



The Effect of Firm Size, Firm Age, and Institutional Investor on Environmental Social Disclosure (ESG)

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Abstract. The disclosure of the company's Environmental, Social, and Governance (ESG) practices is the main topic of this study. The aim of this research is to examine the variables that affect ESG disclosure in the Energy and Basic Material industries, including firm age, size, and institutional investors. In this study, a quantitative research approach was adopted. The study's ESG disclosure data originates from the company's sustainability reports. The purposive sample approach was applied to select 59 firms for the sample. The sample was collected between 2021 and 2022, which is a two-year research period. Multiple linear regression was implemented in the data analysis. The study's findings indicate that while firm size has no influence on ESG factors, firm age, and institutional investors have an impact on ESG disclosure.

Keywords: Firm Size, Firm Age, Institutional Investor, ESG Disclosure

INTRODUCTION

The rapid increase in development and industry has resulted in serious pollution from factory activities such as land clearing and fuel burning, which has an impact on climate change. The United Nation Principles of Responsible Investment encourage various countries to implement ESG aspects in sustainability practices to overcome the impacts arising from corporate activities. Environmental Social Governance (ESG) is one of the non-financial component factors used by stakeholders in make decisions. The presentation of ESG values by a company is a benchmark for how the company is responsible for protecting the environment, sustainability of Natural Resources, the company's relationship with society such as the community around the company, and governance in the company's internal environment ^[1]. Research on ESG disclosure shows that 90% of companies in the S&P 500 category have reported ESG disclosure as a sustainability report. This is driven by investors who use ESG values as an indicator for determining sustainable investment ^[2]. The development of the implementation of ESG reporting in Indonesia also continues to increase. Companies that implement ESG well are considered capable of being responsible in managing long-term goals ^[3]. ESG disclosure is the latest form of development of full disclosure of free corporate information reports, starting with standalone CSR reporting, sustainability reporting and integrated reporting.

ESG value data published in Morningstar Sustainalytics regarding the ESG value of Energy and Basic Materials sector companies listed on the Indonesia Stock Exchange (IDX) found that only 18% of Energy and Basic Materials sector companies reported ESG values and 45% of companies reported ESG values. ESG

has a Severe Risk category, which means it has a serious impact on environmental and social damage. ESG disclosure is the latest form of development of full disclosure of free corporate information reports, starting with standalone CSR reporting, sustainability reporting and integrated reporting. ESG scores are divided into three categories: environmental, social, and governance, where ESG scores are used as an evaluation of sustainability performance [4]

METHODS

This research uses quantitative secondary data research methods using multiple linear regression analysis methods. The population in this study are Energy and Basic Materials sector companies listed on the Indonesia Stock Exchange (IDX). The data source in this research was obtained through the website www.idx.co.id, and the websites of each company in the Energy and Basic Materials sectors. The population in this study has a large number so there are limitations in conducting research on the entire population, so the Slovin formula is used to determine the number of samples that can represent the population. The population in this study was 138 companies. the percentage of error that can be tolerated is 10% (0.1). The calculation of the number of samples in this research is:

$$n = \frac{138}{1 + 138(0,1)^2} = 57.983$$

The following are the measurements used to calculate the variables used:

No	Variables	Variable Definition	Measuring Instrument
1	Firm Size(X1)	A measurement that describes the condition of the assets owned by the company.	$Ln Tot Aset = LN (Total Asset)$ (Novelia & Febyansyah, 2023)
2	Firm Age(X2)	The length of time the company was registered or established.	$AGE = LN (Number of years since incorporation)$ (Anggasta & Suhendah, 2020)
3	Institutional Investor(X3)	the number of company shares owned by institutions outside the company.	$INST = \frac{Total Shares INST}{Outstanding Shares} \times 100\%$ (Idzni & Purwanto, 2017)
4	<i>Environmental Social Governance</i> (Y)	Disclosure of non-financial information regarding sustainability issues includes environmental, social and governance aspects.	$ESG = \frac{Disclosure value}{Maximum Total Disclosure}$ (Roestanto et al., 2022)

RESULTS AND DISCUSSION SUB SECTION

The extent of the research carried out was limited to only analyzing the influences between the independent variables on the dependent variable. Independent variables include firm size (X1), firm age (X2), and institutional investors (X3), and the dependent variable in this research is environmental social governance disclosure (Y). The population used in this research is energy and basic materials sector companies listed on the Indonesia Stock Exchange (IDX) in 2021-2022.

Descriptive Analysis

The first test carried out was descriptive analysis used to provide a description of the variable information used in the research, namely the independent variables which include firm size (X1), firm age (X2), and institutional investors (X3), and the dependent variable in this research is disclosure. environmental social governance (Y).

Variabel	N	Minimum	Maximun	Mean	Std. Deviation
LN ASSETS	118	18.22	39.67	29.4188	2.90798
LN AGE	118	1.10	3.81	2.8047	0.60920
INST	118	0.00	1.00	0.6240	0.27507
ESG	118	0.00	0.99	0.4409	0.30756
Valid N (listwis)	118				

The results of the analysis above show that the standard deviation shows a value that is smaller than the mean value, this means that the mean value can be used as a representation of all the data used.

Normality Test

The normality test is a test used to determine whether the data being analyzed is normally distributed or not. Normality test uses the Normal Kolmogorov-Smirnov test. The criteria used are if the significant value is >0.05 then the data is normally distributed, whereas if it is <0.05 then the data is not normally distributed. The following are the results of the One Sample Kolmogorov-Smirnov test with Monte Carlo:

Unstandardized Residual			
N			118
Normal Parameters ^{a,b}	Mean		0.0000000
	Std. Deviation		0.30113262
Most Extreme Differences	Absolute		0.118
	Positive		0.118
	Negative		-0.067
Test Statistic			0.118
Asymp. Sig. (2-tailed)			.000 ^c
Monte Carlo Sig. (2-tailed)	Sig.		.072 ^d
	99% Confidence Interval	Lower Bound	0.066
		Upper Bound	0.079

Based on analysis using the Kolmogorov-Smirnov test with Monte Carlo, the significance value was 0.072, which means the significance value is $0.072 > 0.05$, so the data used in this research is normally distributed.

Multicollinearity Test

The multicollinearity test is a test used to determine whether there is a linear

relationship between the independent variables in the regression model. The multicollinearity test is one of the requirements in the regression model, namely that the data analyzed does not occur multicollinearity by using the VIF (Variance Inflation Factor) which is obtained between 1-10, if it exceeds the value of 1-10 then multicollinearity occurs.

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	LN ASSETS	0.977	1.023
	LN AGE	0.974	1.027
	INST	0.994	1.006

Based on statistical tests carried out, it shows that the firm size variable interpreted by total assets has a Tolerance value of $0.977 > 0.1$ and a VIF value of $1.023 < 10$, while the firm age variable has a Tolerance value of $0.974 > 0.1$ and a VIF value of $1.027 < 10$, and the institutional investor variable has Tolerance value $0.994 > 0.1$ and VIF value $1.006 < 10$. Based on the analysis results showing that all variables in the research have a Tolerance value > 0.1 , and a VIF value < 10 , it can be concluded that the variables used do not have multicollinearity and the research can be continued.

Autocorrelation test

The autocorrelation test aims to determine whether in linear regression models there is a correlation between confounding errors in period t and confounding errors in period $t-1$ or the previous period. Autocorrelation testing in this research uses the Durbin-Watson test (DW test) with the condition that there is no correlation if $dU < d < 4-dL$ then no autocorrelation occurs and the assumptions are met.

Model	R	Std. Error of the Estimate	Durbin-Watson
1	.203 ^a	0.30507	2.119

Based on the results of the Durbin Watson table above, the d value is $2.119 > dL$ value is 1.64 and in accordance with the assumption $dL < d < 4-2dL$, namely $1.64 < 2.119 < 2.248$, it can be concluded that there is no autocorrelation.

Heteroscedasticity test

The heteroscedasticity test is a test that aims to find out whether in the regression model there is an inequality of variance from the residuals of one observation to another. The heteroscedasticity test in this study uses the Glejser test to detect the presence or absence of heteroscedasticity.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.394	0.176		2.239	0.027
	LN ASSETS	-0.006	0.005	-0.107	-1.142	0.256
	LN AGE	0.014	0.025	0.052	0.553	0.581
	INST	-0.003	0.002	-0.147	-1.582	0.116

Based on the Glejser test carried out, it can be seen that all research variables have a p-value > 0.05 , namely the firm size variable has a value of $0.256 > 0.05$, the firm age variable has a value of $0.581 > 0.05$, and institutional investors have a value of $0.116 > 0.05$. From the test results it can be concluded that heteroscedasticity does not occur in all independent variables used.

F test

The feasibility test or F test is a test carried out to show whether the independent variable (X) in the model is appropriate to the dependent variable. The F test criterion is if $p < 0.05$ then H_0 is rejected and H_a is accepted.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.840	3	0.947	13.116	.000 ^b
	Residual	8.228	114	0.072		
	Total	11.068	117			

The table above shows that the p value < 0.05 is 0.000, which means that this research model is feasible with an F-count of 13.116 and a significant value of 0.000 which is below 0.05.

T Test

The t test is used to analyze the influence of independent variables on independent variables partially by testing hypotheses 1 to 3. The results of the analysis carried out will determine the probability. The hypothesis is declared significant if the value is less than 0.05, if greater it is considered not significant.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.608	0.290		2.098	0.038
	ASSETS	0.013	0.009	0.127	1.556	0.122
	LN AGE	-0.130	0.039	-0.282	-3.349	0.001
	INST	-0.315	0.082	-0.322	-3.857	0.000

- Firm size obtains a coefficient of determination of 0.013 with a significance level of $0.122 > 0.05$ with a calculated t value of 1.556 and smaller than the t table, namely 1.658. The significance value shows that the value is greater than 0.05 and $t < t$ table, so the hypothesis is rejected. The firm size variable cannot influence

the company's ESG disclosure. The company presents ESG disclosures to provide information to stakeholders regarding the company's sustainability efforts in the areas of social, environmental and governance. The extent of presentation of corporate information disclosed by a company is generally influenced by the size of the company. The larger the firm size, the more diverse the types of stakeholders in the company, which causes diversity in stakeholder understanding regarding ESG disclosures reported by the company. Stakeholders are of course more focused on the profitability that

will be generated by the company, even though ESG disclosure in the environmental, social and economic fields is one of the pieces of information that needs to be analyzed to see how the company's operational activities will be in the future.

- Firm age obtained a regression coefficient of -0.130 with a significance level of $0.001 < 0.05$ and $t \text{ count} > t \text{ table}$, namely $3,349 > 1,658$. A significant value indicates that the value is smaller than 0.05 and $t \text{ count} > t \text{ table}$, so the hypothesis is accepted. The firm age variable has a negative effect on ESG disclosure. This research is in line with legitimacy theory, that to fulfill the social contract company management must be able to follow trends in accounting developments, one of which is ESG disclosure. This disclosure is used by stakeholders to analyze sustainability reported by the company so that it can influence stakeholder legitimacy as a reference for decision making. The results of this research also show that the longer a company is listed on the capital market, especially the Indonesian Stock Exchange (BEI), the higher the demand for presenting information, both financial and non-financial information.
- The institutional investor variable obtained a coefficient of -0.315 with a significance level of $0.000 > 0.05$ and $t \text{ count} > t \text{ table}$, namely $3.857 > 1.658$. The significance value shows that the value is smaller than 0.05 and the calculated t is greater than the t table, so the hypothesis is accepted. The institutional investor variable has a negative effect on ESG disclosure. The research results show that institutional investors have an influence on ESG disclosure. The more company shares that institutional investors own in the company, the greater the voting rights that institutional investors have in determining company decisions, one of which is disclosing sustainability reports, namely disclosure of the company's ESG. Currently, investors, in this case institutional investors, in analyzing companies do not only focus on the profitability and economic performance produced by the company, but also analyze how the impact of the company's operational activities will affect the future.

CONCLUSIONS

Based on the analysis and discussion explained in the previous chapter, this research can be concluded as follows:

1. Firm size has no effect on environmental social governance disclosure. The higher the firm size, the higher the number of stakeholders in the company and the limited understanding of ESG disclosure.
2. Firm age influences environmental social governance disclosure. The older the company, the better and more complete the company is in presenting company information, one of which is ESG disclosure.
3. Institutional investors influence environmental social governance disclosures. The greater the number of institutional investors, the greater the voting rights of institutional investors in decision making, one of which is reporting full company information, one of which is ESG disclosure.

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