

Does Environmental, Social, and Governance (ESG) Disclosure Affect Stock Returns?

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ABSTRACT

This study aims to examine how environmental, social, and governance (ESG) disclosures affect stock returns in energy sector companies listed on the Indonesia Stock Exchange from 2022 to 2025, using capital intensity as a control variable. The quantitative methods employed in this study include panel data regression. A total of 74 observations were collected using purposive sampling. Data analysis was conducted using EViews 13 with the Common Effect Model (CEM) as the appropriate model. The results demonstrate that environmental, social, and governance disclosures have no effect on stock returns. Meanwhile, capital intensity positively and significantly influences stock returns. The findings suggest that investors in energy companies have not sufficiently considered ESG disclosures when making investment decisions.

INTRODUCTION

As the world continues to advance, sustainability has become a key concern in the global investment landscape. When making investment decisions, investors are increasingly taking into account non-financial factors alongside traditional financial indicators such as net profit, asset value and debt ratios (Rustam et al., 2026). Environmental risks, social responsibility and governance quality are examples of non-financial elements incorporated into the Environmental, Social and Governance (ESG) framework (Santamaria et al., 2021). These factors now play a key role in assessing a company's operational effectiveness and shaping investors' views on potential risks (Zanu'ddin & Djaddang, 2025). ESG information can be disclosed in a company's sustainability report in accordance with global standards, one of which is the Global Reporting Initiative (GRI). The Global Reporting Initiative (GRI) is one of the most widely used international standards for the disclosure of information relating to Environmental, Social and Governance (ESG) issues (Angela et al., 2024).

The energy sector is recognised as one of the biggest contributors to negative impacts. High greenhouse gas emissions, rapid energy transitions, and leaks or spills of oil, gas and coal all contribute to these widespread negative impacts (Jaya & Martadinata, 2024).

Consequently, in highly sensitive sectors, such as the energy industry, the implementation of ESG practices is becoming increasingly important, as activities in these sectors carry a greater risk of causing negative impacts on the environment and society (Wang et al., 2022). As a result, the sector is facing stricter regulations and higher demands from stakeholders (Yucel & Yucel, 2024). One way to meet these requirements is to include ESG information in sustainability reports.

ESG issues are driven by the Sustainable Development Goals (SDGs) set out by the United Nations (UN). This research relates primarily to SDG 7 (Affordable and Clean Energy), which promotes the use of clean and sustainable energy; SDG 12 (Responsible Consumption and Production), concerning responsible business practices; and SDG 16 (Peace, Justice and Strong Institutions), which seeks to establish transparent and accountable corporate governance systems and frameworks.

In Indonesia, the push for ESG disclosure is being further reinforced by a progressive regulatory framework. The Financial Services Authority (OJK) requires all companies and public issuers, including energy companies, to produce periodic sustainability reports in accordance with Regulation No. 51/POJK.03/2017. Given the significant environmental and social risks associated with business operations in the energy sector, this regulation is highly relevant, enabling investors to use the comprehensiveness and quality of ESG disclosures as key indicators for assessing a company's valuation and future prospects in the capital markets.

Although POJK 51/2017 has been enacted and an increasing number of energy companies are publishing sustainability reports, compliance remains uneven. Based on observations, energy sector companies listed on the Indonesia Stock Exchange have not yet consistently published sustainability reports. The percentage of companies publishing sustainability reports stood at 72.37 per cent in 2022, rising to 75.29 per cent in 2023 and 80.00 per cent in 2024. However, in 2025, the percentage fell again to 62.37 per cent. This situation indicates that the level of compliance and consistency in sustainability disclosure amongst companies in the energy sector remains uneven, which has the potential to create information asymmetry for investors when assessing companies' sustainability performance.

This phenomenon indicates that some companies in the energy sector have yet to fully comply with the obligations set by the regulator. However, even amongst companies that have made ESG disclosures, there are significant differences in the quality and comprehensiveness of those disclosures; some provide comprehensive disclosures, whilst others merely meet the minimum requirements. (Mulyani et al., 2026). This discrepancy has the potential to create information asymmetry in the market, making it difficult to compare sustainability performance across companies on a like-for-like basis. This situation then raises the question of whether, amidst uneven levels of compliance and variations in the quality of disclosure, ESG disclosure can still play a role in influencing stock returns.

In theory, the relationship between stock returns and ESG disclosure can be explained from several angles. From the perspective of signalling theory, ESG disclosure serves as a

positive signal from a company to the market regarding its quality and long-term prospects (Spence, 1973). On the other hand, stakeholder theory emphasises that companies which address the interests of all stakeholders including through disclosures on governance, social and environmental matters tend to have a better reputation and a lower risk of conflict (Freeman, 1984).

Various previous studies examining the impact of ESG disclosure on stock returns still show inconsistent results. Yin et al. (2023), Giantari (2024), Maryam & Sukiswo (2025), Suhendri & Apriadi (2025), Fardeliah et al. (2026) indicates that ESG has a significant positive impact on stock returns. Meanwhile, research by Luo (2022), Shakil (2022), and Anggarista et al. (2024) found that ESG has a significant negative impact on stock returns. Conversely, findings by Qodary & Tambun (2021), Putri et al. (2024), and Maryam (2025) demonstrates the absence of a relationship between ESG and stock returns.

Pelealu et al. (2023) demonstrates that environmental, social and governance factors, taken separately, have a significant positive impact on stock returns. Meanwhile, findings by Luo (2022) and Fajrin et al. (2025) states that only environmental and social aspects have a significant impact, whilst governance aspects are not significant. Furthermore, research by Sumani & Limawan (2024) and Rahmadani & Devilishanti (2026) did not indicate any influence of environmental and social factors, taken separately, on share returns.

Given these inconsistent findings, this study is crucial to gain a deeper understanding of the impact of environmental disclosure, social disclosure and governance disclosure on share returns, particularly in energy sector companies characterised by high environmental and social risks. Furthermore, by using capital intensity as a control variable, this study offers a novelty that distinguishes it from other research.

Companies with a high level of capital intensity tend to have high returns on shares. Through more efficient utilisation of physical assets, the scale of operations increases, enabling a reduction in unit costs and an improvement in profit margins, which ultimately boosts returns on stock (Saif-alyousfi et al., 2025). Capital intensity is therefore used to control for this relationship so that the results of the test of the effect of ESG disclosure on share returns are more accurate.

This research is expected to make a theoretical contribution by enriching the accounting and finance literature on the role of ESG disclosure in the Indonesian capital market, whilst also providing practical guidance for investors in considering ESG aspects as one of the factors in investment assessment. For companies, this research is expected to serve as a basis for developing sustainability reporting strategies that are of higher quality and greater value in the eyes of the market.

According to signalling theory, environmental disclosure serves as a signal to investors regarding a company's preparedness to deal with increasingly stringent environmental regulations and long-term risks. Good and transparent environmental disclosure sends a positive signal to investors that the company's environmental aspects are managed

responsibly, which can boost demand for its shares and increase stock returns (Sumani & Limawan, 2024). Research by Pelealu et al. (2023) demonstrates that environmental disclosure has a significant positive impact on stock returns.

H₁ : Environmental disclosure has a positive impact on the stock returns of energy sector companies listed on the Indonesia Stock Exchange (IDX) in 2022 – 2025.

From the perspective of stakeholder theory, social disclosure demonstrates a company's responsiveness to the interests of its stakeholders. Companies that are able to meet the expectations of their social stakeholders will enjoy a better reputation and stronger relationships with the communities surrounding their operational areas, thereby reducing the risk of social conflict that could disrupt business continuity. A good social reputation can strengthen investor confidence, which will ultimately boost stock returns. Research by Pelealu et al. (2023) demonstrates that social disclosure has a significant positive effect on stock returns.

H₂: Social disclosure has a positive impact on the stock returns of energy sector companies listed on the Indonesia Stock Exchange (IDX) in 2022 – 2025.

According to signalling theory, governance disclosure sends a signal regarding corporate governance. Disclosure of good corporate governance serves as a positive signal that the company is managed professionally and accountably, thereby increasing investor confidence in the company, which in turn will boost stock returns. Pelealu et al. (2023) demonstrates the significant positive impact of governance disclosure on stock returns.

H₃: Governance disclosures have a positive impact on the stock returns of energy sector companies listed on the Indonesia Stock Exchange (IDX) in 2022 – 2025.

RESEARCH METHODS

This study employs a quantitative approach with a causal research design. The purpose of a causal research design is to test and analyse the effect of independent variables on the dependent variable (Creswell, 2014). The data used is panel data (pooled data) from companies listed on the Indonesia Stock Exchange (IDX) over a specific period. This design was chosen because it is suitable for testing causal hypotheses that are quantifiable and statistically verifiable.

The population for this study comprises all 94 energy sector companies listed on the Indonesia Stock Exchange (IDX). The selection of the energy sector as the subject of this study was based on several considerations. Firstly, this sector carries a high level of environmental, social and governance risk due to its operational activities. Secondly, the energy sector plays a strategic role in supporting the national energy transition towards cleaner and more sustainable energy, as mandated by SDG 7.

The sampling technique used in this study is purposive sampling, whereby the selection of the sample is based on specific criteria established in accordance with the research requirements (Sekaran & Bougie, 2016). The criteria for sample selection are as follows:

Table 1. Criteria of Sample

No	Criteria of Sample	Frequency
1.	Energy sector companies listed on the Indonesia Stock Exchange (IDX) from 2022 to 2025	93
2.	Energy sector companies that have conducted an IPO at least one year prior to the observation period between 2022 and 2025	75
3.	Energy sector companies that have an official website and are accessible to the public	62
4.	Energy sector companies whose Annual Reports are available on the Indonesia Stock Exchange (BEI) or on the company's website	60
5.	Energy sector companies that publish Sustainability Reports	45
6.	Energy sector companies that have published Sustainability Reports in accordance with GRI standards consecutively during the 2022 – 2025 observation period	25
	Total sample (25 companies x 4 years)	100
	Total sample which is ready for processing once the outliers have been removed	74

Source: Data processed (2026)

This study utilises secondary data, that is, data obtained indirectly from existing sources (Sugiyono, 2015). Data on environmental, social and governance disclosures were obtained from companies' sustainability reports published on the official website of the Indonesia Stock Exchange (IDX) or on the official websites of the respective companies. Stock price data for calculating stock returns were obtained from companies' annual reports or financial platforms such as Yahoo Finance. Meanwhile, data on capital intensity were obtained from companies' audited annual reports. Data collection was carried out using the documentation method.

The data were analysed using the Eviews 13 software. The data analysis techniques employed included descriptive statistical analysis, tests of classical assumptions, panel data regression analysis, and hypothesis testing. The regression equation model used in this study is as follows:

$$SR = \alpha + \beta_1 ED + \beta_2 SD + \beta_3 GD + \beta_4 CIR + \varepsilon$$

Descriptions:

 α : Constanta β : Regression Coefficient ε : Error Term

SR: Stock Returns

ED: Environmental Disclosure

SD: Social Disclosure

GD: Governance Disclosure

CIR: Capital Intensity Ratio

The operational definitions of the variables in this study have been formulated to provide clear and measurable definitions of each variable used, as summarised in the following table.

Table 2. Definition of Operational Variable

Variable	Indicators	Scale	Source
Stock Returns (Y)	$R_i = \frac{(P_t - P_{t-1})}{P_{t-1}}$	Ratio	(Brigham & Ehrhardt, 2015)
Environmental Disclosure (X1)	$ED = \frac{\text{Number of items disclosed by the company}}{\text{Total number of items}}$	Ratio	(Hanjani & Yanti, 2024)
Social Disclosure (X2)	$SD = \frac{\text{Number of items disclosed by the company}}{\text{Total number of items}}$	Ratio	(Sumani & Limawan, 2024)
Governance Disclosure (X3)	$GD = \frac{\text{Number of items disclosed by the company}}{\text{Total number of items}}$	Ratio	(Sumani & Limawan, 2024)
Capital Intensity	$CIR = \frac{\text{Net fixed assets}}{\text{Total Assets}}$	Ratio	(Helmi & Kurniadi, 2024)

Source: Data processed (2026)

RESULT AND DISCUSSION

Result

Table 3. Statistics Descriptive

Variable	N	Minimum	Maximum	Mean	Std. Dev
Stock Returns	74	-0.52	0.88	0.0228	0.3243
Environmental Disclosure	74	0.1	1	0.6378	0.2682
Social Disclosure	74	0.11	1	0.6562	0.2481
Governance Disclosure	74	0.31	1	0.8768	0.1822
Capital Intensity	74	0.003	0.72	0.2730	0.1910

Source: Data Processed (2026)

The stock return variable has a mean value of 0.0228 with a standard deviation of 0.3243, indicating that the average stock returns of the companies in the sample are fairly low with a relatively high degree of variation, suggesting that the stock returns of companies in the energy sector during the study period tended to fluctuate. This is evident from the standard deviation, which is quite large compared to the mean, suggesting that movements in stock returns across companies are relatively unstable. The minimum value of -0.52 and the maximum value of 0.88 indicate that there are quite significant differences in share performance between companies in the sample.

The environmental disclosure variable has a mean of 0.6378 and the social disclosure variable a mean of 0.6562, meaning that on average, the companies in the sample have

disclosed around 64 per cent of environmental items and 66 per cent of social items out of the total required items. Governance disclosure has the highest mean among the three disclosure variables, at 0.8768, indicating that corporate governance disclosure is relatively higher than that for environmental and social aspects. Meanwhile, the capital intensity control variable has a mean of 0.2730, indicating that on average, companies allocate around 27.3 per cent of their assets to fixed assets.

Table 4. Acceptance of Panel Data Estimation Models

Test	Result	Estimation Models
Chow Test	Prob. Cross-section F 0.974 > Sig 0.05 Prob. Cross-section Chi-square 0.501 > Sig 0.05	<i>Common-Effect Model</i> (CEM)
Lagrange Multiplier Test	Cross-section Breusch-Pagan 0.0708 > 0.05	<i>Common-Effect Model</i> (CEM)

Source: Data Processed (2026)

The selection of the panel data estimation model was carried out through two stages of testing. The first stage was the Chow test to determine the choice between the Common Effects Model and the Fixed Effects Model; the probability value of 0.974 was greater than 0.05, meaning that the Common Effects Model is more appropriate than the Fixed Effects Model. The second stage was the Lagrange Multiplier (LM) test to compare the Common Effect Model with the Random Effect Model, yielding a value of 0.0708, which was also greater than 0.05; consequently, the Common Effect Model was again selected over the Random Effect Model. Based on the results of these two tests, the estimation model used in this study is the Common Effect Model (CEM).

Table 5. Normality Test

Description	Result	Significance	Finding
Jarque-Bera	2.671684		Data with a normal distribution
Prob. Jarque-Bera	0.26937	0.05	

Source: Data Processed (2026)

In the initial test, which involved a total of 100 observations, the data were not normally distributed; therefore, outliers were identified and removed. Following the outlier removal process, the number of observations was reduced to 74. As shown in Table 5, the results of the normality test using the Jarque–Bera test yielded a probability value of 0.26937 > sig 0.05 for the dependent variable, which means that the model residuals are normally distributed.

Table 6. Multicollinearity Test

Variable	Centered VIF	Reference Limits	Finding
Environmental Disclosure	3.710716	10.00	There is No Multicollinearity
Social Disclosure	4.973801	10.00	There is No Multicollinearity
Governance Disclosure	2.087446	10.00	There is No Multicollinearity
Capital Intensity	1.460150	10.00	There is No Multicollinearity

Source: Data Processed (2026)

The results of the multicollinearity test show that all independent variables have correlation values below the specified threshold of 10, with the highest value being 4.973801. This indicates that there is no evidence of multicollinearity in the research model.

Table 7. Heteroscedasticity Test

Variable	Prob.	Significance	Findings
Environmental Disclosure	0.760285	0.05	There is No Heteroscedasticity
Social Disclosure	0.234838	0.05	There is No Heteroscedasticity
Governance Disclosure	0.160884	0.05	There is No Heteroscedasticity
Capital Intensity	0.628439	0.05	There is No Heteroscedasticity

Source: Data Processed (2026)

The heteroscedasticity test indicates a probability of 0.760 for environmental disclosure, 0.235 for social disclosure, 0.161 for governance disclosure, and 0.628 for capital intensity. All these probability values are above the significance threshold of 0.05 which means that the residual variances are homoscedastic.

Consequently, all classical assumptions are met and the regression model can be interpreted further.

Table 8. Autocorrelation Test

	Result	Description	Findings
Prob. Chi-Square (2)	0.06631	> 0.05	Free from Autocorrelation

Source: Data Processed (2026)

Based on the results of the LM test (Breusch-Godfrey Serial Correlation LM Test), a Chi-Square(2) probability value of 0.06631 was obtained, which is greater than the significance level of 0.05. This indicates that the regression model does not suffer from autocorrelation and that the data are free from autocorrelation.

Table 9. Panel Data Regression Results

Variable	Coefficient	Std. Error	t-statistics	Prob.
C	-0.1913094	0.240540	-0.795334	0.429147
ED	0.2942938	0.264970	1.110669	0.270566
SD	0.0812098	0.331543	0.244945	0.807226
GD	-0.2137417	0.292589	-0.730518	0.467547
CIR	0.5881306	0.233404	2.519798	0.014061

Source: Data Processed (2026)

Based on the regression results in table 9, the following regression equation for the panel data was obtained:

$$SR = -0.1913 + 0.2943 ED + 0.0812 SD - 0.2137 GD + 0.5881 CIR + \epsilon$$

The equation shows that environmental disclosure (ED), social disclosure (SD) and governance disclosure (GD) do not have a significant effect on stock returns. This can be seen from the probability values for each variable, which are greater than 0.05: environmental disclosure is 0.270566 with a regression coefficient of 0.2942938, social disclosure is 0.807226 with a regression coefficient of 0.0812098, and governance disclosure at 0.467547 with a regression coefficient of -0.2137417. Consequently, hypotheses 1, 2 and 3 regarding the influence of environmental disclosure, social disclosure and governance disclosure on stock returns are rejected. These findings indicate that environmental disclosure, social disclosure and governance disclosure have not yet been able to significantly influence the stock returns of companies in the energy sector during the study period.

Meanwhile, the control variable 'capital intensity' (CIR) showed a significant positive effect on share returns. This is indicated by a p-value of 0.014061 which is less than 0.05 with a regression coefficient of 0.5881306. These results suggest that the higher a company's capital intensity, the greater its impact on increasing the company's stock returns.

Table 10. F-Test Results and Coefficient of Determination

Description	Result
R-squared	0.1074286
Adjusted R-squared	0.0556853
Prob(F-statistic)	0.0932954
Durbin-Watson stat	2.2086011

Source: Data Processed (2026)

Based on the results of the F-test in Table 7, the Prob(F-statistic) value was found to be $0.0932 > 0.05$. This indicates that the variables of environmental disclosure, social disclosure, governance disclosure, and the control variable of capital intensity do not taken together have a significant effect on stock returns. Consequently, the research model is not yet able to explain the combined effect of all independent variables on share returns.

The adjusted R-squared value of 0.0557 indicates that the variables environmental disclosure, social disclosure, governance disclosure and capital intensity account for 5.57 per cent of the variation in share returns whilst the remaining 94.43 per cent is explained by other variables outside the research model.

Discussion

Affect of Environmental Disclosure on Stock Returns

The results of the t-test indicate that environmental disclosure (X1) does not have a significant effect on stock returns, with a coefficient value of 0.3968. This means that every one-unit increase in environmental disclosure has the potential to increase stock returns by 0.29429 but this effect is not statistically significant. These results are inconsistent with signalling theory, which suggests that the disclosure of environmental information can serve as a positive signal to investors regarding a company's commitment to sustainability and the management of environmental risks. Environmental disclosures made by companies in the energy sector have not yet elicited a sufficiently strong market response to significantly influence stock returns.

These results are attributable to the fact that investors in the energy sector still place greater emphasis on a company's fundamental factors such as profitability, operational stability and fluctuations in energy commodity prices than on environmental disclosures. The nature of the energy sector, which is heavily influenced by changes in the prices of coal, oil and gas, means that stock returns are more sensitive to market conditions and a company's financial performance than to the environmental disclosures contained in sustainability reports. Furthermore, during the study period of 2022–2025, the energy sector remains in a state of instability due to fluctuations in global commodity prices and the energy transition consequently investors' attention tends to be more focused on companies' ability to maintain performance and profitability than on environmental disclosure aspects.

These findings are also inconsistent with the research Aditama (2022), Nuranisa (2023), Pelealu et al. (2023) This is possible due to differences in the observation periods, sample characteristics and the control variables used. However, these results are consistent with the findings of a study Sumani & Limawan (2024) on LQ45 companies for the 2021–2022 period, which demonstrated that environmental disclosure does not affect share returns. Similar findings were also shown by Castorius & Alam (2026) companies listed on the IDX ESG Leaders index also Rahmadani & Devilishanti (2026) with different sample characteristics and observation periods, suggesting that the lack of significance of the effect of environmental disclosure is not limited to a single type of company or a specific period.

Affect of Social Disclosure on Stock Returns

The results of the t-test show that social disclosure (X2) has a coefficient of 0.0812, which does not have a significant effect on stock returns. This means that an increase in social disclosure has not yet been able to influence the company's share returns. This finding contradicts stakeholder theory, as the social information disclosed by the company has not yet been able to increase investor trust or interest in the company.

These findings are also inconsistent with the research Pelealu et al. (2023) and Fajrin et al. (2025) which demonstrates that social disclosure has a significant positive effect on share returns. This discrepancy in results may be due to differences in the time period and

sector covered by the research. However, the findings of this study are consistent with those of Aditama (2022), Nuranisa (2023), Sumani & Limawan (2024), and Rahmadani & Devilishanti (2026) in IDX30 companies, which found that social disclosure had no effect on share returns. These findings are also consistent with research by Sumani & Limawan (2024) among LQ45 companies, as well as Nuranisa (2023), Rahmadani & Devilishanti (2026) which found that social disclosure does not influence share returns. The consistency of these findings remains evident even though previous studies have used different sample characteristics, company coverage and observation periods, suggesting that information regarding social responsibility has not yet become a key consideration for investors when assessing a company's prospects.

This is thought to be because investors in the energy sector place greater emphasis on financial performance and industry prospects than on the companies' social activities as detailed in their sustainability reports. Furthermore, during the study period of 2022–2025, investor focus on the energy sector was also more heavily influenced by fluctuations in commodity prices and companies' ability to maintain profitability amidst the often-unstable movements of the energy industry; consequently, social information has not yet become a primary focus of the capital market.

Affect of Governance Disclosure on Stock Return

The results of the t-test show that governance disclosure (X3) has a coefficient of -0.2137 and does not significantly affect share returns. Increased governance disclosure has not yet been able to influence stock returns. These results are inconsistent with signalling theory; it is possible that information relating to corporate governance is not yet regarded as an important signal by investors in their investment decisions.

Investors in the energy sector may still be focusing more on financial performance, operational stability, and energy commodity prices than on corporate governance information contained in sustainability reports. Furthermore, governance disclosure in the energy sector generally relates to governance structure, business ethics, risk management, regulatory compliance, and corporate oversight mechanisms which have already been implemented by the majority of public companies. This situation means that governance disclosures tend to be similar across companies, and therefore do not yet serve as a key differentiating factor in investors' investment decisions.

These findings are also inconsistent with the research Nuranisa (2023), Pelealu et al. (2023), and Rahmadani & Devilishanti (2026). These differences in results are likely to be influenced by variations in the study periods, company sectors, and the methods used to measure governance disclosure variables. However, the findings of this study are consistent with those of Aditama (2022) among IDX30 companies, which demonstrates that governance disclosure has no impact on share returns. Fajrin et al. (2025) in the non-cyclical consumer sector, as well as Castorius & Alam (2026) The study of companies listed in the IDX ESG Leaders index also found that governance disclosure does not have a significant impact on

share returns. This finding remains consistent even when using different sample characteristics, industry sectors and observation periods, suggesting that governance disclosure has not yet been consistently taken into account by investors when making investment decisions.

CONCLUSION

Based on the results of a panel data regression analysis using the Common Effect Model (CEM), it was found that environmental disclosure, social disclosure and governance disclosure do not have a significant impact on stock returns. These results indicate that ESG disclosure by companies in the energy sector has not yet become a key factor used by investors in their investment decision-making or in influencing stock returns during the study period. This may be because investors in the energy sector tend to focus more on fundamental company factors such as profitability, operational stability and fluctuations in energy commodity prices rather than the ESG information disclosed in sustainability reports.

This study has several limitations. Firstly, the study only included energy sector companies that published sustainability reports based on GRI standards consecutively throughout the study period, meaning the sample size was relatively limited. Secondly, the low coefficient of determination suggests that there are still many other factors beyond environmental disclosure, social disclosure, governance disclosure and capital intensity that may influence stock returns, such as energy price volatility, macroeconomic conditions and market sentiment. Thirdly, this study only covers an observation period of four years and therefore does not fully illustrate the long-term impact of ESG. Given these limitations, it is recommended that future research expand the sample size by including companies from other sectors, extending the observation period or broadening the scope to include foreign companies to ensure the research findings are more representative. Furthermore, the use of ESG indicators based on international rating agencies such as MSCI ESG Ratings or Sustainalytics, could also be considered.

REFERENCES

- Aditama, F. W. (2022). Analysis of the effect of Environmental, Social, and Governance (ESG) scores on stock returns of companies listed in the IDX30 Index. *Contemporary Studies in Economic, Finance and Banking*, 1(4), 592–602. Available at: <https://doi.org/http://dx.doi.org/10.21776/csefb.2022.01.4.05>
- Angela, N., Espa, V., & Yantiana, N. (2024). The effect of green accounting and corporate social responsibility implementation on profitability. *JAE: Jurnal Akuntansi dan Ekonomi Akreditasi*, 9(2). Available at: <https://doi.org/10.29407/jae.v9i2.22626>
- Anggarista, M. M., Dewi, N. W. Y., & Savitri, N. L. A. (2024). The effect of Environmental, Social, and Governance (ESG) disclosure and eco-efficiency on firm value: A case study of energy sector companies listed on the Indonesia Stock Exchange during 2021–2024. *Journal of Educational Study (JoES)*, 4(2).

- Brigham, E. F., & Ehrhardt, M. C. (2015). *Financial Management: Theory & Practice* (15th ed.). Boston: Cengage Learning.
- Castorius, M. A., & Alam, M. D. (2026). The effect of ESG disclosure on stock returns of companies listed in the IDX ESG Leaders Index during the 2022–2024 period. *Inisiatif: Jurnal Ekonomi, Akuntansi dan Manajemen*, 5(2), 127–146. Available at: <https://doi.org/10.30640/inisiatif.v5i2.6148>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications.
- Fajrin, G. N., Anggraini, R., & Zairin, G. M. (2025). Analysis of the effect of Environmental, Social, and Governance (ESG) disclosure on stock returns with managerial ownership as a moderating variable. *PENG: Jurnal Ekonomi dan Manajemen*, 2(2b), 4581–4598. Available at: <https://doi.org/10.62710/a7wrab58>
- Fardeliah, S. D., Susyanti, J., & Bastomi, M. (2026). Sustainability signals in emerging markets: The effect of ESG disclosure and profitability on stock returns with firm size as a moderating variable (Evidence from LQ45 Index, 2020–2024). *Owner: Riset & Jurnal Akuntansi*, 10(April), 1348–1359. Available at: <https://doi.org/10.33395/owner.v10i2.3110>
- Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman.
- Giantari, T. (2024). The effect on stock returns: Large companies perform better. *Jurnal Proaksi*, 11(3), 501–516. Available at: <https://doi.org/10.32534/jpk.v11i3.5835>
- Hanjani, E. E., & Yanti, H. B. (2024). The influence of Environmental, Social, and Governance (ESG) disclosures and company size on stock returns. *Journal of Social and Economics Research*, 6(1), 1748–1761. Available at: <https://doi.org/10.54783/jser.v6i1.539>
- Helmi, S. M., & Kurniadi, A. (2024). The effect of leverage, audit quality, and capital intensity on tax avoidance. *11(1)*, 1–6.
- Jaya, I. K. B. A., & Martadinata, I. P. H. (2024). The effect of Environmental, Social, and Governance (ESG) disclosure on profitability. *Vokasi: Jurnal Riset Akuntansi*, 13(2), 59–71. Available at: <https://doi.org/10.23887/vjra.v13i2.78769>
- Luo, D. (2022). ESG, liquidity, and stock returns. *Journal of International Financial Markets, Institutions & Money*, 78, 101526. Available at: <https://doi.org/10.1016/j.intfin.2022.101526>
- Maryam, Y. N. (2025). Systematic literature review: The effect of Environmental, Social, and Governance (ESG) disclosure and profitability on stock returns. *Seminar Nasional Pariwisata dan Kewirausahaan (SNPK)*, 4(April), 957–966.
- Maryam, Y. N., & Sukiswo, W. H. D. (2025). Analysis of Environmental, Social, and Governance (ESG) disclosure and profitability on stock returns. *Oikos: Jurnal Kajian Pendidikan Ekonomi dan Ilmu Ekonomi*, 9(2), 24–33.
- Mulyani, S., Mukhzarudfa, Kusumastuti, R., & Tiswiyanti, W. (2026). The quality of GRI-based sustainability report disclosure in energy sector companies listed on the Indonesia Stock Exchange during 2020–2024. *JIBEMA: Jurnal Ilmu Bisnis, Ekonomi, Manajemen, dan Akuntansi*, 3(4), 511–527. Available at: <https://doi.org/10.62421/jibema.v3i4.236>
- Nuranisa, S. (2023). Analysis of environmental disclosure, social disclosure, governance disclosure, and financial performance on stock returns. *3(13)*.

- Pelealu, A. J. H., Rumokoy, L. J., & Tumiwa, J. (2023). Integration of environmental, social, and governance disclosure into investment strategies: Its impact on stock returns of energy sector companies listed on the Indonesia Stock Exchange during 2019–2023. *Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi*, 12(2), 713–724. Available at: <https://doi.org/10.35794/jmbi.v12i2.62461>
- Putri, R., Honesty, F. F., & Honesty, H. N. (2024). The effect of Environmental, Social, and Governance (ESG) disclosure and financial performance on stock returns. 7(2). Available at: <https://doi.org/10.32877/eb.v7i2.1990>
- Qodary, H. F., & Tambun, S. (2021). The effect of Environmental, Social, and Governance (ESG) and retention ratio on stock returns with firm value as a moderating variable. *Juremi: Jurnal Riset Ekonomi*, 1(2), 159–172. Available at: <https://doi.org/10.53625/juremi.v1i2.266>
- Rahmadani, E. P., & Devilishanti, T. (2026). The effect of Environmental, Social, and Governance (ESG) disclosure on stock returns: An empirical study of mining sector companies listed on the Indonesia Stock Exchange during 2020–2024. *Ekopedia: Jurnal Ilmiah Ekonomi*, 2(1), 349–365. Available at: <https://doi.org/10.63822/3zczv061>
- Rustam, A., Hantono, & Judijanto, L. (2026). ESG factors in investment decisions: Examining the impact of sustainability reporting, corporate governance, and financial performance. *International Journal of Interdisciplinary Cultural Studies*, 21(1), 1172–1185.
- Saif-Alyousfi, A. Y. H., Alsadat, A., & Alalmaee, H. (2025). Profitability and capital intensity: Moderating role of debt financing. *Economies*, 13(11), 324. Available at: <https://doi.org/10.3390/economies13110324>
- Santamaria, R., Paolone, F., Cucari, N., & Dezi, L. (2021). Non-financial strategy disclosure and Environmental, Social, and Governance (ESG) score: Insights from a configurational approach. *Business Strategy and the Environment*, 1993–2007. Available at: <https://doi.org/10.1002/bse.2728>
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.). Chichester: John Wiley & Sons.
- Shakil, M. H. (2022). Environmental, social, and governance performance and stock price volatility: The moderating role of firm size. *Public Administration*, 22(3), e2574. Available at: <https://doi.org/10.1002/pa.2574>
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355–374. Available at: <https://doi.org/10.2307/1882010>
- Sugiyono. (2015). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: CV Alfabeta.
- Suhendri, & Apriadi, D. (2025). The effect of Environmental, Social, and Governance (ESG) disclosure and energy price volatility on stock returns of energy sector companies listed on the Indonesia Stock Exchange. *Jurnal Ekonomi, Bisnis dan Manajemen*, 4(4), 1–13. Available at: <https://doi.org/10.58192/ebismen.v4i4.3771>
- Sumani, S., & Limawan, T. L. (2024). The influence of environmental and social disclosure on stock returns. *Jurnal Manajemen Maranatha*, 24, 61–74. Available at: <https://doi.org/10.28932/jmm.v24i1.9811>

-
- Wang, N., Pan, H., Feng, Y., & Du, S. (2022). How do ESG practices create value for businesses? A research review and future prospects. *Sustainability Accounting, Management and Policy Journal*. Available at: <https://doi.org/10.1108/SAMPJ-12-2021-0515>
- Yin, X., Li, J., & Su, C. (2023). How does ESG performance affect stock returns? Empirical evidence from listed companies in China. *Heliyon*, 9(5), e16320. Available at: <https://doi.org/10.1016/j.heliyon.2023.e16320>
- Yucel, M., & Yucel, S. (2024). Environmental, Social, and Governance (ESG) dynamics in the energy sector: Strategic approaches for sustainable development. *Energies*, 17, 6291. Available at: <https://doi.org/10.3390/en17246291>
- Zanu'ddin, M., & Djaddang, S. (2025). ESG, stock returns, and sustainable investment: A systematic literature review. *Jurnal Ar Ro'is Mandalika (ARMADA)*, 6(1), 433–451. Available at: <https://doi.org/10.59613/armada.v6i1.5670>