated. The higher the degree of reliability and stability of the instrument, the greater the confidence in the measurement. There are several methods to verify the reliability of a scale. The most commonly used method for questionnaires is Cronbach's Alpha, which takes values ranging from 0 to 1. If the data have no reliability, the Cronbach's Alpha coefficient equals 0. Conversely, if there is perfect reliability in the data, the coefficient equals 1. Thus, an increase in the Cronbach's Alpha coefficient indicates higher credibility of the data and a better reflection of the sample results on the study population. Conversely, a value below 0.60 indicates low internal reliability.

Validity	Cronbach's Alpha (Reliability)	Number of Items	Variables and Dimensions	No
93%	92%	35	Corporate Governance	Independent Variable
96%	84%	5	Board Structure	Dimensions of Independent Variable
	92%	85%	5	Governance & Risk Committees
	96%	85%	5	Disclosure & Transparency
	92%	87%	5	Board Diversity & Expertise
86%	74%	5	ERM Effectiveness	Mediating Variable
88%	82%	5	Organizational Performance / Sustainability	Dependent Variable
97%	95%	35		Total Items

Table (2): Cronbach's Alpha Coefficients for Measuring the Reliability of Questionnaire Items

Source: Prepared by the researcher based on field study data, 2025

The table (3) shows the distribution of the study sample according to job titles. The data indicate that the sample includes 28 employees, representing 46.7% of the sample; 8 department heads, representing 13.3%; 9 managers, representing 15%; and 15 individuals in other positions, representing 25%. Most of the sample consists of employees.

Cumulative Percent	Valid Percent	Percent	Frequency	Position / Job Title
2.0	2.0	1.8	10	Board Member
3.0	1.0	0.9	3	General Manager
10.0	7.0	6.4	9	Assistant Technical Manager
16.0	6.0	5.5	8	Assistant financial Manager
20.0	4.0	3.6	4	Internal Audit Manager
22.0	2.0	1.8	2	Internal Auditor
100.0	64.0	70.9	64	Other
	100.0	90.9	100	Total (Valid)
		9.1	10	System / Missing
		100.0	110	Total

Source: Prepared by the researcher based on field study data, 2025

1-There is a statistically significant positive relationship between corporate governance and the effectiveness of enterprise risk management, which in turn impacts organizational performance/sustainability in Saudi insurance companies

Interpretation	Significance Level	Value	statistical Measure
Statistically significant	0.000	0.588	Spearman's Correlation Coefficient (R)
		0.334	Coefficient of Determination (R <sup>2</sup> )
		53.061	Calculated F-value
Statistically significant	0.000	0.291	Regression Coefficient (B)
		4.750	Calculated T-value

Table (4) Relationship between Corporate Governance and ERM Effectiveness

Source: Prepared by the researcher based on field study data, 2025

1-There is a statistically significant positive relationship between board structure and ERM effectiveness

Interpretation	Significance Level	Value	statistical Measure
Statistically significant positive relationship	0.000	0.405	Spearman's Correlation Coefficient (R)
Board structure explains 19.5% of variance in ERM effectiveness		0.195	Coefficient of Determination (R <sup>2</sup> )
Model is statistically significant		21.202	Calculated F-value
Positive effect of board structure on ERM effectiveness	0.000	0.488	Regression Coefficient (B)
Statistically significant effect	0.000	4.605	Calculated T-value

Table (5): Relationship between Board Structure and ERM Effectiveness Source: Prepared by the researcher based on field study data, 2025

shows the relationship between board structure and enterprise risk management (ERM) effectiveness, specifically focusing on the risk identification dimension and the dependent variable of organizational performance/sustainability. The Spearman correlation coefficient (R) was 0.405, indicating a statistically significant positive relationship. The coefficient of determination (R<sup>2</sup>) was 0.195, meaning that the board structure alone contributes 19.5% to ERM effectiveness. The results also indicate the significance of the regression coefficient (B), which was 0.488, with a significance level of 0.000, showing a statistically significant effect at the 0.05 level. The calculated T-value was 4.605 with a significance level of 0.000, also statistically significant at the 0.05 level. Based on these results, the researcher concluded that there is a statistically significant relationship between the board structure principle and ERM effectiveness. In other words, board structure has a positive impact on ERM effectiveness. These findings support the hypothesis that there is a statistically significant relationship between board structure and ERM effectiveness in Saudi insurance companies.

2-There is a statistically significant positive relationship between board independence and ERM effectiveness

Interpretation	Significance Level	Value	statistical Measure
Statistically significant positive relationship	0.000	0.430	Spearman's Correlation Coefficient (R)
Board independence explains 10.8% of variance in ERM effectiveness		0.108	Coefficient of Determination (R <sup>2</sup> )
Model is statistically significant		15.092	Calculated F-value
Positive effect of board independence on ERM effectiveness	0.000	0.388	Regression Coefficient (B)
Statistically significant effect	0.000	4.517	Calculated T-value

Table (6): Relationship between Board Independence and ERM Effectiveness Source: Prepared by the researcher based on field study data, 2025

shows the relationship between the independent variable corporate governance, specifically the board independence principle, and the dependent variable enterprise risk management (ERM) effectiveness. The Spearman correlation coefficient (R) was 0.430, indicating a statistically significant positive relationship. The coefficient of determination (R<sup>2</sup>) was 0.108, meaning that the board independence principle alone contributes 10.8% to ERM effectiveness. The results also indicate the significance of the regression coefficient (B), which was 0.388, with a significance level of 0.000, showing a statistically significant effect at the 0.05 level. The calculated T-value was 4.517, with a significance level of 0.000, also statistically significant at the 0.05 level. Based on these results, the researcher concluded that there is a statistically significant relationship between the board independence principle and ERM effectiveness. In other words, higher board independence positively impacts enterprise risk management. These findings support the hypothesis that there is a statistically significant relationship between board independence and ERM effectiveness in Saudi insurance companies.

### 3-There is a statistically significant positive relationship between risk committees and ERM effectiveness

Interpretation	Significance Level	Value	statistical Measure
Statistically significant positive relationship	0.000	0.411	Spearman's Correlation Coefficient (R)
Risk committees explain 18.9% of variance in ERM effectiveness		0.189	Coefficient of Determination (R <sup>2</sup> )
Model is statistically significant		31.635	Calculated F-value
Positive effect of risk committees on ERM effectiveness	0.000	0.458	Regression Coefficient (B)
Statistically significant effect	0.000	5.687	Calculated T-value

Table (7): Relationship between Risk Committees and ERM Effectiveness Source: Prepared by the researcher based on field study data, 2025

shows the relationship between the independent variable corporate governance, specifically the risk committees' principle, and the dependent variable enterprise risk management (ERM) effectiveness. The Spearman correlation coefficient (R) was 0.411, indicating a statistically significant positive relationship. The coefficient of determination (R<sup>2</sup>) was 0.189, meaning that the risk committees' principle alone explains 18.9% of the variance in ERM effectiveness. The results also indicate the significance of the regression coefficient (B), which was 0.458, with a significance level of 0.000, showing a statistically significant effect at the 0.05 level. The calculated T-value was 5.687, with a significance level of 0.000, also statistically significant at the 0.05 level. Based on these results, the researcher concluded that there is a statistically significant relationship between the risk committee's principle and ERM effectiveness. In other words, enhancing the risk committee's principle positively impacts ERM effectiveness. These findings support the hypothesis that there is a statistically significant relationship between the risk committee's principle and ERM in Saudi insurance companies.

4-There is a statistically significant positive relationship between policies and procedures and ERM effectiveness

Interpretation	Significance Level	Value	statistical Measure
Statistically significant positive relationship	0.003	0.534	Spearman's Correlation Coefficient (R)
Policies and procedures explain 19% of variance in ERM effectiveness		0.187	Coefficient of Determination (R <sup>2</sup> )
Model is statistically significant		35.146	Calculated F-value
Positive effect of policies and procedures on ERM effectiveness	0.003	0.575	Regression Coefficient (B)
Statistically significant effect	0.000	5.018	Calculated T-value

Table (8): Relationship between Policies and Procedures and ERM Effectiveness Source: Prepared by the researcher based on field study data, 2025

shows the relationship between the independent variable corporate governance, specifically the policies and procedures principle, and the dependent variable enterprise risk management (ERM) effectiveness. The Spearman correlation coefficient (R) was 0.534, indicating a statistically significant positive relationship. The coefficient of determination (R<sup>2</sup>) was 0.187, meaning that the policies and procedures principle alone contributes approximately 19% to ERM effectiveness. The results also indicate the significance of the regression coefficient (B), which was 0.575, with a significance level of 0.003, showing a statistically significant effect at the 0.05 level. The calculated T-value was 5.018, with a significance level of 0.000, also statistically significant at the 0.05 level. Based on these results, the researcher concluded that there is a statistically significant relationship between the policies and procedures principle and ERM effectiveness. In other words, effective policies and procedures positively impact enterprise risk management. These findings support the hypothesis that there is a statistically significant relationship between the policies and procedures principle and ERM effectiveness in Saudi insurance companies.

**ERM effectiveness mediates the relationship between corporate governance and organizational performance/sustainability" means the following in clear terms:**

Corporate Governance → ERM Effectiveness → Organizational Performance/Sustainability

Corporate governance (how a company is directed and controlled) influences how effective Enterprise Risk Management (ERM) is.

ERM effectiveness, in turn, affects the organization's performance and its ability to sustain operations over time.

Mediation effectiveness acts as a mediator, which means that the impact of corporate governance on organizational performance is partially or fully explained through ERM effectiveness.

Instead of governance directly affecting performance, governance improves ERM, which then leads to better performance and sustainability.

In practical terms: Strong corporate governance structures (like independent boards, risk committees, clear policies) improve the processes of identifying, assessing, and managing risks.

Effective ERM then ensures the organization avoids or mitigates risks, leading to better decision-making, stability, and long-term sustainability. So, ERM effectiveness is the mechanism or pathway through which corporate governance influences organizational outcomes.

**Results**

1- A statistically significant positive relationship between corporate governance and ERM effectiveness

The findings indicate that stronger corporate governance mechanisms such as an active board of directors, independent committees, and enhanced transparency significantly improve the effectiveness of Enterprise Risk Management (ERM) in Saudi insurance companies. Better governance leads to better identification, assessment, and mitigation of risks

2- ERM effectiveness has a positive impact on organizational performance and sustainability

The results demonstrate that companies with mature and well-implemented ERM frameworks achieve:

Reduced financial and operational losses

Improved decision-making processes

Enhanced financial and non-financial performance, and

Stronger long-term sustainability

3- ERM acts as a mediating variable between corporate governance and organizational performance

The analysis shows that the impact of corporate governance on performance is indirect, functioning through the effectiveness of ERM

In other words: Strong governance → Effective ERM → Improved performance and sustainability

4 -Compliance with the Insurance Authority regulations enhances ERM maturity

Companies that adhere more closely to the Insurance Authority risk management guidelines show higher levels of ERM maturity compared to companies with lower compliance levels

5 .Board diversity and expertise contribute to better ERM outcomes

Insurance companies with diverse boards in terms of skills, professional backgrounds, and independence tend to achieve higher ERM effectiveness relative to companies with less-diverse boards

### **Recommendations**

1 -Strengthen the board's role in overseeing ERM

Allocate dedicated board sessions for discussing risk issues

Provide ongoing training for board members in corporate governance and enterprise risk management

2- Integrate ERM into the strategic planning process

Insurance companies should embed ERM into strategic decision-making, investment planning, and product development to ensure risk-informed strategies

3- Enhance governance policies and procedures

Update governance frameworks in line with international standards and SAMA guidelines.

Improve transparency and disclosure in annual and risk reports

4-Establish or strengthen a dedicated risk committee

A specialized risk committee should actively monitor risk exposures, evaluate internal and external threats, and report directly to the board

5-Invest in digital risk management systems

Adopting advanced analytics and digital risk-monitoring tools will improve risk prediction accuracy, response speed, and data management capabilities

## 6 -Promote a risk-aware organizational culture

This can be achieved through:

Regular employee training

Clear communication channels related to risk issues

Linking individual performance indicators to risk management goal

## 7- Conduct periodic ERM maturity assessments

Regular assessments help companies identify strengths, uncover gaps, and plan continuous improvements in their risk management practices

## 8- Encourage diversity in board composition

Diversity in knowledge, experience, and gender improves decision quality, enhances oversight of risk, and strengthens organizational resilience

### ❖ Funding

This work was supported and funded by the Deanship of Scientific Research at Imam Mohammad ibn Saud Islamic University (IMSIU) (grant number IMSIU- DDRSP2504)

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