

REVEALING THE IMPACT OF ERM AND ESG DISCLOSURES ON THE PERFORMANCE OF NON-FINANCIAL PUBLIC COMPANIES IN INDONESIA: AN EMPIRICAL STUDY FROM 2017-2022

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ABSTRACT

This study investigates the impact of Enterprise Risk Management (ERM) disclosure on working capital efficiency, profitability, and firm value of non-financial public companies in Indonesia during the period 2017-2022. Additionally, it examines the moderating role of Environmental, Social, and Governance (ESG) disclosure on the relationship between ERM disclosure and these three variables. The research adopts a quantitative approach, utilizing secondary data from companies' annual reports. Working Capital Turnover (WCT) measures efficiency, profitability is assessed by Return on Assets (ROA), and firm value is evaluated using Tobin's Q ratio. ERM and ESG disclosures are assessed based on the COSO ERM 2017 framework and GRI Standards, respectively. The findings reveal that ERM disclosure has a significant positive impact on firm value but shows no significant effect on working capital efficiency and profitability. Furthermore, ESG disclosure positively moderates the relationship between ERM disclosure and firm value, highlighting the synergistic benefits of integrating robust ERM practices with comprehensive ESG disclosures. This study underscores the necessity for companies to enhance the quality of their risk management and ESG-related disclosures to improve financial performance and corporate value. By providing empirical evidence on the benefits of ERM and ESG disclosures, this research contributes to the literature and offers practical implications for non-financial public companies in Indonesia.

KEYWORDS

Enterprise Risk Management Disclosure, Environmental, Social, Profitability, Firm Value



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INTRODUCTION

Globalization has brought significant changes to the business world, leading to intensified competition and increased market complexity, compelling companies to continuously adapt and enhance their performance (Laszlo, 2021). Sustainability has become a crucial key to achieving long-term growth and creating value for all stakeholders (Rockström et al., 2019). In the competitive industrial landscape, companies need to address threats and leverage opportunities to boost profitability, reduce costs, and increase company value (Laisasikorn & Rompho, 2014; Saeidi et al., 2015; Shad et al., 2019; Zakaria et al., 2021).

In Indonesia, the implementation of risk management is often fragmented and not well-integrated. Risk management tends to be focused on individual divisions, leading to potential significant issues. Therefore, a more structured and integrated approach, known as Enterprise Risk Management (ERM), is necessary to enhance comprehensive risk monitoring. ERM helps companies understand and manage risks with a more holistic approach compared to traditional siloed risk management (COSO, 2017). According to COSO, ERM is a “process, culture, capability, and practice integrated with strategy and performance that organizations use to manage risk in creating, preserving, and realizing value” (COSO, 2004). The goal is to enhance business value through the identification, monitoring, and management of a comprehensive risk portfolio (Lechner & Gatzert, 2018).

Companies in Indonesia face significant risks from Environmental, Social, and Governance (ESG) issues, such as imbalanced natural resource use, environmental pollution, corruption, and business ethics problems (Aziz et al., 2015, 2016). The Global Risks Report by the World Economic Forum (2018) highlights that environmental and social risks, such as extreme weather, water crises, natural disasters, and climate change, are major risks for companies. Effective governance and cultural oversight are essential in managing these risks.

ERM plays a vital role in ensuring company sustainability by identifying, measuring, and managing risks, including sustainability risks. It also helps improve efficiency, economic growth, and investor confidence (Krechovská & Procházková, 2014). Changes in the global business environment, new regulations, geopolitical threats, and stakeholder demands require companies to adopt more stringent and effective ERM practices (Subramaniam et al., 2009).

The disclosure of ESG by public companies in Indonesia is increasing, aiming to engage stakeholders, respond to investor demands, build credibility, and address crises and industry competition. Some companies view sustainability as a competitive advantage, while others see it as a standard procedure. The implementation of sustainability is a dynamic process that continues to evolve (Ioannou & Serafeim, 2019).

Companies in Indonesia that engage in ESG practices often derive economic benefits from these activities (Yoon et al., 2018). International organizations and governments also support a sustainable global economy. The United Nations Sustainable Stock Exchange Initiative (SSE) reports that 66 out of 120 member exchanges have issued ESG reporting guidelines (SSE, 2022). ESG is also used in risk assessment to ensure that companies perform well and manage risks effectively.

Indonesia, as one of the largest economies in Southeast Asia, shows significant growth in its capital market and non-financial corporate sector. Macroeconomic stability and increased foreign investment are crucial foundations for the development of this sector (IMF, 2020). Studies on the impact of ERM and ESG on the efficiency, profitability, and value of non-financial companies in Indonesia are highly relevant.

Recent statistics indicate that Indonesia's capital market continues to grow. In 2022, the market capitalization of Indonesia's capital market reached IDR 9,330 trillion, with funds raised through public offerings of shares, bonds, and sukuk amounting to IDR 226.49 trillion. Additionally, the Jakarta Composite Index (JCI) recorded 6,779.70 at the end of December 2022, up from 6,681.5 at the end of 2021. This demonstrates the resilience and growth of Indonesia's capital market amidst global uncertainties (Bank Indonesia, 2023; OJK, 2023).

The Indonesian government has issued various policies to promote sustainable business practices. The Financial Services Authority (OJK) has published the Sustainable Finance Roadmap Phase II (2021-2025) to encourage the financial sector to contribute to sustainable development (OJK, 2020). These policies impact non-financial companies, requiring them to align their business practices with sustainability principles.

Investments in green technology and innovation offer new opportunities for non-financial companies in Indonesia. Utilizing renewable energy, improving energy efficiency, and better waste management can reduce environmental impact, lower long-term costs, and create added value.

Thus, effective implementation of ERM and ESG can help non-financial companies in Indonesia improve their performance and competitiveness in the global market. This study investigates the influence of ERM disclosure on working capital efficiency, profitability, and firm value, moderated by ESG disclosure, to provide insights into how these practices can be optimized to enhance corporate performance in Indonesia during the 2017-2022 period. By integrating these critical aspects, companies can better navigate the complexities of modern business environments and achieve sustainable growth.

Previous research has examined how environmental, social, and corporate governance (ESG) performance impacts financial performance. In a comprehensive study, Friede et al. (2015) reviewed over 2,000 studies and found mixed results regarding the correlation between ESG performance and financial outcomes, although many studies indicated a positive relationship between ESG investments and corporate financial performance. Despite this extensive research, there remains a gap in understanding the specific effects of Enterprise Risk Management (ERM) Disclosure on profitability, efficiency, and firm value, particularly for publicly listed non-financial companies in Indonesia. Moreover, the role of ESG Disclosure in moderating the impact of ERM Disclosure has not been thoroughly explored in this context.

This study aims to address these gaps by investigating the influence of ERM Disclosure on profitability, efficiency, and firm value, as well as examining how ESG Disclosure moderates these effects for publicly listed non-financial companies in Indonesia from 2017 to 2022. Based on the background provided, the research questions are:

- What is the impact of ERM Disclosure on profitability, working capital efficiency, and firm value in publicly listed non-financial companies in Indonesia during the period 2017-2022?
- How does ESG Disclosure moderate the relationship between ERM Disclosure and profitability, working capital efficiency, and firm value in these companies during the same period?

The objectives of this study, derived from these research questions, are:

- To analyze the impact of ERM Disclosure on profitability, working capital efficiency, and firm value in publicly listed non-financial companies in Indonesia from 2017 to 2022.
- To examine the moderating role of ESG Disclosure in the relationship between ERM Disclosure and profitability, working capital efficiency, and firm value in these companies during the same period.

Enterprise Risk Management (ERM) is a strategic approach that aids organizations in identifying, assessing, managing, and monitoring risks that could impact their goal achievement (COSO, 2017). The COSO ERM framework and ISO 31000 standards are two primary guides for implementing ERM. COSO ERM emphasizes the importance of integrating risk management with an organization's strategy and performance, and fostering an effective risk culture (Beasley et al., 2005). In contrast, ISO 31000 provides general guidelines applicable to various types of organizations and industries (ISO, 2018). These guidelines offer principles and advice for risk management that can be tailored to an organization's specific needs and context. By combining elements from both COSO ERM and ISO 31000, organizations can develop a comprehensive and flexible risk management approach that not only protects value but also enhances their ability to achieve strategic objectives (Fraser & Simkins, 2010).

ESG disclosure among public companies in Indonesia has been on the rise. This trend is driven by the need to engage stakeholders, meet investor demands, build credibility, and respond to industry crises and competition (Olsen et al., 2021). Some companies view sustainability as a competitive advantage, while others see it as a standard procedure. The adoption of sustainability practices is a dynamic and evolving process (Ioannou & Serafeim, 2019). Companies in Indonesia that engage in ESG practices often reap economic benefits from these activities (Yoon et al., 2018). International organizations and governments also support a sustainable global economy. The United Nations Sustainable Stock Exchange Initiative (SSE) reports that 66 out of 120 member exchanges have issued ESG reporting guidelines (SSE, 2022). ESG is also used in risk assessment to ensure companies perform well and manage risks effectively (Dunn et al., 2017; Parfit, 2019).

Indonesia, as one of Southeast Asia's largest economies, has seen significant growth in its capital market and non-financial corporate sector. Macroeconomic stability and increased foreign investment are key factors supporting this sector's development (IMF, 2020). Research on the impact of ERM and ESG on working capital efficiency, profitability, and firm value in Indonesia's non-financial companies is highly relevant. Recent statistics indicate continuous growth in Indonesia's capital market. In 2022, market capitalization reached IDR 9,330 trillion, with funds raised through public offerings of stocks, bonds, and sukuk amounting to IDR 226.49 trillion. Additionally, the Jakarta Composite Index (IHSG) was 6,779.70 in December 2022, up from 6,681.50 at the end of 2021, demonstrating the resilience and growth of Indonesia's capital market despite global uncertainties (Bank Indonesia, 2023; OJK, 2023). The Indonesian government has implemented various policies to promote sustainable business practices. The Financial Services Authority (OJK) issued the Sustainable Finance Roadmap Phase II (2021-2025) to encourage the financial sector to contribute to sustainable development (OJK, 2020). These policies affect non-financial companies, which must adapt their business practices to align with sustainability principles (Agustina & Baroroh, 2016).

Investing in green technology and innovation offers new opportunities for non-financial companies in Indonesia. Utilizing renewable energy, improving energy efficiency, and better waste management can reduce environmental impact, lower long-term costs, and create added value. Consequently, effective implementation of ERM and ESG can help non-financial companies in Indonesia enhance their performance and competitive advantage in the global market.

Based on the aforementioned studies, the following hypotheses can be formulated:

H1. ERM Disclosure positively impacts working capital efficiency (WCT).

H2. ERM Disclosure positively impacts profitability (ROA).

H3. ERM Disclosure positively impacts firm value (Tobin's Q).

H4. ESG Disclosure enhances the positive impact of ERM Disclosure on profitability (ROA).

H5. ESG Disclosure enhances the positive impact of ERM Disclosure on working capital efficiency (WCT).

H6. ESG Disclosure enhances the positive impact of ERM Disclosure on firm value (Tobin's Q).

RESEARCH METHOD

This study uses a quantitative research design with a causal-comparative approach to analyze the relationship between Enterprise Risk Management (ERM) disclosure and several performance metrics, including working capital efficiency (WCT), profitability (Return on Assets/ROA), and firm value (Tobin's Q). The study also includes Environmental Social Governance (ESG) disclosure as a moderating variable. By employing this approach, the study aims to explore how ERM disclosure influences these dependent variables while considering the impact of ESG practices.

The research hypothesizes that ERM disclosure has a positive effect on working capital efficiency, profitability, and firm value. To test this, three models are developed: Model 1, Model 2, and Model 3, which examine the relationships between ERM disclosure and WCT, ROA, and Tobin's Q, respectively (Sekaran & Bougie, 2016). Each model also controls for additional factors, such as board size, company size, leverage, and the impact of COVID-19, to ensure a comprehensive analysis of the data (Aguilera et al., 2018).

In addition, Models 4, 5, and 6 are structured to test further hypotheses that include the moderating role of ESG disclosure. These models aim to examine whether the interaction between ERM disclosure and ESG practices affects the performance measures under study. By considering these variables, the research aims to provide valuable insights into how risk management and sustainability practices together influence corporate performance outcomes.

RESULT AND DISCUSSION

The population for this study includes all non-financial public companies listed on the Indonesia Stock Exchange (IDX) from 2017 to 2022. Purposive sampling was employed to select the research sample based on the following criteria:

- Non-financial companies consistently listed on the IDX from 2017 to 2022.
- Companies that published complete annual reports during the study period.
- Availability of all required data.

Out of the total non-financial public companies listed on the IDX, 56 companies met the criteria and were included in the research sample. The study used 336 observations, accumulated over the six-year period from these 56 companies.

Table 1 The Sample Selection Process

No	Description of Sample	Total Companies	Period	Observations
1	Non-Financial Companies in Indonesia listed on the Indonesia Stock Exchange from 2017 to 2022	787	6	4722
2	Non-Financial Companies in Indonesia listed on the Indonesia Stock Exchange without complete ESG data from 2017 to 2022	(731)	6	(4386)

TOTAL	56	6	336
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Source: data processing, 2024

Descriptive statistics were used to provide an overall picture of the sample data collected. The statistical measures used in this analysis include the mean, maximum value, minimum value, and standard deviation for each variable. The results of the descriptive statistical analysis for each variable are presented in the following table:

Table 2 Descriptive Statistics

Variabel	Mean	Standar Deviasi	Min	Max
<i>ERM Disclosure</i>	0,75	0,073	0,62	0,9
<i>ESG Disclosure</i>	50,14	23,76	0,00	97,50
BOD Ind	35,06	5,15	21,43	50,00
BOD Size	5,65	1,53	2,00	3,00
WCT	2,94	5,54	-12,71	18,97
ROA	4,72	6,38	-35,90	46,30
TOBINS'Q	1,86	2,72	0,22	39,61
LnSize	30,57	1,46	26,2	33,66
Leverage	0,57	0,28	0,05	1,39
Covid19	2,80	4,05	-9,50	7,60

Source: Data processing EViews 12, 2024

Panel data model tests, including the Chow, LM, and Hausman tests, indicated that the Random Effect Model (REM) is the most suitable for this study. The results of the panel data model tests are presented in the following table:

Table 3 Model Selection Test Results for Hypothesis 1

Variabel Y	Chow	LM	Hausman	Model Terpilih
Sig	0,000	0,000	1,000	REM
Kesimpulan	FEM	REM	REM	

Source: Data processing EViews 12

Table 4 Model Selection Test Results for Hypothesis 2

Variabel Y	Chow	LM	Hausman	Model Terpilih
Sig	0,000	0,000	1,000	REM
Kesimpulan	FEM	REM	REM	

Source: Data processing EViews 12

Table 5 Model Selection Test Results for Hypothesis 3

Variabel Y	Chow	LM	Hausman	Model Terpilih
Sig	0,000	0,000	0,393	REM
Kesimpulan	FEM	REM	REM	

Source: Data processing EViews 12

Table 6 Model Selection Test Results for Hypothesis 4

Variabel Y	Chow	LM	Hausman	Model Terpilih
Sig	0,000	0,000	0,7034	REM
Kesimpulan	FEM	REM	REM	

Source: Data processing EViews 12

Table 7 Model Selection Test Results for Hypothesis 5

Variabel Y	Chow	LM	Hausman	Model Terpilih
Sig	0,000	0,000	1,000	REM
Kesimpulan	FEM	REM	REM	

Source: Data processing EViews 12

Table 8 Model Selection Test Results for Hypothesis 6

Variabel Y	Chow	LM	Hausman	Model Terpilih
Sig	0,000	0,000	0,3638	REM
Kesimpulan	FEM	REM	REM	

Source: Data processing EViews 12

The classical assumption tests conducted using various methods (Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test) yielded the following results:

Normality Test: In the normality test, all models obtained a Jarque-Bera test probability value of 0.00, which is less than 0.05. Therefore, it can be concluded that none of the models are normally distributed. Although all hypothesis models failed the normality test, this can be overlooked because the analysis uses panel data comprising 336 observations. According to statistical theory, with a large sample size, the Central Limit Theorem applies, which states that the sampling distribution of the mean will approximate a normal distribution regardless of the data's original distribution. Consequently, the normality assumption of the error term becomes less critical, and the estimation results can still be considered valid and reliable (Gujarati & Porter, 2009).

Multicollinearity Test: In the multicollinearity test, all models showed that the overall independent variables had values less than 0.8. Hence, it can be concluded that there is no multicollinearity present in the data.

Heteroscedasticity Test: The heteroscedasticity test was not conducted in this analysis because the selected panel data model is the Random Effects Model (REM), which uses Generalized Least Squares (GLS) as the estimation method. GLS has the advantage of automatically handling heteroscedasticity since it is designed to correct inconsistent variations in the error term. Therefore, the homoscedasticity assumption in the residuals of the REM model is already satisfied without additional testing, making the model more efficient and accurate for panel data analysis (Baltagi, 2008).

Autocorrelation Test: The autocorrelation test was also not conducted because the selected panel data model is the Random Effects Model (REM), which uses Generalized Least Squares (GLS) as the estimation method. GLS inherently corrects issues of heteroscedasticity and autocorrelation, making additional tests for autocorrelation unnecessary. By using GLS, the assumptions of homoscedasticity and no autocorrelation

in the residuals of the REM model are met, ensuring the model's efficiency and appropriateness for the panel data analysis (Wooldridge, 2010).

The hypothesis test results, utilizing several testing models (Coefficient of Determination Test, F-test, and t-test), are presented in the following table:

Table 9 Coefficient of Determination

No	Keterangan	R-Squared
1	H1	2,25%
2	H2	15,57%
3	H3	5,79%
4	H4	2,24%
5	H5	15,27%
6	H6	6,25%

Source: Data processing EViews 12

Table 10 F-Test Results

No	Keterangan	Hasil
1	H1	Prob F =0,273
2	H2	Prob F =0,000
3	H3	Prob F =0,001
4	H4	Prob F =0,38
5	H5	Prob F =0,000
6	H6	Prob F =0,003

Source: Data processing EViews 12

Table 11 T-Test Results for the Research Models on Working Capital Turnover (WCT), Return on Assets (ROA), and Tobin's Q (Models 1, 2, 3)

Variabel	H1 (WCT)		H2 (ROA)		H3(TOBINS'Q)	
	Koefisien	p-value	Koefisien	p-value	Koefisien	p-value
(Constant)	-4,289	0,349	0,184	0,228	1,555	0,040
<i>ERMDis</i>	9,726	0,088	-0,053	0,367	1,111	0,028
<i>BODInd</i>	-0,084	0,097	-0,001	0,381	-0,006	0,128
<i>BODSize</i>	-0,361	0,136	0,005	0,272	-0,024	0,180
Size	0,209	0,273	0,002	0,418	-0,037	0,088
Leverage	-2,499	0,038	-0,289	0,000	0,323	0,002
<i>Covid19</i>	-0,176	0,3671	0,014	0,173	0,018	0,326
Kesimpulan	Diterima		Ditolak		Diterima	

Source: Data processing EViews 12

Table 12 T-Test Results for the Research Models on Working Capital Turnover (WCT), Return on Assets (ROA), and Tobin's Q (Models 4, 5, 6)

Variabel	H4 (WCT)		H5 (ROA)		H6(TOBINS'Q)	
	Koefisien	p-value	Koefisien	p-value	Koefisien	p-value
(Constant)	-4,270	0,350	0,175	0,235	1,453	0,051
<i>ERMDis</i>	9,716	0,091	-0,054	0,360	1,186	0,021
<i>ERMDisXESGDis</i>	0,022	0,491	0,001	0,4855	0,091	0,1192
<i>BODInd</i>	-0,084	0,098	-0,001	0,383	-0,005	0,1455
<i>BODSize</i>	-0,360	0,137	-0,005	0,2671	-0,022	0,194
<i>Size</i>	0,209	0,275	0,002	0,000	-0,034	0,107
<i>Leverage</i>	-2,496	0,038	-0,281	0,410	0,315	0,002
<i>Covid19</i>	-0,177	0,369	0,014	0,175	0,010	0,398
Kesimpulan	Diterima		Diterima		Diterima	

Source: Data processing EViews 12

This study aims to examine the impact of Enterprise Risk Management (ERM) disclosure on working capital efficiency, profitability, and company value, with Environmental Social Governance (ESG) disclosure as a moderating factor, focusing on non-financial public companies in Indonesia from 2017 to 2022. The analysis yielded several key findings that warrant further discussion:

Firstly, ERM disclosure significantly and positively impacts company value, as measured by Tobin's Q. This indicates that companies with transparent risk management practices are perceived as more valuable by investors. ERM disclosure can build investor confidence by demonstrating effective risk management, thus reducing uncertainty and enhancing company value.

Secondly, while ERM disclosure positively influences working capital efficiency (WCT), this effect is not statistically significant. The positive direction suggests that ERM disclosure may aid in more efficient working capital management, but the impact is not strong enough to be deemed significant, possibly due to variations in risk management practices among companies.

Thirdly, ERM disclosure has a negative but non-significant effect on profitability, measured by Return on Assets (ROA). This suggests that ERM disclosure does not directly contribute to profitability improvements. Other factors, such as ERM implementation costs or fluctuating market conditions, may influence profitability more significantly.

Fourthly, ESG disclosure plays a positive moderating role, enhancing the positive impact of ERM disclosure on company value and working capital efficiency. This implies that companies integrating ERM frameworks with ESG considerations tend to perform better overall. This finding supports the view that corporate social and environmental responsibility are crucial in creating additional value.

The results align with several previous studies, suggesting that ERM and ESG disclosures positively impact corporate performance. For example, Hoyt and Liebenberg (2011) found a positive relationship between ERM disclosure and company value. Additionally, Eccles, Ioannou, and Serafeim (2014) showed that companies with robust ESG practices tend to have better financial performance. However, there are discrepancies with other research. For instance, this study did not find a significant impact of ERM disclosure on profitability, contrary to Gordon, Loeb, and Tseng (2009), who reported a

positive link between risk management and financial performance. These differences might arise from variations in research contexts and methodologies.

This research contributes to the literature on risk management and corporate social responsibility by demonstrating that ERM and ESG disclosures significantly impact company value and working capital efficiency. It enhances the understanding of how risk management and social responsibility practices can create corporate value. For managers, these findings underscore the importance of transparent ERM and ESG disclosures. Comprehensive and transparent reporting on risk management and social responsibility practices can bolster investor confidence and ultimately increase company value. Therefore, companies are advised to continually improve the quality of their ERM and ESG disclosures.

This study has several limitations. First, the sample includes only non-financial public companies in Indonesia from 2017 to 2022, limiting the generalizability of the findings to other sectors or countries. Second, the research employs control variables like company size and leverage, but other unexamined variables could influence the results. Third, the study relies on secondary data from annual and sustainability reports, which may have accuracy and completeness limitations. Fourth, the measurement of variables such as ERM and ESG disclosure may still be subjective and dependent on each company's assessment.

Despite these limitations, the study provides valuable insights into the impact of ERM and ESG disclosures on corporate performance. Future research should address these limitations and further explore the relationship between ERM, ESG, and corporate performance to deepen our understanding.

CONCLUSION

This study investigates the influence of Enterprise Risk Management (ERM) disclosure on working capital efficiency, profitability, and company value, with Environmental Social Governance (ESG) disclosure as a moderating factor in non-financial public companies in Indonesia from 2017 to 2022. The findings are as follows: First, ERM disclosure has a significant positive effect on Tobin's Q, indicating an enhancement in company value. However, it has a positive but not significant effect on Working Capital Turnover (WCT) and a negative but not significant effect on Return on Assets (ROA). These results suggest that while ERM practices contribute to long-term value creation, their immediate impact on operational efficiency and profitability may vary. Second, ESG disclosure plays a positive moderating role, suggesting that strong ERM frameworks, when integrated with robust ESG practices, can drive responsible decision-making strategies. This integration fosters better financial performance and enhances company value, highlighting the importance of incorporating ESG aspects into risk management processes (Hanggraeni, 2024). Future research should address the limitations identified in this study, such as the maturity of ERM implementation and the endogeneity between independent and dependent variables. Further analysis is needed to compare pre- and post-COVID-19 impacts and to obtain detailed risk management data. Expanding the sample size to include more companies with ESG disclosures will also provide more comprehensive insights.

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