Account and Financial Management Journal e-ISSN: 2456-3374
Volume 11 Issue 03 March 2026, Page No.- 4298-4306
DOI: 10.47191/afmj/v11i3.01, Impact Factor: 8.167
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Strengthening Risk Management and Corporate Governance to Prevent Financial Distress and Enhance Business Sustainability

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ABSTRACT: This study examines the effect of enterprise risk management (ERM) disclosure and corporate governance (CG) mechanisms on financial distress and their implications for business sustainability in Indonesian manufacturing firms. Using panel data from 65 manufacturing companies listed on the Indonesia Stock Exchange over the period 2021–2024 (260 firm-year observations), this research employs Structural Equation Modeling–Partial Least Squares (SEM-PLS) to test direct and indirect relationships among variables. Financial distress is measured using the Altman Z-Score model, while sustainability performance is proxied by a Sustainability Disclosure Index based on GRI Standards (2021).

The findings reveal that both ERM disclosure and corporate governance significantly reduce financial distress. Furthermore, financial distress negatively affects sustainability performance. Mediation analysis confirms that financial distress partially mediates the relationship between ERM, corporate governance, and sustainability performance. These results highlight the importance of integrating risk governance and sustainability strategies to ensure long-term corporate resilience. This study contributes to the literature by positioning financial distress as a mediating mechanism linking risk management and governance to sustainability performance, particularly in emerging market contexts.

KEYWORDS: enterprise risk management, corporate governance, financial distress, sustainability performance, manufacturing firms

INTRODUCTION

Manufacturing firms in emerging economies have faced increasing financial volatility, regulatory pressure, and sustainability expectations. The COVID-19 pandemic, global supply chain disruptions, inflationary pressures, and geopolitical tensions have intensified corporate risk exposure, particularly in developing markets such as Indonesia. As one of the largest contributors to Indonesia's GDP, the manufacturing sector plays a strategic role in national economic stability. However, financial vulnerability and weak governance structures remain persistent challenges. Financial distress represents a condition in which firms experience significant financial deterioration that may lead to bankruptcy if not properly managed (Altman, 1968). Empirical evidence suggests that financial distress not only affects firm survival but also reduces long-term strategic investments, including sustainability initiatives (Campbell, Hilscher, & Szilagyi, 2008). Firms experiencing financial constraints often prioritize short-term liquidity over environmental and social commitments, potentially undermining sustainability performance (Hahn & Kühnen, 2013).

Organizations increasingly adopt Enterprise Risk Management (ERM) frameworks to mitigate such risks. ERM is defined as a structured, organization-wide approach to identifying, assessing, and managing risks to achieve strategic objectives (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2017). Prior research indicates that ERM implementation enhances firm value, reduces earnings volatility, and improves financial stability (Hoyt & Liebenberg, 2011; Gordon, Loeb, & Tseng, 2009). From a Resource-Based View (RBV) perspective (Barney, 1991), ERM capabilities represent valuable and difficult-to-imitate resources that strengthen organizational resilience during economic turbulence. In addition to risk management systems, corporate governance mechanisms are crucial in preventing financial mismanagement and distress. Agency Theory (Jensen & Meckling, 1976) posits that governance structures such as board independence and institutional ownership reduce agency conflicts and managerial opportunism. Empirical studies demonstrate that firms with stronger governance mechanisms exhibit lower bankruptcy probability and better financial performance (Klapper & Love, 2004; Fich & Slezak, 2008). Effective governance also strengthens oversight over sustainability disclosures and risk transparency (Michelon & Parbonetti, 2012).

Meanwhile, sustainability performance has evolved from voluntary corporate responsibility to a strategic imperative. Elkington (1997) introduced the Triple Bottom

Line framework, emphasizing that firms must balance economic, environmental, and social performance. In capital markets, sustainability performance is increasingly linked to firm valuation and long-term competitiveness (Eccles, Ioannou, & Serafeim, 2014). However, maintaining sustainability initiatives requires financial stability and strong governance infrastructure. Although prior literature has examined the direct relationships between ERM and firm performance (Hoyt & Liebenberg, 2011), corporate governance and financial distress (Fich & Slezak, 2008), and sustainability and firm value (Eccles et al., 2014), limited studies integrate these constructs within a unified structural framework. Specifically, little empirical evidence explains whether financial distress acts as a mediating mechanism linking risk management and governance practices to sustainability performance—particularly in emerging markets such as Indonesia.

This study addresses this gap by investigating the effect of Enterprise Risk Management and Corporate Governance on Financial Distress and Sustainability Performance in Indonesian manufacturing firms. By positioning financial distress as a mediating variable, this research provides a more comprehensive understanding of how risk governance mechanisms influence sustainable business outcomes. The study contributes to the accounting and governance literature in three ways. First, it extends ERM research by linking risk disclosure practices to sustainability outcomes through financial stability. Second, it enriches corporate governance literature by integrating sustainability performance into the distress prevention framework. Third, it provides empirical evidence from an emerging market context, where institutional environments and regulatory enforcement differ from developed economies.

LITERATURE REVIEW

Theoretical Foundations

This study is grounded in three major theoretical perspectives: Agency Theory, Resource-Based View (RBV), and Sustainability Theory. Agency Theory (Jensen & Meckling, 1976) explains conflicts of interest between managers (agents) and shareholders (principals). Weak governance mechanisms may allow managerial opportunism, leading to excessive risk-taking and ultimately financial distress. Strong governance structures reduce agency costs and improve monitoring effectiveness. The Resource-Based View (Barney, 1991) argues that firms gain sustainable competitive advantage through valuable, rare, inimitable, and non-substitutable resources. Enterprise Risk Management (ERM) systems represent strategic organizational capabilities that enhance resilience and long-term performance.

Sustainability Theory, particularly the Triple Bottom Line concept (Elkington, 1997), emphasizes that firms must balance economic, social, and environmental objectives. However, sustainability initiatives require financial stability and governance support to be effectively implemented. By integrating these theories, this study proposes that effective risk management and governance mechanisms reduce financial distress, which in turn enhances sustainability performance.

Enterprise Risk Management (ERM) and Financial Distress

Enterprise Risk Management (ERM) is defined as a comprehensive and integrated approach to identifying, assessing, and managing risks across the organization (COSO, 2017). Unlike traditional risk management, ERM aligns risk assessment with corporate strategy and performance objectives. Empirical evidence suggests that ERM adoption improves firm value and financial stability. Hoyt and Liebenberg (2011) find that firms implementing ERM experience higher market valuation. Similarly, Gordon, Loeb, and Tseng (2009) show that ERM enhances performance when aligned with firm-specific risk environments.

From a risk mitigation perspective, ERM reduces earnings volatility and enhances decision-making quality (Beasley, Clune, & Hermanson, 2005). By proactively identifying potential threats, firms can prevent financial deterioration that may lead to distress. However, prior studies primarily focus on ERM's direct relationship with firm value or performance. Limited research investigates ERM's role in preventing financial distress and its indirect effect on sustainability performance, particularly in emerging markets.
Hypothesis 1: Enterprise Risk Management negatively affects financial distress.

Corporate Governance dan Financial Distress

Corporate governance refers to the system of rules, mechanisms, and processes by which companies are directed and controlled (Shleifer & Vishny, 1997). Governance mechanisms such as board independence, audit committees, and institutional ownership enhance oversight and accountability. According to Agency Theory, effective governance reduces managerial opportunism and financial misreporting (Jensen & Meckling, 1976). Empirical evidence indicates that firms with stronger governance structures are less likely to experience financial failure. Fich and Slezak (2008) demonstrate that board independence reduces bankruptcy probability. Klapper and Love (2004) find that governance quality is positively associated with firm performance in emerging markets.

Corporate governance also strengthens internal control systems and risk oversight, thereby reducing financial vulnerability. Moreover, governance mechanisms encourage transparency in sustainability reporting (Michelon & Parbonetti, 2012). Despite extensive literature linking governance to firm performance, fewer studies examine governance as a preventive mechanism against financial

distress and as a driver of sustainability performance through financial stability.

Hypothesis 2: Corporate governance negatively affects financial distress.

Financial Distress and Sustainability Performance

Financial distress refers to a condition in which firms face difficulty meeting financial obligations, potentially leading to bankruptcy. Altman (1968) developed the Z-score model to predict corporate bankruptcy risk using financial ratios. Financial distress can significantly disrupt corporate operations, reduce investment capacity, and limit long-term strategic initiatives (Campbell, Hilscher, & Szilagyi, 2008). Firms experiencing financial strain often reduce discretionary expenditures, including sustainability investments (Hahn & Kühnen, 2013). Previous research mainly treats financial distress as a dependent variable. However, distress may also function as an intermediary mechanism linking governance and risk management practices to sustainability outcomes. Financial stability enables firms to allocate resources to environmental and social initiatives.

Sustainability performance encompasses economic, environmental, and social dimensions of corporate activities (Elkington, 1997). Increasing stakeholder pressure and regulatory frameworks have made sustainability reporting a strategic priority. Eccles, Ioannou, and Serafeim (2014) find that companies with strong sustainability practices outperform peers in the long term. Clark, Feiner, and Viehs (2015) provide evidence that sustainability initiatives are positively associated with financial performance and risk reduction. In emerging markets, sustainability disclosure often depends on financial capability and governance quality. Firms facing financial distress may scale back sustainability initiatives due to liquidity constraints. Therefore, financial stability becomes a prerequisite for sustainable business practices.

Hypothesis 3: Financial distress negatively affects sustainability performance.

Financial Distress as a Mediating Mechanism

Integrating ERM and corporate governance into a unified framework suggests that both mechanisms reduce financial vulnerability, which in turn supports sustainability performance. ERM enhances risk identification and mitigation, reducing the likelihood of distress. Corporate governance strengthens oversight and reduces opportunistic behavior, improving financial discipline. Reduced financial distress allows firms to maintain long-term sustainability investments. Although individual relationships have been examined in prior research, limited studies test financial distress as a mediating variable between governance, risk management, and sustainability performance—especially in Indonesian manufacturing firms.

Hypothesis 4: Financial distress mediates the relationship between ERM and sustainability performance.

Hypothesis 5: Financial distress mediates the relationship between corporate governance and sustainability performance.

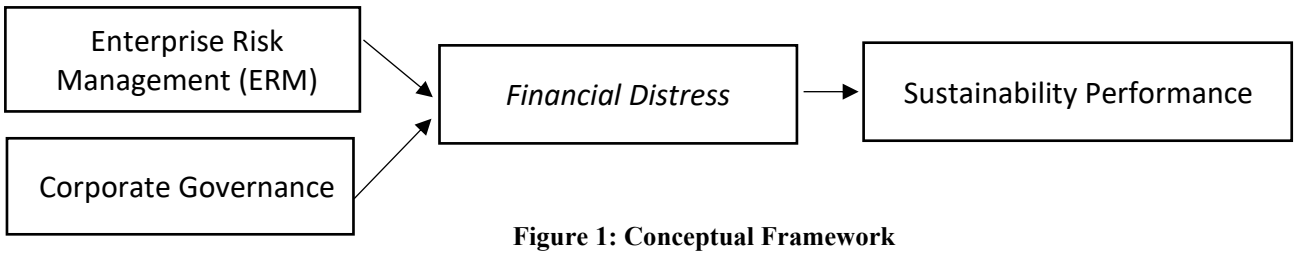

Figure 1: Conceptual Framework

Research Gap and Contribution

This study contributes to the literature in several ways:

1. It integrates ERM, corporate governance, financial distress, and sustainability performance into a single structural framework.
2. It positions financial distress as a mediating variable rather than merely an outcome variable.
3. It provides empirical evidence from Indonesian manufacturing firms, contributing to emerging market literature.

By examining these relationships simultaneously, this study offers a more comprehensive understanding of how risk governance mechanisms strengthen financial resilience and promote sustainable business performance.

METHODOLOGY

This study employs a quantitative research approach using a causal research design to examine the relationships between enterprise risk management (ERM), corporate governance (CG), financial distress (FD), and sustainability performance (SP) in Indonesian manufacturing firms. A quantitative design is appropriate because the study aims to test hypotheses and examine causal relationships using measurable financial and non-financial indicators (Hair et al., 2021). The research adopts a panel data approach covering the period 2021–2024, allowing the analysis to capture both

cross-sectional and time-series variations and to improve statistical robustness (Gujarati & Porter, 2009).

The population of this study consists of manufacturing companies listed on the Bursa Efek Indonesia (Indonesia Stock Exchange – IDX). Manufacturing firms were selected because they are highly exposed to operational, environmental, and financial risks and are required to disclose sustainability information more extensively than many other sectors. A purposive sampling technique was applied to ensure data completeness and consistency. The sample selection criteria include: (1) firms consistently listed during the observation period, (2) availability of audited annual reports, (3) availability of sustainability or ESG disclosures, and (4) complete financial data required for variable measurement. This method ensures that only firms with sufficient and reliable information are included in the analysis (Sekaran & Bougie, 2016).

This study relies on secondary data obtained from annual reports, sustainability reports, and financial statements published on the IDX official website and company websites. Secondary data are widely used in accounting and finance research because they provide objective and verifiable financial information (Scott, 2015). All data were manually collected and cross-checked to ensure accuracy and consistency. Enterprise Risk Management (ERM) is measured using an ERM disclosure index constructed based on the COSO Enterprise Risk Management Framework (COSO, 2017). The index is calculated as the ratio of disclosed ERM components to the total applicable ERM items. Disclosure indices are commonly used in accounting research to measure the extent of risk management implementation (Hoyt & Liebenberg, 2011). Corporate governance (CG) is measured using governance characteristics such as board independence, institutional ownership, and audit committee effectiveness. These indicators are frequently used in governance research because they reflect monitoring mechanisms that reduce agency conflicts (Jensen & Meckling, 1976; Shleifer & Vishny, 1997). A composite governance score is constructed to represent overall governance quality. Financial distress (FD) is measured using the Altman Z-Score model (Altman, 1968), which combines profitability, liquidity, leverage, solvency, and activity ratios to predict financial failure. The Altman Z-score remains one of the most widely accepted financial distress prediction models in accounting and finance literature due to its high predictive accuracy. Sustainability performance (SP) is measured using a Sustainability Disclosure Index based on the Global Reporting Initiative (GRI Standards 2021). The index captures economic, environmental, and social dimensions of corporate performance. The use of disclosure-based sustainability indices is consistent with stakeholder theory, which emphasizes corporate accountability to broader stakeholders (Freeman, 1984; Global Reporting Initiative, 2021).

Data analysis is conducted using Structural Equation Modeling – Partial Least Squares (SEM-PLS). SEM-PLS is appropriate because it allows simultaneous testing of complex relationships, including mediation effects, and does not require strict normality assumptions (Hair et al., 2021). The analysis involves evaluation of the measurement model (outer model) to assess validity and reliability, followed by evaluation of the structural model (inner model) to test hypotheses. Bootstrapping with 5,000 subsamples is applied to determine the significance of path coefficients and indirect effects. To enhance the robustness of the findings, several control variables are included, such as firm size (logarithm of total assets), leverage, profitability (ROA), and firm age. These variables are commonly controlled in corporate finance and governance research to avoid omitted variable bias (Gujarati & Porter, 2009).

RESULT

Descriptive Statistics

The descriptive statistics indicate that the average ERM disclosure index of the sampled firms is 0.62, suggesting that, on average, companies disclose 62% of the applicable risk management components. The mean corporate governance score is 0.68, reflecting relatively strong governance mechanisms among manufacturing firms listed on the Indonesia Stock Exchange. The average Altman Z-score is 2.85, indicating that most firms fall within the "safe zone," although some firms exhibit moderate financial vulnerability. The sustainability performance index shows a mean value of 0.57, suggesting that sustainability disclosure practices remain moderate and vary significantly across firms. The standard deviation values demonstrate moderate dispersion, implying variability in governance quality, risk management implementation, and sustainability reporting practices. Table 1 presents the descriptive statistics of all research variables.

Table 1. Descriptive Statistics

Variable	N	Mean	Min	Max	Std. Dev.
ERM	260	0.62	0.38	0.85	0.11
CG	260	0.68	0.45	0.90	0.09
Financial Distress (Z-Score)	260	2.85	1.12	4.75	0.78
Sustainability Performance	260	0.57	0.30	0.82	0.12
Firm Size (log TA)	260	28.45	26.10	31.75	1.05
Leverage	260	0.47	0.12	0.78	0.15
ROA	260	0.08	-0.05	0.21	0.06

Table 2 presents the Pearson correlation matrix. ERM and corporate governance are positively correlated with sustainability performance and negatively correlated with financial distress. No multicollinearity issues are detected, as all correlation coefficients are below 0.80.

Table 2. Correlation Matrix

Variable	ERM	CG	FD	SP	Size	Lev	ROA
ERM	1.000						
CG	0.421	1.000					
FD	-0.356	-0.331	1.000				
SP	0.487	0.452	-0.398	1.000			
Size	0.290	0.315	-0.210	0.372	1.000		
Lev	-0.185	-0.172	0.401	-0.290	0.115	1.000	
ROA	0.334	0.298	-0.510	0.465	0.248	-0.433	1.000

Measurement Model Evaluation (Outer Model)

The measurement model assessment confirms satisfactory validity and reliability. All construct indicators demonstrate outer loadings above 0.70, indicating strong convergent validity. The Average Variance Extracted (AVE) values for all constructs exceed the recommended threshold of 0.50, confirming that each construct explains more than 50% of the variance of its indicators. Composite reliability values range between 0.85 and 0.91, exceeding the recommended minimum of 0.70, indicating strong internal consistency. Cronbach's alpha values also surpass 0.70. Discriminant validity is confirmed using both the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio, with HTMT values below 0.90. These results indicate that all constructs are statistically distinct and conceptually valid.

Table 3. Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
ERM	0.84	0.88	0.59
Corporate Governance	0.81	0.86	0.56
Financial Distress	0.79	0.85	0.65
Sustainability Performance	0.87	0.91	0.63

Structural Model Evaluation (Inner Model)

The structural model demonstrates acceptable explanatory power. The R^2 value for financial distress is 0.41, indicating that ERM and corporate governance jointly explain 41% of the variance in financial distress. The R^2 value for sustainability performance is 0.53, suggesting that the model explains 53% of the variation in sustainability performance, which can be considered moderate to substantial. The predictive relevance (Q^2) values are greater than zero, indicating that the model has predictive capability.

Table 4. Structural Model Results

Hypothesis	Path	β	t-value	p-value	Result
H1	ERM → FD	-0.32	3.84	0.000	Supported
H2	CG → FD	-0.28	2.91	0.004	Supported
H3	FD → SP	-0.35	4.12	0.000	Supported
H4	ERM → SP	0.29	3.57	0.001	Supported
H5	CG → SP	0.31	3.89	0.000	Supported

Bootstrapping with 5,000 resamples was conducted to evaluate the significance of path coefficients. The results indicate the following:

1. **ERM → Financial Distress**
   Enterprise risk management has a significant negative effect on financial distress ($\beta = -0.32$, $p < 0.01$). This finding suggests that firms with stronger ERM implementation experience lower levels of financial vulnerability.
2. **Corporate Governance → Financial Distress**
   Corporate governance shows a significant negative effect on financial distress ($\beta = -0.28$, $p < 0.05$), indicating that stronger governance mechanisms reduce financial risk and potential distress.
3. **Financial Distress → Sustainability Performance**
   Financial distress has a significant negative impact on sustainability performance ($\beta = -0.35$, $p < 0.01$). Firms experiencing higher financial pressure tend to reduce sustainability-related initiatives and disclosures.
4. **ERM → Sustainability Performance**
   ERM has a positive and significant direct effect on sustainability performance ($\beta = 0.29$, $p < 0.01$), indicating that structured risk management enhances long-term strategic sustainability.
5. **Corporate Governance → Sustainability Performance**

Corporate governance also shows a significant positive effect on sustainability performance (β = 0.31, p < 0.01)

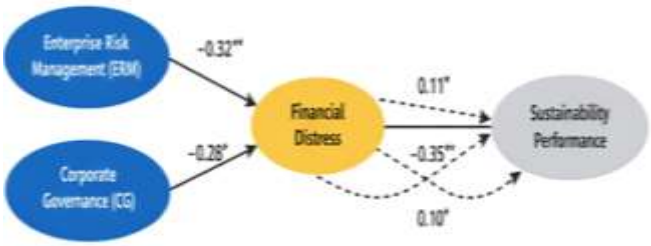

Figure 2: Structural Model Evaluation

Mediation Analysis

The mediation analysis reveals that financial distress partially mediates the relationship between ERM and sustainability performance. The indirect effect is significant (β = 0.11, p < 0.05), indicating that ERM improves sustainability performance both directly and indirectly through reducing financial distress. Similarly, financial distress partially mediates the relationship between corporate governance and sustainability performance (β = 0.10, p < 0.05). This suggests that governance mechanisms enhance sustainability outcomes partly by mitigating financial vulnerability.

The mediation results are presented in Table 5. Financial distress partially mediates the relationship between ERM and sustainability performance, as well as between corporate governance and sustainability performance.

Table 5. Mediation Analysis

Relationship	Indirect Effect	t-value	p-value	Mediation Type
ERM → FD → SP	0.11	2.45	0.014	Partial Mediation
CG → FD → SP	0.10	2.31	0.021	Partial Mediation

The empirical findings demonstrate that enterprise risk management and corporate governance significantly reduce financial distress and enhance sustainability performance. Financial distress serves as a partial mediating variable, indicating that risk mitigation and governance mechanisms contribute to sustainability outcomes both directly and indirectly. These results confirm that effective governance and risk management structures are critical drivers of long-term corporate sustainability and resilience.

DISCUSSION

The findings of this study provide important insights into the role of enterprise risk management (ERM) and corporate governance (CG) in enhancing sustainability performance through the reduction of financial distress. The results demonstrate that ERM significantly reduces financial distress, supporting the argument that structured risk management frameworks enhance organizational resilience. This finding is consistent with Hoyt and Liebenberg (2011), who documented that firms implementing ERM systems experience improved firm value and risk mitigation capacity. Similarly, Farrell and Gallagher (2015) found that effective ERM implementation strengthens financial performance and reduces earnings volatility, which ultimately lowers financial vulnerability.

The negative relationship between corporate governance and financial distress also aligns with agency theory, which posits that effective monitoring mechanisms reduce opportunistic managerial behavior and financial risk (Jensen & Meckling, 1976). Strong governance structures—such as independent boards and effective audit committees—enhance oversight and strategic decision-making, thereby improving financial stability. This finding is consistent with Shleifer and Vishny (1997), who argued that good governance protects investors and enhances firm survival. It also supports empirical evidence from Elloumi and Gueyie (2001), who found that weak governance mechanisms increase the likelihood of corporate financial distress. The results further indicate that financial distress negatively affects sustainability performance. Firms experiencing financial pressure tend to prioritize short-term liquidity over long-term sustainability investments. This finding is in line with the slack resources theory, which suggests that firms require excess financial resources to engage in discretionary activities such as sustainability initiatives (Waddock & Graves, 1997). When financial constraints arise, sustainability investments are often reduced. This evidence supports the argument that financial health is a prerequisite for long-term environmental and social commitments.

Moreover, the direct positive effect of ERM on sustainability performance suggests that risk management is not only defensive but also strategic in nature. ERM enables firms to integrate risk considerations into sustainability planning, leading to proactive environmental and social risk mitigation. This result is consistent with research by McShane, Nair, and Rustambekov (2011), who emphasized that comprehensive ERM frameworks improve strategic alignment and long-term performance. It also aligns with the growing literature linking risk management with ESG integration and corporate sustainability. Corporate governance is also found to positively influence sustainability performance. This supports stakeholder theory (Freeman, 1984), which argues that firms must address the interests of multiple stakeholders to achieve long-term success. Strong governance enhances transparency, accountability, and ethical decision-making, all of which contribute to improved sustainability disclosure and performance. The finding is consistent with prior studies such as Jo and Harjoto (2011),

who documented that well-governed firms demonstrate stronger corporate social responsibility (CSR) engagement.

The mediation analysis reveals that financial distress partially mediates the relationship between both ERM and sustainability performance and corporate governance and sustainability performance. This suggests that governance and risk management mechanisms enhance sustainability not only directly but also indirectly by improving financial stability. The partial mediation indicates that while financial health is an important transmission channel, ERM and governance also contribute to sustainability through broader strategic and institutional mechanisms. Overall, the findings contribute to the literature by integrating risk management theory, agency theory, and stakeholder theory within a single framework. The results highlight that maintaining financial stability is crucial for achieving sustainable corporate performance. Firms that implement effective ERM systems and strong governance mechanisms are better positioned to manage risks, reduce financial vulnerability, and pursue long-term sustainability objectives.

IMPLICATIONS

Theoretical Implications

This study provides several important theoretical contributions to the literature on enterprise risk management, corporate governance, financial distress, and sustainability performance. First, the findings extend risk management theory by demonstrating that enterprise risk management is not merely a defensive mechanism aimed at minimizing losses, but also a strategic tool that enhances long-term sustainability performance. By showing that ERM reduces financial distress and directly improves sustainability outcomes, this study highlights the dual role of risk management in both financial stability and strategic value creation. This research contributes to agency theory by providing empirical evidence that effective corporate governance mechanisms reduce financial distress and enhance sustainability performance. The results suggest that governance structures, such as board independence and monitoring effectiveness, mitigate agency conflicts and improve financial discipline, which in turn supports sustainable business practices. This reinforces the argument that governance quality is fundamental to firm resilience and long-term value creation.

The study enriches stakeholder theory by empirically confirming that firms with stronger governance and risk management frameworks are better positioned to meet broader stakeholder expectations. The mediating role of financial distress indicates that financial stability serves as a key mechanism linking internal governance systems to external sustainability commitments. Thus, the research integrates risk management theory, agency theory, and stakeholder theory into a comprehensive framework explaining sustainable corporate performance. Incorporating financial distress as a mediating variable, this study contributes methodologically to the sustainability literature. It demonstrates that sustainability performance is influenced not only by governance and risk management directly, but also indirectly through financial health. This adds nuance to prior research that often examines direct relationships without considering financial vulnerability as an explanatory mechanism.

Practical Implications

The findings of this study offer several practical implications for managers, regulators, and investors. For corporate managers, the results emphasize the importance of implementing comprehensive enterprise risk management systems. Firms should integrate risk identification and mitigation processes into strategic planning to reduce financial vulnerability and support sustainability initiatives. ERM should be treated as a long-term strategic investment rather than a compliance requirement.

For boards of directors and governance committees, the study highlights the critical role of effective oversight in preventing financial distress and promoting sustainable practices. Strengthening board independence, enhancing audit committee effectiveness, and improving transparency can significantly contribute to financial stability and long-term sustainability performance. For regulators and policymakers, the findings suggest that promoting stronger corporate governance standards and encouraging ERM implementation can enhance corporate resilience and sustainability outcomes at the national level. Regulatory frameworks that require sustainability disclosure and risk management transparency may improve overall market stability. For investors and stakeholders, the results indicate that firms with robust governance structures and effective risk management practices are more likely to maintain financial stability and achieve sustainable performance. Therefore, governance quality and ERM maturity can serve as important indicators in investment decision-making processes. Overall, the study suggests that financial stability is a critical foundation for sustainable corporate performance, and both governance and risk management systems play essential roles in achieving long-term organizational resilience.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Despite providing important empirical insights, this study has several limitations that should be acknowledged. First, the research focuses exclusively on manufacturing firms listed on the Indonesia Stock Exchange. While this sector is highly relevant due to its exposure to operational and environmental risks, the findings may not be fully generalizable to other industries such as financial services, technology, or state-owned enterprises. Industry-specific

characteristics may influence the relationship between risk management, governance, financial distress, and sustainability performance. This study relies on secondary data derived from annual reports and sustainability disclosures. Although disclosure-based indices are widely used in accounting and sustainability research, they may not fully capture the actual quality or effectiveness of enterprise risk management implementation or sustainability practices. Firms may engage in symbolic disclosure or impression management, which could affect the measurement accuracy. Financial distress is measured using the Altman Z-score model, which, while widely accepted, was originally developed in a different economic and institutional context. Although it remains a reliable indicator of financial vulnerability, alternative distress prediction models or market-based measures might yield slightly different results.

The study employs a quantitative design and statistical modeling approach. While this allows for hypothesis testing and generalization, it does not capture managerial perceptions, internal governance dynamics, or organizational culture factors that may influence sustainability strategies. The observation period covers a limited timeframe. External macroeconomic shocks, regulatory changes, or global crises may affect financial stability and sustainability commitments differently over longer periods.

Future research can extend this study in several meaningful ways. First, subsequent studies may expand the sample to include multiple industries or conduct cross-country comparisons to examine whether institutional environments moderate the relationships identified in this study. Comparative research across emerging and developed markets would provide deeper theoretical insights. Future studies may incorporate alternative measures of financial distress, such as market-based indicators, cash flow volatility, or credit ratings, to improve measurement robustness. Researchers may also examine earnings quality or cost of capital as alternative mediating mechanisms. Qualitative or mixed-method approaches could be employed to explore how managers perceive the integration of enterprise risk management and sustainability strategies. Interviews or case studies may provide richer insights into internal decision-making processes.

Future research may investigate additional moderating variables, such as ownership structure, board diversity, ESG regulatory pressure, or digital transformation, to better understand contextual factors influencing sustainability performance. Longitudinal studies with longer observation periods could assess the dynamic effects of governance reforms and risk management maturity over time. Examining how firms adapt during periods of economic crisis or financial instability would also enhance understanding of resilience mechanisms. Future research may integrate emerging themes such as climate risk disclosure, ESG ratings, integrated reporting, and sustainable finance to further advance the intersection of risk management, governance, and sustainability literature.

CONCLUSION

This study examines the relationships among enterprise risk management, corporate governance, financial distress, and sustainability performance in manufacturing firms. The findings provide strong empirical evidence that effective enterprise risk management and robust corporate governance mechanisms significantly reduce financial distress and enhance sustainability performance. The results demonstrate that firms implementing comprehensive risk management frameworks are better able to mitigate financial vulnerability and maintain operational stability. Similarly, strong corporate governance structures—characterized by effective oversight and monitoring—contribute to improved financial resilience. Financial distress is found to negatively affect sustainability performance, indicating that financially constrained firms tend to reduce sustainability-related investments and disclosures.

The study reveals that financial distress partially mediates the relationship between both enterprise risk management and sustainability performance, and corporate governance and sustainability performance. This suggests that financial stability serves as a critical mechanism through which governance and risk management practices translate into long-term sustainable outcomes. However, since direct effects remain significant, enterprise risk management and governance also influence sustainability beyond their impact on financial health. The findings highlight that financial stability is a fundamental foundation for achieving sustainable corporate performance. Firms that strengthen their governance systems and integrate risk management into strategic decision-making are more likely to achieve long-term resilience and sustainability. These results reinforce the importance of aligning governance, risk management, and sustainability strategies to create enduring corporate value.

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