

## Future insights into enterprise risk management, competitive advantage, and firm performance

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**Abstract:** Enterprise Risk Management (ERM) has emerged as a key aspect of the academic and professional spheres. Although it is gradually recognized as having potential benefits, there is still a significant gap related to the exact relationship between ERM and firm performance. Ongoing research endeavors to fill this void by exploring the influence of ERM and aligning its dimensions with the concept of competitive advantage. This study presents a comprehensive overview of ERM, utilizing the resource-based view (RBV) and contingency theories as a lens to examine its effects on performance, with competitive advantage serving as a mediating factor. This study extends the current literature by introducing new findings and examining the relationship between strategy and ERM. The results of this research not only explain the key aspects of ERM and its effects on firm performance but also offer real-world guidance. These insights could serve as a guide to bridge the gap between what managers expect to result from ERM and what is implemented to create competitive advantage strategies. This investigation aims to contribute to the literature on the role of ERM in corporate strategy and provide practical guidelines for incorporating ERM into organizations.

**Keywords:** *Competitive advantage, Enterprise risk management, Firm performance, RBV theory.*

### 1. Introduction

Enterprise Risk Management (ERM) is fast becoming an indispensable component of modern corporate governance, providing organisations with an overarching framework for identifying, assessing, and mitigating risks that could threaten the attainment of company-wide objectives [1]. ERM achieves common sense when it comes to complete measurement for risks or all-risk types by an entity's mission, thus its importance. The justification for this model is that firms are able to host aggregation regarding various sensible threats encompassing market structure fluctuations, credit, and economic failures and are thereby able to prepare firms for organisational fluctuations in a multifactorial market [2].

In organisational effectiveness, firm performance is the priority indicator, including financial and nonfinancial metrics [3]. Increasingly, in the changing business climate, great attention is being paid to non-financial performance indicators that indicate factors indirectly impacting the monetary indicator [4]. Non-financial metrics can give a more layered insight and holistic view of organisational health [5].

With the growing competitive pressure in the global marketplace, generating new strategies to improve firm performance and competitive advantages is critically debated [6]. Competitive advantage: A competitive advantage is a unique selling point or advantage that a company has over its rivals or the market to perform better than its competitors [7]. It is one of the pillars of strategic management. Technological innovation, including adopting financial technologies, has been empirically linked to improved profitability and competitive advantage, particularly in financial institutions [8].

These tools enable banks to streamline services and enhance performance, aligning closely with strategic risk management frameworks like ERM. They are imperative to navigating the complex risk matrix, a frequent feature of modern enterprises [9]. Furthermore, Firms turn to differentiation, cost leadership, and innovation, employing strategies that ensure their competitive edge in a manner that is increasingly reflective of the complex dynamics between the market and the economy at large [10].

The adoption of ERM represents a strategic response to the evolving complexities of the global business environment [11]. Increased market volatility and uncertainty have motivated the evolution of ERM practices, which have compelled organisations to adopt a more holistic approach to risk management. This framework breaks down conventional department barriers, including vital components like control activities, information and communication systems, and monitoring processes that build a more flexible and durable organisational architecture [12].

This conceptual paper aims to enhance the academic dialogue on ERM by establishing a framework that deliberates the mediating role of competitive advantage towards leveraging the impact of ERM on firm performance against a backdrop of emphasising the non-financial outcomes of firm performance. Based on the gaps identified in the literature on the research we are working on in the area [13] this study examines a distinctive dimension of competitive advantage as the mediator in the ERM-performance correlation. Although the research provides important theoretical insights regarding the strategic implications of ERM, the study does not account for practical challenges to implementation or industry-specific factors, nor has it explored organisational readiness for integrating ERM. Despite these limitations, this research establishes a preliminary dimension for additional empirical studies which may inform our understanding of ERM adoption/implementation and its various ramifications across company settings.

## 2. The concept of ERM, Competitive Advantage and Firm Performance

The Relationship between Enterprise Risk Management, Competitive Advantage and Business Performance. ERM is a strategic management tool that addresses and manages risks comprehensively. Competitive advantage is when an organisation can surpass its market competitors based on unique strengths and capabilities. Firm performance, a broad category encompassing many metrics and perspectives, presents the success of an organisation in creating a product or service and its ability to meet its goals. This study explores the interplay of these base elements and their impact on shaping and determining the future path and performance of businesses today, followed by a detailed analysis of the relevant aspects of each variable.

### 2.1. Firm Performance

Firm performance is relevant in global strategic economics, management, finance, and accounting research [14]. Despite its importance, there is no integrated consensus regarding the definition, dimensionality, or measurement of organisational performance, which limits research advances [15]. This section provides an overview of firm performance and its importance and measurement in the business environment.

In this context, performance is the most significant metric used to measure the effectiveness and efficiency of business organisations. The need to determine the goals and objectives, achieve the organisation's performance, and enhance and develop the firm's overall performance is undoubtedly a vital goal for most organisations [3]. Defining or measuring firm performance is difficult for researchers because firms have conflicting goals Chow, et al. [16]. Harper and Vilkinas [17] reveal that performance is usually used to measure and reflect the general situation of a firm and its policies.

Consequently, firm performance is deemed crucial and essential in determining the success or failure of business organisations. Assessing company performance enables organisations to pinpoint key problem areas and make necessary improvements. Investigating organisational performance is critical, particularly in identifying the primary financial or non-financial factors contributing to an organisation's success or failure [18]. The increasingly competitive environment underscores the

urgent need for organisations to adopt effective strategies to enhance their performance and gain competitive advantage [6]. Various strategies are employed to sustain business and organisational success. Organisations face exposure to diverse risks that could hamper firm performance [9]. The following subsections discuss firm performance's financial and nonfinancial dimensions.

## 2.2. Firm Performance Dimensions

Measuring firm performance provides essential and invaluable information for management, facilitating performance monitoring, reporting progress, and enhancing communication, motivation, and problem identification [19]. Given these benefits, it is advantageous for firms to assess their performance. However, this process is not without challenges, as there is a notable lack of consistency in firm performance assessment methodologies [20]. To address this issue, firm performance can be measured using financial and non-financial metrics [13] providing a more comprehensive evaluation framework.

Venkatraman and Ramanujam [21] propose three key indicators for managing firm performance: financial performance (e.g., return on investment and earnings per share), operational performance (e.g., market share and product quality), and organisational effectiveness (e.g., employee morale and work environment). Building on this framework, Nkomo [22] explored the link between human resource planning and organisational performance and uncovered six financial factors that were high-level indicators of business performance (turnover growth rate, profitability, earnings per share, return on assets, profitability, and firm assets per employee).

Recognising the limitations of purely financial metrics, many organisations supplement these drivers with quasi-financial indicators that better underpin core value-driver performance [23]. This helps to create a more comprehensive overview of organisational performance. However, the literature is inconclusive about non-financial indicators' contribution to performance improvement [13] highlighting a gap in research and exploration regarding measuring firm performance.

### 2.2.1. Financial Performance

A firm's financial performance is measured through a range of quantitative measures that evaluate a firm's overall health and efficiency. Additionally, cash flows and dividend behaviour have been empirically validated as critical mediators of firm value, particularly in financial markets such as the Iraq Stock Exchange [24] suggesting that both direct and mediating financial levers influence firm performance. Profits, income statements, profit margins, return on investment (ROI), earnings per share (EPS), and cash flow are just some of the financial reports that can be analysed. These are the typical financial metrics that constitute this ratio. This is an important ratio to understand economic stability, and these ratios are essential to assess a company's profitability, liquidity, and solvency [25].

### 2.2.2. Non-Financial Performance

Non-financial performance metrics complement traditional financial indicators, offering a more comprehensive organisational effectiveness assessment. These quantitative metrics, like customer satisfaction scores, employee turnover rates, and operational efficiency measures, give clues about elements not directly observable in the financial statements. Though they can complicate standardisation and thus quantification, non-financial metrics (NFM) also have real value as forward-looking indicators, metrics that encourage long-term strategic focus, and measures of stakeholder value beyond financial performance. Combined with financial metrics, they provide insight into a firm's health and future potential.

## 2.3. Enterprise Risk Management (ERM)

Evaluating a firm's financial performance involves using a variety of quantitative metrics to determine its overall health and effectiveness. Financial reports include various types of information that are analysed, including income statements, profit margins, return on investment (ROI), earnings

per share (EPS), and cash flow. Half ratios are the ratios that you normally use to calculate. Equity turnover ratios are important for measuring an economic company and its profitability, liquidity, and solvency [25].

While high-risk tendencies positively correlate with performance [26] it is important to remember that success is predicated on identifying innovative opportunities and seizing them through risk-taking behaviour [26]. Moreover, risk identification, monitoring, and assessment are at the heart of the entrepreneurial process [27]. Properly established and understood risks can also open opportunities and enable risk-taking and innovation [28]. Thus, the adoption of a formalised ERM system not only minimises risk but also enables improved risk-taking [29].

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### *2.3.1. Control Activities*

Control activities are one of the core elements of Enterprise Risk Management (ERM), including those policies, procedures, and practices established to ensure that risk responses are performed as intended and that the organisation's goals and objectives are met [30]. Specifically, these actions allow a systematic way to minimise related risks at all levels and roles in organisational activities, such as authorisation procedures, confirmations, reconciliations, performance reviews, and segregation of functions [31]. Control activities serve as compliance support, protect assets, and optimise operations. Such processes are thus designed and shaped so that specific types of risks are addressed, thus ensuring consistency and reliability and consistent processes to the organisation's risk appetite [29]. Thus, control activities bridge risk identification and mitigations, instilling a risk-managed environment across the organisation.

### *2.3.2. Information and Communication*

Information and communication, part of the information system, and control activities are the essential parts of ERM and keep all functions and levels of the organisation running smoothly with relevant, accurate information promptly [30]. This element calls for coordinated and clear transmission and communication pathways to capture, analyse and report essential risk information. Internal and external data is essential for effective decision-making and risk management, so accurate information systems are imperative [12]. Communication channels also reach stakeholders and inform an entity's risk environment, controls, and strategies. Technology has substantially improved these procedures, allowing access to real-time data and dissemination within the organisation, leading to agility and responsiveness [2]. Thus, the information and communication component serves as a linking element that ties the various elements of ERM together, creating a single risk-management system.

### *2.3.3. Monitoring*

Monitoring is building on the foundation of the control activities and information and communication flows by providing for the ongoing assessment of the effectiveness of a firm's ERM framework over time [30]. It involves ongoing monitoring and evaluation of processes (including internal audits, reviews, and feedback mechanisms) to ensure that risk management processes are consistent with a firm's objectives and effective in a changing environment [31]. Monitoring activities can be classified as ongoing activities and periodic evaluations [28]. Ongoing activities provide a real-time picture of an entity's effectiveness in managing its risks; periodic evaluations are structured assessments of its controls and processes. This broad-scale monitoring enables organisations to find gaps and challenges, act satisfactorily, and develop the maturity and flexibility of their ERM

frameworks [12]. This leaves monitoring as the last line of defense in the ERM cycle, facilitating that organisations continue to improve and adapt as new risks emerge.

#### 2.4. *Competitive Advantage*

Competitive advantage is a cornerstone of business strategy, referring to the distinctive strengths and abilities that enable an organisation to outperform the industry competitors [31]. This characteristic sets a business organisation apart in delivering increased customer value, strengthening its position within the marketplace and achieving long-term profitability. Kiragu [32] defined competitive advantage as "the tactical advantages held by an entity about its competitors within the marketplace, leading to superior performance." He described four basic competitive strategies: differentiation, cost leadership, differentiation focus and cost focus. Differentiation and cost leadership approaches are recognised as essential elements in competitive advantage.

Implementing unique strategies that lead to competitive advantage has consistently been linked to superior firm performance. Numerous studies have demonstrated a strong positive correlation between competitive advantage and firm performance [33, 34]. In today's dynamic economy, competitive advantage has become increasingly relevant for organisations, potentially significantly enhancing their overall performance [31]. Conversely, a low level of competitive advantage can result in diminished performance and the eventual failure of firms operating in a business environment [35].

Firms must adopt a multifaceted approach to achieve and maintain a competitive advantage. Beyond [35] four essential competitive strategies, another approach emphasises leveraging service quality, corporate image, and human capital [36–40]. The quality of service has become one of the most critical strategic perspectives for competitive advantage, and firms are focused on continuously enhancing retention and cross-selling [41]. Besides, corporate image is a common marketing yardstick used to achieve competitive advantage and improved firm performance [40]. Moreover, in the knowledge economy, human capital is a significant driver of firm competitiveness and value creation [42]. These factors laid the groundwork for continued success and differentiation in the marketplace. Therefore, this research adopted three factors to assess competitive advantages: service quality, corporate image, and human capital.

Moreover, a company's competitive edge can be viewed in several dimensions and thus needs to be integrated when measuring the effect of the firm's performance. Some researchers have highlighted that measurement does not add up to various aspects in determining a firm's competitive status in the industry [43, 44]. Such measurement frameworks enable the firm to understand its disadvantageous aspects and assist the firm in further enhancing and creating value in the business. Major elements, such as the standard of services and the overall view of Rao and Kelkar [40] and Xu and Liu [42]. Competitive advantage is important for enhancing a firm's market share and long-term survival. Scholars emphasise that it is a critical competitive factor that deserves to be measured in the context of the strategy dimensions that influence performance and differentiation [44, 45]. Elements such as operational efficiency, level of customer satisfaction, and level of innovation can provide firm insights into their competencies. These measures guide activities one should undertake to maintain a competitive advantage and respond suitably to changes in the market [34, 36].

#### 2.5. *The Relationship between Enterprise Risk Management, Competitive Advantage and Firm Performance in the Previous Research*

The Empirical Studies on Enterprise Risk Management, Competitive Advantage and Firm Performance broadly analysed the relationship between Enterprise Risk Management (ERM), Competitive Advantage, and Firm Performance and have shown the interactive complexity and intermingling of some attributes of the associations. Various studies showed the positive influence of ERM implementation on firm performance through various mechanisms. Saeidi, et al. [2] discovered a positive relationship between intellectual capital and firm performance moderated by ERM. Furthermore, ERM implementation is associated with reduced earnings volatility, decreased external

capital costs, increased capital efficiency, and enhanced shareholder value [45]. However, some studies have found no additional increase in firm performance for companies implementing ERM, highlighting the context-dependent nature of ERM's effects.

The relationship between ERM and firm performance is also mediated by competitive advantage. We add to this emerging body of literature by showing that ERM can enhance firm performance through its increased financial literacy and intellectual capital, cost advantages, and efficiency. In today's ever-evolving business landscape, this multi-pronged framework highlights where risk management is a strategic advantage driver. The literature provides insights into trends, gaps and future research opportunities, emphasising the need to understand the contextual factors influencing the estimated relationship between ERM implementations and organisational performance.

The following table summarises key studies that demonstrate how competitive advantage mediates the relationship between ERM and firm performance, providing strong theoretical support for this study. The literature indicates that successful ERM initiatives enhance firm performance. Moreover, their impact is more significant when competitive advantage serves as a mediator.

**Table 1.**  
Summary of Studies on Enterprise Risk Management, Competitive Advantage, and Firm Performance.

Author (Year)	Research Focus (Objective)	Variables Used in the Study	Findings	Limitations
Jalal - Karim [46]	Investigate the relationship between ERM factors and competitive business advantage.	IV: Identifying risks, estimating risks, Treating risks, Monitoring, Communication; DV: Competitive Business Advantage.	A significant relationship was found between ERM factors and boosting competitive business advantage. ERM is crucial for enhancing the business plan.	Limited to specific industries; lacks empirical evidence from diverse settings.
Saeidi, et al. [34]	Explore the mediating roles of competitive advantage, reputation, and customer satisfaction in CSR-firm performance.	IV: Corporate social responsibility; Mediator: Competitive Advantage, Reputation, Customer Satisfaction; DV: Firm Performance.	CSR positively influences firm performance through competitive advantage and reputation, with competitive advantage being a significant mediator.	Focuses solely on CSR; limited generalizability to other industries.
Soltanizadeh [47]	Assess the mediation effect of ERM on the relationship between business strategy and organisational performance.	IV: ERM adoption, Business Strategy; Mediator: ERM; DV: Organizational Performance.	ERM implementation positively impacts organisational performance, particularly for cost leadership strategies. ERM is a partial mediator in this context.	The focus is narrow on cost leadership strategies and does not explore other strategies.
Yang et al. (2018) [54]	Examine the mediating role of competitive advantage between ERM practices and firm performance.	IV: ERM Practices; Mediator: Competitive Advantage; Moderator: Financial Literacy; DV: Firm Performance.	ERM practices significantly influence competitive advantage and SME performance. Competitive advantage partially mediates this relationship, with financial literacy moderating the ERM-competitive advantage link.	Limited focus on SMEs; may not apply to larger organisations or different industries.
Saeidi, et al. [48]	Examine the influence of ERM on Competitive Advantage, with IT as a moderator.	IV: ERM; Moderator: Information Technology; DV: Competitive Advantage.	ERM positively affects competitive advantage. IT strategy and structure enhance this relationship, improving competitive advantage.	Does not address firms with minimal IT infrastructure and lacks longitudinal analysis.
Saeidi, et al. [49]	Explore the effect of ERM on financial and non-financial firm performance, with	IV: ERM; Moderator: Intellectual Capital; DV: Financial and Non-Financial Firm	ERM positively affects firm performance. Intellectual capital moderates the relationship between ERM and	Limited data on non-financial aspects; focus on intellectual

	intellectual capital as a moderator.	Performance.	financial performance.	capital only.
Jaber [31]	Study the impact of risk management practices on organisational performance.	IV: Risk management practices. DV: Organizational Performance.	Risk management practices positively impact performance, with risk mitigation having the most influence.	It focuses on risk mitigation alone but lacks cross-sectional data for broader insights.
Al-Harbi and Rasheed [50]	Assess the moderating effect of competitive advantage on the ERM-non-financial performance relationship.	IV: ERM; Moderator: Competitive Advantage; DV: Non-Financial Performance.	ERM positively impacts non-financial performance, with competitive advantage as a significant moderator enhancing the effect.	Limited focus on non-financial measures; excludes financial indicators.
Mukherjee, et al. [51]	Assess the influence of ERM practices on firm reputation and customer loyalty in Indian retail firms.	IV: ERM; DV: Firm Reputation and Customer Loyalty.	ERM significantly improves a firm's reputation, which enhances customer loyalty. Effective risk management builds trust and strengthens customer relationships.	Limited to Indian retail firms; lacks consideration of cultural and regional variations.
Tewu [52]	Examine the effects of ERM and SCM on firm performance, with competitive advantage and decision-making as mediators.	IV: ERM, Supply Chain Management (SCM); Mediators: Competitive Advantage, Decision Making; DV: Firm Performance.	ERM and SCM enhance decision-making, which significantly improves firm performance. Competitive advantage did not mediate the relationship between ERM, SCM, or firm performance.	Overlooks external factors influencing SCM and lacks quantitative validation of the role of competitive advantage.
Kanu [53]	To investigate the integration of ERM with strategic planning and its effect on firm performance in African firms.	IV: Enterprise Risk Management (COSO framework); Mediator: Strategic Planning; DV: Firm Performance (Return on Assets).	The integration of ERM with strategic planning significantly improves firm performance, while ERM alone does not significantly impact performance.	Small sample size (141 firms across 3 African countries), subjective bias in executive responses, measures of ERM might differ in organisations, and limited generalizability to other contexts or markets.
Mahmood and Ahmed [54]	To examine the mediating effect of risk management practices on the relationship between risk-related factors and the financial performance of Iraqi private banks.	IV: Risk Understanding & Management, Risk Identification, Risk Assessment & Analysis, Risk Monitoring, Credit Risk Analysis; Mediator: Risk Management Practices; DV: Financial Performance.	Risk management practices mediate the relationship between risk-related factors and financial performance. Positive relationships were found for Risk Assessment, Credit Risk Analysis, and Understanding Risk & Management. However, Risk Identification and Monitoring showed insignificant results.	The sample size is limited to private banks in Iraq. Findings are specific to Iraqi banking and may not generalise to other countries or sectors—limited analysis of long-term effects of risk management practices.

Le Vinh, et al. [55]	To assess the impact of Enterprise Risk Management (ERM) on financial and non-financial performance, examining the mediating roles of knowledge management and technology adoption, and the moderating role of supply chain resilience.	IV: Enterprise Risk Management (ERM); Mediators: Knowledge Management, Technology Adoption; Moderator: Supply Chain Resilience; DVs: Financial and Non-Financial Performance.	ERM has a significant positive impact on financial performance, mediated by knowledge management and technology adoption. These factors also fully mediate non-financial performance. Supply chain resilience strengthens the ERM-financial performance relationship but not non-financial performance.	The limited sample size (297 respondents in Vietnam) and the focus on a single country and specific industries may limit generalizability. The data were collected at a single point, lacking longitudinal analysis.
Dewi, et al. [56]	To investigate how ERM moderates the relationship between sustainability performance and competitive advantage in firms.	IV: Sustainability Performance; Moderator: Enterprise Risk Management (ERM); DV: Competitive Advantage.	The study found that ERM positively moderates the relationship between sustainability performance and competitive advantage, indicating that firms with robust ERM practices can better leverage sustainability efforts to achieve a competitive edge.	The research is limited to a specific sample, which may affect the generalizability of the findings. Additionally, the study's cross-sectional nature does not account for potential changes over time.

### 3. Theoretical Foundation and Research Hypothesis

#### 3.1. Theoretical Foundation

The theoretical foundation of this study integrates the Resource-Based View (RBV) and contingency theory to examine the relationship among Enterprise Risk Management (ERM), competitive advantage, and firm performance. The RBV posits that organisations can achieve a competitive advantage and superior performance by managing strategic assets, and an efficient ERM system can be classified as a strategic asset [57]. This view contrasts with the industrial organisation theory that external factors drive firms' competitive behaviour and performance [58] in that it considers that the internal resources a firm brings to the table drive organisational performance. Drawing on the RBV, a firm comprises unique inimitable resources and capabilities, which suggests the induction of resource-based factors with institutional factors for sustainable success [59].

##### 3.1.1. Resource-Based View Theory (RBV)

The Resource Based View Theory (RBV) maintains that organisations can use strategic assets to attain better performance and competitive edge, and that effective ERM system is one such asset [57]. This notion outlines that it is not the external factors but the internal resources that realise the performance of an organisation compared to the industrial organisation theory [58]. This theory emphasises firms as collections of idiosyncratic, inimitable resources and capabilities, which need the direct presence of resource-based factors and institutional factors for sustained success [59].

Khotimah [60] explains that within the RBV perspective, firms are essentially bundles of resources and capabilities, and competitive advantage is maintained by continuing to own and control unique combinations of resources that may be difficult for competitors to duplicate. ERM has evolved into a central internal asset embodying a holistic approach to managing the multifactorial risks confronting organisations. ERM implementation is firm-specific and not quickly adopted by competitors, aligning with RBV theory [61]. From a resource-based view, ERM is regarded as a contributing factor for firms



to gain a competitive advantage and achieve better performance. As a result, organisations can improve their resilience and operational safety [62]. This definitive standard was created in the US by the Committee of Sponsoring Organisations of the Treadway Commission [30]. It offers a structured path to ERM implementation, substantiating its position as a strategic asset.

### 3.1.2. Contingency Theory

Contingency Theory complements RBV by emphasising the importance of aligning ERM processes with organisation-specific factors to achieve competitive advantage and enhance firm performance Roslan [63]. Mikes and Kaplan [64] developed the contingency theory of ERM, positing that the effectiveness of strategic risk management depends on creating a 'fit' between ERM adoption and the organisational context. This theory argues that no single management technique is universally applicable; instead, the value of risk management practices is determined by their alignment with a firm's risks, strategic goals, and operational context [65].

Integrating Contingency Theory into ERM indicates that firms within markets characterised by high uncertainty need dynamic frameworks for assessment and responsive strategies to effectively address potential areas of uncertainty. Such emphasis on ERM can better inform decision-making, safeguard against disruptions, and enable efficient use of resources by innovatively aligning with environmental contingencies [66].

These variables, which are the situational features of organisational functioning, correlate with efficiency within a technical-economic process [65, 67, 68] leading to a win-win relationship between ERM and Contingency Theory, rendering a potential competitive advantage and an attainable firm performance. This combined framework helps to achieve an integrated perspective on risks, supports prioritisation of resources, and ensures that strategies are dynamic in response to diverse internal and external environments [34]. As a result, this strategy and synergy promotes organisational resilience and adaptability, allowing firms to respond to disruptions effectively and pursue continuous improvement and innovation [65, 69]. The integration is facilitated by the COSO ERM framework [30] which provides a flexible, adaptable framework across organisational contexts.

### 3.2. Research Hypothesis

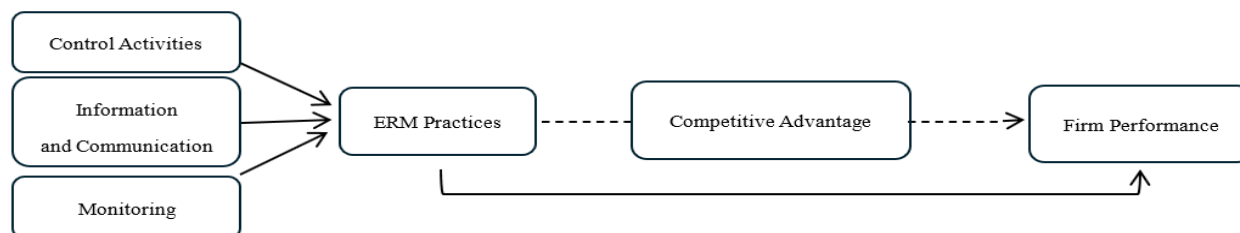
This study argues that the realisation of potential value from ERM depends on continuous and dynamic identification, assessment and management of risk in all the areas of the entire organisation [4, 70]. Furthermore, a crucial part of a company's outcome of ERM (Control Activities, Information and Communication and Monitoring) is the contribution of the ERM (Control Activities, Information and Communication and Monitoring). ERM can reduce operational efficiencies and protect the trust of stakeholders, ensure adherence to regulatory mandates, create a safe and healthy working environment and promote sustainability, in addition to being the basis of innovation and other strategic initiatives, returning to the essence of better identifying and measuring risks across the foundations of an organisation. Effective risk management ensures long-term, sustainable success and resilience in these turbulent times, protecting brand equity, reputation and spend metrics. Therefore, considering the context, the present study hypothesises as follows:

*H<sub>1</sub>: Enterprise risk management (ERM) has a significant positive impact on firm performance*

*H<sub>2</sub>: Enterprise risk management (ERM) affects competitive advantage*

*H<sub>3</sub>: Competitive advantage affects firm performance*

*H<sub>4</sub>: Competitive advantage mediates the relationship between enterprise risk management (ERM) and firm performance.*



**Figure 1.**  
Conceptual Framework.

#### 4. Methodology

This study uses a survey methodology to test the research hypotheses by collecting data from business managers implementing the Enterprise Risk Management (ERM) process. Items were clear, brief and designed for relevance, making it easy for participants to complete the survey. Pilot testing will also contribute to the validity by enabling further adjustments before sending out to the sample population concerning the study (ERM and firm performance). This is consistent with best practices in survey research by allowing the instrument to be validated as effective in capturing the constructs it intended to measure.

The questionnaire incorporates several valid existing instruments adapted for the current study. It focuses on investigating the relationship between ERM dimensions and firm performance. Specifically, the survey explores the key constructs: Risk Control Activities, Information and Communication, Monitoring, Competitive Advantage, and Firm Performance. This study builds upon existing knowledge by utilising established instruments while tailoring the approach to the specific context of ERM implementation.

To ensure that all participants had the same understanding of key terms and to enable meaningful responses, definitions of ERM and its dimensions were provided at the top of the survey. Such a methodological decision was taken to minimise possible differences in the understanding of key concepts given by the respondents, which would otherwise jeopardise data quality. Using a five-point Likert scale with answers ranging from "strongly disagree" (1) to "strongly agree" (5), the question aimed to develop a standard metric for measuring the participants' impressions and insights.

The study used both SPSS and Smart PLS software for data analysis, leveraging their strengths in statistical analysis and structural equation modeling. This dual approach to data analysis enables a comprehensive examination of the relationships between variables, supporting robust hypothesis testing and model validation. Through this methodological framework, this study aims to provide valuable insights into the impact of ERM on firm performance mediated by competitive advantage.

#### 5. Expected Outcomes

Enterprise Risk Management (ERM) has become a far-reaching strategic tool for organisations, potentially influencing firm performance and competitive advantage. Based on the Resource-Based View (RBV) and contingency theories, this research investigates the relationship between ERM and firm performance vis-a-vis competitive advantage as a mediating factor.

ERM is a strategic control system for performance, information, and organisational monitoring. It is consistent with the Resource-Based View (RBV) and Contingency theories through acknowledging internal resources and capabilities as sources of competitive advantage between firms. This is in keeping with the idea that institutions with effective ERM processes leverage their resources and capabilities more effectively than they specifically compete with the industry. As a result, ERM plays an important role in developing organisational competence and capacity, thus impacting firm performance.

Therefore, the construct of ERM influences competitive advantage and consideration firm performance. Evidence shows that ERM helps firms better anticipate and manage risk exposure, creates

cost savings through enhanced operational efficiency and helps firms strengthen stakeholder trust. Its positive impact points to enhanced performance, better financial standing, and market replication, thus signifying the role of competitive edge as the mediating factor in the RBV structure. The mediating role of competitive advantage in the relationship between ERM and organisational performance in today's dynamic business environment thus helps to further substantiate the strategic value of ERM as a precursor to long-term value creation and sustain competitiveness.

Contingency theory suggests no universal approach to implementing ERM, regardless of the industry. It has been proven that ERM practices need to adjust to the business industry within specific environmental, regulatory, and market conditions. To contribute to firm performance, ERM strategies must fit the organisational and environmental contexts. These findings suggest that organisations whose ERM strategies are tailored to their contexts perform better. Businesses will likely adopt multiple ERM approaches based on company size, market share, and customer demographics.

This study recognises potential limitations and encourages further empirical validation of the proposed framework. Challenges in data collection and sample accessibility may create limitations in this study. These limitations must be considered while developing future research agendas that advance our understanding of the linkages between ERM, competitive advantage and firm performance. Recognising these limitations lays the groundwork for future research building and enhancing our perspective on the influence of ERM on organisational performance. Therefore, this research contributes to the existing body of knowledge on ERM and paves the way for more nuanced investigations into its role in shaping competitive advantage and firm performance across diverse business contexts.

## 6. Expected Contributions

**Expected Contributions** This study advances the field of strategic and Enterprise Risk Management (ERM) in various ways. Adding to the Resource-Based View (RBV) theory, it explores how exposure to ERM contributes to valuable, rare, inimitable, and non-substitutable resources, enabling organisations to gain and sustain competitive advantage. This integration builds on RBV's application of the RBV across risk management and strategic decision-making domains.

At the intersection of strategic management and ERM, it deconstructs fundamental ERM elements and investigates their impact on firm performance. It serves as a practical resource for directors and managers by bridging the gap between organisational expectations and actual organisational implementation of competitive advantage strategies. It connects theory with practice and will benefit academics and practitioners by providing valuable lessons in strategic risk management.

This study integrates Contingency Theory with ERM frameworks, highlighting the impact of contextual factors on risk management practices and outcomes. This contribution highlights the importance of constructing and implementing ERM differently based on specific contingencies instead of applying one-size-fits-all strategies. This study contributes to the theory of the role of risk management in different types of organisations by investigating how different factors affect ERM effectiveness.

The contingency theory's theoretical exploration of the connections between ERM, competitive advantage, and firm performance deepens the understanding of how risk management influences these outcomes. It explains when ERM leads to sustained competitive advantage and superior firm performance, providing an integrated understanding of these relationships.

Finally, the study provides valuable practical guidance for practitioners, underscoring the importance of ERM in achieving sustainable competitive advantages. It offers a pathway to adopting and incorporating effective ERM into organisational strategy, urging a more holistic conception of risk management in the minds of organisational leaders. The lessons learnt would lead to the preparation of context-based, more efficient ERM frameworks, enabling better strategic decision-making for several sectors.

## Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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## References

- [1] A. O. Otekunrin, D. F. Eluyela, T. I. Nwanji, S. Faye, K. E. Howell, and J. Tolu-Bolaji, "Enterprise risk management (ERM) and firm's performance: A study of listed manufacturing firms in Nigeria," *Research in World Economy*, vol. 12, no. 1, pp. 31–41, 2021.
- [2] P. Saeidi *et al.*, "The influence of enterprise risk management on firm performance with the moderating effect of intellectual capital dimensions," *Economic Research*, vol. 34, no. 1, pp. 122–151, 2021. <https://doi.org/10.1108/MABR-10-2017-0020>
- [3] K. Pang and C.-S. Lu, "Organizational motivation, employee job satisfaction and organizational performance: An empirical study of container shipping companies in Taiwan," *Maritime Business Review*, vol. 3, no. 1, pp. 36–52, 2018. <https://doi.org/10.1108/MABR-10-2017-0020>
- [4] S. Amar, D. Putri, F. Fathorrahman, U. Wahyuni, A. Kusuma, and M. Aina, "The role of enterprise risk management on intellectual capital and its impact on firm performance based on agency theory, signaling theory and resource-based view (RBV) theory Approach," *International Journal of Multicultural and Multireligious Understanding*, vol. 9, no. 7, pp. 247–256, 2022. <https://doi.org/10.18415/ijmmu.v9i7.3863>
- [5] A. A. Turgaeva, *Analysis of non-financial performance indicators of insurance companies. In Breakthrough scientific research as an engine of science*. Russia: Infinity Publishing, 2021.
- [6] A. U. Rehman and M. Anwar, "Mediating role of enterprise risk management practices between business strategy and SME performance," *Small Enterprise Research*, vol. 26, no. 2, pp. 207–227, 2019. <https://doi.org/10.1080/13215906.2019.1604188>
- [7] A. Rao, "Empirical analysis of joint impact of enterprise risk management and corporate governance on firm value," *International Review of Advances in Business, Management and Law*, vol. 1, no. 1, pp. 34–50, 2018.
- [8] A. R. Alshehadeh, G. A. Elrefae, M. Khudari, and E. Injadat, "Impacts of financial technology on profitability: Empirical evidence from Jordanian commercial banks," *Studies in Computational Intelligence*, vol. 1010, pp. 487–496, 2022. [https://doi.org/10.1007/978-3-030-74761-9\\_37](https://doi.org/10.1007/978-3-030-74761-9_37)
- [9] M. A. I. Khan, M. A. M. A. Alkathiri, H. A. Alhaddad, and F. M. Alnajjar, "Impact of ERM on sustainability and financial performance of enterprises in the Gulf Cooperation Council: Case study of Oman," *Available at SSRN* 3772028, 2021. <https://doi.org/10.2139/ssrn.3772028>
- [10] T. T. Y. Alabdullah and E. R. Ahmed, "New insights to investigate the impact of internal control mechanisms on firm performance: A study in oman," *Riset Akuntansi dan Keuangan Indonesia*, vol. 6, no. 2, pp. 205–214, 2021. <https://doi.org/10.23917/reaksi.v6i2.15194>
- [11] S. A. Shatnawi and D. M. Eldaia, "The factors influencing the enterprise risk management practices and firm performance in Jordan and Malaysia," *International Journal of Recent Technology and Engineering*, vol. 8, no. 5, pp. 2277–3878, 2020.
- [12] M. F. Malik, M. Zaman, and S. Buckby, "Enterprise risk management and firm performance: Role of the risk committee," *Journal of Contemporary Accounting & Economics*, vol. 16, no. 1, p. 100178, 2020. <https://doi.org/10.1016/j.jcae.2019.100178>
- [13] F. Liu, D. K. Dutta, and K. Park, "From external knowledge to competitive advantage: absorptive capacity, firm performance, and the mediating role of labour productivity," *Technology Analysis & Strategic Management*, vol. 33, no. 1, pp. 18–30, 2021. <https://doi.org/10.1080/09537325.2020.1778585>
- [14] H. O. Aifuwa, "Sustainability reporting and firm performance in developing climes: A review of literature," *Copernican Journal of Finance & Accounting*, vol. 9, no. 1, pp. 9–29, 2020. <https://doi.org/10.12775/CJFA.2020.001>
- [15] C. Bailey, "The relationship between chief risk officer expertise, ERM quality, and firm performance," *Journal of Accounting, Auditing & Finance*, vol. 37, no. 1, pp. 205–228, 2022. <https://doi.org/10.1177/0148558X211038989>
- [16] G. Chow, T. D. Heaven, and L. E. Henriksson, "Logistics performance: Definition and measurement," *International Journal of Physical Distribution & Logistics Management*, vol. 24, no. 1, pp. 17–28, 1994. <https://doi.org/10.1108/09600039410055254>
- [17] S. Harper and T. Vilkinas, "Determining the impact of an organisation's performance management system," *Asia Pacific Journal of Human Resources*, vol. 43, no. 1, pp. 76–97, 2005. <https://doi.org/10.1177/1038411104048167>

- [18] Y.-H. Ling and L. Hung, "The influence of intellectual capital on organizational performance: The mediation effect of intellectual capital management strategy," *Human Resource Management Student Newspaper*, vol. 10, no. 1, pp. 1-27, 2010.
- [19] M. Charles and S. B. Ochieng, "Strategic outsourcing and firm performance: a review of literature," *International Journal of Social Science and Humanities Research (IJSSHR) ISSN*, vol. 1, no. 1, pp. 20-29, 2023.
- [20] S. Alateyah, *The determinants of e-recruitment and its effect on HRM capabilities and the firm's performance: Evidence from Saudi Arabia context*. Saudi Arabia: University of Saudi Arabia, 2018.
- [21] N. Venkatraman and V. Ramanujam, "Measurement of business performance in strategy research: A comparison of approaches," *Academy of Management Review*, vol. 11, no. 4, pp. 801-814, 1986. <https://doi.org/10.5465/amr.1986.4283977>
- [22] S. M. Nkomo, "Human resource planning and organization performance: An exploratory analysis," *Strategic Management Journal*, vol. 8, no. 4, pp. 387-392, 1987. <https://doi.org/10.1002/smj.4250080407>
- [23] R. S. Kaplan, N. P. D. K. S. Robert, R. S. Kaplan, and D. P. Norton, *The strategy-focused organisation: How balanced scorecard companies thrive in the new business environment*. United States: Harvard Business Press, 2001.
- [24] A. T. Al Mamoori, W. F. Wan Yusoff, and M. Khudari, "Verifying the role of dividends as a mediator in the impact of cash flows on bank stock returns on the Iraq Stock Exchange: An empirical analysis," *Journal of Risk and Financial Management*, vol. 18, no. 2, p. 102, 2025. <https://doi.org/10.3390/jrfm18020102>
- [25] S. M. Bychkova, S. N. Karelskaia, E. B. Abdalova, and E. A. Zhidkova, "Social responsibility as the dominant driver of the evolution of reporting from financial to non-financial: Theory and methodology," *Foods and Raw Materials*, vol. 9, no. 1, pp. 135-145, 2021. <https://doi.org/10.24263/2308-4057-2021-9-1-135-145>
- [26] S. S. Horvey and J. Ankamah, "Enterprise risk management and firm performance: Empirical evidence from Ghana equity market," *Cogent Economics & Finance*, vol. 8, no. 1, p. 1840102, 2020. <https://doi.org/10.1080/23322039.2020.1840102>
- [27] B. Brühwiler, *Risikomanagement als Führungsaufgabe ISO 31000 mit ONR 49000 wirksam umsetzen*, 3rd ed. Haupt: Bern Stuttgart Wien, 2011.
- [28] Y. Eshima and B. S. Anderson, "Firm growth, adaptive capability, and entrepreneurial orientation," *Strategic Management Journal*, vol. 38, no. 3, pp. 770-779, 2017. <https://doi.org/10.1002/smj.2486>
- [29] R. M. Stulz, "Risk-Taking and Risk Management by Banks," *Journal of Applied Corporate Finance*, vol. 27, no. 1, pp. 8-18, 2015.
- [30] COSO, *Enterprise risk management—integrated framework*. United States: Committee of Sponsoring Organizations of the Treadway Commission, 2004.
- [31] A. S. Jaber, "The impact of risk management practices on the organisational performance: Field Study at Jordanian insurance companies," Doctoral Dissertation, Middle East University, 2020.
- [32] R. N. Kiragu, "Strategic leadership and sustainable competitive advantage of commercial banks in Kenya," Master's Thesis, University of Nairobi, University of Nairobi Repository, 2014.
- [33] C. Lechner and S. V. Gudmundsson, "Entrepreneurial orientation, firm strategy and small firm performance," *International Small Business Journal*, vol. 32, no. 1, pp. 36-60, 2014.
- [34] S. P. Saeidi, S. Sofian, P. Saeidi, S. P. Saeidi, and S. A. Saeidi, "How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction," *Journal of Business Research*, vol. 68, no. 2, pp. 341-350, 2015. <https://doi.org/10.1016/j.jbusres.2014.06.037>
- [35] R. P. Kakati and U. Dhar, "Competitive strategies and new venture performance," *Vikalpa: The Journal for Decision Makers*, vol. 27, no. 3, pp. 13-26, 2002. <https://doi.org/10.1177/025609092002270302>
- [36] B. Edvardsson, "Service quality: beyond cognitive assessment," *Managing Service Quality: An International Journal*, vol. 15, no. 2, pp. 127-131, 2005.
- [37] M. D. Hartline and K. C. Jones, "Employee performance cues in a hotel service environment: Influence on perceived service quality, value, and word-of-mouth intentions," *Journal of Business Research*, vol. 35, no. 3, pp. 207-215, 1996.
- [38] N. K. Upamannyu, S. Bhakar, and M. Gupta, "Effect of corporate image on brand trust and brand affect," *International Journal of Applied Science-Research and Review*, vol. 2, no. 1, pp. 20-33, 2015.
- [39] G. S. Al Maskari, "The impact of intellectual capital and balanced scorecard implementation on firm performance," Doctoral Dissertation, University of Bradford, 2019.
- [40] C. Rao and M. M. Kelkar, "Relative impact of performance and importance ratings on measurement of service quality," *Journal of Professional Services Marketing*, vol. 15, no. 2, pp. 69-86, 1997.
- [41] P. Özkan, S. Süer, İ. K. Keser, and İ. D. Kocakoç, "The effect of service quality and customer satisfaction on customer loyalty: The mediation of perceived value of services, corporate image, and corporate reputation," *International Journal of Bank Marketing*, vol. 38, no. 2, pp. 384-405, 2019.
- [42] J. Xu and F. Liu, "The impact of intellectual capital on firm performance: A modified and extended VAIC model," *Journal of Competitiveness*, vol. 12, no. 1-18, 1, 2020. <https://doi.org/10.7441/joc.2020.01.01>
- [43] M. E. Porter, *Competitive strategy: Techniques for analysing industries and competitors*. New York: Free Press, 1980.
- [44] J. Barney, "Firm resources and sustained competitive advantage," *Journal of Management*, vol. 17, no. 1, pp. 99-120, 1991.



- [45] C. K. Prahalad and G. Hamel, "The core competence of the corporation," *Harvard Business Review*, vol. 68, no. 3, pp. 79–91, 1990.
- [46] A. Jalal-Karim, "Leveraging enterprise risk management (ERM) for boosting competitive business advantages in Bahrain," *World Journal of Entrepreneurship, Management and Sustainable Development*, vol. 9, no. 1, pp. 65–75, 2013.
- [47] H. Soltanizadeh, "The role of enterprise risk management in corporate sustainability: Evidence from developing economies," *Journal of Risk and Financial Management*, vol. 9, no. 1, pp. 1–12, 2016.
- [48] P. Saeidi, S. P. Saeidi, and S. P. Saeidi, "The effect of enterprise risk management on firm performance in emerging markets: Evidence from Iran," *Business Strategy and the Environment*, vol. 28, no. 6, pp. 1061–1075, 2019.
- [49] S. P. Saeidi, P. Saeidi, and S. P. Saeidi, "Corporate governance, enterprise risk management, and firm performance: A case study of Iranian manufacturing firms," *Journal of Risk Research*, vol. 23, no. 7, pp. 943–960, 2020.
- [50] M. Al-Harbi and A. Rasheed, "The role of risk management practices in enhancing firm performance: Evidence from the GCC region," *International Journal of Financial Studies*, vol. 9, no. 4, p. 67, 2021.
- [51] S. Mukherjee, R. Basak, and M. Sanyal, "Risk management and firm performance: A study of Indian textile firms," *Risk Management*, vol. 27, no. 2, pp. 105–123, 2024.
- [52] M. L. D. Tewu, "Impact of enterprise risk management on firm performance: Evidence from Indonesia," *International Journal of Business and Management*, vol. 11, no. 2, pp. 45–67, 2024.
- [53] M. S. Kanu, "The effect of enterprise risk management on financial performance: A case study of Sierra Leone," *Journal of Financial Risk Management*, vol. 8, no. 1, pp. 101–115, 2020.
- [54] N. S. Mahmood and E. M. Ahmed, "Corporate governance and risk management in financial institutions: A systematic review," *International Journal of Economics and Finance*, vol. 15, no. 5, pp. 201–213, 2023.
- [55] Q. Le Vinh, T. A. Nguyen, T. Ngoc-Long, and X. G. Pham, "Enterprise risk management and firm performance in the Vietnamese banking sector," *Asian Journal of Finance & Accounting*, vol. 11, no. 2, pp. 112–126, 2024.
- [56] A. A. Dewi, E. Saraswati, A. F. Rahman, and S. Atmini, "The relationship between enterprise risk management and corporate social responsibility in Indonesia," *Journal of Corporate Governance*, vol. 32, no. 1, pp. 88–99, 2024.
- [57] B. Wernerfelt, "A resource-based view of the firm," *Strategic Management Journal*, vol. 5, no. 2, pp. 171–180, 1984.
- [58] K. R. Conner, "A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm?," *Journal of Management*, vol. 17, no. 1, pp. 121–154, 1991.
- [59] C. Oliver, "Sustainable competitive advantage: Combining institutional and resource-based views," *Strategic Management Journal*, vol. 18, no. 9, pp. 697–713, 1997.
- [60] A. Khotimah, "The role of risk management and competitive advantage in the performance of small and medium enterprises," *Journal of Business and Economic Research*, vol. 12, no. 3, pp. 92–104, 2014.
- [61] M. S. Beasley, D. P. Pagach, and R. S. Warr, "The determinants of enterprise risk management: Evidence from the appointment of chief risk officers," *Risk Analysis*, vol. 28, no. 6, pp. 1393–1410, 2008.
- [62] H. Elahi, "The role of enterprise risk management in firm performance," *International Journal of Economics and Finance*, vol. 5, no. 8, pp. 120–130, 2013.
- [63] A. Roslan, "The role of enterprise risk management in improving firm performance: A case study in the Malaysian context," *International Journal of Risk and Management*, vol. 8, no. 2, pp. 76–85, 2016.
- [64] A. Mikes and R. S. Kaplan, "Creating sustainable competitive advantage through enterprise risk management: The role of contingency theory," *Journal of Risk Management*, vol. 24, no. 1, pp. 99–115, 2014.
- [65] R. H. Chenhall, "Management control systems design within its organizational context: Findings from contingency-based research and directions for the future," *Accounting, Organizations and Society*, vol. 28, no. 2–3, pp. 127–168, 2003.
- [66] L. A. Gordon, M. P. Loeb, and C.-Y. Tseng, "Enterprise risk management and firm performance: A contingency perspective," *Journal of Accounting and Public Policy*, vol. 28, no. 4, pp. 301–327, 2009.
- [67] J. Fisher, "Contingency-based research on management control systems: categorization by level of complexity," *Journal of Accounting Literature*, vol. 14, p. 24, 1995. [https://doi.org/10.1016/0361-3682\(93\)E0001-L](https://doi.org/10.1016/0361-3682(93)E0001-L)
- [68] L. Donaldson, *The contingency theory of organizations*. Thousand Oaks, CA: Sage Publications, 2006.
- [69] D. T. Otley, "The contingency theory of management accounting: achievement and prognosis," *Accounting, Organizations and Society*, vol. 5, no. 4, pp. 413–428, 1980.
- [70] M. I. Hamzah, N. Ahmad, and F. M. Ali, "The impact of enterprise risk management practices on organizational resilience: Evidence from Malaysian companies," *International Journal of Risk Management*, vol. 9, no. 1, pp. 45–59, 2022.