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ESG Risk and Firm's Performance

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This study aims to explore the link between market, financial, and operational performance and environmental, social, and governance (ESG) risk. This quantitative study is based on data analysis from up to 100 observations collected between 2019 and 2023. Companies listed on the Indonesia Stock Exchange IDX LQ45 throughout the observation period serve as the study's samples. Purposive sampling was used to choose the sample, and it was done so based on particular research-relevant criteria. The performance of the company is examined in relation to ESG risks using the robust standard errors model. Stakeholder theory, which highlights the significance of corporate management taking into account the interests of all stakeholders, serves as the foundation for the theoretical model of this work. The dependent variables in the practical model are ROA, ROE, and Tobin's Q, whereas the independent variable is the ESG risk rating. The conclusions drawn from the empirical data demonstrate that market and financial performance are significantly harmed by ESG risk. Nonetheless, operational performance is not significantly impacted by ESG risk. This research adds to the limited body of knowledge about the risk associated with sustainability reporting and how it affects a company's capacity to perform financially and on the market. Organizations that effectively handle environmental, social, and governance (ESG) risks can reap enduring advantages such as enhanced standing and stable finances. A crucial first step toward ensuring sustainability and competitiveness in the future is the incorporation of ESG into company strategy.

Keywords: ESG Risk, Financial Performance, Operational Performance, Market Performance

Introduction

Global climate change has become an urgent issue that requires collective action from various sectors. This has increased public expectations for companies to pay attention to environmental, social responsibility and ethical issues. Stakeholders demand companies to carry out sustainability practices related to responsible environmental, social and governance (ESG) practices that have an impact on the environment and society (Chen & Xie, 2022; Park & Jang, 2021).

This ESG practice has a strong role in the world economy. In research conducted by Shaikh (2022) there is a statistical description of ESG scores in various countries from 2010 to 2018 detailed in Figure 1. Companies in the United States (64.16) and the United Kingdom (63.75) topped the corporate governance score, while companies in Brazil had a higher social score (56.16) than companies in social sustainability practices. European companies excel in environmental

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aspects. Indonesian companies are at the bottom in corporate sustainability development, especially in environmental practices.

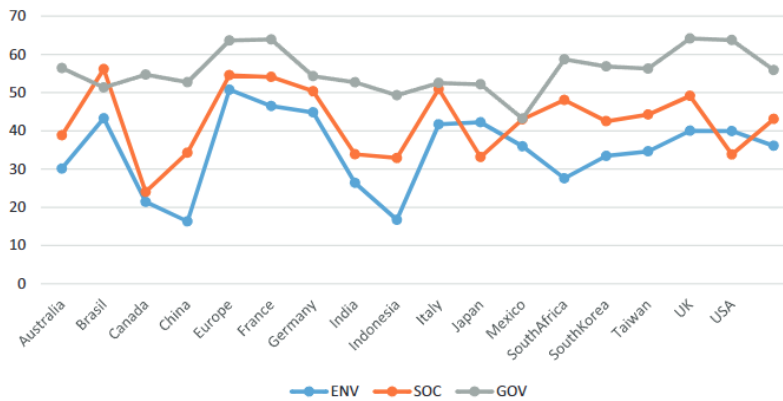


Figure 1. Environmental, Social, and Governance Score
Source: Shaikh (2022)

On the other hand, Indonesian companies are at the bottom of ESG development in the ASEAN region from 2016 to 2020 as detailed in Figure 2. By 2022, Malaysia leads with an ESG disclosure rate of 69 percent, followed by Singapore at 62 percent. Meanwhile, Thailand has an ESG disclosure rate of 63 percent, the Philippines at 62 percent, and in last place, Indonesia at 56 percent. Overall, companies in these five ASEAN countries have seen an increase in sustainability reporting since 2016. However, board governance performance is relatively low, especially regarding the lack of initiative from senior management in implementing corporate sustainability reporting. (Dissanayake et al., 2020).

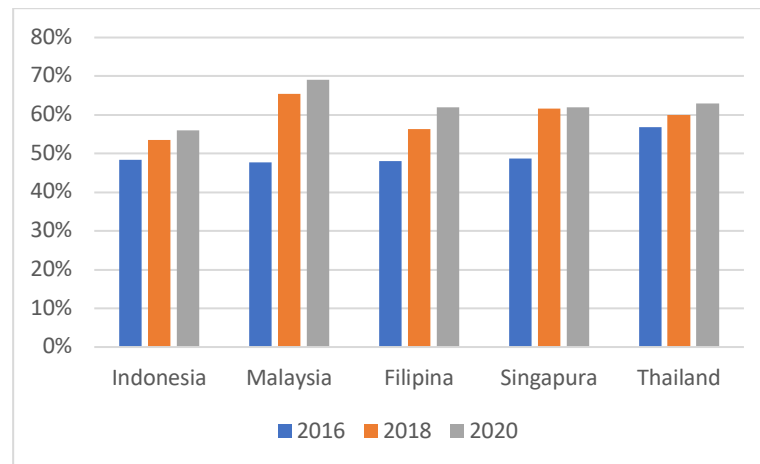


Figure 2. Level of ESG Disclosures in ASEAN
Source: ASEAN CSR Network

ESG implementation is not only limited to following regulations, but also about the implementation steps in business strategies to get higher tangible benefits. In light of the significance of sustainability reporting, studies examining the relationship between ESG performance and corporate performance are crucial for informing investment choices. Nonetheless, there is currently a dearth of research on the impact of environmental, social, and governance (ESG) performance on financial success (Shakil et al., 2019). The majority of the research on how ESG affects performance is done in North America and Europe; however, there is still a dearth of information when it comes to other areas, particularly Asia.

Companies that are committed to ESG principles will be the first choice for stakeholders. This is driven by several reasons, among others, because the company has high sustainability and has the support and trust of stakeholders. So it can be said that ESG has a positive and significant effect

on company performance (Antonius & Ida, 2023). Stakeholder support determines the success of a company. By building harmonious and collaborative relationships with stakeholders, companies can create an integrated and conducive business environment. This supports the achievement of company goals and improves company performance, which in turn has a positive effect on the value of the company's shares (Ademi & Klungseth, 2022)..

In addition to playing an important role in corporate reporting systems, ESG reporting provides a platform for investors and stakeholders to assess the risks and impacts of a company's ESG practices. The Indonesia Stock Exchange (IDX) collaborates with Morningstar Sustainalytics to assess the ESG practices of listed companies. The Indonesia Stock Exchange (IDX) demonstrates its commitment in encouraging long-term sustainable investment and enhancing ESG implementation in the Indonesian capital market. This is done through cooperation with ESG rating agencies and the implementation of ESG assessments of listed companies on the IDX. Currently, the IDX partners with Morningstar Sustainalytics to carry out ESG assessments using the ESG Risk Rating methodology. The IDX's commitment to ESG and sustainable investment encourages the ESG value of companies as a key indicator in assessing a company's environmental and social responsibility, which results in improved company performance and stock prices (Ademi & Klungseth, 2022).

Murè et al. (2021) found that implementing ESG practices can reduce the risk of financial sanctions. Companies that receive financial sanctions can hurt their reputation and negatively impact long-term performance. Furthermore, it was found that ESG activities reduce the cost of equity, strengthen cash flow, and improve performance (Barko et al., 2022). Previous studies have used ESG measurement with disclosure and performance, but proxy with ESG Risk Rating is still very limited (Khan, 2022).

There is conflicting empirical data about the connection between ESG practices and business performance. Operational, financial, and market performance are adversely affected by ESG (Buallay, 2020). The allocation of money inefficiently might result in opportunity costs when investing in ESG initiatives (Azmi et al., 2021). But as Buallay (2019) demonstrated, a company's value may rise in response to strong ESG practices. As a result, this study will look at how ESG affects the risk-adjusted operational, financial, and market performance of Indonesian enterprises.

Research (Li et al., 1995) indicates that corporate value and ESG are positively correlated. The interests of owners, employees, managers, suppliers, creditors, regulators, environmentalists, communities, and other groups are all impacted by the organization's activities and goals. As a result, positive relationships among stakeholders will inevitably lead to better business outcomes, which will in turn affect stock prices (Orlitzky et al., 2003). Consequently, it can be concluded that the organization will see positive performance outcomes from the use of GCG principles in the implementation of ESG. The present study is consistent with previous research conducted by Bodhanwala & Bodhanwala (2018) and Landi & Sciarelli (2018), which provides empirical data supporting a statistically significant positive link between a company's success and its application of ESG. Priandhana (2022) and Duque & Aguilera (2021) contend, in contradiction to studies, that ESG has a detrimental effect on business performance since it requires resources to be allocated and expenditures to be incurred in order for businesses to comply with ESG regulations. This supports the widely held belief (Zimmerli, 2007) that a company's primary objective should be to maximize the wealth of its stakeholders and that pursuing non-financial objectives may actually decrease the company's efficiency.

On the other hand, research by Horváthová (2010) found that the improvement of corporate performance is not influenced by the implementation of ESG and does not affect stock prices.

Strong GCG and ESG implementation is not just an option, but a necessity for companies that want to achieve superior performance. By effectively implementing GCG and ESG principles, companies can increase profitability, build stakeholder trust, and achieve long-term success

(Arfianti & Anggraini, 2023). With an increase in ESG reporting, it is expected that companies can improve their performance, which in turn will increase the value of their shares.

Parmar et al. (2010) established the stakeholder theory, which states that the corporation is an organ that interacts with various interested parties both inside and outside of the company. According to Bani-Khalid and Kouhy (2017), one of the strategic issues pertaining to how businesses manage their relationships with stakeholders is stakeholder theory. Under this theory, businesses must consider their stakeholders and provide benefits to them because their existence has the potential to either influence or be affected by policies that are adopted. Consumers, workers, creditors, suppliers, and the community in which the company operates are all considered stakeholders. Based on the varied forms and interests of stakeholders, the stakeholder model places an emphasis on corporate efficiency in the social or environmental context in which the organization operates (Alkhafaji, 1989). The organization or corporation is viewed as a "social entity" from this standpoint.

Companies that pay attention to ESG activities have been shown to improve performance (Alam et al., 2022; Buallay, 2020). In addition, ESG can improve company performance in both the short and long term (Barko et al., 2022; Lins et al., 2017). According to research by Azmi et al. (2021), businesses with more ESG activity have superior cash flow returns. ESG has a beneficial effect on the operational and financial performance of emerging nations in the Middle East and North Africa (Buallay et al., 2020). Companies that are more transparent in disclosing information related to environmental practices tend to have better financial performance and higher market value (Buallay, 2019).

Company performance refers to how well a company achieves its goals and targets across various aspects. A company with good performance can be observed through stable growth, consistent profitability, and its ability to adapt to changes in the business environment. Conversely, poor company performance can be indicated by declining revenues, financial losses, and the inability to meet market demands. Company performance reflects how effectively and efficiently a company conducts its operations.

One can use Tobin's Q as a stand-in for a company's market performance. The Tobin's Q ratio is calculated by dividing the market value of a company's assets by its replacement cost. Tobin's Q is precisely calculated by dividing the market value of a business, which includes debt and shares, by the total book value of its assets. The market values the company's assets more than their replacement cost when the ratio is larger than one. This is usually interpreted as a sign of the company's strong growth potential and its attractiveness as an investment. On the other hand, a ratio of less than one implies that the market values the company's assets lower than their replacement cost, which may indicate problems with business performance or prospects.

Return on Equity (ROE) is a crucial metric for assessing a company's financial performance as it quantifies how well it uses shareholders' equity to create profit. Net income is divided by total shareholders' equity to get ROE. Greater ROE indicates that the business is effectively allocating and managing the money of its shareholders in order to produce large profits. Investors use return on equity (ROE) to evaluate a company's capacity to generate returns on their capital and to evaluate the profitability of several businesses operating in the same sector.

Return on Assets (ROA) is a measure of an organization's operational performance that reveals how effectively it uses its resources to produce a profit. Net income is divided by total assets to get ROA. This ratio sheds light on how well management uses the resources of the business to produce profits. The ability of the business to make more money from each unit of assets it owns is indicated by a greater return on assets (ROA), which is a sign of improved operational performance. ROA is often used to compare the operational efficiency of companies within the same industry.

Stakeholder theory says that companies are not entities that only operate for their own benefit but must provide benefits to stakeholders. Proponents of sustainability reporting believe that companies with low ESG risk will benefit both the company and its stakeholders. Companies that

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have the greatest risk of bankruptcy in Indonesia are industries that have a risk of forest and land fires (Anis et al., 2023). Companies that have high ESG risks can harm the firm's reputation and negatively impact financial, operational, and market performance (Murè et al., 2021). So that it leads to the formation of the following hypothesis:

- H1: ESG Risk negatively affects the operational performance.
- H2: ESG Risk negatively affects the financial performance.
- H3: ESG Risk negatively affects the market performance.

Methods

This research takes samples from companies that meet certain criteria. Sampling was carried out using purposive sampling method. Some of the criteria used in this study are as follows:

1. Companies listed on the Indonesia Stock Exchange and included in the IDX LQ45 index in the 2019-2023 period.
2. The company has the required data in accordance with the research variables.
3. Companies that are included in the IDX LQ45 and have an ESG assessment conducted by Morningstar Sustainalytics in full during the 2019-2023 period.
4. IDX LQ45 companies and distribute dividends during the 2019-2023 period.

Tabel 1. Sample Criteria

Description	Total
Companies listed on the Indonesia Stock Exchange and included in the IDX LQ45 index in the period 2019-2023.	45
Companies that are included in the IDX LQ45 and do not have an ESG assessment conducted by Morningstar Sustainalytics in full during the period 2019-2023.	(22)
IDX LQ45 companies that have an ESG assessment conducted by Morningstar Sustainalytics but do not distribute dividends during the period 2019-2023.	(3)
Number of companies that can be sampled.	20
Total data that can be observed 20 x 5 years.	100

This research was conducted using a sample of companies listed on the Indonesia Stock Exchange with an observation period of 2019-2023. The sample selection was obtained using purposive sampling method with the criteria of companies that have an ESG risk rating on the IDX LQ45 listed on the IDX. The sample is 20 companies consisting of 7 company sector groups, namely Energy (15 percent), Basic Material (20 percent), Industrial (10 percent), Consumer Non-Cyclical (20 percent), Healthcare (5 percent), Financial (20 percent), and Infrastructures (10 percent).

Table 2. List of Company

No	Code	Company	Sector
1	ADRO	PT Adaro Energy Indonesia Tbk	Energy
2	ITMG	PT Indo Tambangraya Megah Tbk	Energy
3	PTBA	PT Bukit Asam Tbk	Energy
4	ANTM	PT Aneka Tambang Tbk	Basic Materials
5	INKP	PT Indah Kiat Pulp & Paper Tbk	Basic Materials
6	INTP	PT Indocement Tunggal Prakarsa Tbk	Basic Materials
7	SMGR	PT Semen Indonesia (Persero) Tbk	Basic Materials
8	ASII	PT Astra International Tbk	Industrials
9	UNTR	PT United Tractors Tbk	Industrials
10	CPIN	PT Charoen Pokphand Indonesia Tbk	Consumer Non-Cyclicals
11	ICBP	PT Indofood CBP Sukses Makmur Tbk	Consumer Non-Cyclicals
12	INDF	PT Indofood Sukses Makmur Tbk	Consumer Non-Cyclicals
13	UNVR	PT Unilever Indonesia Tbk	Consumer Non-Cyclicals
14	KLBF	PT Kalbe Farma Tbk	Healthcare
15	BBCA	PT Bank Central Asia Tbk	Financials
16	BBNI	PT Bank Negara Indonesia Tbk	Financials

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No	Code	Company	Sector
17	BBRI	PT Bank Rakyat Indonesia Tbk	Financials
18	BMRI	PT Bank Mandiri Tbk	Financials
19	EXCL	PT XL Axiata Tbk	Infrastructures
20	TLKM	PT Telekomunikasi Indonesia Tbk	Infrastructures

In order to test our first hypothesis (H1), which states that there would be a negative correlation between the influence of ESG risk rating and operational performance, we use ordinary least squares regression (OLS) to generate the following model:

$$ROA_{it} = \beta_0 + \beta_1ESGRISK_{it} + \beta_2Size_{it} + \beta_3Levit + \sum year_{it} + \epsilon_{it} \quad (1)$$

To test H2, we predict a negative association between the impact of ESG risk rating and financial performance. The model is as follows:

$$ROE_{it} = \beta_0 + \beta_1ESGRISK_{it} + \beta_2Size_{it} + \beta_3Levit + \sum year_{it} + \epsilon_{it} \quad (2)$$

To test H3, we predict a negative association between the impact of ESG risk rating and market performance. The model is as follows:

$$TobinQ_{it} = \beta_0 + \beta_1ESGRISK_{it} + \beta_2Size_{it} + \beta_3Levit + \sum year_{it} + \epsilon_{it} \quad (3)$$

We use the ordinary least squares (OLS) regression technique to estimate our research models. We employ robust standard errors clustered at the year to reduce heteroskedasticity. We may incorporate the year into our regression models by controlling for the year impact.

We utilize Tobin's Q to gauge market performance, Return on Equity to assess financial success, and Return on Asset to gauge operational performance. ESG measurement uses the ESG Risk Rating methodology from the IDX in partnership with Morningstar Sustainalytics. Morningstar Sustainalytics categorizes listed companies based on their ESG risk level into 5 categories. These categories are determined based on an in-depth analysis of the company's involvement in events that have the potential to negatively impact its operations, stakeholders, or the environment.

Table 3. ESG risk rating criteria

Risk Score	Categories
0 – 10	Negligible ESG Risk
10 – 20	Low ESG Risk
20 – 30	Medium ESG Risk
30 – 40	High ESG Risk
> 40	Severe ESG Risk

Source: www.idx.co.id

We control for several variables in models (1, 2, 3) following previous literature. Size firms are found to be better at running their business (Shibutse et al., 2019). This is because the amount of assets and funds required by the company is generally directly proportional to its size. The amount of funds used has an impact on revenue, which of course will be followed by movements in corporate profits that will improve company performance and ultimately increase the company's share price. We also control leverage to capture possible financial difficulties. When the leverage level is out of bounds, it can be a risk to the firm as equity price volatility may increase (Kengatharan & Ford, 2021). Furthermore, the measurement of each variable in this study can be seen in Table 4.

Table 4. Variables and Measurements

Variables	Measurement	Source
Dependent		
Operational Performance	Return on Assets (ROA) = $\frac{\text{Net Income}}{\text{Total Assets}}$	(Buallay, 2020)
Financial Performance	Return on Equity (ROE) = $\frac{\text{Net Income}}{\text{Total Equity}}$	(Buallay, 2020)

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Variables	Measurement	Source
Market Performance Independent	Tobins' Q = $\frac{(\text{Current Price} \times \text{Total Share}) + \text{Total Liabilities}}{\text{Total Assets}}$	(Buallay, 2020)
ESG Risk	ESG Risk Rating issued by Morningstar Sustainability. Five categories of companies based on ESG risk levels: Category 1. Low impact on the environment and society. Category 2. Moderate impact on the environment and society, with minimal risk to the company. Category 3. Significant impact on the environment and society with significant business risks. Category 4. High impact on environment and society with high business risk. Category 5. Severe impact on the environment and society with serious business risks.	Bejtush Ademi; Nora Johanne Klungseth (2022)
Control		
Firm Size	Size = Ln (Total Assets)	(Buallay, 2019)
Financial Leverage	Leverage = $\frac{\text{Total liabilities}}{\text{Book value of equity}}$	(Buallay, 2019)

Results

Descriptive statistics of the variables in this study are in Table 5. The highest and lowest values of each variable are indicated by the maximum and minimum values. The middle value of each variable is calculated using the mean value. The homogeneity value of each variable is calculated using the standard deviation value. The total observations in the study were 100.

ESG risk rating has a relatively low average value of 32.74 on a scale of 1 to 100. The standard deviation value of 7.9 shows that the variation in ESG value data is relatively less volatile. The minimum ESG risk rating value of 17.81 is owned by BBRI in 2023 and the maximum value of 50.64 in 2021.

The results of descriptive statistical calculations for the ROA, ROE, and Tobin's Q variables resulted in an average value of 0.08, 0.2, 2.01. The minimum Tobin's Q value of 0.72 in 2019 and the maximum value of 15.34 in 2022.

The results of descriptive statistical calculations for the leverage and size control variables produce an average value of 1.85 and 32.45. The standard deviation value of 2.03 which is greater than the average indicates fluctuations in the value of leverage between one company and another. The minimum leverage value of 0.18 in 2023 and the maximum value of 6.76 in 2020. Furthermore, the minimum size value of 30.44 in 2020 and the maximum value of 35.27 in 2023.

Table 5. Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
ESG Risk	100	32.7451	7.9023	17.8150	50.6400
Lev	100	1.8523	2.0295	0.1854	6.7615
Size	100	32.4495	1.4587	30.4370	35.2715
Roa	100	0.0880	0.0822	0.0055	0.4075
Roe	100	0.2045	0.2617	0.0146	1.3515
Tobin's Q	100	2.0058	2.4237	0.7150	15.3400

Table 5 displays correlations between the factors. The correlation between the stand-alone variables (not interactions) used for regression and Tobin's Q, ROA, and ROE is related in the panel regression variable correlation test. According to the correlation data, Tobin's Q and ROE are correlated with ESG risk. A correlation between variables suggests that there is an interaction between them.

A very high correlation has the potential to cause multicollinearity and reduce the accuracy of the estimation results (Gujarati & Porter, 2010). Multicollinearity occurs when variables are highly correlated ($r > 0.9$) (Hair et al., 2020). The overall variable correlation test results are less than 0.9. Thus, there is no multicollinearity between independent variables.

Table 6. Pairwise correlations

Variables	Tobin's Q	ROA	ROE	ESG Risk	Lev	Size
Tobin's Q	1.000					
ROA	0.636*	1.000				
ROE	0.853*	0.805*	1.000			
ESG Risk	-0.340*	-0.0450	-0.385*	1.000		
Lev	0.0700	-0.2470	0.1720	-0.562*	1.000	
Size	-0.387*	-0.500*	-0.2510	-0.307*	0.739*	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

The ROE and Tobin's Q regression models have substantial statistical significance, according to the results. As can be seen in Table 6, the coefficients of the ESG Risk Rating for market performance (Tobin's Q) and financial performance (ROE) demonstrate that the influence of sustainability risk is notably negative, with coefficients and p values of less than 1 percent (0.003 and 0.007). These results show **hypotheses 2 and 3 are accepted (supported by the data)** that there is a significant negative influence between ESG risk and financial performance and market performance.

However, different results were found on operational performance (ROA). P value $0.117 > 0.1$ proves that **hypothesis 1 is not accepted (not supported by the data)** that there is no significant influence between ESG risk and operational performance. This shows the importance of companies paying attention to ESG factors as part of a long-term strategy to ensure good financial performance and market reputation, although it does not directly affect operational efficiency in the short term.

Tabel 7. Regression results

$ROA_{it} = \beta_0 + \beta_1ESGRISK_{it} + \beta_2Size_{it} + \beta_3Lev_{it} + \sum year_{it} + \epsilon_{it}$ $ROE_{it} = \beta_0 + \beta_1ESGRISK_{it} + \beta_2Size_{it} + \beta_3Lev_{it} + \sum year_{it} + \epsilon_{it}$ $TobinQ_{it} = \beta_0 + \beta_1ESGRISK_{it} + \beta_2Size_{it} + \beta_3Lev_{it} + \sum year_{it} + \epsilon_{it}$				
Variables	Prediction	ROA Coefficient (P-Value)	ROE Coefficient (P-Value)	Tobin's Q Coefficient (P-Value)
Constant	+	1.389*** (0.000)	4.973*** (0.000)	53.669*** (0.001)
ESGRISK	-	0.002 (0.117)	0.01*** (0.003)	0.093*** (0.007)
Size	-	0.039*** (0.000)	0.142*** (0.000)	1.540*** (0.002)
Lev	+	0.007*** (0.003)	0.076*** (0.001)	0.702*** (0.001)
N		100	100	100
R-sq		0.339	0.431	0.493

*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level.

Companies with high ESG risk indicate ineffective management in managing environmental, social, and governance issues. In addition, companies with high ESG risks may face a loss of trust from investors, which is likely to reduce the value of their shares. This ineffective management may lead to poor decision-making, operational inefficiencies, and increased costs, ultimately lowering the company's profitability and return on equity.

Low ESG risks are often associated with reduced costs associated with regulatory compliance, litigation, and environmental cleanup. These lower costs can improve a company's operational performance. The results of this study support the findings of Murè et al. (2021) that companies with high ESG risk may face greater costs to comply with regulations and the risk of financial

sanctions, which can reduce net income. Companies that receive financial sanctions can harm the bank's reputation and negatively impact long-term performance.

Low ESG risks increase investor confidence as it shows that the company has good governance practices and sustainability risks under control. Investors tend to have more confidence in companies that manage ESG risks well, which in turn can increase demand for shares. Companies with low ESG risks usually have a better reputation in the eyes of the public and investors. A good reputation can attract more investors and increase market valuation. A higher Tobin's Q reflects a positive market valuation of the company compared to its book value.

Investors tend to be more cautious of companies with high ESG risks as they see potential future problems that could undermine the value of the company. Investors' concerns about stunted growth prospects, lack of sustainability, and potential adverse regulatory impacts. This is in line with research (Buallay, 2019). Furthermore, proponents of sustainability reporting believe that companies with low ESG risk will benefit both the company and its stakeholders.

ESG performance may not directly affect daily operational efficiency or the use of a company's assets. Operational efficiency, measured by Return on Assets (ROA), depends on how well a company manages and utilizes its assets to generate profits. While strong ESG practices can reduce certain risks and costs, such as legal expenses or negative environmental impacts, their direct effect on day-to-day asset usage is often less apparent. For example, investments in environmentally-friendly technology or sustainability programs might take time to demonstrate direct financial benefits in everyday operations.

Effective ESG management tends to impact market perception and long-term financial management more than direct operational efficiency. Market and investors often view companies with robust ESG practices as more sustainable and lower-risk, which can enhance the company's market value and result in a higher Tobin's Q ratio. Additionally, focusing on ESG can attract socially responsible investors and improve the company's reputation. The financial management benefits of ESG practices are more evident over the long term and in strategic contexts, rather than in immediate measures of asset utilization in daily operations.

Lastly, using the ROA, ROE, and Tobin's Q models, it was discovered that the control variable total assets was considerably negative. A company's performance is negatively impacted by having more tangible assets. The ROA, ROE, and Tobin's Q models are found to be highly positively impacted by financial leverage. Businesses can employ less equity and assets to increase earnings by using leverage effectively. Firms with prudent leverage management are perceived by the market as having more growth potential, which in turn raises the firm's market value.

The results of this study demonstrate the importance of ESG risk management in improving the financial and market performance of companies. Although there is no significant effect on operational performance in the short term, companies that successfully manage ESG risks can enjoy long-term benefits in the form of better reputation and financial stability. The integration of ESG in corporate strategy is an important step to ensure sustainability and competitiveness in the future.

Conclusion

With 100 observations, this study examines the correlation between ESG risks and three performance metrics: market performance (Tobin's Q), financial performance (ROE), and operational performance (ROA) in companies listed on the Indonesia Stock Exchange IDX LQ45 between 2019 and 2023. The performance of the company is examined in relation to ESG risks using a strong standard errors model. Stakeholder theory serves as the foundation for the theoretical model. The practical model has ROA, ROE, and Tobin's Q as dependent variables and ESG risk rating as an independent variable.

The market is consistent with the conclusions of (Alam et al., 2022; Buallay, 2020), which indicate that ESG risk has a negative impact on financial performance. These conclusions are drawn from the empirical data. However, in the short term, ESG risk does not show a significant effect on financial performance, which reflects investor perceptions and the additional costs that companies have to bear. However, in the short term, ESG risk does not show a significant effect on operational performance. These findings indicate the importance of companies to pay attention to ESG factors as part of a long-term strategy to ensure good financial performance and market reputation, although it may not directly affect operational efficiency in the short term.

The implications of this study suggest that effective ESG risk management is key to improving firms' financial and market performance, although the impact may not be immediately visible on operational performance in the short term. We suggest that firms focus more on sustainability reporting as a driver of better performance. Sustainability reporting can help companies improve transparency and accountability, which in turn can enhance reputation, attract investors who care about ESG, and strengthen relationships with stakeholders. The results of this study can be used to develop theories regarding ESG risk management and its impact on firm performance. This will enrich the academic literature and provide a basis for future empirical research.

Finally, we suggest some avenues for future research such as how ESG risks affect firms' non-financial performance (human capital performance, structural performance, and relational performance), as well as considering other contexts for future studies such as emerging markets.

References

- Ademi, B., & Klungseth, N. J. (2022). Does it pay to deliver superior ESG performance? Evidence from US S&P 500 companies. *Journal of Global Responsibility*, 13(4), 421–449. <https://doi.org/10.1108/JGR-01-2022-0006>
- Alam, A. W., Banna, H., & Hassan, M. K. (2022). ESG ACTIVITIES AND BANK EFFICIENCY: ARE ISLAMIC BANKS BETTER? *Journal of Islamic Monetary Economics and Finance*, 8(1), 65–88. <https://doi.org/10.21098/jimf.v8i1.1428>
- Alkhafaji, A. F. (1989). *A stakeholder approach to corporate governance: Managing in a dynamic environment*. Praeger.
- Anis, I., Gani, L., Fauzi, H., Hermawan, A. A., & Adhariani, D. (2023). The sustainability awareness of banking institutions in Indonesia, its implication on profitability by the mediating role of operational efficiency. *Asian Journal of Accounting Research*, 8(4), 356–372. <https://doi.org/10.1108/AJAR-06-2022-0179>
- Antonius, F., & Ida, I. (2023). Pengaruh Environmental, Social, Governance (ESG) dan Intellectual Capital terhadap Kinerja Perusahaan. *Jurnal EKOBIS: Ekonomi, Bisnis, Dan Manajemen*, 13(2), 126–138.
- Arfianti, R. I., & Anggraini, M. (2023). Moderasi Good Corporate Governance pada Pengaruh Intellectual Capital terhadap Kinerja Keuangan. *Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS)*, 4(3), 967–977. <https://doi.org/10.47065/ekuitas.v4i3.2556>
- Azmi, W., Hassan, M. K., Houston, R., & Karim, M. S. (2021). ESG activities and banking performance: International evidence from emerging economies. *Journal of International Financial Markets, Institutions and Money*, 70. <https://doi.org/10.1016/j.intfin.2020.101277>
- Barko, T., Cremers, M., & Renneboog, L. (2022). Shareholder Engagement on Environmental, Social, and Governance Performance. *Journal of Business Ethics*, 180(2), 777–812. <https://doi.org/10.1007/s10551-021-04850-z>
- Bodhanwala, S., & Bodhanwala, R. (2018). Does corporate sustainability impact firm profitability? Evidence from India. *Management Decision*, 56(8), 1734–1747. <https://doi.org/10.1108/MD-04-2017-0381>

- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, 30(1), 98–115. <https://doi.org/10.1108/MEQ-12-2017-0149>
- Buallay, A. (2020). Sustainability reporting and firm's performance: Comparative study between manufacturing and banking sectors. *International Journal of Productivity and Performance Management*, 69(3), 431–445. <https://doi.org/10.1108/IJPPM-10-2018-0371>
- Buallay, A., Fadel, S. M., Al-Ajmi, J. Y., & Saudagaran, S. (2020). Sustainability reporting and performance of MENA banks: is there a trade-off? *Measuring Business Excellence*, 24(2), 197–221. <https://doi.org/10.1108/MBE-09-2018-0078>
- Chen, Z., & Xie, G. (2022). ESG disclosure and financial performance: Moderating role of ESG investors. *International Review of Financial Analysis*, 83. <https://doi.org/10.1016/j.irfa.2022.102291>
- Dissanayake, D., Kuruppu, S., Qian, W., & Tilt, C. (2020). Barriers for sustainability reporting: evidence from Indo-Pacific region. *Meditari Accountancy Research*, 29(2). <https://doi.org/10.1108/MEDAR-01-2020-0703>
- Duque, G., & Aguilera, C. (2021). Environmental, Social and Governance (ESG) Scores and Financial Performance of Multilatinas: Moderating Effects of Geographic International Diversification and Financial Slack. *Journal of Business Ethics*, 168(2), 315–334. <https://doi.org/10.1007/s10551-019-04177-w>
- Gujarati, D. N., & Porter, D. C. (2010). Dasar-Dasar Ekonometrika. In *Revista de Administração de Empresas* (Vol. 16, Issue 3).
- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109. <https://doi.org/10.1016/j.jbusres.2019.11.069>
- Horváthová, E. (2010). Does environmental performance affect financial performance? A meta-analysis. *Ecological Economics*, 70(1), 52–59. <https://doi.org/10.1016/J.ECOLECON.2010.04.004>
- Kengatharan, L., & Ford, J. S. D. (2021). Dividend policy and share price volatility: Evidence from listed non-financial firms in Sri Lanka. *International Journal of Business and Society*, 22(1), 227–239. <https://doi.org/10.33736/IJBS.3172.2021>
- Khan, M. A. (2022). ESG disclosure and Firm performance: A bibliometric and meta analysis. In *Research in International Business and Finance* (Vol. 61). Elsevier Ltd. <https://doi.org/10.1016/j.ribaf.2022.101668>
- Landi, G., & Sciarelli, M. (2018). Towards a more ethical market: the impact of ESG rating on corporate financial performance. *Social Responsibility Journal*, 15(1), 11–27. <https://doi.org/10.1108/SRJ-11-2017-0254>
- Li, Y., Gong, M., Zhang, X., & Koh, L. (1995). The Impact of Environmental, Social, and Governance Disclosure on Firm Value: The Role of CEO Power. *American Journal of Agricultural Economics*, 77(5), 1172–1176. <https://doi.org/10.2307/1243342>
- Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. *The Journal of Finance*, 72(4), 1785–1824. <https://doi.org/10.1111/jofi.12505>
- Murè, P., Spallone, M., Mango, F., Marzioni, S., & Bittucci, L. (2021). ESG and reputation: The case of sanctioned Italian banks. *Corporate Social Responsibility and Environmental Management*, 28(1), 265–277. <https://doi.org/10.1002/csr.2047>
- Orlitzky, M., Schmidt, F. L., Rynes, S. L., & Rynes, S. L. (2003). *Corporate Social and Financial Performance: A Meta-Analysis Corporate Social and Financial Performance: A Meta-analysis* (Issue March). <https://doi.org/10.1177/0170840603024003910>

- Park, S. R., & Jang, J. Y. (2021). The impact of ESG management on investment decision: Institutional investors' perceptions of country-specific ESG criteria. *International Journal of Financial Studies*, 9(3). <https://doi.org/10.3390/ijfs9030048>
- Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., Purnell, L., & de Colle, S. (2010). Stakeholder theory: The state of the art. *Academy of Management Annals*, 4(1), 403–445. <https://doi.org/10.1080/19416520.2010.495581>
- Priandhana, F. (2022). Pengaruh Risiko Environment Social and Governance Terhadap Kinerja Keuangan Perusahaan (Studi Pada Perusahaan Didalam Indeks IDXESGL). *Business Economic, Communication, and Social Sciences (BECOSS) Journal*, 4(1), 59–63. <https://doi.org/10.21512/becossjournal.v4i1.7797>
- Shaikh, I. (2022). ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) PRACTICE AND FIRM PERFORMANCE: AN INTERNATIONAL EVIDENCE. *Journal of Business Economics and Management*, 23(1), 218–237. <https://doi.org/10.3846/jbem.2022.16202>
- Shakil, M. H., Mahmood, N., Tasnia, M., & Munim, Z. H. (2019). Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks. *Management of Environmental Quality: An International Journal*, 30(6), 1331–1344. <https://doi.org/10.1108/MEQ-08-2018-0155>
- Shibutse, R., Kalunda, E., & Achoki, G. (2019). Effect of leverage and firm size on financial performance of deposit taking savings and credit cooperatives in Kenya. *International Journal of Research in Business and Social Science (2147- 4478)*, 8(5), 182–193. <https://doi.org/10.20525/ijrbs.v8i5.462>
- Zimmerli, W. C. , H. M. , R. K. (2007). Friedman, M. The Social Responsibility of Business Is to Increase Its Profits. *Corporate Ethics and Corporate Governance, December*, 173–174.