

The Impact of ESG Transparency on the Financial Performance of Companies Listed in the LQ45 Index: An Empirical Study (2022–2024)

Griselda Livia¹, Merry Susanti²

^{1,2} Department of Accounting, Faculty of Economics and Business, Universitas Tarumanagara, Jakarta, Indonesia.
Email: griselda.125249265@stu.untar.ac.id¹, merrys@fe.untar.ac.id²

ARTICLE HISTORY

Received: June 18, 2026
Revised: July 27, 2026
Accepted: July 30, 2026

DOI

<https://doi.org/10.52970/grdis.v6i3.2416>

ABSTRACT

This study aims to provide empirical evidence on the effect of Environmental, Social, and Governance (ESG) disclosure on financial performance. The study uses 60 firm-year observations from 20 companies included in the LQ45 Index and listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. The sampling technique employed is purposive sampling. Hypothesis testing is conducted using multiple linear regression analysis. The Random Effect Model (REM) is applied to estimate the Return on Assets (ROA) model, while the Fixed Effect Model (FEM) is used to estimate the Return on Equity (ROE) model. Data are processed using EViews 13. Financial performance is measured using Return on Assets (ROA) and Return on Equity (ROE). The results indicate that Environmental, Social, and Governance disclosures do not have a significant effect on financial performance. These findings are expected to provide valuable insights for regulators, investors, and corporate management in developing and implementing ESG frameworks to enhance financial performance.

Keywords: ESG Disclosure, Financial Performance, Return on Assets, Return on Equity.

I. Introduction

In the current era of globalization and economic uncertainty, the business landscape has become increasingly competitive, requiring companies to develop sustainable competitive advantages to ensure their long-term survival (David et al., 2023). In response to these challenges, management is expected to formulate effective strategic decisions that ultimately influence the company's financial performance. Financial performance is a crucial indicator for stakeholders because it provides a comprehensive assessment of management's ability to utilize company resources efficiently over a specific period (Hery, 2018). In evaluating financial performance, profitability ratios are commonly used because generating profits remains the primary objective of every business entity. Among the various profitability measures, Return on Assets (ROA) and Return on Equity (ROE) are two of the most widely recognized indicators of corporate performance. These ratios provide distinct yet complementary perspectives for assessing a company's financial health, operational efficiency, and ability to generate returns from its assets and shareholders' equity (Brigham & Houston, 2019). Strong ROA and ROE performance is essential because empirical evidence suggests that these indicators are positively associated with firm value and investor confidence (Fatimah & F. Idayati, 2024). Conversely, a prolonged decline in profitability may reduce stock prices and weaken the confidence of investors and creditors. Therefore, identifying the factors that influence corporate financial performance, particularly

through the ROA and ROE perspectives, is essential for providing strategic insights that enable management to maintain profitability and ensure long-term business sustainability. Amid the ongoing transformation of the global business environment, the criteria used to evaluate corporate success have expanded beyond purely financial outcomes. Companies can no longer rely solely on the Single Bottom Line approach, which emphasizes profit maximization as the primary objective of business operations. Growing expectations from investors, consumers, and policymakers have encouraged companies to adopt the Triple Bottom Line concept introduced by Elkington (1997). This concept emphasizes that sustainable corporate success can only be achieved by balancing three key dimensions: economic performance (profit), social responsibility (people), and environmental stewardship (planet).

As a practical implementation of the Triple Bottom Line concept, Environmental, Social, and Governance (ESG) has emerged as a key framework for evaluating a company's sustainability practices and non-financial risk profile. ESG represents a set of standards used to assess an organization's environmental and social impacts, as well as the quality of its governance practices (Krantz & Jonker, 2024). The adoption of ESG practices enables companies to identify, measure, and manage sustainability-related risks while encouraging responsible business conduct that considers the environmental and social consequences of corporate activities (Nelson, 2021). In practice, ESG performance is commonly assessed through quantitative scores and metrics that provide valuable information for corporate decision-making. Moreover, ESG considerations have become increasingly important in investment decisions, giving rise to the concept of ESG investing, whereby investors evaluate ESG performance alongside traditional financial indicators when assessing investment opportunities (Krantz & Jonker, 2024). Several empirical studies have reported that ESG implementation contributes positively to corporate financial performance.

Vongpatchim and Chainirun (2025) and Fahrullah et al. (2024) found that higher ESG scores positively influence both ROA and ROE. Companies that effectively implement ESG practices tend to achieve greater operational efficiency, improve resource utilization, strengthen their corporate reputation, and increase investor confidence. Nevertheless, previous studies examining the relationship between ESG and financial performance have produced inconsistent findings. Noor and Maithy (2025) found that ESG disclosure has no significant effect on ROA. Similar findings were reported by Husada and Handayani (2021) and Putri and Mayangsari (2023). In contrast, Kim and Li (2021) concluded that ESG scores have a positive effect on ROA, while Durlista and Wahyudi (2023) found that environmental disclosure specifically has a positive influence on ROA. Likewise, the findings regarding the relationship between ESG disclosure and ROE remain inconclusive. Agustina et al. (2025) reported that ESG disclosure has no significant effect on the ROE of manufacturing companies, whereas environmental disclosure positively affects the ROE of service companies. Conversely, Durlista and Wahyudi (2023) concluded that both Environmental and Governance disclosures have a positive effect on ROE. Based on the foregoing discussion, this study aims to examine the effect of ESG disclosure on the financial performance of companies included in the LQ45 Index, as measured by ROA and ROE, during the 2022–2024 period. From an academic perspective, this research is expected to enrich the existing literature on the determinants of corporate financial performance while providing additional evidence regarding the role of ESG disclosure in enhancing the financial performance of publicly listed companies.

II. Literature Review and Hypothesis Development

2.1. Signaling Theory

Signaling theory was first introduced by Spence (1973) in the context of labor markets and was later extended to the fields of accounting and finance by Connelly et al. (2011). The theory suggests that information asymmetry exists in the market because company management possesses more comprehensive information regarding the firm's condition and future prospects than investors and creditors. To reduce the adverse effects of information asymmetry, which may diminish the company's market value, management is

encouraged to provide positive signals by disclosing information about the company's internal activities and performance that cannot be directly observed by external parties (Connelly et al., 2011). In the context of Environmental, Social, and Governance (ESG) disclosure, sustainability reports serve as proactive signals to the capital market. By providing comprehensive disclosure of non-financial information, management signals to investors that the company practices effective risk management, complies with relevant regulations, and is committed to long-term operational sustainability (Su et al., 2016). When the market interprets ESG disclosure as a positive signal, information asymmetry and investment uncertainty are expected to decrease, thereby strengthening investor confidence (Putri & Mayangsari, 2023).

2.2. Stakeholder Theory

Stakeholder theory was proposed by Freeman (1984), who defined stakeholders as individuals or groups that can affect or be affected by the achievement of a company's objectives. Accordingly, companies are expected to consider the interests of all stakeholders in their decision-making processes. This theory provides a fundamental framework for understanding and managing stakeholder relationships and has been widely applied to corporate social responsibility, business ethics, and sustainability issues (Mahajan et al., 2023). As awareness of sustainability continues to grow, stakeholders increasingly expect companies to integrate environmental, social, and governance considerations into their business activities. Such integration is believed to enhance long-term sustainability and improve future corporate profitability. Increasing stakeholder pressure encourages companies to fulfill their social responsibilities and disclose sustainability-related information more transparently in order to maintain long-term corporate sustainability (Suharyani et al., 2019). In the context of this study, stakeholder theory supports the view that ESG disclosure is a strategic approach for enhancing corporate reputation, strengthening stakeholder relationships, and ultimately improving financial performance (Aziz, 2024).

2.3. Environmental, Social, and Governance Disclosure

Environmental, Social, and Governance (ESG) is a comprehensive framework used to evaluate the environmental, social, and governance impacts of corporate activities and investment decisions (Baier et al., 2020). ESG has become an important component of corporate sustainability by encouraging companies to balance financial performance with environmental stewardship and social responsibility (Darmasakti, 2023). Although ESG reporting standards have not yet been fully standardized, there is broad agreement that ESG disclosure enhances organizational adaptability to external changes and can be integrated into a company's competitive strategy to create long-term value (Giannopoulos et al., 2022).

2.4. Financial Performance

Financial performance refers to a company's formal assessment of the efficiency and effectiveness of its operational activities over a specific period (Hery, 2018). It reflects management's success in utilizing corporate resources efficiently to achieve organizational objectives and is generally evaluated through the company's financial statements (Kasmir, 2019). The financial condition and overall health of a company are commonly assessed through financial statement analysis, with financial ratio analysis serving as one of the most widely used evaluation methods (Subramanyam & Wild, 2016). Return on Assets (ROA) is a profitability ratio that measures the company's ability to generate net income from its total assets. It reflects how efficiently management utilizes company assets to produce profits (Brigham & Houston, 2019). ROA is primarily used to evaluate a company's effectiveness in converting its investments into earnings. Therefore, a higher ROA indicates that management has efficiently utilized the company's assets to generate profits (Nugroho & Hersugondo, 2022). Return on Equity (ROE) is a profitability ratio that measures the rate of return generated on shareholders' equity (Brigham & Houston, 2019). According to Tanjung and Kurnia (2020), ROE is positively

associated with firm value, indicating that an increase in ROE is generally followed by an increase in company value. A higher ROE reflects the company's ability to generate greater returns for its shareholders and demonstrates effective management of shareholders' investments.

2.5. Hypothesis Development

a. ESG Disclosure and Return on Assets (ROA)

Environmental, Social, and Governance (ESG) disclosure reflects the extent to which a company integrates environmental, social, and governance considerations into its business operations. A higher level of ESG disclosure indicates greater corporate transparency and accountability, which can enhance stakeholder trust and acceptance. Positive stakeholder perceptions may improve operational efficiency, strengthen competitive advantage, and encourage more effective utilization of corporate assets. As a result, companies with more comprehensive ESG disclosure are expected to utilize their assets more efficiently to generate higher profits. Based on this reasoning, the following hypotheses are proposed:

Ha_{1a}: Environmental disclosure has a positive effect on ROA.

Ha_{1b}: Social disclosure has a positive effect on ROA.

Ha_{1c}: Governance disclosure has a positive effect on ROA.

b. ESG Disclosure and Return on Equity (ROE)

By disclosing ESG information, companies demonstrate their commitment to responsible business practices and sustainable value creation. Consistent with signaling theory, sustainability disclosure serves as a positive signal that reduces information asymmetry and assures investors and shareholders that the company effectively manages long-term environmental, social, and governance risks. By communicating its commitment to minimizing the adverse impacts of its operations, a company can strengthen its reputation, enhance its attractiveness to investors, and increase market confidence. These favorable market responses are expected to improve the company's ability to generate returns for shareholders. Based on this reasoning, the following hypotheses are proposed:

Ha_{2a}: Environmental disclosure has a positive effect on ROE.

Ha_{2b}: Social disclosure has a positive effect on ROE.

Ha_{2c}: Governance disclosure has a positive effect on ROE.

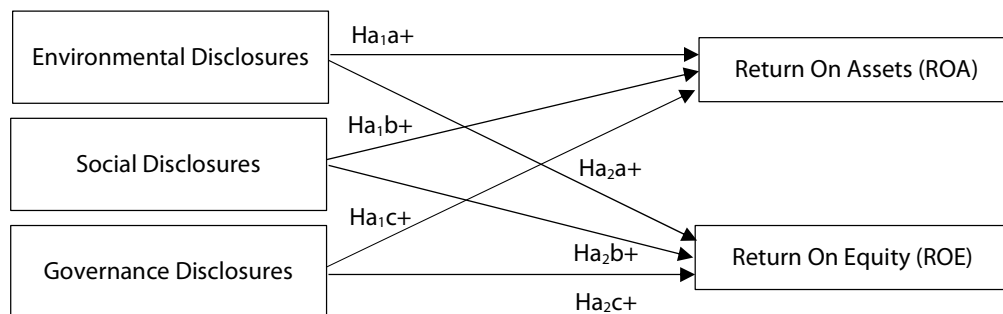


Figure 1. Conceptual Framework

III. Research Method

3.1. Research Design

This study employs a quantitative approach with a descriptive research design. A descriptive research design is used to examine the relationship between the independent variables and the dependent variables. The quantitative approach was selected because this study aims to test the hypotheses regarding whether Environmental, Social, and Governance (ESG) disclosure significantly affects a company's financial performance.

3.2. Population, Sampling Method, and Sample Size

The population of this study consists of companies included in the LQ45 Index and listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. The sampling method employed is non-probability sampling using a purposive sampling technique, whereby samples are selected based on predetermined criteria to ensure their relevance to the research objectives. The sample selection criteria are as follows:

- a. Companies that were consecutively listed in the LQ45 Index on the Indonesia Stock Exchange (IDX) during the 2022–2024 period.
- b. Companies that had ESG disclosure scores available in Bloomberg during the 2022–2024 period.

From a population of 72 companies, 29 companies met the established criteria. After removing outliers, the final sample consisted of 20 companies, resulting in 60 firm-year observations over the three-year study period.

Table 1. Sample Selection Criteria

No.	Criteria	Total
1	Companies listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period	72
2	Companies not consecutively included in the LQ45 Index during the 2022–2024 period	(43)
3	Companies without ESG disclosure scores in Bloomberg during the 2022–2024 period	0
4	Companies meeting the sample selection criteria	29
5	Research period (2022–2024)	3
6	Initial firm-year observations	87
7	Outliers removed	(27)
8	Final firm-year observations	60

3.3. Operationalization of Variables

This study employs two dependent variables and three independent variables. Financial performance serves as the dependent variable and is measured using Return on Assets (ROA) and Return on Equity (ROE). The independent variables are Environmental, Social, and Governance (ESG) disclosure, represented by the Environmental, Social, and Governance disclosure scores provided by Bloomberg. The data used in this study are secondary data collected through documentation. ESG disclosure scores were obtained from Bloomberg, while financial performance data, including ROA and ROE, were obtained from Bloomberg and verified using

the companies' published financial statements available on the official website of the Indonesia Stock Exchange. All variables are measured using a ratio scale.

Table 2. Operationalization of Variables

Variables	Measurement	Scale	Source
Return on Assets (ROA)	$ROA = \frac{\text{Net Income}}{\text{Average Total Assets}}$	Ratio	Higgins et al. (2023)
Return on Equity (ROE)	$ROE = \frac{\text{Net Income}}{\text{Average Shareholders' Equity}}$		Garrison et al. (2018)
Environmental Disclosure	Environmental (ENV) Bloomberg Score		Bloomberg
Social Disclosure	Social (SOC) Bloomberg Score		Bloomberg
Governance Disclosure	Governance (GOV) Bloomberg Score		Bloomberg

3.4. Data Analysis Techniques

To achieve the research objectives and test the proposed hypotheses, the following statistical analyses are employed.

a. Descriptive Statistical Analysis

Descriptive statistical analysis is used to provide an empirical description of the characteristics of each research variable without drawing conclusions or making generalizations about the population (Ghozali, 2018).

b. Classical Assumption Tests

1) Normality Test

The normality test is conducted to determine whether the residuals in the regression model are normally distributed (Gujarati & Porter, 2009). This study employs the Jarque–Bera (JB) test to assess the normality of the residuals.

2) Multicollinearity Test

The multicollinearity test is performed to identify whether strong or perfect linear relationships exist among the independent variables in the regression model (Gujarati & Porter, 2009). This study uses the Pearson correlation method to detect multicollinearity.

3) Heteroscedasticity Test

The heteroscedasticity test is conducted to determine whether the variance of the residuals remains constant across observations in the regression model (Ghozali, 2018). The Glejser test is employed for this purpose.

4) Autocorrelation Test

The autocorrelation test is used to examine whether the residuals are correlated across time, specifically between the residuals in period t and those in the previous period $(t - 1)$ (Ghozali, 2018). This study applies the Durbin–Watson (DW) test to detect autocorrelation.

c. Model Selection Tests

Model selection is performed using the Chow test, the Hausman test, and the Lagrange Multiplier (LM) test. The Chow test is used to determine the more appropriate model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). The Hausman test is then conducted to select the most appropriate

model between the Fixed Effect Model (FEM) and the Random Effect Model (REM). Finally, the Lagrange Multiplier test is applied to determine whether the Random Effect Model (REM) is more appropriate than the Common Effect Model (CEM).

d. Multiple Linear Regression Analysis

Multiple linear regression analysis is employed to examine the direction and magnitude of the effects of multiple independent variables on a dependent variable. The regression models estimated in this study are specified as follows:

1. $ROA = \alpha + \beta_1 ENV + \beta_2 SOC + \beta_3 GOV + \varepsilon$
2. $ROE = \alpha + \beta_1 ENV + \beta_2 SOC + \beta_3 GOV + \varepsilon$

Where:

- ROA = Return on Assets
- ROE = Return on Equity
- ENV = Environmental disclosure score
- SOC = Social disclosure score
- GOV = Governance disclosure score
- α = Constant
- $\beta_1, \beta_2, \beta_3$ = Regression coefficients
- ε = Error term

e. Coefficient of Determination (Adjusted R^2)

The coefficient of determination (Adjusted R^2) is used to measure the extent to which the independent variables explain the variation in the dependent variable (Ghozali, 2018).

f. Simultaneous Significance Test (F-test)

The F-test is conducted to determine whether the independent variables jointly have a statistically significant effect on the dependent variable (Gujarati & Porter, 2009).

g. Partial Significance Test (t-test)

The t-test is used to examine the individual effect of each independent variable on the dependent variable while holding the other independent variables constant (*ceteris paribus*) (Ghozali, 2018).

IV. Result and Discussion

4.1. Descriptive Statistical Analysis Results

The descriptive statistics presented in Table 3 summarize the characteristics of the research variables. The ROA variable has a minimum value of 0.6621%, recorded by PT Bank Tabungan Negara Tbk (BBTN) in 2024, and a maximum value of 16.6022%, recorded by PT United Tractors Tbk (UNTR) in 2022. Meanwhile, the ROE variable has a minimum value of 1.6540%, recorded by PT Semen Indonesia (Persero) Tbk (SMGR) in 2024, and a maximum value of 27.9316%, recorded by PT Sumber Alfaria Trijaya Tbk (AMRT) in 2022. The Environmental (ENV) disclosure score ranges from a minimum of 18.9067, recorded by PT Sumber Alfaria Trijaya Tbk (AMRT) in 2022, to a maximum of 71.3078, recorded by PT Perusahaan Gas Negara (Persero) Tbk (PGAS) in 2024. The Social (SOC) disclosure score has a minimum value of 26.9649, recorded by PT Indofood CBP Sukses Makmur Tbk (ICBP) in both 2023 and 2024, while the maximum value of 58.0713 was recorded by PT Telkom Indonesia (Persero) Tbk (TLKM) in 2022. The Governance (GOV) disclosure score has a minimum value of 77.3329,

consistently recorded by PT Indah Kiat Pulp & Paper Tbk (INKP) throughout the 2022–2024 observation period. The maximum value of 96.1168 was achieved by PT Bank Negara Indonesia (Persero) Tbk (BBNI) and PT Bank Mandiri (Persero) Tbk (BMRI) during all three years of observation, as well as by PT Bank Central Asia Tbk (BBCA) in 2023 and 2024. Furthermore, all variables exhibit standard deviation values that are lower than their respective mean values, indicating relatively low data dispersion and suggesting that the sample observations are reasonably homogeneous and consistently distributed.

Table 3. Descriptive Statistics Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ROA	60	0.006621	0.166022	0.058178	0.037231
ROE		0.016540	0.279316	0.143498	0.060531
ENV		18.9067	71.3078	44.97936	13.06794
SOC		26.9649	58.0713	43.69256	8.303856
GOV		77.3329	96.1168	87.60535	4.871323
Valid N					

4.2. Dependent Variable: Return on Assets (ROA)

a. Classical Assumption Test Results

1) Normality Test Results

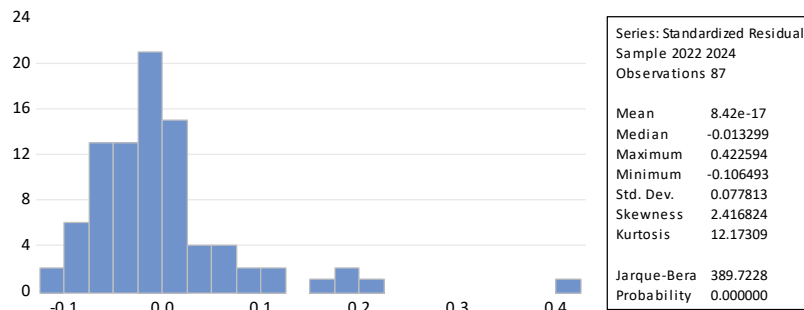


Figure 2. Normality Test Results

The initial normality test results presented in Figure 2 show probability values below the 0.05 significance level, indicating that the residuals are not normally distributed due to the presence of outliers. After removing the outliers from the dataset, the Jarque–Bera probability increased to 0.140170, which is greater than 0.05, as shown in Figure 3. Therefore, the residuals satisfy the normality assumption.

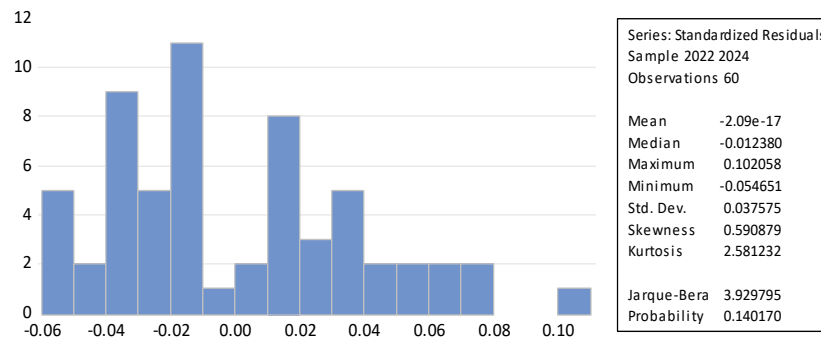


Figure 3. Normality Test Results After Outlier Removal

2) Multicollinearity Test Results

Table 4. Multicollinearity Test Results

	ENV	SOC	GOV
ENV	1.000000	0.164729	-0.301066
SOC	0.164729	1.000000	0.247655
GOV	-0.301066	0.247655	1.000000

Based on Table 4, the correlation coefficient between ENV and SOC is 0.164729, between ENV and GOV is -0.301066, and between SOC and GOV is 0.247655. Since all correlation coefficients are below the threshold value of 0.80, it can be concluded that no multicollinearity exists among the independent variables. Therefore, the regression model satisfies the multicollinearity assumption and is appropriate for further analysis.

3) Heteroscedasticity Test Results

Table 5. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.110381	0.068545	1.610349	0.1129
ENV	-0.000278	0.000235	-1.181541	0.2424
SOC	0.000403	0.000454	0.888907	0.3779
GOV	-0.000955	0.000764	-1.250443	0.2163

As shown in Table 5, the probability values are 0.2424 for ENV, 0.3779 for SOC, and 0.2163 for GOV. Since all probability values exceed the 0.05 significance level, it can be concluded that the regression model does not exhibit heteroscedasticity. Therefore, the model satisfies the homoscedasticity assumption and is suitable for further analysis.

4) Autocorrelation Test Results

Table 6. Autocorrelation Test Results

Statistic	Value
Durbin-Watson Statistic	1.790524

Based on Table 6, the Durbin-Watson (DW) statistic is 1.790524. A regression model is considered free from autocorrelation when the DW statistic lies between the upper critical value (d_{U}) and $4 - d_{U}$. Based on the Durbin-Watson critical value table, $d_{U} = 1.6889$ and $4 - d_{U} = 2.3111$. Since the DW statistic falls within this interval ($1.6889 < 1.790524 < 2.3111$), it can be concluded that the regression model does not exhibit autocorrelation. Therefore, the model satisfies the autocorrelation assumption and is appropriate for subsequent analysis.

b. Model Selection Test Results

Table 7. Model Selection Test Results

Method	Test	Results	Selected Model
Chow Test	CEM vs. FEM	Cross-section F: 0.0000 < 0.05	FEM
Hausman Test	REM vs. FEM	Cross-section Random: 0.2501 > 0.05	REM
Lagrange Multiplier Test	CEM vs. REM	Cross-section: 0.0000 < 0.05	REM

Based on the results presented in Table 7, the Random Effect Model (REM) is selected as the most appropriate estimation model for analyzing the effect of ESG disclosure on the Return on Assets (ROA) of companies included in the LQ45 Index.

c. Multiple Linear Regression Analysis Results

Table 8. Multiple Linear Regression Analysis Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.134968	0.119258	1.131730	0.2626
ENV	-0.000166	0.000380	-0.437182	0.6637
SOC	-0.000922	0.000798	-1.155242	0.2529
GOV	-0.000331	0.001322	-0.250660	0.8030

Based on the results presented in Table 8, the estimated regression equation is as follows:

$$ROA = 0.134968 - 0.000166 ENV - 0.000922 SOC - 0.000331 GOV + \varepsilon$$

The constant coefficient of 0.134968 indicates that when all independent variables are assumed to be zero, the estimated ROA is 13.4968%. The coefficient of ENV is -0.000166 , indicating that a one-unit increase in the Environmental disclosure score is associated with a 0.0166% decrease in ROA, assuming the other variables remain constant. Similarly, the coefficient of SOC is -0.000922 , indicating that a one-unit increase in the Social disclosure score is associated with a 0.0922% decrease in ROA, ceteris paribus. The coefficient of GOV is -0.000331 , indicating that a one-unit increase in the Governance disclosure score is associated with a 0.0331% decrease in ROA, assuming all other variables remain constant.

d. Coefficient of Determination Test Results (Adjusted R^2)

Table 9. Coefficient of Determination Test Results

Statistic	Value
R-squared	0.029436
Adjusted R-squared	-0.022559

Based on the regression results presented in Table 9, the Adjusted R^2 value is -0.022559 . This negative value indicates that the variation in ROA cannot be explained by the three independent variables included in the regression model. Consequently, the model has very limited explanatory power in predicting changes in ROA.

e. Simultaneous Significance Test Results (F-test)

Table 10. Simultaneous Significance Test Results

Statistic	Value
F-statistic	0.566133
Prob. (F-statistic)	0.639617

Based on the results presented in Table 10, the probability value of the F-statistic is 0.639617, which exceeds the 0.05 significance level. Therefore, it can be concluded that the regression model, which examines the effects of Environmental (ENV), Social (SOC), and Governance (GOV) disclosure on ROA for companies included in the LQ45 Index during the 2022–2024 period, is not statistically significant.

f. Partial Significance Test Results (t-test)

Table 11. Partial Significance Test Results

Variable	Coefficient	Prob.
C	0.134968	0.2626
ENV	-0.000166	0.6637
SOC	-0.000922	0.2529
GOV	-0.000331	0.8030

Based on the results presented in Table 11, the hypothesis testing results are as follows.

a. The Effect of Environmental Disclosure on ROA

The Environmental (ENV) disclosure variable has a probability value of 0.6637, which is greater than the 0.05 significance level. This result indicates that Environmental disclosure does not have a significant effect on the ROA of companies included in the LQ45 Index during the 2022–2024 period. Therefore, $H_{a,a}$ is rejected.

b. The Effect of Social Disclosure on ROA

The Social (SOC) disclosure variable has a probability value of 0.2529, which is greater than the 0.05 significance level. This finding indicates that Social disclosure does not have a significant effect on the ROA of companies included in the LQ45 Index during the 2022–2024 period. Therefore, $H_{a,b}$ is rejected.

c. The Effect of Governance Disclosure on ROA

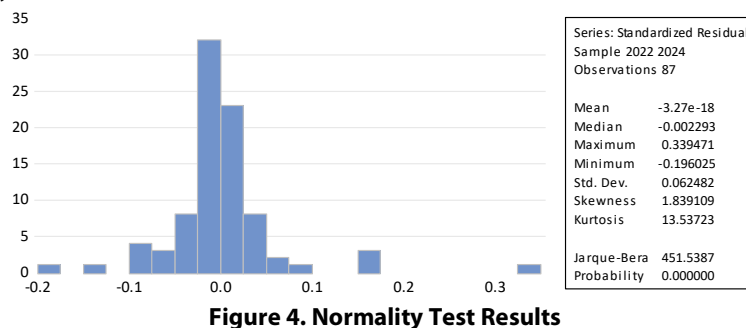
The Governance (GOV) disclosure variable has a probability value of 0.8030, which is greater than the 0.05 significance level. This result indicates that Governance disclosure does not have a significant effect on the ROA of companies included in the LQ45 Index during the 2022–2024 period. Therefore, $H_{a,c}$ is rejected.

The findings of this study are consistent with those reported by Noor and Maithy (2025), Husada and Handayani (2021), and Putri and Mayangsari (2023), who found that ESG disclosure does not significantly affect ROA. However, these findings are inconsistent with those of Vongpatchim and Chainirun (2025), Fahrullah et al. (2024), and Kim and Li (2021), who reported that ESG disclosure has a significant positive effect on ROA. Furthermore, the findings of Durlista and Wahyudi (2023) are partially consistent with the results of this study. Specifically, their findings that Social and Governance disclosures do not significantly affect ROA are consistent with the present study, whereas their conclusion that Environmental disclosure has a positive effect on ROA is not supported by the findings of this research.

4.3. Dependent Variable: Return on Equity (ROE)

a. Classical Assumption Test Results

a. Normality Test Results



The initial normality test results presented in Figure 4 show probability values below the 0.05 significance level, indicating that the residuals are not normally distributed due to the presence of outliers. After removing the outliers from the dataset, the Jarque–Bera probability increased to 0.64880, which is greater than 0.05, as shown in Figure 5. Therefore, the residuals satisfy the normality assumption.

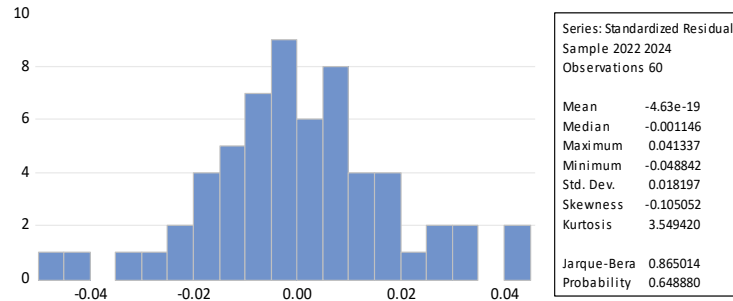


Figure 5. Normality Test Results After Outlier Removal

b. Multicollinearity Test Results

Table 12. Multicollinearity Test Results

	ENV	SOC	GOV
ENV	1.000000	0.164729	-0.301066
SOC	0.164729	1.000000	0.247655
GOV	-0.301066	0.247655	1.000000

Based on Table 12, the correlation coefficient between ENV and SOC is 0.164729, between ENV and GOV is -0.301066 , and between SOC and GOV is 0.247655. Since all correlation coefficients are below the threshold value of 0.80, it can be concluded that no multicollinearity exists among the independent variables. Therefore, the regression model satisfies the multicollinearity assumption and is appropriate for further analysis.

c. Heteroscedasticity Test Results

Table 13. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.054534	0.124424	-0.438287	0.6637
ENV	-0.0000878	0.000313	-0.280968	0.7803
SOC	-0.0000060	0.000850	-0.007044	0.9944
GOV	0.000826	0.001340	0.616667	0.5412

As shown in Table 13, the probability values are 0.7803 for ENV, 0.9944 for SOC, and 0.5412 for GOV. Since all probability values exceed the 0.05 significance level, it can be concluded that the regression model does not exhibit heteroscedasticity. Therefore, the model satisfies the homoscedasticity assumption and is suitable for further analysis.

d. Autocorrelation Test Results

Table 14. Autocorrelation Test Results

Statistic	Value
Durbin–Watson Statistic	2.635088

Based on Table 14, the Durbin–Watson (DW) statistic is 2.635088. Although this value exceeds 4 – d_{upper} , it remains within the acceptable range of 1 to 3, which generally indicates the absence of

serious autocorrelation problems (Field, 2024). Therefore, it can be concluded that the regression model does not exhibit significant autocorrelation and is appropriate for subsequent analysis.

b. Model Selection Test Results

Table 15. Model Selection Test Results

Method	Test	Results	Selected Model
Chow Test	CEM vs. FEM	Cross-section F: 0.0000 < 0.05	FEM
Hausman Test	REM vs. FEM	Cross-section Random: 0.0229 < 0.05	FEM
Lagrange Multiplier Test	CEM vs. REM	–	–

Based on the results presented in Table 15, the Fixed Effect Model (FEM) is selected as the most appropriate estimation model for analyzing the effect of ESG disclosure on the Return on Equity (ROE) of companies included in the LQ45 Index.

c. Multiple Linear Regression Analysis Results

Table 16. Multiple Linear Regression Analysis Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.073067	0.285817	0.255642	0.7996
ENV	-0.000864	0.000718	-1.203175	0.2366
SOC	-0.004646	0.001954	-2.378156	0.0227
GOV	0.003565	0.003078	1.158225	0.2542

Based on the results presented in Table 16, the estimated regression equation is as follows:

$$ROE = 0.073067 - 0.000864 ENV - 0.004646 SOC + 0.003565 GOV + \varepsilon$$

The constant coefficient of 0.073067 indicates that when all independent variables are assumed to be zero, the estimated ROE is 7.3067%. The coefficient of ENV is –0.000864, indicating that a one-unit increase in the Environmental disclosure score is associated with a 0.0864% decrease in ROE, assuming the other variables remain constant. Similarly, the coefficient of SOC is –0.004646, indicating that a one-unit increase in the Social disclosure score is associated with a 0.4646% decrease in ROE, ceteris paribus. In contrast, the coefficient of GOV is 0.003565, indicating that a one-unit increase in the Governance disclosure score is associated with a 0.3565% increase in ROE, assuming all other variables remain constant.

d. Coefficient of Determination Test Results (Adjusted R²)

Table 17. Coefficient of Determination Test Results

Statistic	Value
R-squared	0.909624
Adjusted R-squared	0.855887

Based on the regression results presented in Table 17, the Adjusted R² value is 0.855887. This indicates that approximately 85.59% of the variation in ROE is explained by the three independent variables included in the model, while the remaining 14.41% is explained by other factors not included in this study.

e. Simultaneous Significance Test Results (F-test)

Table 18. Simultaneous Significance Test Results

Statistic	Value
F-statistic	16.92736
Prob. (F-statistic)	0.000000

Based on the results presented in Table 18, the probability value of the F-statistic is 0.000000, which is lower than the 0.05 significance level. Therefore, the regression model examining the effects of Environmental (ENV), Social (SOC), and Governance (GOV) disclosure on the ROE of companies included in the LQ45 Index during the 2022–2024 period is statistically significant.

f. Partial Significance Test Results (t-test)

Table 19. Partial Significance Test Results

Variable	Coefficient	Prob.
C	0.073067	0.7996
ENV	-0.000864	0.2366
SOC	-0.004646	0.0227
GOV	0.003565	0.2542

Based on the results presented in Table 19, the hypothesis testing results are as follows.

a. The Effect of Environmental Disclosure on ROE

The Environmental (ENV) disclosure variable has a probability value of 0.2366, which is greater than the 0.05 significance level. This result indicates that Environmental disclosure does not have a significant effect on the ROE of companies included in the LQ45 Index during the 2022–2024 period. Therefore, H_{a2a} is rejected.

b. The Effect of Social Disclosure on ROE

The Social (SOC) disclosure variable has a probability value of 0.0227, which is lower than the 0.05 significance level. The regression coefficient is negative (–0.004646), indicating that Social disclosure has a significant negative effect on the ROE of companies included in the LQ45 Index during the 2022–2024 period. Because the proposed hypothesis predicted a positive effect, H_{a2b} is rejected.

c. The Effect of Governance Disclosure on ROE

The Governance (GOV) disclosure variable has a probability value of 0.2542, which is greater than the 0.05 significance level. This finding indicates that Governance disclosure does not have a significant effect on the ROE of companies included in the LQ45 Index during the 2022–2024 period. Therefore, H_{a2c} is rejected.

The findings of this study are inconsistent with those reported by Vongpatchim and Chainirun (2025) and Fahrullah et al. (2024), who found that ESG disclosure has a significant positive effect on ROE. The findings are also inconsistent with those of Durlista and Wahyudi (2023), who reported that Environmental and Governance disclosures positively affect ROE, whereas Social disclosure has no significant effect. Furthermore, the results differ from those of Agustina et al. (2025), who found that ESG disclosure has no significant effect on the ROE of manufacturing companies, while Environmental disclosure has a positive effect on the ROE of service companies.

4.4. Discussion

a. The Impact of ESG Disclosure on ROA

Using the Random Effect Model (REM), this study finds that none of the three ESG disclosure dimensions has a significant effect on ROA. Individually, Environmental, Social, and Governance disclosures all exhibit negative but statistically insignificant coefficients. Moreover, the simultaneous test indicates that the three ESG dimensions collectively do not explain variations in ROA. These findings suggest that sustainability-related activities are not directly associated with improvements in short-term asset utilization efficiency. Several factors may explain these findings. First, implementing and disclosing ESG initiatives often requires substantial financial resources, which may reduce current net income. At the same time, companies frequently invest in environmentally friendly technologies and other long-term assets, thereby increasing total assets. As a result, the immediate effect of ESG implementation on ROA may be limited because both declining net income and increasing asset values place downward pressure on the ratio. Second, companies included in the LQ45 Index generally comply with corporate governance requirements established by the Financial Services Authority (Otoritas Jasa Keuangan/OJK) and the Indonesia Stock Exchange (IDX). Consequently, the relatively uniform implementation of governance practices across these firms reduces the variation in Environmental and Governance disclosures, limiting their ability to explain differences in asset utilization efficiency as measured by ROA. Third, although social initiatives often require considerable expenditures, their primary objective is to strengthen corporate reputation, stakeholder relationships, and long-term sustainability rather than to improve the short-term productivity of corporate assets. Therefore, the financial benefits derived from social disclosure may not be immediately reflected in profitability measures based on asset utilization. Furthermore, ROA is a short-term financial performance indicator that reflects operational efficiency within the current accounting period. In contrast, ESG implementation represents a long-term strategic commitment whose economic benefits generally materialize over an extended period. Consequently, changes in ESG disclosure during a particular year may not produce an immediate or statistically significant effect on ROA in the same period.

b. The Impact of ESG Disclosure on ROE

Using the Fixed Effect Model (FEM), this study finds that the three dimensions of ESG disclosure have different effects on the ROE of companies included in the LQ45 Index. The partial test results indicate that Environmental (ENV) disclosure has a negative but statistically insignificant effect on ROE, while Governance (GOV) disclosure has a positive but statistically insignificant effect. In contrast, Social (SOC) disclosure has a significant negative effect on ROE. Simultaneously, the three ESG disclosure dimensions explain 85.59% of the variation in ROE. The insignificant effect of Environmental disclosure may be attributed to the fact that companies included in the LQ45 Index are generally market leaders that are expected to comply with environmental regulations established by the government. As a result, investors are likely to perceive environmental disclosure as a basic compliance requirement rather than as a source of competitive advantage capable of significantly influencing profitability. Similarly, the insignificant effect of Governance disclosure may be explained by the relatively homogeneous governance quality among LQ45 companies. These companies are subject to rigorous oversight by the Financial Services Authority (Otoritas Jasa Keuangan/OJK) and the Indonesia Stock Exchange (IDX) regarding the implementation of Good Corporate Governance (GCG). Because governance practices are relatively consistent across LQ45 companies, Governance disclosure is unlikely to serve as a distinguishing factor that significantly influences a company's ability to generate returns on shareholders' equity. In contrast, Social disclosure has a significant negative effect on ROE. Companies included in the LQ45 Index generally have high public visibility and face greater stakeholder expectations regarding corporate social responsibility. Consequently, expenditures related to social initiatives may increase operating expenses in the short term, thereby reducing net income and negatively affecting ROE. Although the three ESG dimensions exhibit different individual effects, the overall results indicate that ESG disclosure is collectively associated with the financial performance of LQ45 companies. The simultaneous influence of

Environmental, Social, and Governance disclosures suggests that the integration of these three dimensions plays an important role in shaping corporate capital allocation decisions and financial performance, collectively explaining approximately 85.59% of the variation in ROE.

V. Conclusion

This study examines the effect of Environmental, Social, and Governance (ESG) disclosure on the financial performance of 20 companies included in the LQ45 Index and listed on the Indonesia Stock Exchange during the 2022–2024 period, using a total of 60 firm-year observations. Based on a series of statistical analyses employing the Random Effect Model (REM) for the Return on Assets (ROA) model and the Fixed Effect Model (FEM) for the Return on Equity (ROE) model, several conclusions can be drawn. The findings indicate that none of the three ESG disclosure dimensions has a significant effect on ROA. Specifically, Environmental, Social, and Governance disclosures each exhibit negative but statistically insignificant effects on ROA. Furthermore, the simultaneous test shows that the three ESG disclosure dimensions collectively do not explain the variation in ROA. These findings suggest that ESG disclosure has not yet contributed to improving the short-term efficiency of asset utilization among companies included in the LQ45 Index. With respect to ROE, the results reveal that the three ESG disclosure dimensions have different effects. Environmental disclosure has a negative but statistically insignificant effect on ROE, while Governance disclosure has a positive but statistically insignificant effect. In contrast, Social disclosure has a significant negative effect on ROE. Simultaneously, the three ESG disclosure dimensions explain 85.59% of the variation in ROE, indicating that ESG disclosure collectively plays an important role in explaining differences in returns on shareholders' equity among LQ45 companies. This study was conducted in accordance with established scientific procedures, including systematic data collection, appropriate model selection, and rigorous hypothesis testing. Nevertheless, several limitations should be considered when interpreting the findings. First, the observation period is relatively short, covering only the 2022–2024 period. Given that the benefits of ESG implementation are generally realized over the medium to long term, this limited observation period may not fully capture the long-term impact of ESG disclosure on corporate financial performance. Second, the sample consists exclusively of 20 companies included in the LQ45 Index.

As these companies are characterized by large market capitalizations and high stock liquidity, the findings may not be generalizable to companies outside the LQ45 Index, particularly small- and medium-cap firms that may have different financial characteristics, operational constraints, and ESG implementation practices. Finally, although the ROE model demonstrates a relatively high Adjusted R^2 value of 85.59%, the analysis includes only three independent variables representing the ESG dimensions. Consequently, the model does not account for other factors that may influence corporate profitability, such as asset management efficiency, capital structure, regulatory policies, macroeconomic conditions, and industry competition. Future research is therefore encouraged to incorporate additional explanatory variables, extend the observation period, and examine a broader range of companies to provide a more comprehensive understanding of the relationship between ESG disclosure and corporate financial performance.

References

- Agustina, A. A., Sudaryanti, D., & Alrasyid, H. (2025). Pengaruh Environmental, Social, Governance (ESG) Reporting Terhadap Kinerja Keuangan (Studi Kasus pada Sektor Manufaktur dan Jasa di BEI). *e_Jurnal Ilmiah Riset Akuntansi*, 14(01), 106–117.
- Aziz, S. A. (2024). Pengaruh Kinerja Environmental, Social, Governance (ESG) Terhadap Kinerja Keuangan Perusahaan Dengan Kekuatan Chief Executive Officer (CEO) Sebagai Variabel Moderasi di Malaysia [Skripsi Sarjana]. Universitas Islam Indonesia.
- Baier, P., Berninger, M., & Kiesel, F. (2020). Environmental, Social and Governance Reporting in Annual Reports: A Textual Analysis. *Financial Markets, Institutions & Instruments*, 29(3), 93–118. <https://doi.org/10.1111/fmii.12132>

- Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of Financial Management* (Fifteenth edition). Cengage.
- 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>
- Darmasakti. (2023). *Menciptakan Green Profit Dengan ESG Framework*. PT. Nas Media Pustaka.
- David, F. R., David, F. R., & David, M. E. (2023). *Strategic Management: Concepts and Cases ; a Competitive Advantage Approach* (Seventeenth edition, Global Edition). Pearson.
- Durlista, M. A., & Wahyudi, I. (2023). Pengaruh Pengungkapan Environmental, Social dan Governance (ESG) Terhadap Kinerja Perusahaan Pada Perusahaan Subsektor Pertambangan Batu Bara Periode 2017-2022. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, Dan Akuntansi)*, 7(3), 210–232.
- Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Capstone.
- Fahrullah, A. H. bin, Ali, S. S. S., Yusof, S. M., & Widya, N. (2024). Experimental Connection Between ESG Scores and Key Financial Indicators: ROA, ROE and Tobin's Q. *UNIMAS Review of Accounting and Finance*, 8(1), 61–72. <https://doi.org/10.33736/uraf.8593.2024>
- Fatimah & F. Idayati. (2024). Pengaruh Profitabilitas, Likuiditas, dan Leverage terhadap Nilai Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *Jurnal Ilmu Dan Riset Akuntansi*, 13(5), 1–23.
- Field, A. (2024). *Discovering statistics using IBM SPSS statistics* (6th edition). Sage.
- Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman.
- Garrison, R. H., Noreen, E. W., & Brewer, P. C. (2018). *Managerial Accounting* (Sixteenth edition). McGraw-Hill Education.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25* (Edisi 9). Badan Penerbit Universitas Diponegoro.
- Giannopoulos, G., Kihle Fagernes, R. V., Elmarzouky, M., & Afzal Hossain, K. A. B. M. (2022). The ESG Disclosure and the Financial Performance of Norwegian Listed Firms. *Journal of Risk and Financial Management*, 15(6), 237. <https://doi.org/10.3390/jrfm15060237>
- Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (5. ed). McGraw-Hill Irwin.
- Hery. (2018). *Analisis Laporan Keuangan*. PT Grasindo.
- Higgins, R. C., Koski, J. L., & Mitton, T. (2023). *Analysis for Financial Management* (Thirteenth Edition). McGraw Hill.
- Husada, E. V., & Handayani, S. (2021). Pengaruh Pengungkapan ESG Terhadap Kinerja Keuangan Perusahaan (Studi Empiris Pada Perusahaan Sektor Keuangan Yang Terdaftar di BEI Periode 2017-2019). *Jurnal Bina Akuntansi*, 8(2), 122–144. <https://doi.org/10.52859/jba.v8i2.173>
- Kasmir. (2019). *Analisis Laporan Keuangan* (Cetakan ke-12). PT RajaGrafindo Persada.
- Kim, S., & Li, Z. (Frank). (2021). Understanding the Impact of ESG Practices in Corporate Finance. *Sustainability*, 13(7), 3746. <https://doi.org/10.3390/su13073746>
- Krantz, T., & Jonker, A. (2024). What is Environmental, Social and Governance (ESG)? <https://www.ibm.com/think/topics/environmental-social-and-governance>
- Mahajan, R., Lim, W. M., Sareen, M., Kumar, S., & Panwar, R. (2023). Stakeholder Theory. *Journal of Business Research*, 166, 114104. <https://doi.org/10.1016/j.jbusres.2023.114104>
- Nelson, M. (2021, November 3). Is Your ESG Data Unlocking Long-Term Value? https://www.ey.com/en_id/insights/assurance/is-your-esg-data-unlocking-long-term-value
- Noor, D. F., & Maithy, S. P. (2025). Pengaruh Environmental, Social, and Governance (ESG) Disclosure terhadap Kinerja Keuangan Perusahaan Sektor Energi yang Terdaftar di BEI Tahun 2021-2023. *AKSIOMA : Jurnal Sains Ekonomi Dan Edukasi*, 2(5), 940–953. <https://doi.org/10.62335/aksioma.v2i5.1202>
- Nugroho, N. A. & Hersugondo Hersugondo. (2022). Analisis Pengaruh Environment, Social, Governance (ESG) Disclosure Terhadap Kinerja Keuangan Perusahaan. *E-Bisnis : Jurnal Ilmiah Ekonomi Dan Bisnis*, 15(2), 233–243. <https://doi.org/10.51903/e-bisnis.v15i2.810>
- Putri, S. R., & Mayangsari, S. (2023). Pengaruh Pertanggungjawaban Environmental, Social dan Governance (ESG), Likuiditas, dan Leverage Terhadap Kinerja Keuangan Perusahaan Publik. *Ekonomi Digital*, 2(2), 133–148. <https://doi.org/10.55837/ed.v2i2.108>

- Su, W., Peng, M. W., Tan, W., & Cheung, Y.-L. (2016). The Signaling Effect of Corporate Social Responsibility in Emerging Economies. *Journal of Business Ethics*, 134(3), 479–491. <https://doi.org/10.1007/s10551-014-2404-4>
- Subramanyam, K. R., & Wild, J. J. (2016). *Financial Statement Analysis*. McGraw Hill Education.
- Suharyani, R., Ulum, I., & Jati, A. W. (2019). Pengaruh Tekanan Stakeholder dan Corporate Governance Terhadap Kualitas Sustainability Report. *Jurnal Akademi Akuntansi*, 2(1). <https://doi.org/10.22219/jaa.v2i1.8356>
- Tanjung, R. B. & Kurnia. (2020). Pengaruh Kinerja Keuangan, Ukuran Perusahaan, Kepemilikan Saham terhadap Kinerja Lingkungan. *Jurnal Ilmu Dan Riset Akuntansi*, 9(4), 1–22.
- Vongpatchim, P., & Chainirun, P. (2025). ESG Scores and Financial Growth: A Pathway to Corporate Sustainability. *International Journal of Economics and Financial Issues*, 15(4), 1–7. <https://doi.org/10.32479/ijefi.18599>