

THE ROLE OF SUSTAINABILITY REPORTING IN DRIVING FINANCIAL PERFORMANCE: EVIDENCE FROM ESG STAR LISTED COMPANIES

Petrus Lintang Sutami Krisdianto¹, Eny Trimeiningrum²,

^{1,2}Faculty of Economics and Business, Soegijapranata Catholic University, Jalan Pawiyatan Luhur Sel.IV No.1, Bendan Duwur, Semarang

E-mail: kuliahpetrus@gmail.com ; eny@unika.ac.id

ABSTRACT

This study aims to examine the effect of Environmental, Social, and Governance (ESG) disclosure on firms' financial performance measured by Return on Assets (ROA) and to test the moderating roles of firm size and firm age. A quantitative approach was employed with a population comprising all companies listed in the ESG Star Index of the Indonesia Stock Exchange (IDX) for the 2020–2024 period. Using purposive sampling, eight companies consistently included in the index and possessing complete sustainability and financial reports were selected. ESG data were collected through content analysis based on Global Reporting Initiative (GRI) indicators, while ROA, size, and age data were obtained from annual reports. Panel data regression using the Fixed Effect Model and Moderated Regression Analysis (MRA) was applied for hypothesis testing. The findings reveal that none of the ESG dimension such as environmental, social, or governance significantly affect ROA. Moreover, firm size and age do not moderate the relationship between ESG and ROA. These results suggest that ESG practices primarily serve as tools for legitimacy and corporate reputation rather than short-term profitability drivers. The study recommends that companies integrate ESG principles more deeply into operational strategies to enhance long-term value creation.

Keywords: ESG; Return on Assets; firm size; firm age; sustainability.

INTRODUCTION

Global shifts in the business world have pushed companies to move away from just chasing financial profits and start paying more attention to environmental, social, and governance (ESG) matters. This shift stems from growing calls for openness and responsibility, compelling organizations to weave sustainability into their everyday operations. As a result, sustainability reports have emerged as a key tool for sharing details on non-financial activities, particularly those tied to ESG factors (Shaban & Barakat, 2023). Sustainability disclosure regulations in Indonesia are set out in Regulation No. 51/POJK.03/2017 of the Financial Services Authority, which provides for sustainability. This has led to the development of indicators such as ESG Leader and ESG Star Index, which are designed to highlight companies with good sustainability performance. Institutional investors; Law enforcement. The role of ESG disclosure in business decisions is becoming strategically important as pressure from green consumers, including consumers, increases. Therefore, research examining the relationship between ESG reporting and financial performance becomes critical to understanding how companies navigate today's sustainability landscape.

Developments in ESG research, both theoretical and practical, have led to different perspectives on how companies can achieve sustainability. ESG is divided into three categories: environmental, social and corporate. The environmental pillar focuses on initiatives such as reducing carbon footprints, increasing energy efficiency and managing waste responsibly. The social pillar deals with things such as supporting employee well-being, promoting gender equality, engaging with communities, and protecting human rights, while the corporate governance pillar addresses issues like granting management independence, establishing robust internal controls, and ensuring transparent decision-making processes (Prameswari Vijaya, 2023; Safriani & Utomo, 2020). Altogether, these pillars build a solid base for fostering sustainable business growth. Recent studies indicate that disclosing ESG information not only boosts a company's reputation but also serves as a smart strategy to minimize risks and seize new opportunities, which in turn influences financial outcomes (Shaban & Barakat, 2023). Companies that effectively communicate their ESG performance often build greater trust with investors and achieve sustainable advantages in the marketplace.

Many studies highlight the clear positive relationship between ESG disclosures and financial performance. For example, Hartomo and Adewibowo (Hartomo & Adiwibowo, 2023) found that ESG disclosures significantly improve return on assets (ROA), financial performance, and financial performance in industries in Indonesia. This is consistent with stakeholder theory. The theory states that companies that build strong relationships with stakeholders tend to achieve long-term social and business benefits. Similarly, signaling theory argues that sustainability reports send strong positive signals to investors, which can lead to negative returns. This demonstrates effective management and a commitment to long-term growth. (Safriani & Utomo, 2020). However, the influence of ESG can differ across its pillars, with corporate governance often having the most robust link to financial results (Hartomo & Adiwibowo, 2023). On the other hand, (Shaban & Barakat, 2023) point out that while

ESG is linked to ROA and financial leverage in Jordanian banks, it doesn't impact ROE, suggesting that outcomes can vary based on the specific financial measures involved.

This variability indicates a significant gap in research on the impact of ESG on financial outcomes in different company situations. Previous research shows that internal factors, such as company age and size, can influence ESG outcomes (Prameswari Vijaya, 2023). Consider, for example, how established companies often boast better corporate governance, while larger companies often have the means to effectively implement sustainability initiatives. However, empirical research on the implementation of these offsets in Indonesia is limited, especially for companies included in the ESG Star Index, which are considered sustainability leaders. Furthermore, most previous studies have examined ESG as a broad concept rather than its components, meaning we don't know precisely which ESG components generate the greatest returns. Addressing this issue will help us better understand how ESG disclosure impacts the financial performance of companies with different histories.

Therefore, this research aims to assess the impact of disclosure of information about environmental (E), social (S), and governance (G) factors on the financial performance of companies, with special attention to return on assets (ROA) as a key measure. It also examines whether factors such as company age and size modify the relationship between ESG disclosure and financial performance. By focusing on companies listed on the ESG Star Index of the Indonesian Stock Exchange, this study expands the existing knowledge in the field of sustainable accounting and financial management, drawing on recent empirical data from emerging markets. The results are expected to foster more scientific debates on ESG disclosure and deliver actionable insights for company leaders, investors, and policymakers to boost sustainable practices.

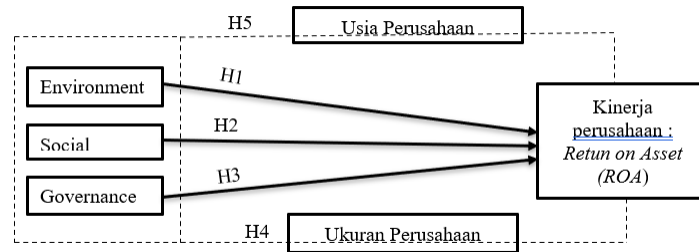


Figure 1. Research Framework

METHOD

This research adopts a quantitative explanatory method to investigate how Environment, Social, and Governance (ESG) disclosure influences company financial performance, as tracked by Return on Assets (ROA), with company size and company age acting as moderating factors. This method was selected because it's effective at objectively outlining the cause-and-effect links between variables using numerical evidence. The data comes from secondary sources, specifically the Sustainability Reports and Annual Reports of companies on the ESG Star Index of the Indonesia Stock Exchange from 2020 to 2024. The sampling method involved purposive sampling based on these criteria: (1) companies listed on the ESG Star Index during 2020–2024, (2) companies that published sustainability reports for the entire observation period, (3) companies with financial reports that included ROA values. From these criteria, we ended up with eight companies that provided balanced panel data over the five-year span.

Table 1. List of Cooperate

No	Nama Perusahaan
1	PT AKR Corporindo TBK
2	PT Bank Central Asia TBK
3	PT Bank Mandiri (Persero) TBK
4	PT Bank Negara Indonesia (Persero) TBK
5	PT Bank Rakyat Indonesia (Persero) TBK
6	PT Bumi Serpong Damai TBK
7	PT Semen Indonesia (Persero) TBK
8	PT Unilever Indonesia TBK

Source: processed data from author,2025

ESG variables are measured through content analysis based on Global Reporting Initiative (GRI) indicators. Each indicator will be given a score of 1 if the disclosure is complete, 0.5 if only partially disclosed, and 0 if there is no disclosure. The ESG value is then obtained from the average of the three scores. Company size is calculated using the natural logarithm of total assets: $Size = \ln(\text{Total Assets})$. Company age is obtained from the difference between the year of the study and the year the company was established. Financial performance variables are measured using the Return on Assets proxy, $ROA = \frac{\text{Net Income}}{\text{Total Asset}}$ namely the ratio of net profit to total company assets. Data analysis was performed using panel data regression using STATA. After a series of tests, the researchers selected a regression model. They first used the Chow test to choose between the pooled least squares

(PLS) model and the fixed-effects (FEM) model. If the p-value was less than 0.05, they used the FM test. Next, they performed the Hausman test to choose between the FEM model and the random-effects (REM) model. If the p-value was greater than 0.05, they used the REM test. Finally, if the results of the Hausman and Chow tests disagreed, they used the Lagrange multiplier test to compare the random-effects model and the pooled least squares model.

Classical hypothesis tests are performed to ensure the validity and robustness of the regression model. These tests include the normality test, which is used to verify that the residuals follow a normal distribution, thus helping to prevent bias in the estimation results. Furthermore, there is the multicollinearity test, which is used to detect excessive correlation between independent variables, which can affect the stability of the regression coefficients. The heteroscedasticity test is used to verify whether the residual variance remains constant or changes. After all these tests are completed and the best model has been identified, hypothesis testing is performed at the 5% significance level. The regression model used in this study is :

$$ROA_{it} = \alpha + \beta_1 ENV_{it} + \beta_2 SOC_{it} + \beta_3 GOV_{it} + \beta_6 (ENV_{it} + SOC_{it} + GOV_{it}) \times Size_{it} + \beta_7 (ENV_{it} + SOC_{it} + GOV_{it}) \times AGE_{it}$$

RESULTS AND DISCUSSION

The selection of regression models in this study was based on statistical considerations using panel data, which combines time series and cross-section data. The three main models used were the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The Chow test was used to compare CEM and FEM, while the Hausman test was used to determine the best model between FEM and REM. The test results showed that the probability values of both tests were $0.0000 < 0.05$, so the most appropriate model to use was the Fixed Effect Model (FEM). This model was considered the most consistent because it accommodated differences in specific characteristics between companies that were fixed during the research period. Next, classical assumption tests were conducted to ensure the validity of the regression model, including tests for normality, multicollinearity, heteroscedasticity, and autocorrelation. The Shapiro–Wilk test results showed that most variables had p-values < 0.05 , meaning that the data were not normally distributed. However, this is not a problem because the sample size ($n=40$) meets the Central Limit Theorem (CLT) requirement, which states that the sample mean will be approximately normally distributed if the sample size is ≥ 30 . Thus, linear regression analysis is still valid because this method is quite robust against violations of normality assumptions as long as there are no extreme outliers. The test results can be seen in Table 2 below.

Table 2. Results of Regression Model Selection and Normality Tests

ROA	Prob > F	0.0000	Chow Test
ROA	Prob > F	0.0000	Hausman Test
Environment	Prob > F	0.66340	Normality Test
Social	Prob > F	0.00000	
Governance	Prob > F	0.00000	
Age	Prob > F	0.02946	
Size	Prob > F	0.01203	

(Source: processed data from author, 2025)

Based on Table 3, the results of the multicollinearity test on the independent variables show that there is a problem of multicollinearity originating from all variables because the VIF value is > 10 . This indicates the presence of multicollinearity, because the three dimensions have a high correlation with each other, resulting in strong multicollinearity.

Table 3. Results of Multicollinearity Test

Variabel	VIF	1/VIF
X1 Environment	260.67	0.003836
X2 Social	332.06	0.003012
X3 Governance	464.70	0.002152
Z1 Size	388.12	0.002577
Z2 Age	10.13	0.098671
Mean VIF		291.14

(Source: processed data from author, 2025)

Heteroscedasticity is a condition in regression analysis where the residual variance or error is not the same between observations. This test is conducted to determine whether the error distribution is constant (homoscedasticity) or varies (heteroscedasticity). If the p-value is < 0.05 , it means there is heteroscedasticity; whereas if the p-value is > 0.05 , the model is considered free from this problem. Based on the test results, a p-

value of 0.07 indicates that the model does not experience heteroscedasticity because the value is greater than 0.05. Thus, the residual variance can be considered uniform across all observations. According to (Baillie, Diebold, Kapetanios, Kim, & Mora, 2024), heteroscedasticity is a phenomenon that commonly occurs in time series data due to changes in residual volatility over time. Therefore, this type of variation is not always a serious problem, but rather a natural characteristic of data that can be overcome with the appropriate estimation method so that the analysis results remain accurate.

Table 4. Results of Hypothesis Testing Before and After Robustness

ROA	Coeff		Std Err		P> t	
	Before	After	Before	After	Before	After
Environment	-29.16421	-18.76097	8.840761	13.58272	0.013	0.183
Social	-29.14591	-15.02764	8.98263	11.93888	0.014	0.223
Governance	-29.92031	-17.09601	8.797525	10.82994	0.011	0.131
ESG x Size	.8793731	.5004988	.2936837	.3407852	0.020	0.158
ESG x Age	-.0226931	-.0153226	.022072	.019928	0.338	0.451

(Source: processed data from author, 2025)

The regression model used in this study is the Fixed Effect Model (FEM) with robust standard error options to overcome potential bias due to violations of classical assumptions. After robust adjustments were made, the estimation results were deemed valid and reliable. Hypothesis testing was conducted to examine the relationship and significance between independent variables and the dependent variable (ROA) as well as the influence of moderating variables (Size and Age).

The analysis results showed a significance value of $0.183 > 0.05$, indicating that the environmental dimension did not have a significant effect on ROA. This indicates that environmental disclosure is more about compliance with regulations (POJK No. 51/POJK.03/2017) than a strategy to increase profitability. Data homogeneity also plays a role, as almost all companies in the sample have already implemented high-level environmental disclosure with little variation. This finding is in line with legitimacy theory that sustainability practices are more directed at maintaining reputation and public acceptance rather than increasing short-term profits.

The social dimension shows a significance value of $0.223 > 0.05$, which means it has no significant effect on ROA. Social activities such as employee training or community programs serve more to build reputation and relationships with stakeholders than to improve asset efficiency. This is consistent with the research by (Ismail & Laksito, 2020), which states that social benefits are more long-term and are not directly reflected in annual profitability. A significance value of $0.131 > 0.05$ indicates that corporate governance also has no significant effect on ROA.

The relatively uniform governance standards at ESG Star companies—such as the existence of an independent board of commissioners and an audit committee—result in low variation between companies. This makes governance a fundamental factor that maintains stability rather than a driver of profitability. In line with the research by (Safriani & Utomo, 2020) the influence of governance is stronger on market indicators such as Tobin's Q than on asset efficiency (ROA).

Company size has a significance value of $0.158 > 0.05$, meaning that it does not moderate the relationship between ESG and ROA. This condition is caused by the homogeneity of the sample, which consists of large companies with high total assets and similar levels of ESG disclosure. Although in theory large companies have greater resources for ESG implementation, the results of the study show that size plays a greater role in shaping social legitimacy than in increasing profitability. A significance value of $0.451 > 0.05$ indicates that company age does not moderate the relationship between ESG and ROA. Although older companies tend to be stable and focused on long-term reputation, and younger companies are more adaptive to innovation, regulatory pressure makes ESG implementation uniform across all companies. As a result, age is no longer a distinguishing factor.

These findings support the results of (Shaban & Barakat, 2023)), which show that moderating variables such as size and age are not always significant in the context of the relationship between ESG and profitability. Overall, the results show that all ESG dimensions and moderating variables do not have a significant effect on ROA. This phenomenon indicates that ESG implementation in Indonesia is still compliance-driven, where companies carry out sustainability disclosures more to meet regulations and public expectations than as a primary strategy for increasing profitability. However, in the long term, ESG practices integrated with business strategies can contribute to stronger economic value and corporate reputation.

CONCLUSION

From the outcomes of the analysis employing the Fixed Effect Model (FEM) panel regression with robust standard errors, it is evident that the adoption of Environmental, Social, and Governance (ESG) principles among firms listed in the ESG Star Index in Indonesia does not exert a significant influence on financial performance, as evaluated through Return on Assets (ROA). The individual components of ESG appear to function primarily as mechanisms for achieving legitimacy and adhering to regulations, rather than as catalysts for immediate financial gains. Additionally, factors such as firm size and age failed to serve as moderators in the relationship between

ESG and ROA, largely because the companies in the sample exhibited relatively uniform traits in terms of asset base and organizational longevity. These results underscore that the effects of ESG on financial performance are shaped by specific contexts, including the metrics applied and the unique attributes of different industries. On a scholarly level, this suggests that ESG practices in Indonesia remain predominantly motivated by regulatory requirements rather than by a genuine pursuit of creating long-term value. Therefore, further research is recommended to extend the observation period, add market-based performance indicators such as Tobin's Q or Return on Equity, and consider industry sector differences in order to capture the long-term relationship between ESG implementation and corporate economic value more comprehensively.

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