

The Impact of ESG Principles Implementation on Risk Management Effectiveness in the Banking Sector

Hilyati Zikriani^{1*}, Nur Fatwa², Faza Fatiyurrobbany³, Lokot Zein Nasution⁴,
Nova Rini⁵

^{1,2,3}Universitas Indonesia

⁴Badan Riset Inovasi Nasional

⁵Universitas Teknologi Muhammadiyah

Corresponding Author: Hilyati Zikriani; hilyati.zikriani@ui.ac.id

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ABSTRACT

This study was conducted to determine the effect of ESG principle implementation on Risk Management Effectiveness in the banking sector in Indonesia, listed on the Indonesia Stock Exchange for the 2022-2023 period. Using the purposive sampling method, 36 banking sector financial companies that published IDXESGL in 2022-2023 were selected. The analytical methods used include descriptive analysis, classical assumption tests, and hypothesis testing with linear regression. The results indicate that the implementation of ESG principles has a positive and significant effect on risk management effectiveness in the banking sector. Companies with a low ESG Risk Rating tend to have better risk management practices, being more proactive in identifying, measuring, and managing risks related to ESG factors, such as environmental, social, and governance risks, allowing them to mitigate the negative impacts of these risks on company performance. Additionally, companies with a low ESG Risk Rating tend to have higher ROA and ROE, indicating their ability to generate better profits by managing risks effectively, and lower NPL, demonstrating better asset quality and lower credit risk

INTRODUCTION

The ESG aspect has become a major focus in various fields due to its contribution to sustainability, risk mitigation, and overall business performance. ESG encompasses vital issues for businesses, investors, and policymakers. The environmental dimension of ESG highlights how a company interacts with nature, including carbon emissions, resource consumption, and waste management (Gong et al., 2020). The social factor includes how companies manage relationships with employees, suppliers, customers, and surrounding communities (Leigh-Hunt et al., 2017). The governance factor relates to internal controls, leadership structure, executive compensation, and shareholder rights within an organization (Herrera et al., 2017).

The importance of ESG factors lies in their ability to influence long-term value creation, reputation, and organizational resilience. Companies that adopt ESG principles in their operations often demonstrate better financial performance and attract investors seeking sustainable investments (McCarthy et al., 2021). Research shows that companies with strong ESG performance often have lower capital costs, reduced risk, and improved operational efficiency (McCarthy et al., 2021). Additionally, ESG factors are increasingly used as indicators of corporate responsibility and ethical behavior, which can enhance brand perception and customer loyalty (Baniyas et al., 2017).

Recent academic research increasingly emphasizes the importance of integrating ESG aspects into corporate risk management strategies. A study by Yunus & Nanda (2024) highlights how responsible investment and stakeholder engagement can enhance corporate accountability and ESG performance, suggesting that companies need to expand their risk assessment criteria beyond financial factors alone. Kapil & Rawal (2023) propose further research to investigate the relationship between ESG investment and risk management, reflecting the growing interest in understanding ESG's impact on investment risk reduction.

A recent study by Lee & Koh (2024) indicates that ESG performance can provide advantages in risk management within the financial sector. These findings emphasize the importance of incorporating ESG factors into risk assessment to improve risk management effectiveness. Amaral et al. (2023) also note increasing investor interest in ESG, driven by awareness of the financial value of sustainable practices, further reinforcing ESG's relevance in risk management strategies. Gupta & Aggarwal (2024) find an inverse relationship between ESG performance and capital costs, indicating that companies with strong ESG practices may enjoy lower capital costs, highlighting ESG's potential as a risk mitigation strategy. Oprean-Stan et al. (2020) expand the discussion by examining the impact of sustainability reporting and ESG factors on corporate performance and sustainable growth, emphasizing that ESG benefits go beyond financial aspects alone.

In the insurance industry, Sood & Özen (2024) use the PRISMA method to evaluate ESG practices, highlighting the importance of a systematic approach in assessing ESG risks. Khovrak (2020) identifies general guidelines for ESG-based sustainable development in insurance companies, emphasizing the role of

environmental, social, and governance factors in sustainable risk management practices.

ESG considerations are crucial for organizational success and sustainability in today's complex and interconnected world. By integrating ESG factors into decision-making processes, companies can enhance financial performance, reputation, and resilience while contributing to a more sustainable and equitable future for all stakeholders. By synthesizing findings from credible studies in this field, it becomes evident that ESG factors play a crucial role in shaping shareholder value and market perception, underscoring the need to integrate sustainability considerations into investment decisions for long-term value creation.

Environmental, Social, and Governance (ESG) principles have become a global benchmark for assessing corporate performance, including in the banking sector. The banking sector, with its central role in resource allocation, has a significant responsibility to ensure that its funded investments align with ESG principles. By integrating ESG into decision-making processes, banks can identify and manage environmental and social risks while capturing new business opportunities arising from sustainability trends.

On the other hand, Islam, as the majority religion in Indonesia, has a comprehensive perspective on business ethics and finance, reflected in the concept of Maqashid Syariah. Maqashid Syariah emphasizes the preservation of religion, life, intellect, lineage, and wealth. These principles align with ESG's goals of creating long-term value for society and the environment.

Although some studies have highlighted the positive and significant effects of ESG performance on investment efficiency, recent research in Indonesia offers a different perspective. A study by Faiza (2023) found that ESG risk ratings do not impact company performance or value. Furthermore, this research aims to fill the gap in the literature regarding the impact of ESG implementation (ESG Index) on Risk Management Effectiveness (Risk metrics: ROA, ROE & NPL) in the banking sector.

LITERATURE REVIEW

Effectiveness of Islamic Risk Management

George R. Terry defines management as a series of activities that include planning, organizing, directing, and controlling to coordinate human and natural resources in order to achieve organizational goals optimally (Wanda, 2017). In line with this, risk management is a systematic approach to identifying, evaluating, making decisions, and addressing potential losses in work or business. Therefore, risk management in an Islamic context can be understood as a structured approach to achieving business objectives by optimizing company resources while adhering to Islamic principles.

The fundamental difference between these two approaches lies in business ethics. Conventional risk management focuses more on financial gains without necessarily considering moral aspects. In contrast, Islamic risk management integrates Islamic ethical principles into every business decision, ensuring that corporate goals are achieved in a halal and sustainable manner. Like other

management fields, risk management aims to help companies achieve their business targets. One way to accomplish this is by anticipating and addressing risks that could cause damage or loss to company assets, such as natural disasters or accidents.

Based on the explanation above, both conventional and Islamic risk management share the same goal—helping companies achieve their business objectives. This aligns with Ali Yafie's perspective that protecting assets from damage, loss, or suffering is an innate human necessity consistent with Islamic teachings. Islam does not prohibit individuals from taking necessary measures to safeguard their wealth (Hakim, 2010).

Effectiveness can be defined as the degree of success in achieving predetermined objectives. The concept of effectiveness is crucial across various contexts, from organizations to small programs. However, measuring effectiveness is often complex, as it involves multiple perspectives and variables. One common method for measuring effectiveness is by comparing the generated output with the planned input. In this study, the effectiveness of risk management is assessed using the following risk evaluation metrics.

Non-Performing Loan (NPL)

Non-Performing Loan (NPL) is a key indicator of a bank's performance. A high NPL indicates a failure in bank management, leading to issues such as liquidity difficulties, decreased profitability, and capital reduction (Diyanti & Widyarti, 2012). Additionally, NPL represents credit risk; the higher the NPL, the greater the credit risk faced by the bank. A high NPL ratio can hinder a bank's ability to extend credit. The lower the NPL ratio, the fewer problematic loans, and the better the bank's condition. The NPL calculation results can be utilized to develop risk management strategies and minimize the adverse effects of non-performing loans.

$$\text{NPL Ratio} = (\text{Total NPL} / \text{Total Credit}) \times 100\%$$

Based on the NPL ratio, financial institutions can be categorized as follows:

- Very Healthy: $\text{NPL} < 2\%$
- Healthy: $2\% < \text{NPL} < 5\%$
- Fairly Healthy: $5\% < \text{NPL} < 8\%$
- Less Healthy: $8\% < \text{NPL} < 12\%$
- Unhealthy: $\text{NPL} \geq 12\%$

Return on Equity (ROE)

Return on Equity (ROE) can be used as a tool to evaluate a company's financial performance (Safriani & Utomo, 2020; Nisa et al., 2023). As explained by Johan and Toti (2022), ROE is a ratio that indicates how well management generates profits from shareholders' investments. The formula for calculating ROE is as follows.

$$\text{ROA} = (\text{Net Profit}) / (\text{Total Equity})$$

Stakeholder Theory

According to Nugroho and Hersugondo (2022), stakeholders are individuals or groups with an interest in a company who can influence or be influenced by its activities in achieving its objectives. The stakeholder concept is not limited to shareholders alone; all parties with an interest in the company,

including employees, consumers, suppliers, and the community, are considered stakeholders. Stakeholder theory emphasizes that companies should operate while considering the interests of all stakeholders, not just shareholder profits (Syafrullah & Muharam, 2017).

According to Manita et al. (2018), corporate stakeholders, such as investors and employees, are increasingly concerned about environmental issues caused by business activities. They demand transparency regarding the company's social and environmental practices. The implementation of ESG can be seen as a way for companies to communicate with their stakeholders. Companies that consider stakeholder expectations regarding ESG are more likely to succeed.

ESG disclosure can be viewed as a proactive effort by companies to meet stakeholder expectations and demands. Through such disclosure, companies aim to build and maintain positive relationships with stakeholders while enhancing their reputation. Furthermore, ESG disclosure serves as an indicator of a company's improving performance in environmental, social, and governance aspects (Safriani & Utomo, 2020; Purwitasari et al., 2023).

Legitimacy Theory

Legitimacy theory emphasizes the importance of a harmonious relationship between a company and its social environment. Companies must understand and respect the values and norms upheld by the local community to gain social legitimacy (Syafrullah & Muharam, 2017). According to legitimacy theory, companies rely heavily on public acceptance for their sustainability and growth. Therefore, they strive to demonstrate good performance, particularly in sustainability aspects, to secure the necessary social legitimacy (Andriani & Arsiah, 2022).

Legitimacy theory suggests that companies voluntarily disclose activities as a communication tool, such as reporting ESG-related information that aligns with societal expectations in the regions where they operate (Rahman & Alsayegh, 2021). According to research by Adhi and Cahyonowati (2023), implementing ESG principles can be an effective strategy for companies to gain strong social legitimacy and restore damaged reputations. This study employs legitimacy theory as a framework, assuming that ESG implementation and disclosure serve as effective strategies for companies to build, strengthen, and maintain their social legitimacy.

Manita et al. (2018) argue that voluntary ESG disclosure is often driven by the motivation to gain business advantages. Some potential benefits include improved corporate image, better relationships with stakeholders, and increased attractiveness to potential employees. Additionally, ESG disclosure can support better internal decision-making and potentially enhance a company's financial performance.

Environmental, Social and Governance (ESG)

ESG is a framework consisting of three main pillars: environmental, social, and governance. This framework aims to measure the sustainability of a company's business practices. Triyani and Setyahuni (2020) define ESG as a set of non-financial metrics focused on three key dimensions—environmental, social, and governance. These metrics are used to evaluate the sustainability

impact and ethical implications of a company's investment decisions. According to Stiadi et al. (2023), ESG is an investment philosophy oriented toward long-term growth while serving as a comprehensive and reality-based corporate governance framework. Almeyda and Darmansya (2019) note that ESG information is gaining increasing attention due to its potential to create significant long-term impacts for all company stakeholders, not just shareholders. In Indonesia, ESG regulations are outlined in OJK Regulation (POJK) No. 51 of 2017 concerning the Implementation of Sustainable Finance for Financial Institutions, Issuers, and Public Companies.

Roestanto et al. (2022) explain that ESG disclosure serves as a means for companies to communicate their performance across the three main dimensions: environmental, social, and governance. The ESG scope includes various issues such as climate change, fair business practices, human rights, and transparency in corporate governance. A company's ESG performance can be evaluated by stakeholders through multiple channels, including sustainability reports, integrated annual reports, corporate websites, and other media. Various international rating agencies such as Sustainalytics, Bloomberg, and MSCI have developed methodologies to measure a company's ESG performance, resulting in ESG scores or ratings (Widyantoro et al., 2022).

In this study, ESG performance is measured using the ESG risk rating issued by Morningstar Sustainalytics, an internationally recognized sustainability rating agency. The lower a company's ESG risk rating, the more effective it is in managing environmental, social, and governance risks. Conversely, a high ESG risk rating indicates weak ESG risk management practices. The ESG risk rating consists of a quantitative score that provides a numerical representation of a company's ESG risk level, along with risk categories that classify companies based on the type of risks they face. Companies are grouped into one of five categories, as shown in Table 1, based on their quantitative ESG score assessment.

Tabel 1. Kategori Skor Kuantitatif ESG Risk Rating

Skor Risiko	Kategori	Deskripsi
0 – 10	<i>Negligible</i>	Dianggap punya risiko ESG yang bisa diabaikan
10 – 20	<i>Low</i>	Dianggap punya risiko ESG rendah
20 – 30	<i>Medium</i>	Dianggap punya risiko ESG sedang
30 – 40	<i>High</i>	Dianggap punya risiko ESG tinggi
> 40	<i>Severe</i>	Dianggap punya risiko ESG berat

Source: idx.co.id

METHODOLOGY

Population and Sample

One of the main requirements for a company to be included in the IDX ESG Leaders Index is having an ESG risk score below 30. Companies with an ESG risk score of 30 or higher, which fall into the high-risk and very high-risk categories as listed in Table 1, will automatically be excluded from this index.

Tabel 2. Research Sample Selection Criteria

No	Criteria	Total
1	Banking sector financial companies that are still operating, listed, and have published financial reports on the Indonesia Stock Exchange (IDX) during 2022-2023	25
2	Banking sector financial companies that published IDX ESG Leaders reports in 2022-2023	9
	Total Sample Companies	9
	Total Observation Samples (9 companies × 4 research periods)	36

Source: idx.co.id

Based on the determined criteria, a total of 9 companies were selected as the research sample. The list of companies included in this study is shown in Table 2

Tabel 3. List of Sample Companies

No	Code	Company Name
1	BBRI	PT Bank Rakyat Indonesia (Persero) Tbk.
2	BBNI	PT Bank Negara Indonesia (Persero) Tbk.
3	BBCA	PT Bank Central Asia Tbk.
4	BBTN	PT Bank Tabungan Negara (Persero) Tbk.
5	BRISB	PT Bank Syariah Indonesia Tbk.
6	BMRI	PT Bank Mandiri (Persero) Tbk.
7	BTPSA	PT Bank BTPN Syariah Tbk.
8	ARTO	PT Bank Jago Tbk.
9	BBKP	PT Bank KB Bukopin Tbk.

Source: Processed Data (2024)

Variables and Measurements

This study aims to analyze the impact of the Level of ESG Principle Implementation (X) on Risk Management Effectiveness (Y). The dependent variable (Y), Risk Management Effectiveness, is measured using ROA, ROE, and NPL indicators. The independent variable (X), Level of ESG Principle Implementation, is measured using IDXESGL and LEVERAGE/DER. The secondary data used in this study is collected from financial reports and annual reports of companies listed on the Indonesia Stock Exchange (IDX), available on the IDX website and company websites (<https://www.idx.co.id/id/data-pasar/data-saham/indeks-saham>). The documentation method is used for data collection.

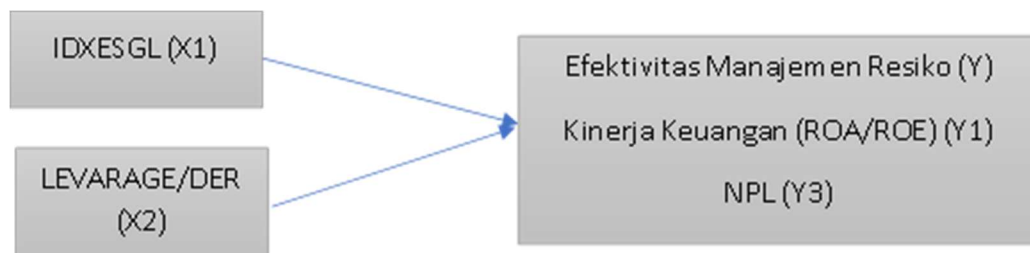
Research Model

The research adopts a quantitative approach, utilizing various statistical techniques for data analysis. Descriptive statistical analysis is employed to describe the sample characteristics, including mean, standard deviation, minimum, and maximum values (Ghozali, 2018). To ensure the validity of the research model, a classical assumption test is conducted. The normality test uses the Kolmogorov-Smirnov test to examine the distribution of residuals (Ghozali, 2018), while the heteroscedasticity test assesses the equality of residual variance by regressing the absolute residual values on the independent variable (Mardiatmoko, 2020). The multicollinearity test, using tolerance values and Variance Inflation Factor (VIF), detects correlations between independent variables (Ghozali, 2018), whereas the autocorrelation test, conducted through the Durbin-Watson test, identifies correlations between error terms (Ghozali, 2018).

To test the hypotheses, several methods are applied. The coefficient of determination (R^2) with adjusted R-squared (Ghozali, 2018) measures the extent to which the independent variable explains variations in the dependent variable. The simultaneous significance test (F-test) (Mardiatmoko, 2020) evaluates the combined effect of independent variables on the dependent variable, while the partial significance test (t-test) (Mardiatmoko, 2020) examines the individual influence of each independent variable. Data analysis is carried out using appropriate statistical software to ensure the accuracy and validity of the results.

Conceptual Framework and Hypothesis

The conceptual framework of this study presents the relationship between the dependent and independent variables in the following schematic model:



Picture 1. Hypothesi

H1: There is a significant positive relationship between the level of ESG principles implementation and risk management effectiveness in the banking sector.

RESULT AND DISCUSSION

The research findings section presents empirical results obtained through data analysis, including a description of sample characteristics, classical assumption testing, and hypothesis testing.

Descriptive Statistical Analysis

This analysis aims to interpret data from all research variables, both dependent and independent variables, to provide a comprehensive explanation

of the relationships between them. The descriptive statistics used include maximum, minimum, mean, and standard deviation values. The results of the descriptive statistical analysis in this study are presented in Table 3.

Tabel 4. Descriptive Statistical Analysis Result

Variable	N	Minimum	Maximum	Mean	Std. Deviation
IDXESGL	36	17.83	34.21	22.34547	8.95663
LEVERAGE/DER	36	0.31	13.56	2.56754	1.45326
ROA	36	-0.032802	0.357822	0.028654	0.042744
ROE	36	-0.020432	0.722121	0.072326	0.224812
NPL	36	1.5	2.8	0.021679	0.016289

Source: Processed Data (2024)

The descriptive analysis results in Table 3 indicate that the research population consists of 36 companies listed in the IDX ESG Leaders index. The company data was obtained from the major index evaluation reports and financial statements over four periods. The explanation of each research variable used is as follows:

The ESG risk rating shows an average value of 22.34547 and a standard deviation of 8.95663, indicating that this variable has low variability, meaning the sample is evenly distributed. The highest ESG risk value was recorded by PT Bank KB Bukopin Tbk. (BBKP) in the first quarter of 2022, with a value of 34.21. Meanwhile, the lowest ESG risk value was recorded by PT Bank Rakyat Indonesia (Persero) Tbk. (BBRI) in the second quarter of 2023, with a value of 17.83. This indicates that companies included in the IDX ESG Leaders index have ESG risk values in the low (10–20) and medium (20–30) categories, which are considered to have low to moderate ESG risk or, in other words, good ESG performance.

In this study, the leverage variable was calculated using the Debt to Equity Ratio (DER). The results show that the lowest DER value was 0.31, recorded by PT Bank BTPN Syariah Tbk. (BTPS) in the first quarter of 2022, while the highest DER value was 13.56, recorded by PT Bank Tabungan Negara (Persero) Tbk. (BBTN) in the second quarter of 2023. The average DER for the sample companies was 2.56754, with a standard deviation of 1.45326. The relatively small standard deviation compared to the mean indicates that the company's leverage data does not vary significantly. The level of leverage measured through DER plays an essential role in fundamental analysis as it provides information about a company's financial condition. Companies with extremely high DER are at risk of financial distress, bankruptcy, or even delisting.

In this study, the Return on Assets (ROA) variable had an average value of 0.028654 and a standard deviation of 0.042744. The standard deviation being larger than the mean indicates that the sample companies' ROA data is quite varied. The minimum ROA value of -0.032802 was recorded by PT Bank Jago Tbk. (ARTO) in the second quarter of 2023, while the maximum ROA value of 0.357822 was recorded by PT Bank Syariah Indonesia Tbk. in the third quarter of

2022. Companies with high ROA are generally able to manage their assets efficiently and effectively to generate significant profits. This means that these companies have successfully increased their profits through optimal asset management.

The Return on Equity (ROE) data, which represents a company's financial performance, shows the lowest value of -0.020432 recorded by PT Bank KB Bukopin Tbk. in the third quarter of 2022. The highest ROE value was 0.722121, recorded by PT Bank Central Asia Tbk. in the second quarter of 2022. The average ROE was 0.021679, with a standard deviation of 0.224812. The standard deviation being larger than the mean indicates that ROE data tends to be heterogeneous. A high ROE means that a company has a strong ability to generate profits from each unit of equity it owns. This suggests that the company is highly efficient in managing shareholder capital to produce substantial returns.

In the banking sector, the Non-Performing Loan (NPL) ratio represents loans that are overdue or in default. The lowest NPL value of 1.5 was recorded by PT Bank Central Asia Tbk. in the third quarter of 2022, while the highest NPL value of 2.8 was recorded by PT Bank Negara Indonesia (Persero) Tbk. in the first quarter of 2022. The average NPL was 0.072326, with a standard deviation of 0.016289. A high NPL ratio indicates that many debtors are failing to meet their loan repayment obligations, reflecting poor asset quality in financial institutions, particularly banks.

Classical Assumption Test Results

Normality Test

The significance value obtained from the Kolmogorov-Smirnov normality test is greater than 0.05, specifically 0.089. This result indicates that the data follows a normal distribution. Therefore, the normality assumption for this study's data is satisfied.

Tabel 5. Presents the Results of the Kolmogorov-Smirnov Normality Test

		Unstandardized Residual
N		36
Normal Paramaters	Mean	0
	Std. Deviation	0,03077846
Most Extreme Differences	Absolute	0,079
	Positive	0,079
	Negative	0,59
Test Statistic		0,079
Asymp.Sig.(2-tailed)		0,082

Source: Processed Data from IBM SPSS 27, 2024

Multicollinearity Test

The table shows the tolerance and VIF values for the independent variables. Each variable has a tolerance value > 0.1 and a VIF value < 10 . This indicates that the data is free from multicollinearity

Tabel 1. Multicollinearity Test Results

	Unstandardized Residual
Test Value	-0,00324
Cases< Test Value	42
Cases>= Test Value	42
Total Cases	104
Number Of Runs	42
Z	-0,166
Asymp.Sig.(2-tailed)	0,179

Source: Processed Data IBM SPSS 27, 2024

Table 6 shows a run test value of 0.179. Since the significance value is greater than 0.05, it can be concluded that the residual values are not random, indicating no autocorrelation.

Hypothesis

After the data has passed the classical assumption tests, the next analysis focuses on hypothesis testing to confirm the influence of independent variables on the dependent variable.

Coefficient of Determination

Tabel 7. Presents the Results of the Coefficient of Determination Test

Model	R	R square	Adjust R Square	Std. Error of The Estimates
1	0,412	0,203	0,067	0,02364

Source: Processed Data, IBM SPSS 27, 2024

Risk management accounts for 20.3%, while the remaining 79.7% is explained by other factors outside this research model. This indicates that the independent variables in this study have a considerable influence on the dependent variable; however, there are still other factors that may affect the effectiveness of risk management in the banking sector. Risk management accounts for 20.3%, but the remaining 70.7% is explained by variables outside this research.

F-Test

Tabel 8. F-Test Results

Model		Sum Of Squares	df	Mean Square	F	Sig
1	Regression	0,203	2	0,02364	2,422	0,015
	Residual	0,012	88	0,001		
	Total	0,215	215			

Source: Processed Data IBM SPSS 27, 2024

According to Table 7, the F-value of 2.422 and a significance value of 0.015 indicate a simultaneous influence between the variables IDXESGL and Leverage on Risk Management Effectiveness, as the significance value is less than 0.05.

T-Test

Tabel 9. Presents the Results of the T-Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,04	0,1		0,375	0,709
	IDXESGL	0,032	0,015	0,234	2,375	0,022
	LEV/DER	0,866	0,009	0,213	0,123	0,062
	ROA	0,857	0,056	0,105	0,175	0,303
	ROE	0,889	0,013	0,21	1,213	0,092
	NPL	0,896	0,054	0,196	0,012	0,103

Source: Processed Data, IBM SPSS 27, 2024

Based on the statistical test in Table 8, the ESG performance variable (IDXESGL) has a t-value of 2.375 and a significance level of 0.022. Since the significance value is less than 0.05, it can be concluded that ESG performance has a positive and significant effect on risk management effectiveness. As a result, the research hypothesis stating that ESG performance contributes positively to investment efficiency (H1) is accepted.

The Effect of ESG Risk Rating on Risk Management Effectiveness in Banking Sector Companies

The ESG Risk Rating variable test resulted in a beta value of 0.234 and a significance level of 0.022. The acceptance of this research hypothesis indicates strong empirical evidence of the positive and significant impact of ESG performance on risk management effectiveness. These findings are consistent with the studies of Lian & Weng (2024) and Bilyay-Erdogan et al. (2024), which concluded that overall ESG performance positively correlates with investment efficiency. Furthermore, these studies also demonstrated that ESG performance can reduce performance volatility and increase market attention, ultimately minimizing investment inefficiencies.

This study's findings differ from those of Faiza (2023), who examined the effect of ESG Risk Rating on corporate performance and value in Indonesia. Faiza's research found that ESG Risk Rating had no significant impact on operational performance (ROA), financial performance (ROE), or firm value (Tobin's Q). Several possible reasons for this discrepancy include the fact that ESG Risk Rating may not yet directly contribute to corporate profitability in the short term, given that ESG's impact tends to be more evident over the long term. Additionally, corporate performance and value are influenced by many internal and external factors beyond ESG Risk Rating. Since corporate performance and value are primarily financially oriented, they tend to focus more on financial variables, whereas ESG Risk Rating is a non-financial variable.

This study aligns with stakeholder theory, which suggests that companies implementing ESG principles will gain long-term benefits by fostering stronger relationships and increasing trust with stakeholders. These findings are consistent with previous research by Chen and Xie (2022). According to stakeholder theory, companies should not only focus on profitability but also consider the interests of various stakeholders. This research shows that companies with strong ESG performance tend to exhibit higher investment efficiency. This can be attributed to better risk management practices in ESG-

compliant companies, enabling them to anticipate and respond to business challenges more effectively.

The test results also reveal that companies successfully integrating ESG principles into their business activities tend to gain greater trust from stakeholders. Moreover, the integration of ESG principles can reduce operational and financial risks, allowing companies to allocate resources more efficiently and lower costs

CONCLUSION AND RECOMMENDATIONS

This study aims to analyze the impact of ESG principles implementation on risk management effectiveness in the banking sector in Indonesia during the 2022-2023 period. The research sample consists of 36 banking sector financial companies that published IDXESGL data in 2022-2023. The test results for the ESG Risk Rating variable show a beta value of 0.234 and a significance value of 0.022, indicating strong empirical evidence of a positive and significant impact of ESG performance on risk management effectiveness in the banking sector. Companies with lower ESG Risk Ratings tend to have better risk management practices, as they are more proactive in identifying, measuring, and managing risks related to ESG factors, such as environmental, social, and governance risks, reducing their negative impact on company performance. Companies with good ESG Risk Ratings also tend to have better reputations among investors, customers, and other stakeholders, increasing trust and attracting more investors. PT Bank Central Asia Tbk (BBCA) and PT Bank Negara Indonesia Tbk (BBNI), which are listed in IDXESGL, have demonstrated stable ESG Risk Ratings, reflecting their consistent commitment to ESG principles and effective risk management.

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