

A Systematic Literature Review of Enterprise Risk Management and Agendas for Future Research

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Abstract

Purpose: This study aims to systematically review recent developments in Enterprise Risk Management (ERM), synthesizing the findings published between 2019 and 2024. The goal is to uncover prevailing trends and theoretical advancements while identifying research gaps and future agendas for ERM scholarship. **Design:** Following the PRISMA protocol, this review examines peer-reviewed ERM articles indexed in the Web of Science (WoS) database from 2019 to 2024. A multi-stage screening process was employed to ensure methodological rigor, including identification, screening, eligibility, and inclusion stages. **Findings:** Drawing on research from diverse sectors, the review pinpoints major trends, challenges, and best practices in ERM. The evidence suggests that robust ERM efforts correlate positively with enhanced resilience, stronger financial outcomes, and better strategic alignment. In addition to delivering insights that can guide practitioners, policymakers, and academics, this review identifies prominent gaps in the existing literature and proposes avenues for future inquiry. **Research limitations:** The study is limited by its reliance on the Web of Science database and the selected time frame, which may exclude relevant studies outside this scope. **Practical implications:** Findings provide actionable insights for organizations seeking to integrate ERM into strategic planning, governance, and sustainability frameworks, thereby strengthening long-term performance and resilience. **Originality:** This study is the first to apply the PRISMA framework to synthesize recent ERM research systematically, offering a holistic and evidence-based understanding of its theoretical and practical evolution. It advances knowledge by linking ERM with emerging domains such as digital transformation, sustainability, and corporate social responsibility (CSR).

Keywords: Systematic Review, Enterprise Risk Management, ERM Implementation

Introduction

Following the globalization, the current global economy has experienced a significant increase in complexity, uncertainty, and volatility that affects business operations of organizations. Consequently, organizations are facing heightened risks and unpredictable events more frequently that may pose threats to their future sustainability (Morales et al., 2019). Companies increasingly face a multitude of risks, ranging from internal challenges such

as technological disruption and governance failures to external shocks like geopolitical instability, climate change, and global health emergencies including the COVID-19 pandemic (Lisdiono et al., 2022).

According to Aven and Thekdi (2021), organizations usually establish business approaches that exhibit enhanced agility, proactivity, and readiness to effectively navigate risks. In response to these challenges, organizations are moving away from traditional, siloed risk management practices and toward more integrated and strategic approaches (Gouiaa et al., 2020). One such approach is ERM, which provides a structured framework for identifying, assessing, responding to, and monitoring risks across the entire enterprise. ERM gained formal prominence with the introduction of the Enterprise Risk Management–Integrated Framework by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, hereafter) in 2004. This framework was later updated in 2017 to emphasize the alignment of risk management with strategy and performance (COSO, 2004; COSO, 2017), reflecting the growing consensus that effective risk oversight must be embedded within strategic decision-making processes.

Building on this evolution, academic and professional interest in ERM has grown substantially over the past decade, with research focusing on its implementation, maturity, and impact on organizational performance (Hernández-Madrugal et al., 2020). However, despite this expanding body of literature, inconsistencies remain in how ERM is conceptualized, operationalized, and measured across different sectors and regions. These variations have led to fragmented findings and limited consensus on the effectiveness of ERM implementation (Horvey & Odei-Mensah, 2023). Therefore, a systematic synthesis of recent studies is essential to clarify these inconsistencies, identify emerging trends, and provide a comprehensive understanding of ERM's current state and future trajectory. This study addresses this gap by conducting a PRISMA-based systematic literature review of ERM research published between 2019 and 2024, aiming to consolidate insights, highlight challenges, and propose agendas for future research.

Literature Review

ERM has since evolved into a widely adopted tool for enhancing corporate governance, strengthening internal controls, and supporting long-term value creation. Scholars have highlighted ERM's ability to mitigate information asymmetry, reduce the likelihood of reporting errors, and enable more informed risk-return trade-offs (Horvey & Odei-Mensah, 2023). Chen et al. (2020) claimed that an organization may be aware of the advantages of natural hedging by implementing ERM, prioritizing hedging efforts on the risks faced, and optimizing the assessment and selection of hedging instruments by consolidating its risks into a risk portfolio. During the last two decades, ERM has garnered increasing attention from a diverse group of researchers and practitioners with its worldwide spread implementation in practice (Meidell & Kaarbøe, 2017).

While ERM has gained significant traction as a strategic and governance-oriented framework, its practical implementation remains highly inconsistent across organizations. The literature reflects broad agreement on the value of ERM in theory, particularly its potential to enhance decision-making, align risk with strategy, and improve organizational resilience (Hernández-Madrugal et al., 2020). However, translating these theoretical benefits into consistent,

effective practice has proven challenging. Organizations vary widely in how they interpret, structure, and operationalize ERM initiatives, often influenced by industry-specific risk profiles, regulatory environments, leadership attitudes, and internal risk cultures (Horvey & Odei-Mensah, 2023).

Although ERM is designed to be flexible and context-dependent, the absence of clear implementation benchmarks or widely accepted best practices has led to divergent outcomes (Yakob et al., 2022). Some firms adopt ERM as a compliance-driven, box-ticking exercise, while others integrate it deeply into strategic planning and performance management (He, 2022). These disparities make it difficult to evaluate ERM's effectiveness in a comparable way and limit the accumulation of generalizable knowledge in the field. Moreover, common barriers such as inadequate top management support, siloed risk ownership, and weak organizational commitment further complicate efforts to embed ERM systematically into core business processes (Jean-Jules & Vicente, 2021). Therefore, a systematic literature review is warranted to synthesize existing findings, identify dominant themes, clarify conceptual ambiguities, and propose a coherent research agenda.

Research Motivation

ERM has become a critical aspect of modern organizational management, especially in an era characterized by rapid technological advancements, regulatory changes, and increasing global interconnectivity. Despite the growing body of literature on ERM, there remains a need for a comprehensive synthesis of existing research to understand the overarching trends, challenges, and best practices in the field. The motivation of utilizing a literature review is based on the growing significance of ERM as a prominent framework for effective corporate governance. This paper is relevant to organizations implementing ERM, researchers who can use the article as a reference in their field, and practitioners who wish to stay informed about the process through empirical analysis.

According to the study, comprehensive literature reviews on ERM appear to be scarce. During the research period, there were only seven published reviews (Bromiley et al., 2015; Wu et al., 2015; Renault et al., 2016; Choi et al., 2016; Viscelli et al., 2016; Anton & Nucu, 2020; Horvey & Odei, 2023). These are relatively few in number and either narrow in scope or outdated given the field's rapid evolution. Many reviews lack a comprehensive, multi-dimensional analysis of ERM implementation practices, performance outcomes, and theoretical foundations. As such, there is a clear need for an updated and holistic synthesis that not only consolidates existing findings but also identifies emerging trends, persistent challenges, and research gaps.

Methods

This paper utilizes the ISI Web of Science (WoS) database, a comprehensive and authoritative source that covers a wide range of topics, to obtain accurate information on ERM. After searching for terms related to ERM, a total of 14,265 results were recorded in the fields of management, finance, and economic studies, highlighting the abundance of publications in this area. As illustrated in Figure 1, there has been a significant increase in research on ERM since 2008. The trend shows a fluctuating yet overall upward trajectory, reaching its peak during the period from 2019 to 2023. This surge indicates heightened academic and professional interest in ERM, suggesting the availability of a rich body of contemporary

research that provides fresh insights and advanced methodologies. Therefore, this paper focuses specifically on scholarly articles related to ERM published from 2019 to the present. This focus is justified by the increased academic attention during this period, ensuring that the research is aligned with the latest developments in the field. Additionally, analyzing recent publications helps in benchmarking current ERM practices against recent trends and standards, providing valuable guidance for organizations aiming to update their risk management frameworks.

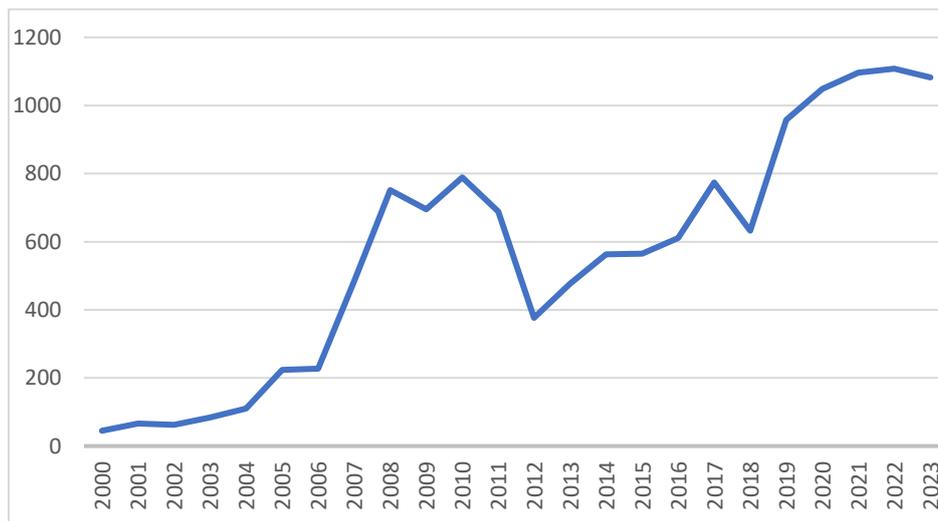


Figure 1 Search results from WOS related to the term "Enterprise Risk Management" over the years 2000 to 2023

Besides, regulatory changes overtime, and analyzing research from 2019 helps in benchmarking current ERM practices against recent trends and standards. This can provide valuable guidance for organizations looking to update their risk management frameworks to align with the latest best practices and industry standards.

Adhering to publication standards is crucial when conducting a systematic literature review. These criteria help researchers collect the required information and assess the quality of the study. This paper refers to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The PRISMA flow diagram is a tool specifically intended for tracking the progression of information, examining the actions taken by the writers, and identifying the outcomes they discovered during the systematic review process (Page et al., 2021; Rethlefsen & Page, 2022).

During the identification stage, relevant keywords, including the terms "Enterprise Risk Management", "ERM", and other keywords such as "integrated risk management" were determined by examining similar terms recommended by previous researchers, as well as consulting thesauruses and dictionaries. This comprehensive approach resulted in a total of 38,269 results on WOS. To create a database search strategy, the initial scoping searches was conducted. After conducting these pilot searches, the researchers categorized the keywords based on the relevant context, intervention, and desired outcome. In this instance, the researchers encompass all publications published exclusively in the English language, specifically focusing on journal articles published between 2019 and 2024. Furthermore, the researchers deliberately excluded any published articles irrelevant with the area of

management on a more granular level. Thus, the search terms and categories are specified below. After identifying the keywords, we generated the search string on June 1, 2024, as specified in Table 2. The researcher successfully collected 660 articles by utilizing keywords and a search string, and 1 duplication was found. Thus, there are totally 659 articles in identification stage.

Table 1
Search String

Database	Search String
Web of Science	(TITLE-ABS-KEY ("Enterprise Risk Management" OR "ERM" OR "Integrated Risk Management")) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2023) OR LIMIT-TO (PUBYEAR, 2024)) AND (LIMIT-TO (SUBJAREA, "MANAG")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (LANGUAGE, "English"))

Following the identification stage, a screening process was carried out on all 660 articles to reject non-relevant articles, mostly those that were duplicates or did not meet other criteria. The researchers determined the inclusion criteria based on considerations of study quality. Firstly, the researchers omitted articles encompass all works that have been published as a conference paper, editorial, business pieces, conference review, erratum, and brief survey. Similarly, books and book chapters are eliminated as this paper does not extend to doing book reviews. Secondly, this paper has omitted proceedings papers which are on the process of early access due to the inherent compromise between their quality and accessibility. Besides, this paper involves management in a narrow sense, excluding the management of engineering, computer science, education, hospitality, etc. After a preliminary screening of all the abstracts, the researchers also omitted some articles with a focus on supply chain management, financial risk management, political and reputation risk management since the research subject is ERM. Lastly, there are still some non-English articles that are excluded. Therefore, after evaluating the five criteria listed in Table 2, a total of 591 articles were eliminated from the initial 659 articles, resulting in only 68 articles remaining for the evaluation.

Table 2
Inclusion Criteria for the Systematic Literature Review

Criteria	Inclusion	Brief Description
Document Type	Article	Book chapter, conference paper, books, editorial, business pieces, conference review, erratum, and brief survey are not included.
Publication Stage	Final	Early access and other kind of articles which are in press are not included.
Research Area	Management	It involves management in a narrow sense, excluding the management of engineering, computer science, education, hospitality etc.

Criteria	Inclusion	Brief Description
Research Subject	ERM	Focus on the systematic and integrated risk management through the whole process of management. Other sole based risk management, such as supply chain risk management, financial risk management, political and reputation risk management etc., are not included.
Language	English	Languages other than English are not included.

The second step in the screening stage is the retrieval of articles. Researchers retrieve full-text articles for studies that meet the inclusion criteria from relevant databases or request them directly from the authors via email. Out of all the studies, there was only one article that the researchers could not retrieve. Consequently, a total of 65 articles were deemed eligible and remained after the researchers read the full texts.

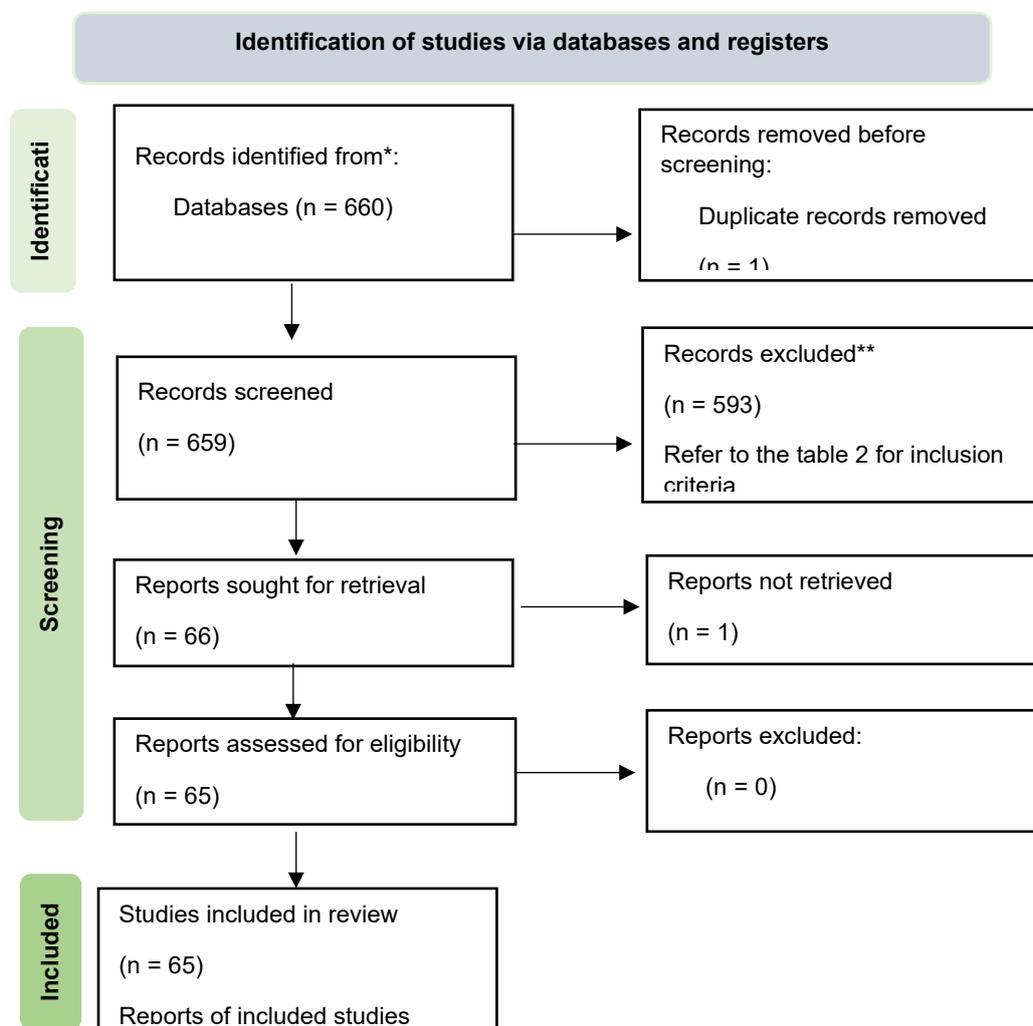


Figure 2 PRISMA Flow Diagram for Reviewed Articles

Data Analysis

Citation-based Analysis

Citation-based analysis is a crucial method for understanding the impact and influence of scholarly works within a specific field. By examining citation patterns, researchers can identify key articles, influential authors, and emerging trends. This analysis provides insights into the development of academic disciplines and helps in assessing the relevance and significance of research contributions. Table 3 displays a list of journals that have published more than two articles on ERM, arranged in descending order based on the number of articles published from 2019 to 2024. It is worth highlighting that Journal of Risk and Financial Management published six articles with a total of 20 citations. Similarly, Cogent Economics & Finance published three articles with a total of 21 citations, and Journal of Accounting and Organizational Change published three articles with a total of 25 citations. Furthermore, Journal of Contemporary Accounting & Economic received the highest number of citations, totalling 58. Following closely, Finance Research Letters received the second-highest citations with 35. These citation patterns underscore the influence and reach of specific journals within the field, highlighting the prominence of certain publications in disseminating research on Enterprise Risk Management.

Table 3

The list of the First 10 Journals with ERM Articles

Serial Number	Title of Journals	Number of Articles	Number of Citations
1	Journal of Risk and Financial Management	6	20
2	Cogent Economics & Finance	3	21
3	Journal of Accounting and Organizational Change	3	25
4	Cogent Business & Management	2	1
5	European Journal of Finance	2	34
6	Finance Research Letters	2	35
7	International Journal of Islamic and Middle Easter	2	13
8	Journal of Contemporary Accounting & Economic	2	58
9	Journal of Risk Finance	2	30
10	Managerial Auditing Journal	2	26

Table 4 lists the top 10 most cited articles, along with their authors, citation counts, year of publication, and journals. These papers cover a range of topics, reflecting the diverse applications and impacts of ERM practices. Article named "Corporate social responsibility engagement and firm performance in Asia Pacific: The role of enterprise risk management", written by Naseem et al. (2020), received the highest citations with 73. Rehman and Anwar (2019) received the second-highest citations with a number of 55, and the article is named "Mediating role of enterprise risk management practices between business strategy and Small and Medium Enterprise (SME) performance". Followed by "How to manage corporate reputation? The effect of enterprise risk management systems and audit committees on corporate reputation", the authors received 49 citations (Pérez-Cornejo et al., 2019). Additional papers focus on various aspects such as firm performance (Malik et al., 2020), ERM framework ((Mishra et al., 2019) and the value derived from ERM ratings (Bohnert et al., 2019) are also discussed and reviewed by readers.

The analysis of the most highly cited papers in ERM reveals a wide range of research topics, from the role of CSR in ERM to the impact of ERM on firm performance. The diversity in research subjects underscores the interdisciplinary nature of ERM and its critical role in various management and economic contexts. The prominent journals and high citation count of these papers indicate their significant contribution to the field, providing valuable insights and frameworks that enhance the implementation and effectiveness of ERM practices.

Table 4

Top 20 Studies on ERM in Descending Order of Their Citations.

Serial Number	Title of the Paper and Author(s)	Number of Citations	Year of publication	Journal
1	Corporate social responsibility engagement and firm performance in Asia Pacific: The role of enterprise risk management -- Naseem, T; Shahzad, F; Asim, GA; Rehman, IU; Nawaz, F	73	2020	Corporate Social Responsibility and Environmental Management
2	Mediating role of enterprise risk management practices between business strategy and SME performance -- Rehman, AU; Anwar, M	55	2019	Small Enterprise Research
3	How to manage corporate reputation? The effect of enterprise risk management systems and audit committees on corporate reputation -- Pérez-Cornejo, C; de Quevedo-Puente, E; Delgado-García, JB	49	2019	European Management Journal
4	Enterprise risk management and firm performance: Role of the risk committee -- Malik, MF; Zaman, M; Buckby, S	48	2020	Journal of Contemporary Accounting & Economics
5	A framework for enterprise risk identification and management: the resource-based view -- Mishra, BK; Rolland, E; Satpathy, A; Moore, M	24	2019	Managerial Auditing Journal
6	Corporate social responsibility, enterprise risk management, and real earnings management: Evidence from managerial confidence -- Kuo, YF; Lin, YM; Chien, HF	35	2021	Finance Research Letters
7	The drivers and value of enterprise risk management: evidence from ERM ratings -- Bohnert, A; Gatzert, N; Hoyt, RE; Lechner, P	30	2019	European Journal of Finance
8	The influence of enterprise risk management on firm performance with the moderating effect of intellectual capital dimensions -- Saeidi, P; Saeidi, SP; Gutierrez, L; Streimikiene, D; Alrasheedi, M; Saeidi, SP; Mardani, A	27	2021	Economic Research-Ekonomska Istrazivanja
9	Enterprise risk management and solvency: The case of the listed EU insurers -- Nguyen, DK; Vo, DT	24	2020	Journal of Business Research
10	Enterprise Risk Management and Firm Value: Evidence from Brazil -- Silva, JR; da Silva, AF; Chan, BL	19	2019	Emerging Markets Finance and Trade

Content Analysis

The researchers adopted VOS Viewer to conduct visual analysis on the articles' keywords, aiming to find the commonalities in ERM research between 2019 and 2024. The authors exported the 65 screened ERM papers from WoS and imported them into VOS Viewer for processing. The software then analyzed the full set of author-supplied keywords from these articles to calculate how frequently each term appeared and, crucially, how often they appeared together in the same publications. Subsequently, a minimum occurrence threshold was applied to filter out insignificant or overly niche terms. Only keywords that met the frequency with more than 10 times were included in the final network map. As shown in the Figure 3, the visualization reveals the central position of "Enterprise Risk Management" and its connections to a range of related topics, including "Corporate Governance", "CSR" and "Chief Risk Officer (CRO)", etc. The color represents different research sub-title of ERM. For example, the blue line focus on the "CSR" and "Corporate Governance" while the purple line focus on the theory, such as "Institutional Theory" and "Entrepreneurship". Besides, the orange line shows the function of "Risk Committee" and "CRO". Terms such as "Risk Identification," "Financial Industry," and "ERM Practices" are also prominently featured, indicating their significance in the discourse surrounding ERM. Notably, the terms "COSO", "ERM Maturity", "Risk Reporting" and "Firm Value" represents the framework and implementation of ERM. This network analysis helps to identify the main areas of focus within ERM research during 2019-2024 from a management perspective and highlights the interrelated nature of various concepts. By understanding these connections, researchers and practitioners can better appreciate the comprehensive scope of ERM and its application across different contexts and industries.

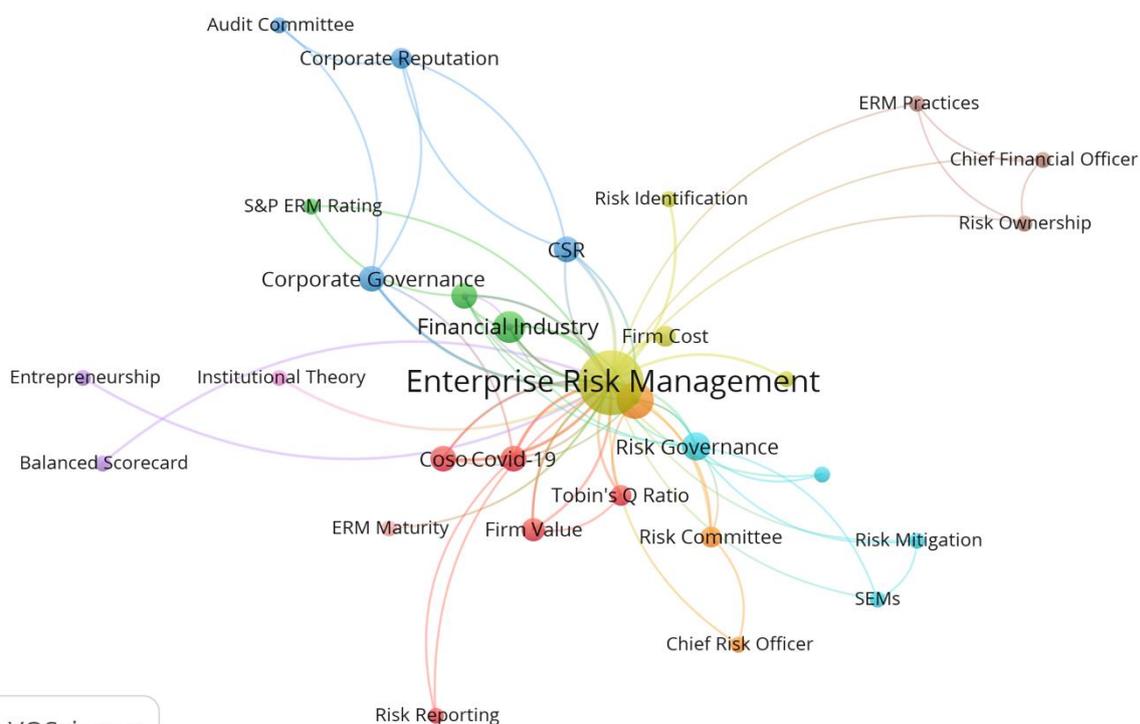


Figure 3 Network Visualization of Keywords in ERM during 2019-2024

Additionally, the researchers also make use of the temporal dimension to analyze the research trend from 2019 to 2024, as shown in Figure 4. The color gradient in the visualization indicates the temporal dimension of the research topics, with darker colors representing older studies and lighter colors indicating more recent research. This temporal aspect highlights the evolving nature of ERM research, showing how focus areas have shifted over time. For instance, more recent topics such as "COVID-19", "Financial Industry", "Institutional Theory" and "Entrepreneurship" are shown in lighter colors, reflecting their emerging importance in the field. Followed by "CSR", "Risk Governance", and "Risk Committee" are also mainly discussed by the literature.

Once the keywords for ERM have been identified, the next crucial step is to determine the specific content to be included in the findings of the systematic review. The findings should comprehensively cover several key aspects to provide a holistic understanding of ERM. Firstly, it is essential to include a summary of the theoretical frameworks and models frequently cited in the literature. Secondly, the review should present an analysis of empirical studies that evaluate the implementation of ERM practices across various industries. Lastly, the CSR has gained increasing attention in the fields of ERM and business management research, which is due to growing recognition of its impact on long-term sustainability and stakeholder trust.

Findings

Based on the content analysis, there are some findings which follow the research trend of ERM.

ERM Framework

The literature consistently positions frameworks such as COSO (2004, 2017 revision) and ISO 31000 as foundational tools for structuring ERM. The COSO ERM Framework, developed by the COSO, is a widely adopted model. It is principles-based and integrates risk management with strategy and performance with five components (Jemaa, 2022). Conversely, ISO 31000 is an international standard providing generic guidelines for risk management applicable to any organization, regardless of size or sector. It offers a more flexible and process-oriented approach, centered on a continuous cycle of creating value, integrated leadership involvement, and a structured process for risk management (Widianti et al., 2024). However, despite their widespread adoption, a critical examination reveals that these frameworks often operate more as guiding templates than as universally applicable models. Several studies underscore the limitation of one-size-fits-all approaches. For example, Jemaa (2022) critiques the COSO model for its formalistic application in practice, arguing that successful implementation requires a flexible, iterative approach that allows for contextual adaptation. Similarly, Mthiyane et al. (2022) highlight the necessity for SMEs to reinterpret standard frameworks in ways that align with their limited resources and flatter organizational structures.

Additionally, Oyewo (2022) analysis of ERM and the sustainability of banks' performance emphasizes the role of ERM in the financial sector. The study provides empirical evidence that robust ERM practices contribute to the long-term stability and sustainability of banks, reinforcing the critical need for comprehensive risk management frameworks in financial institutions. Similarly, Villanueva et al., (2022) highlight the impact of risk governance and associated tools on ERM effectiveness, using evidence from Colombian firms to demonstrate how governance structures and risk management tools enhance ERM outcomes.

Bohnert et al. (2019) examination of the drivers and value of ERM, based on ERM ratings, concludes that firms with higher ERM ratings tend to experience better performance outcomes and reduced volatility. This study, alongside Przetacznik (2022) analysis of key success factors in Polish companies, underscores the importance of adopting best practices and achieving high standards in ERM to realize its full benefits. Collectively, these findings underscore the multifaceted nature of ERM and its critical role in enhancing organizational resilience, performance, and sustainability across different sectors and regions.

ERM Implementation

The strategic implementation of ERM is also well-documented. Farrell and Gallagher (2019) investigate how organizational culture and leadership commitment impact the ERM maturity-performance relationship, while Pangestuti et al. (2023) propose a modified ERM index tailored to Southeast Asia's unique risk landscape. Chen et al. (2020) provide evidence from Taiwan's financial industry on the value of ERM implementation, showcasing its positive impact on financial performance and risk mitigation. These findings highlight ERM's potential to enhance organizational resilience and strategic agility.

Despite the advancements in ERM, significant challenges remain, including resource limitations, cultural barriers, and regulatory compliance. Tan and Lee (2022) highlight that SMEs in Malaysia face substantial resource constraints and lack of expertise, making it difficult to implement effective ERM practices. This issue is echoed by Yakob et al. (2022), who discuss the struggles of Malaysian waqf institutions, which rely heavily on donor funding and lack the financial resources necessary for comprehensive risk management.

Cultural barriers also play a critical role in ERM adoption and implementation. Jermias et al. (2023) reveal that in Chinese State-owned Enterprises (SOEs), organizational inertia and deeply ingrained cultural factors can hinder the effective institutionalization of ERM practices, despite government mandates.

Regulatory compliance is another pervasive challenge. Santomil and González, (2020) emphasize the importance of governance structures in European firms to meet Solvency II requirements, illustrating how regulatory demands can shape ERM practices. Iwedi et al. (2020) show that in Nigeria, firms that align their ERM practices with shareholder value tend to perform better, indicating the positive impact of compliance with regulatory and market expectations.

To address these challenges, future research should focus on integrating advanced technologies and sustainability criteria into ERM implementation. Ruiz-Canela López, (2021) and Sax and Andersen (2019) discuss the potential of aligning ERM with strategic planning

and operational efficiency using artificial intelligence and big data analytics. Chen et al. (2020) provide evidence from Taiwan's financial industry, highlighting how technology can enhance risk prediction and mitigation. Moreover, integrating sustainability into ERM.

Ade et al. (2020) provide insights into the survival of SMEs in Nigeria, demonstrating that effective ERM practices can significantly enhance resilience and sustainability.

Firm Performance

The researchers also found that literatures explore the multifaceted impact of ERM on firm performance across various contexts, highlighting both common themes and distinct differences. A key connection among these studies is the investigation into how ERM practices influence financial outcomes and organization stability. For instance, Khan et al. (2024) examine the role of risk mitigation in enhancing firm performance in Asian emerging markets, while Nasr et al. (2019) assess the short-term and long-term impacts of ERM on the Iranian banking system. Both studies emphasize the importance of effective risk management practices in promoting financial stability and performance. Similarly, some scholars discuss the moderating roles of risk committees and crisis situations, respectively, in strengthening the link between ERM and firm performance (Malik et al., 2020; Rahmawati et al., 2024). These studies collectively underscore the critical role of ERM in navigating financial uncertainties and enhancing overall firm resilience.

Despite these shared themes, the articles also exhibit notable differences in their specific focuses and methodologies. For instance, some scholars delve into the mediating effects of investment decisions and accrual estimation errors on the ERM-performance relationship, offering a nuanced understanding of the internal mechanisms through which ERM influences financial outcomes (Faisal et al., 2021; Johnston & Soileau, 2020). Horvey and Ankamah (2020) provide empirical evidence from the Ghana equity market, adding a geographical dimension to the analysis of ERM's effectiveness. In contrast, Silva et al. (2019) and Saeidi et al. (2021) explore the broader impacts of ERM on firm value and the moderating effect of intellectual capital dimensions, respectively, highlighting the diverse factors that can influence the success of ERM initiatives. These differences enrich the overall discourse by providing a multifaceted view of ERM's role in enhancing firm performance across various contexts and industries.

CSR

The interplay between CSR and ERM is a critical area of study in contemporary management research. The four significant papers collectively underscore the critical interplay between CSR and ERM, highlighting both their interconnectedness and unique contributions across different contexts. Naseem et al. (2020) and Henschel et al. (2022) emphasize the role of CSR in enhancing ERM performance by fostering a risk-aware culture, transparency, and stakeholder engagement. Both studies employ empirical data to demonstrate how CSR practices lead to improved financial performance and risk management capabilities, albeit in different regions and organizational contexts. Naseem et al. (2020) focus on organizations in the Asia Pacific region, while Henschel et al. (2022) examine SMEs, showing that robust CSR initiatives significantly bolster ERM practices and overall resilience.

In contrast, Kuo et al. (2021) and Pérez-Cornejo and Quevedo-Puente (2023) delve into the mediating effects of CSR on other aspects of organizational performance and governance.

Kuo et al. (2021) highlight the role of managerial confidence as a moderating factor, showing that organizations with integrated CSR-ERM practices exhibit more ethical financial reporting and reduced earnings management. Meanwhile, Pérez-Cornejo and Quevedo-Puente (2023) explore the impact of CSR on corporate reputation, positing that enhanced reputation through CSR facilitates better ERM practices. This study provides evidence from Spanish organizations, suggesting a virtuous cycle where CSR activities boost reputation and trust, which in turn strengthens ERM. Despite the varied focus, all four papers converge on the conclusion that CSR is integral to effective ERM, enhancing both performance and governance through ethical practices and stakeholder engagement.

Others

Some scholars still talk about ERM framework to develop a framework that keep up with the trend. Mishra, Rolland, and Satpathy's (2019) framework for enterprise risk identification and management emphasizes a resource-based view, providing a comprehensive structure for organizations to systematically identify and manage risks. This study underscores the importance of internal capabilities and resources in effective ERM implementation, suggesting that a well-developed internal framework is essential for mitigating risks and enhancing firm performance.

Discussion and Conclusion

Drawing upon the synthesis of 65 selected articles published between 2019 and 2024, this systematic review underscores the heightened significance and rapidly evolving nature of ERM. Several observations can be gleaned from the current literature. First, while many studies highlight the positive association between ERM adoption and firm performance, particularly in terms of financial metrics, organizational resilience, and strategic alignment, there is considerable heterogeneity in implementation strategies across sectors and regions. Recent research points to governance structures, such as risk committees and Chief Risk Officers, as critical drivers of successful ERM. These structures not only clarify roles and responsibilities but also embed ERM more deeply within strategic decision-making processes. Second, the findings reveal a significant evolution in how ERM frameworks are conceived, adopted, and embedded within organizations. While historically dominated by regulatory or de facto frameworks, the increasing prevalence of voluntary standards such as ISO 31000 and COSO reflects a shift toward more strategic, principle-based risk governance. This evolution is not merely procedural but deeply embedded in organizational dynamics. As Jemaa (2022) demonstrates, the recoupling of COSO guidelines into daily operations is less about compliance and more about cultural assimilation, indicating that successful ERM requires internalization, adaptation, and long-term organizational commitment.

Moreover, Mishra et al. (2019) and Mthiyane et al. (2022) expand the scope of ERM by introducing context-sensitive frameworks. The former highlights the RBV, illustrating how firm-specific capabilities, like human capital and innovation, can shape risk resilience. Meanwhile, the latter underscores the need for localized, resource-sensitive ERM systems for SMEs, emphasizing that rigid, one-size-fits-all models are insufficient, particularly in emerging markets. This broadening of ERM typologies signals an important paradigm shift: from universal compliance mechanisms to strategically tailored, capacity-driven models.

Third, CSR has emerged as a complementary dimension of ERM in many recent publications. The intersection of ERM and CSR is an emerging frontier. The studies by Naseem et al. (2020) and Henschel et al. (2022) show that CSR initiatives reinforce ERM by promoting a risk-aware, ethical, and transparent culture—essential elements for risk mitigation in today’s complex stakeholder environments.

Kuo et al. (2021) and Pérez-Cornejo and Quevedo-Puente (2023) further extend this discussion by demonstrating that CSR enhances ERM indirectly through managerial behavior and corporate reputation, suggesting a symbiotic relationship: as firms enhance CSR, they cultivate stakeholder trust, which improves ERM efficacy and vice versa. This convergence underscores a new governance paradigm, wherein ERM and CSR co-evolve as mutually reinforcing pillars of long-term sustainability and legitimacy.

Fourth, the extant literature increasingly calls attention to the role of technology in enhancing ERM. Advanced analytics, artificial intelligence, and big data capabilities are considered essential tools to help organizations improve real-time risk monitoring, scenario planning, and decision support. The literature points toward an emerging consensus: the future of ERM lies in its integration with strategy, technology, and sustainability. Organizations must move beyond compliance-based risk approaches and embrace ERM as a central feature of strategic planning, as suggested by Chen et al. (2020) and Sax and Andersen (2019). This entails leveraging digital tools for predictive analytics, aligning risk practices with ESG frameworks, and ensuring that ERM becomes a dynamic capability - not a static procedure.

This systematic review of ERM literature from 2019 to 2024 demonstrates the growing strategic relevance of ERM in organizations across a broad spectrum of industries and cultural contexts. The findings indicate that well-designed ERM initiatives are positively linked to improved organizational resilience, financial performance, and strategic alignment. By synthesizing diverse theoretical frameworks, empirical investigations, and practical case studies, the review underscores both the versatility and complexity of ERM practices.

Notwithstanding its evident benefits, ERM implementation still encounters notable challenges. Resource constraints, limited expertise, and organizational cultures resistant to change persist as common barriers, particularly in smaller enterprises and emerging markets. Additionally, the rapid pace of technological innovation, the increasing emphasis on corporate social responsibility, and evolving regulatory landscapes necessitate continual refinement of ERM processes. Future research can address these gaps by undertaking longitudinal studies that capture ERM’s evolving nature, employing mixed-method approaches that reveal deeper organizational and cultural dimensions, and further exploring the integration of advanced technologies and sustainability considerations.

Overall, the insights gained from this review not only affirm ERM’s critical role in enhancing risk awareness and strategic decision-making but also highlight the need for ongoing research and adaptive strategies. By combining robust frameworks, stakeholder engagement, and a commitment to continuous improvement, organizations can leverage ERM as a core driver of sustainable growth and competitive advantage.

Theoretical Implications

This paper makes significant contributions to the scholarly literature in the field of ERM. While numerous studies have explored different facets of ERM, there may be inconsistencies or gaps in the literature. By systematically reviewing and analysing existing research, this review aims to identify areas that have been underexplored or require further investigation. By aggregating and evaluating diverse ERM frameworks and methodologies documented in the literature, the paper offers a critical assessment of how these practices have been implemented across different industries and regions. It scrutinizes the effectiveness of ERM strategies in mitigating risks based on the performance of enhancing organizational resilience, providing empirical evidence on their impact on financial performance and strategic objectives. Moreover, the review identifies prevalent trends, common challenges, and best practices, as well as significant gaps and inconsistencies within the existing body of knowledge.

Furthermore, this systematic review on ERM establishes a foundational framework that can significantly assist future studies in the field. By synthesizing existing research, the paper uncovers key trends, best practices, and gaps in the current understanding of ERM. It highlights the effectiveness of various ERM methodologies and their impact on organizational performance, providing a comprehensive evaluation that researchers can build upon. The review's findings and recommendations for future research, such as the need for longitudinal studies, industry-specific analyses, and the integration of advanced technologies, lay out a clear roadmap for scholars aiming to explore these areas further.

Additionally, the paper underscores the importance of organizational culture and regulatory impacts on ERM success, encouraging future studies to delve deeper into these critical factors. By consolidating and critically analysing the existing literature, this review not only enhances the current knowledge base but also paves the way for more targeted and impactful research in ERM, ultimately contributing to the development of more effective risk management strategies across various organizational contexts.

Practical and Social Implications

The findings of this review offer valuable guidance for practitioners, policymakers, and risk professionals seeking to strengthen enterprise-wide resilience. By synthesizing recent evidence, the study highlights the practices for integrating ERM into strategic planning, governance, and sustainability initiatives. It underscores the importance of aligning risk management with organizational culture, digital transformation, and long-term performance objectives. Practitioners can use these insights to design more proactive, data-driven, and adaptive ERM frameworks that enhance decision-making, stakeholder confidence, and organizational agility in the face of uncertainty.

Limitations and Suggestions for Future Research

Despite these valuable contributions, the review also identifies several limitations in the current body of ERM research. Firstly, the review period (2019-2024) is relatively short, potentially missing longer-term trends and developments that could offer a more comprehensive understanding of ERM evolution. Secondly, this paper only considers publications indexed in the WOS. The findings may be subject to changes if all studies, regardless of their database index, are included. Besides, there is a need for more diverse

methodological approaches. While empirical studies are prevalent, there is a relative scarcity of qualitative research that could provide deeper insights into the human and cultural factors influencing ERM implementation.

Building on the identified trends, challenges, and gaps, this review proposes several directions for future inquiry as follows.

Integration with Sustainability, ESG, and CSR

As ESG concerns become integral to corporate strategy, embedding sustainability within ERM frameworks is essential for long-term resilience. Future research should examine how CSR initiatives reshape firms' risk profiles, influence stakeholder trust, and enhance adaptive capacity. Scholars could explore the integration of ESG metrics into key risk indicators and assess the impact of sustainability governance structures, such as ESG committees, on ERM effectiveness. Cross-sector or cross-national comparisons may further reveal how contextual factors mediate the CSR-ERM linkage. Ultimately, aligning ERM with sustainability imperatives enables organizations to navigate emerging risks with greater strategic foresight and stakeholder accountability.

Technological Innovations and Digital Transformation

With rapid advancements in technology, future research should explore how digital transformation reshapes ERM practices by enhancing risk detection, prediction, and response capabilities. Integrating tools such as artificial intelligence, machine learning, and big data analytics into ERM can improve real-time risk monitoring and strategic agility. Scholars should investigate how technological innovation enables more dynamic, data-driven risk frameworks, and examine organizational readiness for digital ERM adoption. Additionally, research could assess the challenges of cybersecurity, data privacy, and digital ethics as emerging risk domains, providing insights into how digital transformation both introduces and mitigates new categories of enterprise risk.

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