

The Effect of ESG Risk Rating on Investment Decisions in IDX ESG Leaders

Nur Sukma Wati^{*}, Insyirah Putikadea

Faculty of Economic and Business, Universitas Negeri Surabaya, Indonesia

*corresponding author e-mail : nur.22130@mhs.unesa.ac.id

Article Info	Abstract
<p>Keywords: ESG Risk Rating; Firm Value; Market Capitalization; Stock Return; ESG Leaders</p>	<p>This study examines the effect of ESG Risk Rating on investment decisions, proxied by firm value, market capitalization, and stock return, in companies listed in the IDX ESG Leaders index during 2022–2024. While ESG is theoretically expected to influence investor decisions through signaling mechanisms, empirical evidence remains inconclusive, particularly in emerging markets. Existing studies largely focus on broad market samples, with limited attention to ESG-screened indices such as IDX ESG Leaders, which are expected to exhibit stronger ESG signaling effects. This study addresses this gap by focusing specifically on ESG Leaders firms in Indonesia, providing a more context-specific analysis of whether ESG risk information is incorporated into investor decision-making. Using panel data regression, the findings consistently show no significant effect of ESG Risk Rating across all proxies of investment decisions. These findings highlight a contradiction between theoretical expectations and actual market behavior, suggesting that ESG signals may not yet function as value-relevant information in the Indonesian capital market. Methodologically, this study contributes by employing multiple proxies of investment decisions to capture both market valuation and investor response more comprehensively. Practically, the findings imply that regulators need to strengthen ESG disclosure standards, while companies must improve the credibility of sustainability reporting to enhance investor trust.</p>
<p>DOI: 10.33830/jfba.v6i1.14722.2026</p>	

1. Introduction

The popularity of sustainable development has driven a shift in global capital flows, with investors now demanding that investment ecosystems align with *Environmental, Social, and Governance* (ESG) standards. Consequently, the total value and share of sustainable investments in all assets under professional management continues to grow (Kang Zha, 2024). This phenomenon is reflected in data from the Global Sustainable Investment Report by *Global Sustainable Investment Alliance* (2022), which notes that ESG based assets have reached \$30.3 trillion globally. As a concrete manifestation of the Indonesian capital market's commitment to providing credible investment benchmarks that are in line with these global standards, the Indonesia Stock Exchange (IDX) has taken a strategic step by launching a new index that specifically measures the ESG risk exposure of listed companies. On December 14, 2020, the IDX officially published the IDX ESG Leaders index in response to the needs of institutional and retail investors who are increasingly selective in choosing asset portfolios with low sustainability risk profiles. Unlike previous indices, this index was developed in collaboration with a leading independent research institution, Sustainalytics, to ensure the independence and accuracy of ESG risk assessments in line with international practices. In this

selection mechanism, the quality of a company's sustainability implementation is quantified in the form of an ESG Risk Rating (*Indonesia Stock Exchange, 2020*).

The ESG risk rating serves as a vital tool that provides non-financial information to investors in making investment decisions (Bawa, 2019; Hutchings, 2025; Karulkar et al., 2024; Minh & Nguyen, 2024; Vochenko, 2023). In the modern capital market paradigm, investment decisions are no longer based merely on profitability, but also take into account the long-term sustainability of the company, demonstrating social responsibility and good governance (Aydoğmuş et al., 2022; Verma & Shroff, 2025). Referring to the signaling theory by Connelly et al. (2011) and Spence (1973), a low ESG risk rating becomes a positive signal sent by companies to reduce information asymmetry. This allows investors to assess whether a company has good risk management and minimizes the potential for legal or environmental problems in the future. When investors trust these signals, their asset allocation decisions will be directed towards companies with superior ESG performance, which will ultimately be reflected in an increase in the market valuation of these companies (Falzon & Micallef, 2022).

In this study, market responses that reflect investment decisions are proxied holistically through three main indicators, namely Firm Value, Market Capitalization, and Stock Return. These three indicators were selected based on different but complementary assessment dimensions. Although ESG theoretically provides added value, empirical evidence regarding its influence on investment decisions still shows inconsistent results. Several research groups that support the influence of ESG on investment decisions, including Fatemi et al. (2018); Giese et al. (2019b); Wong et al. (2021), found that ESG influences investment decisions because it can reduce the cost of capital and increase market efficiency. However, there is also literature that finds evidence to the contrary. Research by Aditama (2022); Duque-Grisales & Aguilera-Caracuel (2021); Ruan & Liu (2021), reveals that the implementation of ESG is actually considered a cost burden that erodes company resources, resulting in a negative response from the market. This is supported by the results of Putikadea & Siregar (2023), which prove that carbon emission disclosure does not have a significant effect on company value, indicating that investors do not yet fully appreciate environmental efforts in long-term valuation. Furthermore, Cornell (2020) and Pástor et al., (2021a) argue that the popularity of ESG stocks causes valuations to become overvalued, which statistically depresses future return expectations. These debates indicate that investors may still be skeptical and consider ESG practices to be merely greenwashing or a cost burden that is irrelevant to fundamental valuation.

Despite the growing body of ESG literature, most prior studies focus on general ESG scores across broad market indices, with limited attention to ESG-screened indices such as the IDX ESG Leaders. This creates an important research gap, as firms included in ESG Leaders are expected to exhibit stronger ESG performance and signaling effects compared to general market firms. However, it remains unclear whether such ESG superiority is actually recognized and valued by investors. Furthermore, the Indonesian capital market provides a unique institutional context characterized by evolving ESG regulations, relatively low investor awareness, and potential skepticism toward sustainability disclosures. In such conditions, ESG information may not function effectively as a value-relevant signal, but rather as informational noise that is not fully incorporated into investment decisions (Demers et al., 2021; Pedersen et al., 2021).

The inconsistency of these research results encourages the need for retesting with a more specific and tested context. The novelty of this study lies in its focus on analyzing firms included in the IDX ESG Leaders index during the 2022–2024 period. These companies represent top performers in their respective sectors that have consistently implemented sustainability practices and exhibit relatively superior ESG performance with lower sustainability risk. This study contributes to the literature by moving beyond general ESG analyses in broad market settings and instead examining whether ESG signals remain relevant even among firms that are already categorized as sustainability leaders. In such a context, ESG information may either function as a differentiating signal or become

less informative when all firms meet similarly high ESG standards. Therefore, this study aims to empirically test whether a low ESG Risk Rating is truly considered by investors in making investment decisions. The findings are expected to contribute to the ESG risk literature while also providing insights for regulators in designing policies to enhance the effectiveness and credibility of sustainability practices in the capital market.

From a theoretical perspective, ESG information can play a dual role in capital markets. On one hand, signaling theory suggests that strong ESG performance serves as a positive signal that reduces information asymmetry and enhances firm value. On the other hand, ESG information may also be perceived as noise if investors question its credibility or relevance to financial performance, particularly in emerging markets where ESG standards and enforcement are still developing (Cornell, 2020; Fatemi et al., 2018).

In sustainability practices, ESG risk management reflects a company's fundamental ability to manage uncertainty and maintain long-term stability. A lower ESG Risk Rating indicates better risk mitigation, which enhances corporate reputation and reduces potential risks. From the perspective of Signaling Theory, this condition serves as a positive signal that reduces information asymmetry and encourages investors to assign higher valuations to firms (Aydoğmuş et al., 2022; Connelly et al., 2011; Wong et al., 2021). Therefore, firms with lower ESG Risk Ratings are expected to have higher firm value. This mechanism is in line with the empirical findings of Aydoğmuş et al. (2022) and Wong et al. (2021), which prove that the market provides incentives in the form of higher company value to issuers who succeed in minimizing sustainability risks.

H1: ESG Risk Rating has a negative effect on Firm Value.

Meanwhile, Market capitalization reflects the aggregate market valuation and represents the accumulation of public trust toward a firm. Based on Legitimacy Theory, firms with strong ESG performance are more likely to gain social approval and investor confidence, which increases demand for their shares and expands their market capitalization (Dowling & Pfeffer, 1975; Yoo & Managi, 2022). Therefore, firms with lower ESG Risk Ratings are expected to attract greater investor participation and achieve higher market capitalization.

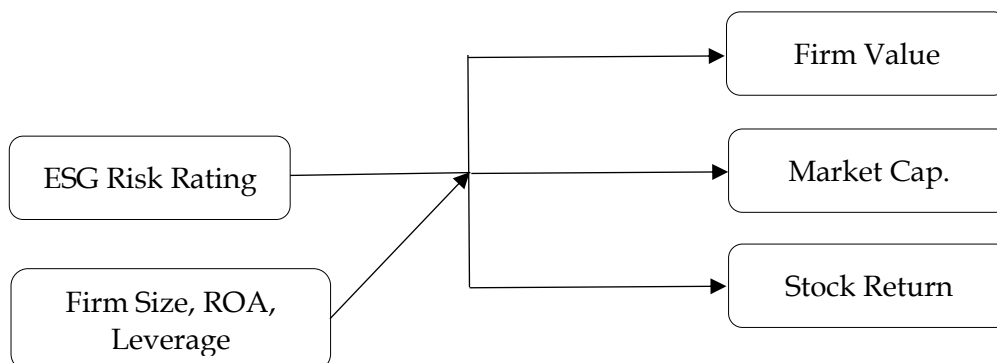
H2: ESG Risk Rating has a negative effect on Market Capitalization.

Finally, Stock returns reflect investor reactions to firm performance and expectations. From a signaling perspective, a lower ESG Risk Rating indicates stronger risk management and sustainability performance, which may be perceived as a signal of resilience and long-term value creation. This positive perception can drive stock price increases and generate higher returns (Broadstock et al., 2021; Engelhardt et al., 2021). Therefore, firms with lower ESG Risk Ratings are expected to generate higher stock returns.

H3: ESG Risk Rating has a negative effect on Stock Return.

Based on the development of the above hypothesis, the research model is presented in Figure 1.

Figure 1. Research Framework



Source: Processed by Author

2. Research Method

This study uses a quantitative method. The population used consists of all companies listed in the IDX ESG Leaders index on the Indonesia Stock Exchange during the observation period, specifically from 2022 to 2024. This index was chosen because it measures the price performance of stocks with the best ESG ratings that are not involved in significant controversies and have good transaction liquidity and financial performance (*Indonesia Stock Exchange, 2020*). After determining the sample criteria, a sample of 63 companies was obtained for the 2022-2024 research period. The data collected included Sustainalytics ESG risk scores, annual financial report data (audited financial report) downloaded from the official IDX (*www.idx.co.id*) or the companies' official websites, and historical stock price data sourced from the financial portal *investing.com*. The data was analyzed using panel data regression analysis using Stata 17 software.

Table 1. Sample Determination

No.	Description	Total
1.	Companies listed on IDX ESG Leaders 2022–2024	43
2.	Companies not listed consecutively during 2022–2024	(22)
3.	Companies that do not have complete ESG risk score data	(0)
4.	Companies that did not publish Annual Reports and/or Sustainability Reports that ended on December 31st for the period 2022–2024	(0)
Total Company Sample		21
Observation Period		3 Years
Total Observation Units		63

Source: Processed by Author

Although the sample size consists of 63 observations (21 firms over 3 years), this is consistent with the limited number of firms included in the IDX ESG Leaders index, which is a relatively new and selective index in the Indonesian capital market. The index only includes firms with superior ESG performance and strict selection criteria, resulting in a naturally smaller sample size. Despite this limitation, the use of panel data allows for more efficient estimation by capturing both cross-sectional and time-series variations (Baltagi, 2005). Furthermore, prior studies in ESG research, particularly those focusing on specific indices or emerging markets, often employ relatively small samples due to data availability constraints (Demers et al., 2021). Therefore, the sample used in this study remains appropriate for the research objective.

In line with the research design, this study employs ESG Risk Rating and multiple proxies of investment decisions to comprehensively capture the relationship between sustainability performance and market response. The ESG performance assessment as an independent variable refers to the Sustainalytics methodology, which adopts a risk-based approach. Unlike other rating providers (such as MSCI or Refinitiv) where higher scores indicate better performance, Sustainalytics assigns lower scores to firms with lower ESG risk, indicating stronger sustainability performance (Morningstar, 2025). This measure is also aligned with the IDX ESG Leaders index methodology, ensuring consistency between ESG assessment and sample selection. Meanwhile, the dependent variables

consist of: Firm Value (Y1) which reflects investors' perceptions of future growth potential (Duque-Grisales & Aguilera-Caracuel, 2021; Fatemi et al., 2018; Wong et al., 2021); Market Capitalization (Y2) which represents the accumulation of public trust and overall market valuation driven by legitimacy and corporate reputation (Nam et al., 2024; Syahputria et al., 2025; Thi Nhat Minh & Dinh Nguyen, 2024); and Stock Return (Y3) which captures the market's short-term reaction to ESG information through stock price movements and realized returns (Pedersen et al., 2021; Simamora, 2025; Zha, 2024). A summary of the variables used in this study is presented in Table 2.

In addition, the selection of proxies is based on their ability to capture different dimensions of investment decisions. Firm Value is measured using Tobin's Q, as it incorporates both market valuation and the value of intangible assets, including ESG-related reputation and sustainability performance. Compared to accounting-based measures that primarily rely on book values, Tobin's Q provides a more forward-looking perspective by reflecting how market participants price both tangible and intangible resources (Chung & Pruitt, 1994; Fatemi et al., 2018). Furthermore, Market Capitalization is employed to capture aggregate market valuation and investor confidence toward a firm. This measure provides a broader and more stable assessment of firm value, as it reflects accumulated market perceptions over time. In contrast to short-term, event-driven indicators, market capitalization is better suited to capture the gradual incorporation of ESG information into investment decisions (Pedersen et al., 2021).

To reduce potential bias, this study includes control variables commonly used in ESG and firm performance research, namely firm size, profitability (ROA), and leverage. These variables account for firm-specific characteristics that may influence investment decisions (Fatemi et al., 2018). In addition, the use of panel data regression allows the model to control for unobserved heterogeneity across firms, thereby mitigating potential endogeneity concerns.

Table 2. Research Variables

	Variable	Proxy	Measurement
Dependent Variables	Firm Value (FV)	Tobin's Q	$\text{Tobin's Q} = (\text{Market Value Equity} + \text{Debt}) : \text{Total Assets}$
	Market Capitalization (MC)	Market Capitalization	$\text{Market Cap.} = \text{Latest Closing Stock Price} \times \text{Total Diluted Share Outstanding}$
	Stock Return (SR)	Stock Return	$\text{Stock Return} = (\text{Pi}_t - \text{Pi}_{t-1}) : \text{Pi}_{t-1}$
Independent Variable	ESG Risk Rating	ESG Risk Rating	Sustainalytics
Control Variables	Firm Size	Firm Size	$\text{Firm Size} = \text{Ln}(\text{Total Assets})$
	Profitability	ROA	$\text{ROA} = \text{Net Income} : \text{Total Assets}$
	Leverage	DER	$\text{DER} = \text{Total Liabilities} : \text{Total Equity}$

Source: Processed by Author

Considering that this study uses panel data, classical assumption testing is adjusted to the characteristics of panel data to ensure that the regression model presented is a Best Linear Unbiased Estimator (BLUE). In panel data regression, there are three estimation model approaches, namely Pooled Least Square (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM). To determine the best model in this study, the Chow test, Hausman test, and Lagrange Multiplier test were conducted. The panel data regression equation in this study was formulated into the following three equation models:

Model 1: The effect of ESG Risk Rating on Firm Value

$$FV_{it} = \alpha + \beta_1 ESG_{it} + \beta_2 SIZE_{it} + \beta_3 ROA_{it} + \beta_4 DER_{it} + \epsilon_{it}$$

Model 2: The effect of ESG Risk Rating on Market Capitalization

$$MC_{it} = \alpha + \beta_1 ESG_{it} + \beta_2 SIZE_{it} + \beta_3 ROA_{it} + \beta_4 DER_{it} + \epsilon_{it}$$

Model 3: The Effect of ESG Risk Rating on Stock Return

$$SR_{it} = \alpha + \beta_1 ESG_{it} + \beta_2 SIZE_{it} + \beta_3 ROA_{it} + \beta_4 DER_{it} + \epsilon_{it}$$

Explanation:

Y_{it} : Dependent variable of company i in year t

α : Constant

β_{1-4} : Regression coefficient

ESG_{it} : ESG Risk Score/Rating

$SIZE_{it}$: Firm Size

ROA_{it} : Profitability

DER_{it} : Leverage

ϵ_{it} : Error term

3. Results and Discussions

The results of descriptive statistical tests for each variable are shown in Table 3 below:

Table 3. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ESG Risk Rating	63	21.062	4.586	12.920	28.180
Firm Value	63	2.378	2.682	0.637	10.570
Market Cap.	63	1.51e+14	2.49e+14	6.38e+12	8.64e+14
Stock Return	63	-0.017	0.265	-0.368	0.634
Firm Size	63	31.641	1.933	28.989	35.228
Leverage	63	2.010	2.135	0.125	6.458
ROA	63	0.073	0.067	0.017	0.270

Source: Processed by Author

Table 3 shows that the ESG Risk Rating variable (X1) has an average of 21.06 with a range of 12.92 to 28.18 and a standard deviation of 4.58, indicating a risk profile in the medium risk category. This condition is supported by appreciative market performance with an average Firm Value (Y1) of 2.37 (standard deviation of 2.68) and a Market Cap (Y2) value of IDR 151 trillion, even though Stock Return (Y3) fluctuated widely from -36.8% to 63.4% (standard deviation of 0.26). In terms of control variables, the companies are dominated by large-scale companies, as evidenced by the average Firm Size of 31.64, average ROA of 7.31%, and maximum ROA of 27.07%. Meanwhile, the high DER value with an average of 2.01 and a maximum value of 6.45 (std. dev 2.13) can be traced through several companies in the banking and financial sectors in the sample, reflecting their capital structure characteristics.

Table 4. Results of Panel Data Regression Modeling

Testing	Model Y1 (<i>Firm Value</i>)	Model Y2 (<i>Market Cap</i>)	Model Y3 (<i>Stock Return</i>)
Chow Test	0.0000 (FE > PLS)	0.0000 (FE > PLS)	0.5987 (PLS > FE)
Hausman Test	0.0307 (FE > RE)	0.4462 (RE > FE)	0.5348 (RE > FE)
LM Test	-	0.0000 (RE > PLS)	1.0000 (PLS > RE)
Selected Model	<i>Fixed Effect (FE)</i>	<i>Random Effect (RE)</i>	<i>Pooled LS (PLS)</i>

Note: > means better than

Source: Processed by Author

The results of the panel data regression modeling test are summarized in Table 4. Model Y1 was determined using FE based on the results of the Hausman test with a Prob>chi2 value of 0.0307. Model Y2 used FE after conducting an LM test with a Prob>chibar2 value of 0.0000. Meanwhile, model Y3 was determined using PLS because the LM test results showed a Prob>chibar2 value of 1.0000.

To ensure data reliability, this study performed a winsorizing procedure at a 5% level to mitigate the influence of extreme outliers so that the data distribution would be more stable. Estimations were performed using the Cluster-Robust Standard Error method to correct for autocorrelation and heteroscedasticity. Referring to Hoechle (2007), the use of this clustering technique is crucial to produce unbiased standard errors and ensure statistical validity in panel data models. Regarding the assumption of normality, this study refers to the Central Limit Theorem, which states that with a sample size of 63 ($n > 30$), the sampling distribution will asymptotically approach normal, so that the normality test is no longer a mandatory requirement (Gujarati & Porter, 2009). The data was also proven to be free from multicollinearity with an average VIF value of 2.18, far below the threshold of 10. Finally, the homoscedasticity assumption in the RE model was fulfilled through the GLS (Generalized Least Squares) procedure, which transformed the original variables to produce efficient estimators (Gujarati & Porter, 2009).

Table 5. Regression Analysis Results

Independent Variable	Y1 (<i>Firm Value</i>)	Y2 (<i>Market Cap</i>)	Y3 (<i>Stock Return</i>)
ESG Risk Rating	0.0522 (p=0.137)	3.35e+12 (p=0.197)	0.0122 (p=0.153)
Firm Size	-0.5884 (p=0.430)	1.07e+14 (p=0.000)**	0.0259 (p=0.486)
Leverage	-1.3163 (p=0.000)**	-8.06e+12 (p=0.376)	-0.0222 (p=0.409)
ROA	7.5361 (p=0.115)	5.19e+14 (p=0.005)**	0.1417 (p=0.813)
Constant	21.9941 (p=0.355)	-3.33e+15 (p=0.000)	-1.0597 (p=0.355)
R-squared	0.6727 (<i>Within</i>)	0.6311 (<i>Overall</i>)	0.0513 (<i>Overall</i>)
<i>F / Wald chi2</i>	17.90 (Prob=0.0000)	23.73 (Prob=0.0001)	0.88 (Prob=0.4789)
<i>N (Observations)</i>	63	63	63

Note: ** $p < 0,01$

Source: Processed by Author

Based on the regression results in Table 5, the Y1 model shows the ESG Risk Rating variable with a coefficient value of 0.0522 and a p-value of 0.137. Meanwhile, in the control variables, Firm Size shows a p-value of 0.430, leverage shows a p-value of 0.0000 with a coefficient value of -1.3163,

which means that every increase in debt in a company can increase financial distress and decrease company value, and finally, ROA has a p-value of 0.115. The model also shows an R^2 value of 0.6727, indicating the proportion of variation in firm value explained by the independent variables. Based on these results, Hypothesis 1, which states that ESG Risk Rating has a negative effect on Firm Value, is rejected. These findings indicate that ESG Risk Rating may not have a significant effect on firm value within the observed sample. This phenomenon occurs because investors still view ESG disclosure as an administrative obligation (compliance-driven) rather than a material signal that affects future cash flows (Putikadea & Siregar, 2023). Research by Duque-Grisales & Aguilera-Caracuel (2021); Noor & Ginting (2022); Ruan & Liu (2021) found that environmental performance and disclosure have not been fully appreciated by investors. This condition is caused by low corporate transparency in disclosing comprehensive ESG information, so that the capital market is unable to operate efficiently in absorbing such non-financial information. In addition, in developing countries, ESG practices are often considered an additional burden. The weak role of environmental institutions has also caused investor confidence in the value of sustainable investment to decline.

Furthermore, model Y2 has an ESG Risk Rating coefficient value of $3.35e+12$ with a p-value of 0.197. This indicates that there is no influence between ESG Risk Rating and Market Capitalization. Meanwhile, in the control variables, Firm Size and ROA show a positive influence on Market Capitalization. The Firm Size coefficient value is $1.07e+14$ with a p-value of 0.0000, and ROA has a coefficient value of $5.19e+14$ with a p-value of 0.005, indicating a positive influence between Firm Size and ROA on Market Capitalization. The model reports an R^2 value of 0.6311, indicating its explanatory power in capturing variations in market capitalization. The regression results show that hypothesis 2, which states that ESG Risk Rating has a negative effect on Market Capitalization, is rejected. This suggests that ESG Risk Rating may not play a dominant role in shaping overall market valuation within the IDX ESG Leaders index. ESG risk management is not a sensitive issue for ESG Leaders listed companies. As Nugroho & Sumani (2025) and Landi & Sciarelli (2019) found, the market often does not respond significantly to ESG risk scores in capitalization valuations, which may be due to investor skepticism about greenwashing practices. In addition, Dremptic et al. (2020) suspect the existence of company size bias, whereby companies with large market capitalization tend to have better ESG scores simply because they have greater resources to compile comprehensive reports, rather than because of their actual sustainability performance, thus making the causal relationship between ESG and market capitalization ambiguous.

The last model, Y3, shows an ESG Risk Rating coefficient value of 0.0122 with a p-value of 0.153. Firm Size shows a p-value of 0.486, Leverage has a p-value of 0.409, and ROA has a p-value of 0.813. The model also exhibits a relatively low explanatory power, with an R^2 value of 0.0513, indicating that the independent variables explain only a small portion of the variation in stock returns. Thus, the ESG risk score also has no effect on Stock Return, and hypothesis 3 is rejected. These findings suggest that investors may not fully incorporate ESG risk information into short-term stock return decisions within the observed sample. The results of this study are in line with Wardhani & Kawedar (2019) which found no significant market reaction to environmental issues. In addition, research by Aditama (2022) on the IDX30 index found that environmental aspects can reduce stock returns due to a trade-off where green investment costs burden short-term profitability. Demers et al. (2021) also refute the assumption that ESG protects stock value, stating that ESG has no significant effect on returns after controlling for fundamental financial factors, indicating that investors may be more focused on traditional financial performance than sustainability metrics.

As a robustness check, this study considers the potential use of lagged ESG variables to capture delayed market responses. The main findings remain consistent, indicating that ESG Risk Rating does not have a significant effect on investment decisions within the observed sample. Overall, the findings of this study indicate that ESG Risk Rating does not have a statistically significant effect across all models. From a theoretical perspective, this suggests that ESG information may not always function

as an effective signal in capital markets. While Signaling Theory posits that ESG performance should reduce information asymmetry, the findings indicate that such signals may not be fully interpreted or trusted by investors, thereby reducing their effectiveness as value-relevant information (Cornell, 2020; Fatemi et al., 2018). This can be explained by the institutional characteristics of emerging markets such as Indonesia, where ESG regulation and standardization are still developing, leading to inconsistencies in disclosure quality and reducing the credibility of ESG information. In addition, relatively low investor awareness of ESG may lead to a stronger focus on short-term financial performance rather than sustainability considerations. Furthermore, since firms in the IDX ESG Leaders index already exhibit relatively high ESG performance, the limited variation across firms may reduce the ability of ESG Risk Rating to function as a differentiating signal (Demers et al., 2021).

4. Conclusions

This study concludes that ESG Risk Rating does not have a statistically significant effect on investment decisions, as reflected in Firm Value, Market Capitalization, and Stock Return. However, these findings are limited to the observed sample of firms included in the IDX ESG Leaders index during the 2022–2024 period and should be interpreted within this specific context. The results suggest that ESG risk information may not yet be fully incorporated into investor decision-making within this particular setting, rather than implying that ESG is not important in general. Instead, market performance appears to be more strongly associated with fundamental financial aspects such as profitability, company size, and leverage. This indicates that investors may still place greater emphasis on traditional financial indicators that provide clearer short-term signals compared to sustainability disclosures, which may still be perceived as compliance-driven.

From a policy perspective, these findings highlight the importance of strengthening ESG regulation, standardization, and disclosure quality in order to enhance the credibility and comparability of sustainability information in the Indonesian capital market. From a managerial perspective, firms are encouraged to integrate ESG practices more substantively into their core business strategies, rather than treating them as administrative requirements, so that ESG performance can be more effectively communicated as a value-relevant signal to investors. From an investor perspective, the results suggest the need to improve awareness and understanding of ESG-related risks and opportunities, particularly in evaluating long-term sustainability and resilience beyond short-term financial performance.

Although this study provides new insights, it is subject to several limitations, including the focus on the ESG Leaders index, which is relatively new, and the short observation period. Therefore, future research is encouraged to extend the observation period and explore alternative proxies of market reaction, as well as broader samples, to provide a more comprehensive understanding of sustainability-based investment dynamics in Indonesia.

References

- Aditama, F. (2022). Analisis Pengaruh Environment, Social, Governance (ESG) Score Terhadap Return Saham yang Terdaftar di Index IDX30. *Contemporary Studies in Economic, Finance and Banking*, 1(4), 592–602. <https://doi.org/10.21776/csefb.2022.01.4.05>
- Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. In *Borsa Istanbul Review* (Vol. 22, pp. S119–S127). Borsa Istanbul Anonim Sirketi. <https://doi.org/10.1016/j.bir.2022.11.006>
- Baltagi, B. H. (2005). *Econometric Analysis of Panel Data* (3rd ed.). John Wiley & Sons.
- Bawa, A. (2019). Market-Based Performance Measures: A Shareholder's Perspective. *15th Annual International Bata Conference for Ph.D. Students and Young Researchers (DOKBAT)*, 76–83. <https://doi.org/10.7441/dokbat.2019.007>

- Broadstock, D. C., Chan, K., Cheng, L. T. W., & Wang, X. (2021). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance Research Letters*, 38. <https://doi.org/10.1016/j.frl.2020.101716>
- Chung, K. H., & Pruitt, S. W. (1994). A Simple Approximation of Tobin's q. *Source: Financial Management*, 23(3), 70–74. <https://doi.org/https://doi.org/10.2307/3665623>
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling Theory: A review and assessment. *Journal of Management*, 37(1), 39–67. <https://doi.org/10.1177/0149206310388419>
- Cornell, B. (2020). *ESG Investing: Conceptual Issues*. <https://doi.org/https://dx.doi.org/10.2139/ssrn.3621163>
- Cui, J., Jo, H., & Na, H. (2018). Does Corporate Social Responsibility Affect Information Asymmetry? *Journal of Business Ethics*, 148(3), 549–572. <https://doi.org/10.1007/s10551-015-3003-8>
- Demers, E., Hendrikse, J., Joos, P., & Lev, B. (2021). ESG did not immunize stocks during the COVID-19 crisis, but investments in intangible assets did. *Journal of Business Finance and Accounting*, 48(3–4), 433–462. <https://doi.org/10.1111/jbfa.12523>
- Dowling, J., & Pfeffer, J. (1975). Pacific Sociological Association Organizational Legitimacy: Social Values and Organizational Behavior. *Source: The Pacific Sociological Review*, 18(1), 122–136. <https://doi.org/https://doi.org/10.2307/1388226>
- Drempetic, S., Klein, C., & Zwergel, B. (2020). The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review. *Journal of Business Ethics*, 167(2), 333–360. <https://doi.org/10.1007/s10551-019-04164-1>
- Duque-Grisales, E., & Aguilera-Caracuel, J. (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>
- Engelhardt, N., Ekkenga, J., & Posch, P. (2021). Esg ratings and stock performance during the covid-19 crisis. *Sustainability (Switzerland)*, 13(13). <https://doi.org/10.3390/su13137133>
- Falzon, J., & Micallef, R. (2022). ESG Factors: How Are Stock Returns, Operating Performance, and Firm Value Impacted? *Review of Economics and Finance*, 20, 144–153. <https://doi.org/https://doi.org/10.55365/1923.x2022.20.16>
- Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal*, 38, 45–64. <https://doi.org/10.1016/j.gfj.2017.03.001>
- Giese, G., Lee, L.-E., Melas, D., Nagy, Z., & Nishikawa, L. (2019). *The Journal of Portfolio Management Foundations of ESG Investing: How ESG Affects Equity Valuation, Risk, and Performance*. <http://www.msci.com/prod->
- Global Sustainable Investment Alliance. (2022). *Global Sustainable Investment Review 2022*.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (5th ed.). McGraw-Hill.
- Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. In *The Stata Journal* (Vol. 7, Number 3).
- Hutchings, G. (2025). The impact of an ESG nudge on retail investor engagement in sustainable finance: evidence from an investment decision experiment. *Sustainability Accounting, Management and Policy Journal*. <https://doi.org/10.1108/sampj-10-2024-1104>
- Karulkar, Y. K., D'lima, C., Hardikar, A., Rajurkar, A., & Raut, P. (2024). Predictive Modelling for Esg Risk Levels in S&P 500 Companies: Empowering Informed Investment Decisions. In *Journal of Informatics Education and Research* (Vol. 4). <http://jier.org>
- Landi, G., & Sciarelli, M. (2019). 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>

- Morningstar. (2025). *ESG Risk Ratings*. <https://www.sustainalytics.com/esg-data>
- Nam, H. J., Bang, J., & Ryu, D. (2024). Nonlinear effects of financial openness on financial development in ASEAN. *Journal of Multinational Financial Management*, 73. <https://doi.org/10.1016/j.mulfin.2024.100846>
- Noor, A., & Ginting, Y. L. (2022). Influence of Carbon Emission Disclosure on Firm Value of Industrial Firms in Indonesia. *International Journal of Contemporary Accounting*, 4(2), 151–168. <https://doi.org/10.25105/ijca.v4i2.15247>
- Nugroho, Y. P. E., & Sumani. (2025). *ESG Leaders Index Indonesia: The Impact Of ESG Scores On Market Capitalization*. 19(2), 120–143. <https://doi.org/10.25170/jak.v19i2.6620>
- Pástor, L., Stambaugh, R. F., & Taylor, L. A. (2021). Sustainable investing in equilibrium. *Journal of Financial Economics*, 142(2), 550–571. <https://doi.org/10.1016/j.jfineco.2020.12.011>
- Pedersen, L. H., Fitzgibbons, S., & Pomorski, L. (2021). Responsible investing: The ESG-efficient frontier. *Journal of Financial Economics*, 142(2), 572–597. <https://doi.org/10.1016/j.jfineco.2020.11.001>
- PT Bursa Efek Indonesia. Retrieved December 26, 2025, from <https://www.idx.co.id/id/produk/indeks>
- Putikadea, I., & Siregar, C. S. (2023). Does Disclosure of Carbon Emission Able to Attract Investors? *AKRUAL: Jurnal Akuntansi*, 15(1), 2085–9643. <https://doi.org/10.26740/jaj>
- Ruan, L., & Liu, H. (2021). Environmental, social, governance activities and firm performance: evidence from China. *Sustainability (Switzerland)*, 13(2), 1–16. <https://doi.org/10.3390/su13020767>
- Simamora, A. J. (2025). Environmental, Social, and Governance (ESG) Risk towards Stock Market Reaction in Indonesia. *The International Journal of Financial Systems*, 3(1), 1–20. <https://doi.org/10.61459/ijfs.v3i1.45>
- Spence, M. (1973). Job Market Signaling. In *Source: The Quarterly Journal of Economics* (Vol. 87, Number 3).
- Syahputria, A., Khayhan, A. M., & Nurmayanti, R. (2025). ESG Reporting and Market Capitalization in Asia: The Role Of National Cultural Values. *Jurnal Akuntansi Dan Keuangan Indonesia*, 22(2). <https://doi.org/10.7454/jaki.v22i2.2028>
- Thi Nhat Minh, T., & Dinh Nguyen, P. (2024). The impact of intellectual capital and market capitalization on corporate investment decisions: exploring the mediating and moderating effect of knowledge sharing and the COVID-19 pandemic. *Journal of Intellectual Capital*, 25(5–6), 1237–1258. <https://doi.org/10.1108/JIC-04-2024-0111>
- Verma, R., & Shroff, A. A. (2025). ESG Risks and Market Valuations: Evidence from the Energy Sector. *International Journal of Financial Studies*, 13(2). <https://doi.org/10.3390/ijfs13020113>
- Vochenko, D. (2023). *Impact of ESG factors on the market capitalization of companies*. <https://ssrn.com/abstract=4719937>
- Wardhani, R. K., & Kawedar, W. (2019). Faktor-Faktor yang Mempengaruhi Pengungkapan Emisi Karbon dan Reaksi Saham Pada Perusahaan Manufaktur di Indonesia. *Diponegoro Journal of Accounting*, 8(2), 1–11. <http://ejournal-s1.undip.ac.id/index.php/accounting>
- Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification add firm value? *Finance Research Letters*, 39. <https://doi.org/10.1016/j.frl.2020.101593>
- Yoo, S., & Managi, S. (2022). Disclosure or action: Evaluating ESG behavior towards financial performance. *Finance Research Letters*, 44. <https://doi.org/10.1016/j.frl.2021.102108>
- Zha, K. (2024). The Impact of ESG Score on Stock Performance. *Academic Journal of Business & Management*, 6(1). <https://doi.org/10.25236/ajbm.2024.060137>