

The Effect of ESG Disclosure, Leverage, Profitability, and Company Size on Audit Quality: An Empirical Study: Industrial Companies on the IDX 2023-2024

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Abstract: *This research is motivated by the increasing implementation of Environmental, Social, and Governance (ESG) Disclosure as part of sustainable business practices, which is suspected to affect corporate audit quality. This study aims to analyze the influence of ESG Disclosure, leverage, profitability, and firm size on audit quality in industrial sector companies listed on the Indonesia Stock Exchange for the 2023–2024 period. The study uses a quantitative approach with a causality design and ex post facto method. The study population is all industrial sector companies listed on the Indonesia Stock Exchange, while the sample was determined using a purposive sampling technique, resulting in 52 companies or 104 observations. Secondary data were obtained from financial reports and corporate sustainability reports, then analyzed using binary logistic regression. The results show that ESG Disclosure, leverage, profitability, and firm size simultaneously influence audit quality. Partially, firm size has a positive and significant effect on audit quality, with leverage showing an effect at the 10 percent significance level, while ESG Disclosure and profitability have no significant effect. In conclusion, company size is the most dominant factor in influencing audit quality, while ESG disclosure and profitability have not been a primary consideration in selecting quality auditors in industrial sector companies.*

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Introduction

The implementation of Environmental, Social, and Governance (ESG) is a primary concern in improving corporate transparency and accountability. In Indonesia, ESG implementation is strengthened through POJK No. 51/POJK.03/2017, which requires public companies to prepare sustainability reports. ESG disclosure serves to reduce information asymmetry while increasing stakeholder confidence in the quality of corporate reporting. Suranta *et al.* (2025) showed that ESG disclosure has a positive impact on companies, but its impact on audit quality still shows mixed results.

In addition to ESG disclosure, audit quality is also influenced by a company's financial characteristics, such as leverage, profitability, and size. Leverage reflects a company's level of funding risk (Nissim & Penman, 2003), while profitability indicates a company's ability to generate profits (Dura, 2017). On the other hand, larger companies tend to have more complex activities, requiring highly competent auditors to maintain the credibility of their financial statements (Aprilyanti, 2020; Aryanti, 2020).

Previous research on the effect of leverage on audit quality has been inconsistent. Triani and Yanthi (2020) found that leverage had no effect on audit quality, while Marasi (2020) stated that high leverage encourages auditors to conduct stricter audits due to creditor oversight. These differing results indicate that the effect of leverage on audit quality requires further study.

Inconsistencies were also found in the variables of profitability and company size. Tambun *et al.* (2025) stated that profitability improves financial report quality, while Chotamah and Ngumar (2018) found different results. Regarding company size, Regina and Santioso (2023) showed a positive effect on audit quality, while Cahyaningtyas *et al.* (2025) concluded that larger companies can actually reduce audit effectiveness due to higher operational complexity.

Based on this phenomenon, this study aims to analyze the influence of ESG disclosure, leverage, profitability, and firm size on audit quality in industrial sector companies listed on the Indonesia Stock Exchange for the 2023–2024 period. This research is important because of the discrepancies in previous research results and the limited number of studies that simultaneously examine these four variables during the most recent sustainability reporting implementation period. Therefore, it is expected to provide an empirical contribution to the development of the literature on audit quality.

Research methods

This study uses a quantitative approach with a causal design to analyze the influence of ESG disclosure, leverage, profitability, and firm size on audit quality in industrial sector companies listed on the Indonesia Stock Exchange for the 2023–2024 period. This research is an ex post facto empirical study that utilizes secondary data in the form of financial reports and corporate sustainability reports without manipulating the research variables (Sugiyono, 2018; Creswell & Creswell, 2018).

The study population comprised all industrial sector companies listed on the Indonesia Stock Exchange during the 2023–2024 period. The sample was determined using a purposive sampling technique, with the criteria being that the companies were consecutively listed, published complete financial reports and sustainability reports, and disclosed ESG information. Based on these criteria, 52 companies, representing 104 observations, were selected over the two years of the study (Sugiyono, 2018; Emzir, 2020).

The research data was obtained through a documentary study of financial reports and sustainability reports accessed through the official website of the Indonesia Stock Exchange. Audit quality was measured using a dummy variable based on the use of Big Four accounting firms, while ESG disclosure, leverage, profitability, and firm size were measured using proxies used in previous studies (Allen, 2004; Lazarides & Pitoska, 2007; Nimer & Omari, 2015; Pervan, 2012). Data analysis was conducted using binary logistic regression, beginning with a model feasibility test, coefficient of determination, and hypothesis testing, both simultaneously and partially.

The research began with problem identification and a literature review, followed by sample determination, secondary data collection, and measurement of each research variable. The data was then analyzed using binary logistic regression to examine the effect of ESG disclosure, leverage, profitability, and firm size on audit quality in industrial sector companies during the 2023–2024 period.

Results and Discussion

1. Description of Research Object

The subjects of this study were companies in the industrial sector listed on the Indonesia Stock Exchange that had published sustainability reports. The research period began in 2023-2024, and the data collection method used was purposive sampling.

The data collected was 104 samples, representing a total of 52 companies. All data was then tabulated and processed for visualization and analysis using the EVIEWS application.

2. Descriptive Statistical Analysis

Descriptive statistics are used to provide an overview of the characteristics of the research data, including the minimum, maximum, average (mean), and standard deviation values of each research variable. The variables used in this study consist of ESG, Leverage, Profitability, Firm Size, and Audit Quality, with a total of 104 observations. The following is a table of the processed descriptive analysis.

Table 1 Descriptive Statistical Analysis

	ESG	LEVERAGE	PROFITABILITY	FIRM SIZE	AUDIT QUALITY
Mean	0.69293	0.944023	0.051002	27.64815	0.25
Median	0.78571	0.543617	0.047919	27.33988	0
Maximum	1	21.58993	0.470475	33.78996	1
Minimum	0	-2.281616	-0.291647	24.6024	0
Std. Dev.	0.29991	2.463408	0.103553	1.944868	0.43511
Skewness	1.28021	6.445778	0.414782	0.905142	1.154701
Kurtosis	3.6375	51.80808	6.175763	3.94781	2.333333
Jarque-Bera	30.1693	11043.16	46.68581	18.09372	25.03704
Probability	0	0	0	0.000118	0.000004
Sum	72.0643	98.17844	5.304176	2875.407	26
Sum Sq. Dev.	9.26434	625,043	1.104498	389.5987	19.5
Observations	104	104	104	104	104

Source: Eviews 13 processed by the author

a. ESG Disclosure

The ESG Disclosure variable has a mean value of 0.69293, with a minimum value of 0 and a maximum value of 1. The standard deviation of 0.29991, which is smaller than the mean, indicates that the ESG Disclosure data is relatively homogeneous and does not exhibit significant dispersion. This indicates that most companies in the sample have a relatively high level of ESG disclosure.

b. Leverage

The Leverage variable has an average value of 0.944023, with a minimum value of -2.281616 and a maximum value of 21.58993. The standard deviation value of 2.463408, which is greater than the average value, indicates that the leverage data has a fairly high level of dispersion. This condition indicates a significant difference in funding structure between companies in the research sample.

c. Profitability

The profitability variable has an average value of 0.051002, or approximately 5.10%, with a minimum value of -0.291647 and a maximum value of 0.470475. The standard deviation of 0.103553 indicates relatively low variation in profitability between companies. This indicates that most companies have profitability levels that do not differ significantly from the average.

d. Firm Size

The Firm Size variable, measured using the natural logarithm of total assets, has an average value of 27.64815, with a minimum value of 24.6024 and a maximum value of 33.78996. The standard deviation value of 1.944868 indicates that the company sizes in the sample have relatively moderate variations. Thus, the research sample consists of companies with quite diverse sizes, ranging from small to large companies.

e. Audit Quality (Dummy Variable)

The Audit Quality variable, proxied by the selection of Big Four and Non-Big Four Public Accounting Firms (KAP), has an average value of 0.25. This value indicates that approximately 25% of companies in the sample use Big Four KAPs, while approximately 75% use Non-Big Four KAPs.

A minimum value of 0 and a maximum value of 1 indicate that the audit quality variable is a dummy variable. A standard deviation of 0.43511 indicates considerable variation in the distribution of auditor selection among sample companies.

3. Multicollinearity Test

Table 2 Multicollinearity Test

Correlation	ESG	LEVERAGE	PROFITABILITY	FIRM SIZE	AUDIT QUALITY
ESG	1				
LEVERAGE	-0.126	1			
PROFITABILITY	0.0242	0.039041	1		
FIRM SIZE	0.0956	0.046209	0.33122	1	
AUDIT QUALITY	0.1338	0.251779	0.204702	0.569258	1

Source: Eviews 13 processed by the author

The table shows that the highest correlation between independent variables is 0.3312, namely between Profitability and Firm Size. This value is still well below the general limit of 0.80.

Thus, it can be concluded that there are no symptoms of multicollinearity in the research model. Therefore, all independent variables—ESG Disclosure, Leverage, Profitability, and Firm Size—can be used together in a logistic regression model.

4. Hosmer and Lemeshow test

Table 3 Hosmer and Lemeshow Test

Quantile of Risk			Dep=0		Dep=1		Total Obs	HL Value
Low	High	Actual	Expect	Actual	Expect	Expect		
1	0.0037	0.0128	10	9.92065	0	0.07935	10	0.07999
2	0.0151	0.0294	10	9.77417	0	0.22583	10	0.23105
3	0.0323	0.0446	11	10.5609	0	0.43911	11	0.45737
4	0.045	0.0696	10	9.37338	0	0.62662	10	0.66851
5	0.0702	0.1199	10	10.0525	1	0.94746	11	0.00319
6	0.1262	0.2153	8	8.38671	2	1.61329	10	0.11052
7	0.2173	0.2997	7	7.42763	3	2.57237	10	0.09571
8	0.3119	0.3955	6	7.03614	5	3.96386	11	0.42342
9	0.4003	0.7037	3	4.37281	7	5.62719	10	0.76589
10	0.7687	0.9906	3	1.09509	8	9.90491	11	3.67994
Total			78	78	26	26	104	6.51559
HL Statistics			6.5156		Chi-Sq(8) Prob.		0.5897	

Andrews Statistics	42.9713	Chi-Sq(10) Prob.	0
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Source: Eviews 13 processed by the author

Based on the results of the Hosmer and Lemeshow test, the Hosmer and Lemeshow Statistic value was 6.5156 with a probability value (Prob. Chi-Sq) of 0.5897. This probability value is greater than the 5% significance level (0.05), so H_0 is accepted. These results indicate that there is no significant difference between the values predicted by the model and the actual observed values. Thus, the logistic regression model used in this study has a good level of goodness of fit and is suitable for use in testing the effect of ESG Disclosure, Leverage, Profitability, and Firm Size on audit quality.

5. Logit Test

Based on the data processing results, 104 observations were used for the 2023–2024 period. The model reached convergence after 8 iterations, indicating stable parameter estimates.

Table 4 Logit Test

Variable	Coefficient	Std. Error	z- Statistic	Prob.
C	-28.56203	6.426072	-4.44471	0
X1ESG	1.32837	1.073102	1.237878	0.2158
X2LEVERAGE	0.326904	0.192146	1.701331	0.0889
X3PROFITABILITY	2.58991	3.271835	0.791577	0.4286
X4FIRM_SIZE	0.922546	0.222044	4.154789	0

Source: Eviews 13 processed by the author

Based on the estimation results, the following results were obtained:

Based on the estimation results, the ESG variable has a positive coefficient of 1.32837 but is not significant with a probability value of 0.2158 (> 0.05). The Leverage variable has a positive coefficient of 0.326904 with a probability value of 0.0889, making it insignificant at the 5% significance level, but significant at the 10% significance level. The Profitability variable has a positive coefficient of 2.58991 with a probability value of 0.4286, making it insignificant on audit quality. Meanwhile, Firm Size has a positive coefficient of 0.922546 with a probability value of 0.0000 (< 0.05), indicating that company size has a positive and significant effect on audit quality.

6. McFadden R-Squared

Table 5 McFadden R-Squared

McFadden R-squared	0.38527	Mean dependent variable	0.25
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Source: Eviews 13 processed by the author

The McFadden R-Squared value of 0.38527 indicates that the logistic regression model has good ability to explain the variation in audit quality probability as proxied by the selection of Big Four accounting firms. In the logistic regression model, a McFadden R-Squared value between 0.20 and 0.40 is considered to indicate a good model fit. Therefore, this research model can be said to have strong explanatory power regarding variations in company audit quality.

7. LR Statistics

Table 6 LR Statistics

LR statistics	45.06339	Avg. log likelihood	-0.34568
Prob(LR statistic)	0		

Source: Eviews 13 processed by the author

The test results show an LR Statistic value of 45.06339 with a probability value of 0.0000. This probability value is smaller than the 5% (0.05) significance level, so H0 is rejected.

Thus, it can be concluded that ESG variables, Disclosure, Leverage, Profitability, and Firm Size, simultaneously influence audit quality, as proxied by the selection of a Public Accounting Firm (KAP). These results indicate that the logistic regression model used is suitable for explaining the relationship between the independent variables and audit quality.

Discussion

1. The Relationship Between ESG Disclosure and Audit Quality

Based on the logistic regression results, the ESG Disclosure coefficient value was 1.292465 with a probability value of 0.2315. This probability value is greater than the 5% significance level (0.05), indicating that ESG Disclosure does not significantly influence audit quality. Therefore, the first hypothesis (H1) is rejected.

The results of this study indicate that a company's level of ESG disclosure has not significantly increased its likelihood of using a Big Four accounting firm as a proxy for audit quality. In other words, a company's decision to select an external auditor is not determined by its level of ESG disclosure.

According to Signaling Theory, companies that disclose ESG information extensively should send a positive signal to investors and stakeholders regarding the company's commitment to transparency and sustainability. However, this study indicates that this signal is not yet strong enough to influence companies' decisions to select high-quality auditors.

The results of this study are in line with research(Azmiyah & Subardjo, 2020)which states that the level of ESG disclosure does not directly encourage companies to choose Big Four or non-Big Four accounting firms. In addition, research(Pandita, 2024)shows that ESG disclosure does not have a significant effect on audit quality (KAP size), in line with the argument that companies in Indonesia have not fully integrated ESG considerations in their auditor selection decisions.

These findings indicate that industrial sector companies in Indonesia still view ESG disclosure as a means of complying with regulations and corporate legitimacy, rather than as a factor that directly influences the selection of external auditors.

2. The Relationship Between Leverage and Audit Quality

Based on the logistic regression results, the leverage coefficient value was 0.325439 with a probability value of 0.0895. This value is greater than 0.05 but less than 0.10. Thus, leverage does not significantly affect audit quality at the 5% significance level, but has a positive effect at the 10% significance level.

A positive coefficient indicates that the higher a company's leverage, the greater its tendency to use a high-quality auditor. This may occur because companies with high debt levels face greater pressure from creditors to present credible financial statements.

The results of this study are supported by Agency Theory, which explains that increased use of debt can increase conflicts of interest between management and creditors. To reduce this information asymmetry, companies tend to use reputable independent auditors.

The results of this study are in line with research(Syamsuddin, 2021) which found that leverage has a positive effect on audit quality because high debt encourages companies to increase the credibility of their financial reports.(Budiman, 2025)also shows that companies with high levels of leverage tend to choose Big Four auditors to increase creditor and investor confidence.

However, because the influence is only significant at the 10% level, the results of this study indicate that leverage is not the main factor determining audit quality in Indonesian industrial sector companies.

3. The Relationship Between Profitability and Audit Quality

Based on the results of the logistic regression test, the Profitability (ROA) variable has a regression coefficient of 3.736191 with a probability value of 0.3694 (> 0.05). From the tests that have been carried out, the percentage of companies experiencing profits is around 82.7% and companies experiencing losses are 17.3% out of 100%. And from the majority of companies

experiencing positive profits (72.8%) still choose non-big 4. Then for companies experiencing losses, the majority (91.3%) also choose non-big 4. These results indicate that Profitability does not affect the possibility of choosing a big 4 KAP as a determinant of audit quality. Thus, H3 is rejected.

These findings indicate that the level of profitability a company achieves does not influence its decision to select a Big 4 auditor. Companies with both high and low profitability have similar tendencies in selecting audit quality.

These results can be explained through Stakeholder Theory, where high profitability creates incentives for management to maintain a positive image in the eyes of investors. However, the decision to select a high-quality auditor is not solely driven by the amount of profit earned, but is more influenced by other factors such as operational complexity, regulatory pressure, and the need for transparency, which do not always correlate directly with profitability.

This research is in line with (Kamdiman, 2026) which states that profitability is not a determining factor in the selection of KAP size by a company. Similarly, (Mešković, 2025) found that there was no significant difference in profitability between companies audited by Big4 and non-Big4 accounting firms, indicating that the presence of an external auditor is more important than the type of auditor used.

4. The Relationship Between Firm Size and Audit Quality

Based on the logistic regression results, the firm size coefficient value was 0.919830 with a probability value of 0.0000. This probability value is smaller than the 5% significance level (0.05), indicating that firm size has a positive and significant effect on audit quality. Thus, the fourth hypothesis (H4) is accepted.

The research results show that the larger the company, the more likely it is to use the services of a Big Four accounting firm as a proxy for high audit quality. Large companies have more complex operational activities, thus requiring more competent and independent auditors.

The results of this study support Agency Theory and Stakeholder Theory. Large companies have a larger number of shareholders, higher operational risks, and greater scrutiny from investors and regulators. Therefore, large companies tend to choose auditors with high reputations to increase the credibility of their financial reports.

This research is in line with the findings (Sapitri *et al.*, 2025) which states that company size has a positive effect on the choice of KAP type, where companies with larger assets tend to choose Big 4 KAPs because they are considered more professional, independent, and able to improve the quality and credibility of the company's financial reports. Similarly, (Claudia, 2023) found that company size is able to improve audit quality because the higher and greater the number of assets owned, the company is expected to be able to choose a more independent auditor so that it can improve the quality of its audit results.

Conclusion

This study aims to analyze the influence of ESG disclosure, leverage, profitability, and firm size on audit quality in industrial sector companies listed on the Indonesia Stock Exchange for the 2023–2024 period. The results show that all four variables simultaneously influence audit quality. Partially, firm size is proven to have a positive and significant effect on audit quality, indicating that companies with larger asset scales tend to choose Big Four Public Accounting Firms as a proxy for higher audit quality. Meanwhile, ESG disclosure and profitability do not significantly influence audit quality, while leverage only shows a positive effect at the 10 percent significance level. These findings indicate that company characteristics, particularly company size, remain a more dominant factor than the level of ESG disclosure or financial performance in determining the selection of a quality auditor.

This study has limitations because it only used industrial sector companies with a relatively short observation period, namely 2023–2024, and used audit quality proxies limited to the classification of Big Four and non-Big Four accounting firms. These conditions may limit the generalizability of the research results to different sectors and periods. Therefore, future research is recommended to expand the scope of industrial sectors, extend the observation period, and use more diverse audit quality measures, such as audit report lag, audit fees, audit tenure, or discretionary accruals. From a practical perspective, the results of this study provide implications for companies to improve governance and transparency through ESG practices more substantially, not only for regulatory compliance, and to

consider using auditors with high competence and reputation to enhance the credibility of financial reports. For investors and regulators, these findings can be used as considerations in evaluating the quality of corporate reporting and the effectiveness of implementing sustainability practices in the Indonesian capital market.

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