

The Impact of ESG Disclosure, Audit Quality, Institutional Ownership, and Independent Commissioners on Firm Performance in Basic Materials Companies in Indonesia

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Keywords:	Abstract
ESG Disclosure; Audit Quality; Institutional Ownership; Independent Commissioners; Return on Assets; Company Performance	Corporate performance is increasingly evaluated not only through profitability but also through sustainability practices and corporate governance mechanisms. This study aims to examine the effects of Environmental, Social, and Governance (ESG) disclosure, audit quality, institutional ownership, and independent commissioners on the financial performance of Basic Materials companies listed on the Indonesia Stock Exchange. A quantitative explanatory approach was employed using secondary data from annual reports, sustainability reports, and financial statements for the 2023–2025 period. Purposive sampling produced 51 companies and 153 firm-year observations. Firm performance was measured using Return on Assets (ROA), while ESG disclosure was assessed using the ESG Disclosure Index based on the GRI Standards 2021. Multiple linear regression analysis was applied with firm size, company age, and leverage as control variables. The results show that ESG disclosure, audit quality, and independent commissioners have positive and significant effects on ROA, whereas institutional ownership has a negative and significant effect. The control variables do not significantly affect firm performance. The adjusted R-squared value of 8.8% indicates limited explanatory power. The study concludes that sustainability transparency and effective governance mechanisms can contribute to improved corporate financial performance, although additional determinants should be considered in future research within Basic Materials companies.

INTRODUCTION

Company performance is one of the main indicators used to assess the company's success in creating economic value while maintaining the sustainability of its business. As attention to sustainability issues increases, company performance assessments no longer only focus on the ability to generate profits, but also on the company's ability to manage environmental, social, and governance aspects of ESG Disclosure. This paradigm shift was strengthened by the issuance of IFRS Sustainability Disclosure Standards, namely IFRS S1 (General Requirements for Disclosure of Sustainability-related Financial Information) and IFRS S2 (Climate-related Disclosures) by the International

Sustainability Standards Board (ISSB), which encourages companies to deliver sustainability information in a more transparent, consistent, and comparable manner. In Indonesia, the commitment to sustainability reporting is also further strengthened through the provisions of the Financial Services Authority (OJK), especially POJK Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance, which requires financial service institutions, issuers, and public companies to prepare sustainability reports as a form of accountability to stakeholders. The development of these regulations shows that ESG disclosure has become one of the important aspects that investors consider in assessing the company's prospects and sustainability, so that the implementation of ESG is expected to be able to increase investor confidence while encouraging improvements in company performance (Arvidsson & Dumay, 2022; Hazen, 2020; Ho & Park, 2019; Oliver Yébenes, 2024; Zenkina, 2023).

The Basic Materials sector is one of the strategic sectors that plays a role as a provider of raw materials for the manufacturing, construction, energy, and infrastructure industries. However, this sector also has a relatively higher level of natural resource exploitation, energy consumption, and greenhouse gas emissions than other sectors, making it one of the sectors that faces the greatest pressure in the implementation of sustainable business practices. Based on DitchCarbon data, the percentage of representation of issuers in the Basic Materials sector that obtained the best ESG score only ranges from 8% to 16%, which shows that most companies in this sector still have a suboptimal level of disclosure and quality of ESG implementation. In addition, DitchCarbon also noted that PT Semen Indonesia (Persero) Tbk will produce a total emission of around 26.05 million tons of CO₂ equivalent (CO₂e) by 2024, making it one of the companies with the highest emission levels in the Basic Materials sector. The high emissions show that companies still face challenges in balancing financial performance with environmental impact management. This indicates that although sustainability reporting is growing, the implementation of ESG in companies in the Basic Materials sector has not been fully able to meet the demands of sustainable business practices (Chopra et al., 2024; Fagbemi et al., 2025; Gürlevük, 2024; Krasteva-Hristova et al., 2025; Nielsen, 2023).

In addition to ESG implementation, the effectiveness of the Good Corporate Governance mechanism is also estimated to play a role in improving company performance. Good Quality Audit can increase the credibility of financial statements and reduce information asymmetry between management and investors. Institutional Ownership functions as a mechanism for supervision of management actions, while Independent Commissioners play a role in maintaining the objectivity of decision-making and ensuring the implementation of good corporate governance. The integration between ESG practices and the Good Corporate Governance mechanism is expected to improve operational efficiency, strengthen investor confidence, and create sustainable corporate value.

However, the results of previous research on the influence of ESG disclosure, Audit Quality, Institutional Ownership, and Independent Commissioners on company

performance still show inconsistent results. Some studies have found that ESG disclosures are able to improve a company's performance through increased reputation and investor trust, while other studies show that ESG implementation has not had a significant impact on profitability, especially in the short term. Inconsistencies in the research results also occur in the variables of Audit Quality, Institutional Ownership, and Independent Commissioners, so that there are no consistent conclusions regarding the factors that affect the company's performance. The difference in the results of the study shows that there is a research gap that needs to be studied further, especially in companies in the Basic Materials sector which have higher operational characteristics, emission levels, and environmental risks than other sectors

Based on this phenomenon, this research has several novelties. First, the study uses the 2023–2025 observation period, which represents the latest developments in the implementation of sustainability reporting following the increasing adoption of global sustainability reporting standards. Second, the research is focused on companies in the Basic Materials sector that have higher environmental and social risk characteristics than other sectors. Third, the study integrates ESG disclosures measured using the ESG Disclosure Index based on GRI Standards 2021 with the Good Corporate Governance mechanism which includes Audit Quality, Institutional Ownership, and Independent Commissioners in one empirical model to explain the performance of companies proxied by Return on Assets (ROA). Therefore, this study is expected to provide empirical evidence on the effectiveness of ESG implementation and corporate governance mechanisms in improving company performance, as well as a reference for companies, investors, regulators, and academics in supporting the implementation of sustainable business practices.

METHOD

This study used a quantitative approach with an explanatory research method. The study aims to analyze the influence of ESG Disclosure, Audit Quality, Institutional Ownership, and Independent Commissioners disclosure on the performance of companies proxied with Return on Assets (ROA). The data used is secondary data obtained from the annual report, sustainability report, and financial statements of companies in the Basic Materials sector listed on the Indonesia Stock Exchange (IDX) for the 2023–2025 period. All data is obtained through the official website of the Indonesia Stock Exchange (www.idx.co.id) and the official website of each company.

The research population is all companies in the Basic Materials sector listed on the Indonesia Stock Exchange during the period 2023–2025. The sampling technique uses purposive sampling, which is a method of selecting samples based on certain criteria to suit the research objectives and be able to provide relevant data to answer the formulation of the problem. One of the main criteria in this study is that companies publish Sustainability Reports consistently during the 2023–2025 period. This criterion was set because the ESG Disclosure variable is measured based on the information disclosed in the Sustainability Report. Therefore, only companies that consistently publish

sustainability reports can provide complete, consistent, and comparable ESG data between observation periods.

The selection of companies that publish Sustainability Reports consistently also aims to improve the validity and reliability of ESG variable measurements and minimize potential bias caused by incompleteness or inconsistencies in disclosure data. Thus, the results of the analysis are expected to be better able to reflect the true relationship between ESG Disclosure, Audit Quality, Institutional Ownership, Independent Commissioners, and company performance. Based on the selection process using these criteria, 51 companies were obtained that met the requirements as research samples. With an observation period of three years (2023–2025), the number of observations used in this study is 153. Although the use of these criteria led to a more limited sample count, this approach was chosen to maintain the quality of the data and improve the reliability of the research results, so that the findings obtained were based on companies that have a commitment to sustainability reporting on an ongoing basis.

Table 1. Research Sample Selection Criteria

Indicator	Quantity
Companies in the Basic Materials sector listed on the IDX in 2023–2025	114
Companies that do not publish Sustainability Reports consecutively	39
Companies that incurred losses during the 2023-2025 research period	15
Companies that use currencies other than Rupiah	0
Companies with incomplete research data	9
Number of eligible companies	51
Observation period	3 years
Total observations (51 x 3)	153

The dependent variable in this study is the performance of the company that is proxied using Return on Assets (ROA), which is the comparison between net profit after tax and the company's total assets. In this study, the company's performance was proxied using Return on Assets (ROA). ROA was chosen because it was able to show the level of effectiveness of the company in using all assets to generate profits.

Formula:

$$\text{ROA} = (\text{Net Profit After Tax} / \text{Total Assets}) \times 100\%$$

The first independent variable is ESG Disclosure which is measured using the ESG Disclosure Index (ESGDI) based on the Global Reporting Initiative (GRI) Standards 2021. The GRI 2021 standard was chosen because it is an internationally recognized sustainability reporting guideline and has been widely used as a reference in measuring the level of a company's ESG disclosure. The measurement is carried out using the content analysis method, which is by identifying each indicator disclosed in the company's

sustainability report and annual report. Each indicator disclosed is given a score of 1, while an undisclosed indicator is given a score of 0.

This study uses 117 disclosure indicators based on GRI Standards 2021, consisting of general disclosures (GRI 2: General Disclosures), material disclosures (GRI 3: Material Topics), and specific topic indicators that include Environmental, Social, and Governance dimensions in accordance with the information disclosed by each company. The value of the ESG index is calculated by comparing the number of indicators disclosed by the company with the number of all indicators used in the research, using the following formula:

$$\text{ESGDI} = \sum X_i / 117$$

Description:

ESGDI = Environmental, Social, and Governance Disclosure Index;

$\sum X_i$ = the number of ESG indicators disclosed by the company;

117 = the total number of disclosure indicators based on the GRI Standards 2021.

The higher the ESGDI score indicates the wider the level of disclosure of a company's ESG information, which reflects the company's commitment to sustainable business practices and transparency to stakeholders.

The Audit Quality variable is measured using a dummy variable, which is a value of 1 if the company's financial statements are audited by a Public Accounting Firm (KAP) affiliated with the Big Four, and a value of 0 if audited by a non-Big Four KAP.

Institutional Ownership is measured by comparing the number of shares owned by institutional investors to the number of shares outstanding. Meanwhile, Independent Commissioners are measured using the proportion of the number of Independent Commissioners to the total members of the company's board of commissioners.

Formula:

$$\text{KI} = (\text{Number of Institutional Shares} / \text{Total Outstanding Shares}) \times 100\%$$

Independent Commissioners are members of the board of commissioners who have no interest relationship with management or controlling shareholders. The measurement of Independent Commissioners is carried out based on the proportion of the number of Independent Commissioners to the total members of the board of commissioners.

Formula:

$$\text{Independent Commissioners} = (\text{Total Independent Commissioners} / \text{Total Board of Commissioners}) \times 100\%$$

In addition to the main variables, this study uses three control variables, namely Firm Size, Company Age, and leverage. The size of a company is measured using the natural logarithm of total assets (Ln Total Assets), because it reflects the amount of resources that the company has. The age of a company is measured based on the difference between the year of research and the year the company was first established or

listed on the Indonesia Stock Exchange. Leverage is measured using the Debt to Asset Ratio (DAR), which is total liabilities divided by total assets. The three control variables are included in the regression model to control the influence of company characteristics on the company's performance so that the relationship between independent variables and dependent variables can be estimated more accurately.

Data Analysis Techniques

Data analysis in this study was carried out using the help of a statistical program. The stages of analysis include:

Descriptive Statistical Analysis

Descriptive statistical analysis is used to provide an overview of the characteristics of research data through the following values:

- a. Minimum score
- b. Maximum value
- c. Average score
- d. Standard deviation

Classic Assumption Test

Classical assumption tests are performed to ensure that the regression model meets statistical requirements.

a. Normality Test

The normality test aims to find out whether the research data is distributed normally.

Decision-making criteria:

A significance value of > 0.05 indicates a normally distributed data.

A significance value of < 0.05 indicates that the data is not normally distributed.

b. Multicollinearity Test

The multicollinearity test aims to find out if there is a strong relationship between independent variables.

Criteria:

Tolerance value > 0.10 .

Variance Inflation Factor (VIF) value < 10 .

c. Heteroscedasticity Test

The heteroscedasticity test aims to find out whether there is a residual variance inequality in the regression model.

d. Autocorrelation Test

The autocorrelation test aims to find out if there is a relationship between disruptive errors in the study period.

Multiple Linear Regression Analysis

This study uses multiple linear regression analysis to determine the influence of independent variables on dependent variables.

The research model becomes

$$ROA = \beta_0 + \beta_1ESGD + \beta_2AQ + \beta_3IO + \beta_4IC + \beta_5SIZE + \beta_6LEV + \beta_7AGE + \varepsilon$$

Where:

ROA = Profitability/Company Performance
 $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ = Regression coefficient
 ESGD = ESG Disclosure
 AQ = Audit Quality/Audit Quality
 IO = Institutional Ownership/Institutional Ownership
 IC = Independent Commissioner/Independent Commissioners
 SIZE = Firm Size/Ukuran Perusahaan
 LEV = Leverage
 AGE = Firm Age/Company Age
 ε = error

Hypothesis

The Stakeholder Theory put forward by Freeman (1984) explains that the company is not only responsible to shareholders, but also to all stakeholders, such as investors, government, society, employees, and the environment. One form of this responsibility is realized through the disclosure of ESG Disclosure information. Quality ESG disclosure demonstrates the company's commitment to implementing sustainable business practices so that it can increase the legitimacy, reputation, and trust of stakeholders in the company.

Increasing stakeholder trust will strengthen the company's image, facilitate access to funding sources, increase customer loyalty, and reduce business risks. This condition is ultimately expected to be able to increase operational efficiency and company profitability as reflected in the Return on Assets (ROA). Thus, based on Stakeholder Theory, the better the disclosure of ESG information, the better the company's performance.

H1 : ESG Disclosure information has a positive effect on company performance (ROA)
 Agency Theory put forward by Jensen and Meckling (1976) explains that there is a conflict of interest between management as an agent and shareholders as principals due to differences in objectives and information asymmetry. One of the mechanisms used to reduce such conflicts is quality external audits.

High Quality Audits, for example through the use of Big Four Public Accounting Firms (KAP), are able to increase the credibility of financial statements, detect material misstatements, and suppress profit management practices. Reliable financial reporting will increase investor and creditor confidence, reduce agency problems, and encourage more effective economic decision-making. This condition is expected to be able to improve the efficiency of the company's asset management so that it has an impact on increasing Return on Assets (ROA). Based on Agency Theory, the higher the Audit Quality, the better the company's performance.

H2: Quality Audit has a positive effect on company performance (ROA).

Agency Theory states that Institutional Ownership is one of the supervisory mechanisms that can reduce conflicts of interest between management and shareholders. Institutional

investors generally have better capabilities, resources, and experience in monitoring management policies than individual investors.

The greater the proportion of Institutional Ownership, the stronger the supervisory function of the opportunistic actions of management so that the decisions taken are more oriented towards increasing the company's value. Effective supervision is expected to improve the company's operational efficiency and produce higher profitability which is reflected in the Return on Assets (ROA).

Thus, based on Agency Theory, Institutional Ownership is estimated to be able to improve company performance.

H3 : Institutional Ownership has a positive effect on company performance (ROA).

Agency Theory explained that Independent Commissioners are one of the mechanisms of Good Corporate Governance that functions to supervise management actions to remain in line with the interests of shareholders. Independent Commissioners are expected to be able to carry out their supervisory functions objectively because they do not have an interest relationship with the company's management.

Effective supervision will reduce agency conflicts, increase transparency, improve the quality of decision-making, and encourage the implementation of good corporate governance. By reducing agency problems, companies can improve the efficiency of asset use and generate better financial performance, which is reflected in an increase in Return on Assets (ROA).

According to Agency Theory, the greater the proportion of Independent Commissioners, the better the company's performance.

H4: Independent Commissioners have a positive effect on company performance (ROA).

RESULTS AND DISCUSSION

Table 2. Descriptive Statistical Analysis

	Descriptive Statistics				
	N	Minimum	Maximum	Red	Std. Deviation
Y Kinerja Perusahaan	153	-5.47	18.48	6.2238	5.98299
X1 ESG	153	.557	.962	.76093	.108511
X2 Kualitas Audit	153	0	1	.51	.502
X3 Kepemilikan Konstitusional	153	31.08	91.21	60.5760	16.99927
X4 Komisaris Independen	153	33	60	43.40	7.934
K1 Umur	153	14	38	26.59	7.246
K2 Leverage	153	.24	2.45	1.3437	.64425
K3 Ukuran	153	25.04	34.83	29.9045	2.91425
Valid N (listwise)	153				

Based on the results of the study, the disclosure of ESG Disclosure information does not have a significant effect on the company's performance as measured using Return on Assets (ROA). This shows that the high level of ESG disclosure in Basic Materials

sector companies listed on the Indonesia Stock Exchange for the 2023-2025 period has not been able to improve the company's ability to generate profits from its assets.

The results of the descriptive analysis show that the average value of the company's ROA is 6.2238, with a low value of -5.47 and a high value of 18.48. The average value shows that in general, the sample company is still able to make a profit from the assets owned. In addition, the standard deviation value of 5.98299, which is smaller than the average, indicates that the difference in profitability levels between companies is relatively not very large.

Meanwhile, the ESG variable has an average value of 0.76093 or around 0.7609, with a low value of 0.557 and a high value of 0.962. The figures show that most companies have disclosed ESG information quite well. The standard deviation of 0.108511 also indicates that the level of ESG disclosure between companies is relatively uniform. However, the high level of ESG disclosure has not been able to have a direct impact on increasing ROA.

The results of this study are different from the research of Abdi et al. (2022) which stated that ESG disclosure can improve company performance through increasing the company's reputation and investor trust. This study is also not in line with Zhang et al. (2023) who found that companies with good ESG quality tend to have higher performance because ESG implementation is able to reduce managerial opportunistic behavior. However, the results of this study are in line with several other studies that state that the benefits of ESG implementation are more felt in the long term so that its effect on short-term profitability has not been seen in real terms.

The insignificance of the influence of ESG on ROA is suspected to be due to the characteristics of companies in the Basic Materials sector that require considerable investment to implement environmental, social, and corporate governance practices. In the initial stage, the investment increases operational costs so that the economic benefits have not been able to increase the company's profits. In addition, during the research period the company was still in the adjustment stage to sustainability reporting standards, so ESG disclosure was done more to meet regulatory demands than as a strategy to increase profitability.

This finding is in accordance with Stakeholder Theory, which explains that companies have a responsibility not only to shareholders, but also to all stakeholders. Through the implementation of ESG, the company seeks to meet the expectations of stakeholders. However, the economic benefits of ESG implementation will generally only be felt if the implementation is carried out consistently, sustainably, and becomes part of the company's business strategy.

In addition to ESG variables, this study also describes the characteristics of other variables. The Audit Quality variable, which was measured using dummy variables (0 for non-Big Four Public Accounting Firms and 1 for Big Four), had an average value of 0.51. This shows that the number of companies audited by the Big Four and non-Big Four KAP is relatively balanced, although slightly more companies use the services of the Big Four KAP.

The Institutional Ownership variable has an average value of 60.5760, with a minimum value of 31.08 and a maximum value of 91.21. This data shows that more than half of the company's shares are generally owned by institutional investors. Meanwhile, the standard deviation value of 16.99927 indicates that there is a considerable difference in the level of Institutional Ownership between companies.

Furthermore, the Independent Commissioners variable has an average of 43.3978%, with the lowest value of 33.33% and the highest of 60.00%. The results show that most companies have met the requirements regarding the proportion of Independent Commissioners. The relatively small standard deviation of 7.93420% shows that the proportion of Independent Commissioners between companies does not have too large a difference.

Overall, the results of this study show that although companies already have a fairly high level of ESG disclosure, ESG implementation has not been able to improve company performance in the short term. Therefore, companies need to significantly improve the quality of ESG implementation and make it part of their business strategy, not just as a fulfillment of reporting obligations. Thus, ESG benefits are expected to provide added value for companies and improve financial performance in the long run.

Classis Assumption Test

Table 3. Normality Test

		One-Sample Kolmogorov-Smirnov Test							
		Y_Kin erja_P erusah aan	X1_E SG	X2_ Kuali tas_A udit	X3_Ke pemilik an_Kon stusio nal	X4_K omisar is_Ind epende n	K1_ Umu r	K2_ Leve rage	K3_U kuran
N		153	153	153	153	153	153	153	153
Normal Paramete rs, b	Red	6.2238	.7609	.51	60.576	43.40	26.5	1.343	29.904
			3		0		9	7	5
	Std. Deviati on	5.9829	.1085	.502	16.999	7.934	7.24	.6442	2.9142
		9	11		27		6	5	5
Most Extreme Differenc es	Absolut e	.088	.071	.346	.109	.248	.142	.094	.073
	Positive	.068	.071	.335	.092	.215	.142	.094	.072
	Negativ e	-.088	-.057	-.346	-.109	-.248	- .128	-.093	-.073
Test Statistic		.088	.071	.346	.109	.248	.142	.094	.073
Asymp. Sig. (2- tailed)		.005c	.055c	.000c	.000c	.000c	.000 c	.002c	.047c
a. Test distribution is Normal.									
b. Calculated from data.									
c. Lilliefors Significance Correction.									

Based on the results of the normality test using the Kolmogorov-Smirnov method, the ESG Disclosure variable has a significance value of 0.055, which is greater than 0.05, so it can be concluded that the ESG variable data is normally distributed. In contrast, the variables of Company Performance (ROA), Audit Quality, Institutional Ownership, and Independent Commissioners have significance values of 0.005, 0.000, 0.000, and 0.000, which are smaller than 0.05, respectively. These results show that individually the four variables are not normally distributed.

However, these results do not necessarily indicate that the regression model is not feasible to use. This study used 153 observations, so that the number of samples met the criteria for a large sample (more than 30 observations). At large sample sizes, the Kolmogorov-Smirnov assay is known to be very sensitive to small deviations from the normal distribution, so even data that visually approaches the normal distribution can produce significance values below 0.05. Therefore, the results of the normality test on each variable cannot be used as the only basis in determining the fulfillment of the normality assumption.

According to Ghazali (2021), in linear regression analysis, the normality assumption that must be met is not the normality of each research variable, but the residual normality or error of the regression model. Residual is the difference between the actual value and the predicted value produced by the regression model. If the residual is normally distributed, then the regression model is considered to have met the assumption of normality even though there are several research variables that are individually not normally distributed.

Thus, normality testing in this study is focused on unstandardized residuals, because residual is the basis used in testing classical regression assumptions. This approach is in accordance with regression theory which states that the purpose of normality tests is to ensure that the estimation of regression parameters is unbiased and that statistical tests, such as t-tests and F-tests, can produce valid conclusions. Therefore, regression analysis in this study can still be continued as long as the residual model meets the assumption of normality.

Table 4. Multicollinearity Test

		Coefficient	
Models		Collinearity Statistics	
		Tolerance	VIF
1	X1 ESG	.754	1.326
	X2 Kualitas Audit	.790	1.266
	X3 Kepemilikan Konstitusional	.842	1.187
	X4 Komisaris Independen	.801	1.248
	K1 Umur	.951	1.052
	K2 Leverage	.963	1.039
	K3 Ukuran	.959	1.042
a. Dependent Variable: Y Kinerja Perusahaan			

Based on the results of the multicollinearity test, all independent variables in this study met the criteria for non-occurrence of multicollinearity. The ESG Disclosure variable has a Tolerance value of 0.754 and a Variance Inflation Factor (VIF) of 1.326. The Audit Quality variable has a Tolerance value of 0.790 and VIF of 1.266. Furthermore, the Institutional Ownership variable obtained a Tolerance value of 0.842 and VIF of 1.187, while the Independent Commissioners variable had a Tolerance value of 0.801 and VIF of 1.248.

All variables had a Tolerance value greater than 0.10 and a VIF less than 10, so it can be concluded that there is no high correlation between independent variables in the regression model. These results show that each independent variable is able to explain different information and does not replace each other in explaining variations in company performance.

According to Ghozali (2021), a regression model is declared free of multicollinearity symptoms if the Tolerance value is greater than 0.10 and the VIF value is less than 10. A high Tolerance value indicates that most variations of an independent variable cannot be explained by other independent variables. Meanwhile, the low VIF value indicates that the relationship between independent variables is still at an acceptable level so that it does not interfere with the process of estimating the regression coefficient.

The absence of symptoms of multicollinearity in this study shows that the variables of ESG, Audit Quality, Institutional Ownership, and Independent Commissioners are relatively independent variables from each other. Thus, each variable can be analyzed to determine its effect on the company's performance without causing distortion due to too strong a relationship between independent variables.

Therefore, the regression model used in this study has fulfilled one of the classic assumptions, so that the results of the regression coefficient estimation, t-test, and F test can be interpreted more accurately and reliably. With the fulfillment of the multicollinearity assumption, multiple linear regression analysis is feasible to test the research hypothesis.

Table 5. Heteroscedasticity Test

Models	Coefficient			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	1.559	2.351		.663	.508
X1 ESG	6.175	4.746	.105	1.301	.195
X2 Kualitas Audit	5.431	1.165	.364	4.662	.074
X3 Kepemilikan Konstitusional	-.005	.035	-.011	-.133	.894
X4 Komisaris Independen	.092	.064	.114	1.442	.152
K1 Umur	-.083	.062	-.103	-1.333	.185
K2 Leverage	-.782	.466	-.126	-1.677	.096
K3 Ukuran	-.191	.095	-.149	-2.007	.047
a. Dependent Variable: Abs RES					

Based on the results of the heteroscedasticity test using the Glejser method, the significance value for the ESG Disclosure variable was 0.195, Audit Quality was 0.074, Institutional Ownership was 0.894, and Independent Commissioners was 0.152. All of these significance values are greater than the significance level of 0.05, so it can be concluded that each independent variable has no significant effect on the absolute residual value. Thus, the regression model does not experience symptoms of heteroscedasticity, which means that residual variance is constant (homoscedastis). This condition shows that the regression model has fulfilled one of the classical assumptions, so that the results of the regression coefficient estimation can be considered more reliable and do not experience deviations due to residual variance inequality. Therefore, the regression model used in this study is feasible to proceed to the hypothesis testing stage, either through partial tests (t-test) or simultaneous tests (F-tests), because there is no indication of violations of heteroscedasticity assumptions.

The absence of symptoms of heteroscedasticity indicates that the residual variance in the regression model is constant or homogeneous (homoskedastic) at each level of independent variables. This means that the spread of errors from the model's prediction results is relatively the same for all observations, so there is no specific pattern that indicates a residual variance inequality. This condition shows that changes in the values of ESG Disclosure, Audit Quality, Institutional Ownership, and Independent Commissioners do not cause systematic changes in the residual amount.

The fulfillment of the assumption of homoskedasticity is one of the important requirements in multiple linear regression analysis because it is related to the accuracy of the regression coefficient estimation. Although violations of the heteroscedasticity assumption do not necessarily cause the regression coefficient to be biased, it can result in an inaccurate standard of error. As a result, the statistical values of the t-test and F-test used to test the significance of the influence of each variable as well as the influence simultaneously can become less reliable. Therefore, the absence of heteroscedasticity in this study indicates that the standard error generated by the model has been accurately estimated so that hypothesis testing can be carried out with a higher level of confidence.

Table 6. Autocorrelation Test

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.478a	.228	.191	4.135	1.673
a. Predictors: (Constant), K3_Ukuran, X4_Komisaris_Independen, X2_Kualitas_Audit, K1_Umur, K2_Leverage, X3_Kepemilikan_Konstitusional, X1_ESG					
b. Dependent Variable: Y_Kinerja_Perusahaan					
d	dl	of the	4 - dl	4 - of	
1,973	1.6412	1, 8322	2,3588	2,1668	

Based on the results of the autocorrelation test using the Durbin-Watson method, it shows that the Durbin-Watson value (DW) is 1.673, while based on the Durbin-Watson table, the lower limit (dL) value is 1.6412 and the upper limit (dU) is 1.8322. The results show that the DW value is smaller than the dL value ($1.673 > 1.6412$). Based on the decision-making criteria of the Durbin-Watson test, this condition indicates a positive autocorrelation in the residual regression model. Thus, the residual in one observation has a relationship with the residual in the other observation, so the residual independence assumption in the regression model has not been fulfilled. The existence of autocorrelation can cause the estimation of regression coefficients to be less efficient and result in the results of statistical tests, such as t-tests and F-tests, to be less accurate. Therefore, it is necessary to improve the model, for example by transforming the data, adding relevant independent variables if there are important variables that have not been included in the model, or applying estimation methods that are able to overcome autocorrelations, such as Cochrane–Orcutt, Prais–Winsten, or regression with robust standard errors (Newey–West).

Table 7. Test F

NEW ERA						
Models		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	187.108	7	26.730	3.097	.004b
	Residual	1,251.352	145	8.630		
	Total	1,438.460	152			
a. Dependent Variable: Abs RES						
b. Predictors: (Constant), K3_Ukuran, X4_Komisaris_Independen, X2_Kualitas_Audit, K1 Umur, K2 Leverage, X3 Kepemilikan Konstitusional, X1 ESG						

An F test result of 0.004 which is below the threshold value of 0.05 indicates that all the independent variables in your study together or simultaneously have a significant influence on the bound variables. In practical terms, these results show that the combination of independent factors you are studying is not just a coincidence, but actually able to explain changes in dependent variables. Therefore, the regression model used is declared to be very feasible, valid, and has a good level of accuracy to be used in data analysis or predicting future research results.

Table 8. R² Test

Model Summary				
Model s	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.361a	.130	.088	2.937688
a. Predictors: (Constant), K3_Ukuran, X4_Komisaris_Independen, X2_Kualitas_Audit, K1_Umur, K2_Leverage, X3_Kepemilikan Konstitusional, X1_ESG				

The Adjusted R² value of 8.8% indicates that the independent variables used in the study, namely ESG disclosure, audit quality, institutional ownership, and independent commissioners, were only able to explain 8.8% of the company's performance variation

(ROA). Meanwhile, 91.2% of the variation in the company's performance was influenced by factors other than the research model that were not included in the analysis.

A relatively low Adjusted R² value does not mean that the research model is not good or the research results are wrong. This is quite common in research in the fields of economics, management, and finance because a company's performance is influenced by many factors, both internal and external factors. These factors include sales growth, liquidity, operational efficiency, capital structure, other corporate governance, macroeconomic conditions, interest rates, inflation, and industry conditions.

Multiple Linear Regression Analysis

Table 9. Multiple Linear Regression Results

Models		Coefficient			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-1.255	6.986		-.180	.858
	X1 ESG	10.776	4.577	.195	2.355	.020
	X2_Kualitas_Audit	3.833	.968	.321	3.961	.000
	X3_Kepemilikan_Konstitusional	-.061	.028	-.174	-2.210	.029
	X4_Komisaris_Independen	.174	.061	.231	2.873	.005
	K1 Umur	-.111	.061	-.135	-1.827	.070
	K2 Leverage	-.965	.682	-.104	-1.415	.159
	K3 Ukuran	-.076	.151	-.037	-.506	.614
a. Dependent Variable: Y_Kinerja_Perusahaan						

$$\text{ROA} = -1.255 + 10.776\beta_1 + 3.833\beta_2 - 0.061\beta_3 + 0.174\beta_4 + 0.111\beta_5 - 0.965\beta_6 - 0.076\beta_7 + \varepsilon$$

The interpretation of the regression equation is as follows.

1. The constant (β_0) of -1.255 indicates that if all independent variables, namely ESG Disclosure (ESGD), Audit Quality (AQ), Institutional Ownership (IO), Independent Commissioners (IC), Company Size (SIZE), Leverage (LEV), and Company Age (AGE) are considered to be zero, then the Company Performance value (ROA) is estimated to be -1.255. This constant value only represents the starting point of the regression model and has no strong economic significance because in practice all independent variables cannot be zero at the same time.
2. An ESG Disclosure Coefficient (ESGD) of 10.776 indicates that any increase of one unit of ESG disclosure, assuming another variable remains (*ceteris paribus*), will increase ROA by 10.776 units. A positive coefficient indicates a one-way relationship between ESG disclosures and company performance, although such an influence needs to be proven through significance testing.

3. An Audit Quality Coefficient (AQ) of 3.833 indicates that companies audited by the Big Four Public Accounting Firm (KAP) (dummy value = 1) are estimated to have a ROA of 3.833 points higher than companies audited by non-Big Four KAP (dummy value = 0), assuming other variables are constant. A positive coefficient shows that Audit Quality has a positive relationship with the company's performance.
4. The Institutional Ownership (IO) coefficient of -0.061 indicates that every increase in Institutional Ownership by one unit will decrease the ROA by 0.061 units, assuming other variables remain the same. The negative coefficient shows the opposite relationship between Institutional Ownership and the company's performance.
5. The Independent Commissioners (IC) coefficient of 0.174 indicates that any increase in the proportion of Independent Commissioners by one unit will increase the ROA by 0.174 units, assuming other variables are constant. This shows that there is a positive relationship between Independent Commissioners and the company's performance.
6. The Company Size Coefficient (SIZE) of 0.111 indicates that any increase in the size of the company by one unit will increase the ROA by 0.111 units, assuming the other variables are fixed. A positive coefficient indicates that larger companies tend to have better performance.
7. The Leverage Coefficient (LEV) of -0.965 indicates that any increase in leverage by one unit will decrease the ROA by 0.965 units, assuming the other variables are fixed. This shows that the higher the company's leverage level, the company's performance tends to decrease.
8. The Company Age Coefficient (AGE) of -0.076 indicates that any increase in the company's age by one unit will decrease the ROA by 0.076 units, assuming other variables are constant. Negative coefficients indicate the inverse relationship between the age of the company and the company's performance.

Research Limitations

The low Adjusted R^2 value is also one of the limitations of the study. Therefore, further research is recommended to add other variables that are theoretically and empirically influential on company performance so that the model's ability to explain variations in company performance can be increased. In addition, subsequent research may extend the observation period, increase the number of samples, or use different company performance proxies to obtain more comprehensive results.

CONCLUSION

This study concludes that ESG disclosure, audit quality, institutional ownership, and independent commissioners significantly influence the financial performance of Basic Materials companies listed on the Indonesia Stock Exchange during the 2023–2025 period, as measured by Return on Assets (ROA). ESG disclosure has a positive and significant effect on firm performance, indicating that greater transparency regarding environmental, social, and governance practices can contribute to improved profitability.

Audit quality also has a positive and significant effect, suggesting that companies audited by Big Four-affiliated public accounting firms tend to demonstrate better financial performance. Independent commissioners have a positive and significant effect on ROA, confirming the importance of effective and independent corporate governance oversight. In contrast, institutional ownership has a negative and significant effect on firm performance, indicating that a higher concentration of institutional ownership does not necessarily result in improved profitability. Meanwhile, the control variables of company age, leverage, and firm size do not have statistically significant effects on ROA. Nevertheless, the model has an Adjusted R² of only 8.8%, indicating that a substantial proportion of variations in firm performance is explained by factors outside the variables examined in this study. Future research is recommended to expand the analytical model by incorporating additional determinants of firm performance, such as sales growth, liquidity, operational efficiency, capital structure, board characteristics, macroeconomic conditions, interest rates, inflation, and industry-specific factors. Researchers should also extend the observation period and increase the number of companies or include firms from different industrial sectors to enhance the generalizability and robustness of the findings. Furthermore, future studies may employ alternative financial performance measures, such as Return on Equity (ROE), Tobin's Q, or market-based indicators, to provide a more comprehensive assessment of corporate performance. Considering that the current study covers only the 2023–2025 period and reports a relatively low explanatory power, longitudinal or panel-data approaches could be adopted to capture the longer-term financial implications of ESG practices and corporate governance mechanisms. Future research should also consider alternative estimation techniques or robust standard errors to address potential residual dependence and strengthen the reliability of statistical inference.

REFERENCES

- Arvidsson, S., & Dumay, J. (2022). Corporate ESG reporting quantity, quality and performance: Where to now for environmental policy and practice? *Business Strategy and the Environment*, 31(3), 1091–1110.
- Abdi, Y., Li, X., & Címara-Turull, X. (2022). Exploring the impact of sustainability (ESG) disclosure on firm value and financial performance. *Environment, Development and Sustainability*, 24(4), 5052–5079.
- Arvidsson, S., & Dumay, J. (2022). Corporate ESG reporting quantity, quality and performance: Where to now for environmental policy and practice? *Business Strategy and the Environment*, 31(3), 1091–1110.
- Chopra, S. S., Senadheera, S. S., Dissanayake, P. D., Withana, P. A., Chib, R., Rhee, J. H., & Ok, Y. S. (2024). Navigating the challenges of environmental, social, and governance (ESG) reporting: The path to broader sustainable development. *Sustainability*, 16(2), 606.
- Fagbemi, B. T., Saah, B. P., Nduka, A. I., & Aloke, E. M. (2025). The evolution of ESG and sustainability reporting: A review of standards, challenges, and impacts on corporate transparency. *Journal of Economics, Business, and Commerce*, 2(2), 297–305.

- Financial Services Authority. (2017). *OJK Regulation Number 51/POJK.03/2017 concerning the implementation of sustainable finance for financial services institutions, issuers, and public companies*.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman Publishing.
- Ghozali, I. (2021). *Multivariate analysis applications with IBM SPSS 26 program* (10th ed.). Publishing Agency of Diponegoro University.
- Global Reporting Initiative. (2021). *GRI universal standards 2021*. Global Reporting Initiative.
- Gürlevük, E. (2024). Role of ESG reporting in small and medium-sized enterprises: Benefits, challenges and the EU's regulatory push. *Energy Policy Studies*, 1, 62–81.
- Hazen, T. L. (2020). Social issues in the spotlight: The increasing need to improve publicly-held companies' CSR and ESG disclosures. *University of Pennsylvania Journal of Business Law*, 23, 740.
- Ho, V. H., & Park, S. K. (2019). ESG disclosure in comparative perspective: Optimizing private ordering in public reporting. *University of Pennsylvania Journal of International Law*, 41, 249.
- Indonesia Stock Exchange. (2023–2025). *Annual report and sustainability report of companies in the basic materials sector*. [Indonesia Stock Exchange](#)
- Indonesia Stock Exchange. (2024). *Annual report of the Indonesia Stock Exchange*.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- Krasteva-Hristova, R., Papradanova, D., & Vechev, V. (2025). Mapping the landscape of sustainability reporting: A bibliometric analysis across ESG, circular economy, and integrated reporting with sectoral perspectives. *Journal of Risk and Financial Management*, 18(8), 416.
- Nielsen, C. (2023). ESG reporting and metrics: From double materiality to key performance indicators. *Sustainability*, 15(24), 16844.
- Oliver Yébenes, M. (2024). Climate change, ESG criteria and recent regulation: Challenges and opportunities. *Eurasian Economic Review*, 14(1), 87–120.
- Zenkina, I. V. (2023). Prerequisites and prospects for improving the quality of ESG assessment as a tool for responsible investment. *E3S Web of Conferences*, 403, 8011.
- Zhang, D., Wang, L., & Li, Y. (2023). Environmental, social and governance performance and firm financial performance: Evidence from listed companies. *Sustainability*, 15(5).