

## **The Role of Sustainability Reporting in Driving Financial Performance: Evidence from ESG Star Listed Companies**

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### **ABSTRACT**

This study aims to assess the effect of Environmental, Social, and Governance (ESG) disclosure on firms' financial results, specifically their Return on Assets (ROA) and evaluate the effect of external firm size and age. This study employs a quantitative method, and the population consists of all firms that have been listed on the ESG Star Listed Companies for the years 2020 to 2024. Using purposive sampling, 8 firms that have been consistently listed on the index and have complete sustainability and financial reports were chosen for the study. Data on ESG dimensions were gathered using content analysis of the firms published materials based on the Global Reporting Initiative (GRI) guidelines, while the data on the firms ROA and firm size and age were gathered from the annual reports of the firms. This study employed panel data regression analysis using a fixed effect model and Moderated Regression Analysis (MRA) for hypothesis testing. The results of the study show that none of the ESG dimensions, that is, of the Environmental, Social, and Governance factors, have any statistically significant effect on the firms' ROA. In addition to that, the results show that the age and size of the firm have no moderating effect on the relationship that exists between ESG and the ROA of the firms. The evidence shows that relatively speaking, ESG practices are more about establishing legitimacy and garnering reputation than they are about short term profitability, and we therefore conclude that the concerned companies need to weave ESG principles more deeply into their strategies to create value in the long term.

**Keywords:** ESG; return on assets; firm size; firm age; sustainability.

### **INTRODUCTION**

Technology advancements and changing market dynamics are shifting businesses focus from the single metric of profit. Most businesses are now adopting a holistic approach which involves an integration of environmental, social, and governance (ESG) principles and values within their models and frameworks. This change aims to respond to an international focus on transparency, accountability, and the incorporation of ESG sustainability criteria to tap on organizational accountability frameworks. In sustainability, ESG performance accountability frameworks focus on a corporations performance on non-financial accountability and performance (Shaban & Barakat, 2023). In Indonesia, the guidelines on the regulation of sustainability disclosure are found in regulation No. 51/POJK.03/14017 by the financial services authority of Indonesia. This regulatory framework has been the impetus for the emergence of several positive sustainability performance indicators such as the ESG Leader and ESG Star Index. Even institutional investors and law enforcement practitioners are getting involved. The social and environmental forces as well as the governance (ESG) disclosure is becoming more and more apparent in the business ecosystem as the pressure from social change and Eco Balance concerned citizens intensifies.

The potential insights ESG research from theory to practice have emerged from many different perspectives on the means by which a corporation might meet its sustainability objectives. ESG might be understood as three dimensions, namely: Environmental, Social, and Governance. The Environmental aspect of the initiative focuses on matters such as the mitigation of carbon emissions, enhancement of energy use efficiency, and waste management. Social encompasses the promotion of employee well-being, advocacy for gender equality, community engagements, and the protection of human rights. Governance focuses on the empowerment of managers, the establishment of effective administrative controls, and the promotion of decision-making transparency (Prameswari Vijaya, 2023; Safriani & Utomo, 2020). As a collective, these elements make a good case for a foundation for the promotion of sustainable business growth. Recently, the promotion of ESG information has been considered a means of improving the perception of a corporation, as it presents a way of mitigating risks, fostering new opportunities, and ultimately enhancing the financial bottom line (Shaban & Barakat, 2023). ESG communication correlates positively with investor trust and a firm's competitive market positioning.

Numerous studies indicate that ESG disclosures and financial performance are positively related. For example, Hartomo and Adewibowo (2023) showed that ESG disclosures positively affect return on assets (ROA), financial performance, and financial health within Indonesian industries. This view is consistent with stakeholder theory, which argues that companies that build and nurture positive relationships with stakeholders stand to gain social and economic benefits over time. Likewise, signalling theory argues that sustainability reports contain positive information that investors prefer and, thus, are likely to elicit superior returns. This implies a dedication to good management and active pursuit of growth (Safriani & Utomo, 2020). However, it should be noted that the effects of ESG differ across its constituent parts. Governance, for example, has been found to have the strongest association with financial performance (Hartomo & Adewibowo, 2023). Conversely, while Shaban and Barakat

(2023) suggest that ESG correlates to ROA and financial leverage within the assets of Jordanian banks, it seems to have no bearing on ROE, indicating that the outcomes may depend on the specific financial variables in question.

This inconsistency emphasises a considerable research gap regarding the influence that ESG has on finances across varying companies. Previous studies argue that internal variables like a firm's age and size can shape the potential influence ESG has (Prameswari Vijaya, 2023). Perhaps older firms possess higher governance, whereas larger firms have more resources to implement sustainability more broadly. Much empirical research has been conducted with respect to these moderating variables in Indonesia, particularly with firms in the ESG Star Index, which are regarded as the country's foremost sustainability practitioners. Furthermore, previous studies on ESG have been overly simplistic in their consideration of ESG as a single, uniform construct, and this has potentially considerably stymied the knowledge on which potential facets of ESG are best able to produce value. We take this gap as an opportunity to develop a better understanding of the relationship between ESG disclosure and the financial performance of companies operating in heterogeneous contexts.

The research analyses the effect of disclosing environmental, social, and governance factors on financial performance. With reference to the return on assets, the study also determines the relationship between the age and size of the company, the ESG disclosure, and the financial performance. Gaining access to new data in an emerging market, the research attempts to sustain previously obtained knowledge in sustainable financial management and accounting by concentrating on those firms which are part of the ESG Star Listed Companies. The research is in the field of sustainable accounting and management. The contribution of the study to the social disclosure and ESG related literature is significant and may be of practical use to company leaders, and policymakers interested in fostering ESG sustainable development.

## METHOD

This study seeks to determine the potential relevance of the Environment, Social, and Governance (ESG) factors disclosures on the financial performance of the firm. More specifically, the study seeks to find out the relevance of these disclosures on the firm's financial performance in terms of Return on Assets (ROA) utilising a quantitative explanatory approach. Additionally, this study seeks to investigate the possibility of company size and company age as moderating factors. This approach was chosen because of its ability to establish impact relationships between the variables through a high level of quantitative data. The data has been obtained from secondary data sources, namely; the Sustainability Reports and Annual Reports of companies which are members of the ESG Star Index of the Indonesia Stock Exchange for the years 2020 to 2024. The purposive sampling technique was employed in the sampling process based on the following criteria: The companies included in this study were selected based on the following criteria (1) Companies that were included on the ESG Star Index from 2020 to 2024, (2) Companies that issued sustainability reports for the entire period under consideration, (3) Companies whose financial reports contained ROA information. After careful consideration, eight companies were found to be able to provide balanced panel data for a five-year period. The analysis only uses eight companies, which affects generalisability.

Table 1 : List of Final Sample

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,2025

ESG dimensions are evaluated via content analysis of GRI (Global Reporting Initiative) indicators. For each indicator, full disclosure receives a score of 1, partial disclosure gets 0.5, and non-disclosure earns a score of 0. The overall ESG score is the average of the three indicators. A firm's size is measured as the natural logarithm of their total assets. A firm's age is the difference between the year the study is conducted and the year the firm is founded. Usually, financial performance is measured with return on assets,  $ROA = \frac{\text{Net Income}}{\text{Total Asset}}$  namely the ratio of net profit to total company assets. Panel data regression was performed, a method used for datasets that span across a period of time, and implemented through the STATA software. A regression model was chosen after a series of empirical tests. The Chow test was used first to differentiate between the Ordinary Least Squares (OLS) model and the Fixed Effects Model (FEM). When the p-value was <0.5, the FEM model was used. Next, the Hausman test was used to choose between the Fixed Effects model (FEM) and the Random Effects model (REM). When the p-value was >0.5, the REM model was used. If the results of the Hausman and Chow tests were not aligned, the Lagrange Multiplier test was used to compare the Random Effects model and the Pooled Least Squares model,

respectively. The classical hypothesis tests are used to determine the validity and test the empirical regression model for its robustness. These tests include the normality test, which tests the residuals to determine if they are normally distributed to eliminate bias from the estimates. Also, multicollinearity tests are used to manage problems involving over-correlation of multiple independent variables, as this can adversely affect the stability of regression coefficients. The heteroscedasticity test is one of the statistical tests that are used to determine the condition of constancy or change of the variance of the residuals. After performing these tests and selecting the best model, one proceeds to test the hypothesis at the 5% significance level. The regression model employed in this study is mentioned below

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

**RESULTS AND DISCUSSION**

The statistical rationale focusing on the integration of time series and cross-section data formed the basis of the regression models selection. Empirical result computation of the Chow and Hausman tests showed that the probability values were less than 0.05. This implies that the Fixed Effect Model (FEM) was the most appropriate of the models. This model was considered more preferable due to its more reliable characteristics to account for the differences that were normalised and fixed on the research period to the firms. Thereafter, classical assumption tests were carried out to establish the reliability of the regression model. This involved tests of normality, multicollinearity, heteroscedasticity, and autocorrelation. The result of the Shapiro-Wilk test showed that most of the variables had p values that were less than 0.05 which indicated that the data were normal. However, this is not of concern because the sample size of 40 is sufficient. According to the Central Limit Theorem (CLT) which states that the sample mean will be normally distributed if the sample size  $\geq 30$ , the validity of linear regression analysis is upheld if there is no considerable outlier present. The result of the test is available in table 2.

(Source : data,2025 )  
As Table 3, the multicollinearity independent the presence of stemming from all evidenced by the exceeding 10. This presence of phenomenon high degree of the three dimensions, leading to a significant degree of multicollinearity.

ROA	Prob > F	0.0000	Chow Test
ROA	Prob > F	0.0000	Hausman Test
Envrionment	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	

processed demonstrated in findings of the assessment on the variables indicate multicollinearity variables, as VIF value finding suggests the multicollinearity, a characterized by a correlation between

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	00.002152
Z1_Size	388.12	0.002577
Z2_Age	10.13	0.098671
Mean VIF		291.14

(Source : processed data from author,2025)

Heteroscedasticity, when present in regression analysis, is a phenomenon in which the residual variances and errors are not consistent across the observations. The purpose of regression analysis is to determine whether the variances and errors are constant (homoscedasticity) or not (heteroscedasticity). For the analysis, a p-value smaller than 0.05 confirms the existence of heteroscedasticity, whereas a p-value larger than 0.05 confirms the lack of heteroscedasticity. According to the results of the empirical analysis, a p-value of 0.07 suggests that the model is not heteroscedastic as this is greater than 0.05. This means that the residual variances in the observations are the same. Heteroscedasticity is a poorly behaved phenomenon and is common in time series, as noted in Baillie, Diebold, Kapetanios, Kim, and Mora (2024). As noted, this variability is not a major concern in analysis, as it is common in datasets and can be dealt with when proper methods of estimation are applied to the data.

Table 4: Results of Hypothesis Testing Before and After Robustness

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

(Source : processed data,2025)

In this research, a Fixed Effect Model with robust standard error specifications was used for implementation. Selection of this model was aimed at addressing possible bias arising from breaches of classical assumptions. After thorough adjustments, the results of the estimations were considered to be credible and dependable. Considerable adjustments were made to determine the nature and the magnitude of the association and the significance of the independent variables, and the dependent variable (ROA), as well as to the moderating variables (size and age). This particular investigation employed hypothesis testing. An outcome of the analysis showed a significance level of  $0.183 > 0.05$ , thus the environmental dimension was found to be insignificant to ROA. This implies that environmental disclosure is primarily a matter of compliance with the law (POJK No. 51/POJK.03/2017) and not as a tactic to improve profitability. Data homogeneity is also a contributing condition, whereby the greater part of the sample companies showed high levels of environmental disclosure with little or no heterogeneity. This is consistent with the legitimacy theory, which suggests that the focus of neglecting the short-term maximisation of profit is to uphold the public image and the social licence to operate. The social aspect of this study has a significance value of 0.223, which is greater than 0.05, meaning that it has no relevant impact on ROA. Social activities such as employee training and community service engagement initiatives are designed to improve efficiency on financial assets, but rather focus on reputation and stakeholder management. Ismail & Laksito's (2020) study, which claims social benefits accrue over time and are not directly related to profits, has similar findings. For corporate governance, there is no significant impact on ROA as well, with a significance of 0.131, which is greater than 0.05. This poor variability is a result of similar governance standards of the ESG Star companies which have an independent board of commissioners and an audit committee. This change of view implies that governance is primarily about providing order without being a driver of profit. These findings correspond with Safriani and Utomo's research demonstrating governance's impact on the asset measurement variables less than on the market variables of assets such as Tobin's Q. The results suggest that the size of the company has a considerable impact on the interaction of ESG and ROA as it is estimated at 0.158 which is more than 0.05. The result indicates company size as not a moderator in the relationship of ESG and ROA. This is due to the uniformity of the sample where the primary sample companies are large companies with total assets that are highly considerable with the same value of ESG. On the other hand, large companies are moderated as evidenced by the results of the study that size has a greater impact on social legitimacy. The value of  $0.451 > 0.05$  shows that the age of the company has no moderation in the relationship of ESG and ROA which can be seen that older companies are the stable ones with more reputation while younger companies are the ones with more innovations in place. There is uniform regulation constraint on ESG compliance for all companies which results in age not being a differentiating factor. The research findings are consistent with the moderation either by size or age of the entity and the findings of Shaban and Barakat (2023) in establishing that such moderation is of little consequence in the relationship between ESG and profitability. The findings suggest that the dimensions of ESG, including the moderating factors, do not significantly affect the ROA. This implies that the reasons for the adoption of ESG practices by ESG Star Listed companies are for mere compliance. Companies are mainly obliged to report sustainability information to comply with the relevant regulations, and for the purpose of public relations, without putting it as the primary goal of the strategy to improve profitability. The adoption of ESG practices, in the interrelated or integrated business strategy in the long run, is likely to have positive economic benefits and improve the corporate image or reputation.

## CONCLUSION

The findings, as determined by the Fixed Effect Model (FEM) regression with robust standard errors, indicate that the implementation of Environmental, Social, and Governance (ESG) practices among firms listed in Indonesia's ESG Star Index does not exert a substantial influence on financial performance, as measured by Return on Assets (ROA). The ESG dimensions function primarily as instruments for regulatory compliance and legitimacy-building rather than as catalysts for short-term financial gains. Furthermore, the findings indicate that firm size and age do not moderate the ESG-ROA relationship, as the sampled companies exhibit relatively similar characteristics in asset scale and organizational maturity. These results underscore the context-dependency of the financial

implications of ESG, which are influenced by measurement choices and industry-specific factors. At the scholarly level, the findings indicate that the adoption of ESG practices in Indonesia's Star Listed Companies is predominantly driven by regulatory mandates rather than being a strategic endeavor aimed at long-term value creation. A salient limitation of the present study is the presence of substantial multicollinearity, as evidenced by VIF values that exceed 10. To address this issue, future research should consider merging ESG dimensions into a composite index either through simple averaging or factor analysis or applying Principal Component Analysis (PCA) to reduce variable redundancy. Future studies are encouraged to extend the research period and incorporate additional performance indicators, such as Tobin's Q or Return on Equity (ROE), as well as industry-level comparisons to more accurately capture the long-term economic impact of ESG implementation.

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