Do Audit Tenure and Audit Committee Gender Diversity Affect Audit Report Lag? A Study on Energy Firms in Indonesia

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Abstract

This study examines how audit tenure and gender diversity on the audit committee influence audit report lag (ARL). It focuses on energy sector firms listed on the Indonesia Stock Exchange (IDX) from 2020 to 2024. The ARL measures the timeliness and accuracy of reports, essential for stakeholder interests. Longer audit tenures may increase audit efficiency, and increased gender diversity in the audit committee could enhance oversight and governance. The study employs a panel data approach and multiple linear regression analysis. The sample consists of 43 energy sector companies selected through purposive sampling, meeting the research criteria. Results indicate that longer audit tenure significantly reduces ARL, while gender diversity in the committee also has a notable effect. It highlights the importance of proper auditor rotation and increasing women's representation in audit committees to enhance the audit reporting process.

INTRODUCTION

The financial statement audit is a crucial process that assures stakeholders regarding the accuracy of a company's financial data. A vital aspect of audits is the speed at which the audit report is issued, known as the Audit Report Lag (ARL). This metric tracks the time from the end of the fiscal year to the report's release date. Timeliness is important because it impacts how relevant the financial information remains for users like investors, creditors, regulators, and other interested parties Abernathy et al. (2017).

Several factors influence the delay in the audit report. One important factor is audit tenure, which is the length of the ongoing professional relationship between the auditor and the client. As this relationship continues, the auditor gains a deeper understanding of the client's operations and risks, helping to accelerate the audit process. According to agency theory, as developed by Jensen & Mackling (1976), an excessively long relationship between auditor and client may decrease auditor independence due to over-familiarity, leading to a decline in audit quality (Nwaeze, 2025). On the other hand, the efficiency perspective posits that long audit tenure allows for increased understanding of the client's business and risk environment, thus reducing audit report lag (Gipper et al., 2021).

Abernathy et al. (2017) highlight that audit report lag serves as a key indicator of how timely financial reporting is, which is crucial for many stakeholders. Audit tenure, defined as the period of collaboration between the company and the auditor or Public Accounting Firm, plays a significant role. As Singer & Zhang (2018) explain, audit tenure begins with the start of the audit engagement and concludes when the service ends, during which the auditor evaluates the company's financial statements. The length of this period affects audit quality; a more extended engagement allows the auditor to develop a thorough understanding of the business while

maintaining independence. Conversely, a very short tenure limits understanding, and a prolonged period may threaten objectivity.

Audit tenure indicates the length of time an office accountant works with clients to deliver the agreed-upon audit services. Tenure describes the duration during which an auditor provides audit services to a company. One negative consequence of an excessively long auditor relationship is the potential loss of auditor independence. When the audit period spans a long time, a sense of trust or loyalty to the client can develop. This can reduce the auditor's skepticism, ultimately lowering the quality of work when the auditor issues an opinion to the public.

Audit tenure refers to the duration or number of years an auditor collaborates with a client during an engagement, as stipulated in POJK Nomor 13/POJK.03/2017, which establishes regulations. This regulation applies to public accountants and Public Accounting Firms operating within the financial services sector. It specifies that a public accountant can only conduct an audit of a company's financial report for a maximum of three consecutive years or within a period of three years without interruption. The decision to use audit services by KAP for an entity's financial report depends on an evaluation by the audit committee. Particularly concerning the potential risks associated with using the same KAP over an extended period Singer & Zhang (2018).

The audit committee holds a crucial position in corporate governance, which makes gender diversity an important aspect to examine. The Gender Diversity Audit Committee is a growing issue that helps strengthen corporate governance. It triggers discussions about gender differences among members involved in supervising and making decisions related to financial statements and audits. Gender diversity is considered essential because it offers different perspectives, improves the quality of oversight, and reinforces corporate governance policies. The position of men, who are often perceived as having higher status, can contribute to the lower educational attainment of women Huber & Paule-Paludkiewicz (2024). For example, in families facing financial crises, men are often prioritized for better education over women.

The resource dependence theory suggests that diverse board members bring varied knowledge, perspectives, and experiences, which improve board effectiveness (Gul et al., 2011). Gender-diverse audit committees are associated with enhanced monitoring quality and reduced audit delays (Alkebsee et al., 2021). However, inconsistencies in empirical findings suggest that contextual factors may moderate this relationship.

Several studies conducted by Abouelela et al. (2025), Diana & Hidayat (2022), Kalbuna et al. (2025), Sijabat & Pangaribuan (2023) and Santos-Jaén et al. (2025) indicate that audit tenure (AT) negatively impacts audit report lag (ARL). It means that a longer auditor-client relationship leads to a faster completion of the audit report. Such lasting relationships can enhance audit efficiency as the auditor becomes more familiar with the client's specific needs. On the other hand, studies by Sobhan et al. (2024), Alkebsee et al. (2022) found that audit committee gender diversity (ACGD) significantly reduces ARL. These findings imply that gender diversity may strengthen the effectiveness of the oversight function, particularly in terms of timely financial reporting. However, such findings are not always consistent. Study by Alhababsah & Yekini (2021), Nurbaiti & Qadli (2023), Akhor & Oseghale (2017) and Emiaso & Efenyumi (2021), revealed no significant influence of ACGD on ARL. This inconsistency suggests that contextual factors may influence or alter the relationship between governance traits and the effectiveness of audit reports—topics worth exploring in future studies.

Table 1.1
Research Sample Selection Criteria

Information	Amount
Number of energy sector companies, including oil, gas, and coal, listed on the Indonesia Stock Exchange (IDX) from 2020 to 2024	90
Companies that qualify for full financial reporting	43
Companies that have incomplete financial reports	(47)
Total research sample (43 x 5 years)	215

Table 1.2
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std.deviation
AT	215	1.000000	5.000000	2.390698	1.306314
ACGD	215	0.000000	1.000000	0.226698	0.240622
ARL	215	50.00000	417.0000	94.39535	36.79645
SIZE	215	20.62000	32.76000	28.83223	24.26713

METHODS

This study uses a quantitative research method, mainly relying on secondary data for empirical evidence. Secondary data is information collected indirectly from the subject of the study, typically sourced from publicly accessible platforms or reference materials relevant to the research topic (Ajayi, 2023). The data collection technique employed is documentation, which involves a systematic and structured gathering of information pertinent to the research variables and context.

The study employs purposive sampling, a non-probability approach in which sample units are deliberately selected based on specific criteria that align with the study's objectives. This method allows the inclusion of entities that have characteristics considered most appropriate for addressing the research questions (Lenaini, 2021).

This study utilizes secondary data, including financial statements and annual reports from energy sector companies listed on the Indonesia Stock Exchange (IDX) between 2020 and 2024. These data were obtained from the official IDX portal (www.idx.com) and the companies' websites. The population consists of 90 energy companies listed on the IDX during this period. To examine the relationships among audit tenure, gender diversity in the audit committee, and audit report lag, the research uses panel data regression analysis, combining both time-series and cross-sectional data. The analysis is performed using EViews 12 software, which allows for robust estimation techniques and more precise testing of statistical hypotheses.

RESULTS AND DISCUSSION
Descriptive Test Results

Descriptive statistics were used to summarize the variables in the study. Table 2 shows the minimum, maximum, mean, and standard deviation for each. For example, Audit Tenure (AT), based on 215 observations, has an average of 2.390698 and a standard deviation of 1.306314. The minimum and maximum are 1.000000 (1 year) and 5.000000 (5 years), respectively, indicating that, on average, auditors maintained engagement with clients for approximately two to three years.

The Audit Committee Gender Diversity (ACGD) averages 0.226698, with a standard deviation of 0.240622. The highest value observed is 1.000000, and the lowest is 0.000000, indicating that female representation on audit committees remains low, with an average of roughly 23% of members.

The Audit Report Lag (ARL) averages 94.39535 days, with a standard deviation of 36.79645. The shortest audit completion period was 50 days, and the longest was 417 days. These results indicate substantial variation in the timing of audit report issuance following the fiscal year-end, with an average delay of approximately three months.

Finally, the Company Size (SIZE) variable has an average of 28.83223 and a standard deviation of 24.26713. Its minimum and maximum values are 20.62000 and 32.76000, respectively, suggesting that the sample primarily includes larger companies with a moderate spread in firm size.

Panel Data Regression Estimation Results
Chow Test

According to the Chow test results shown in Table 1.3, the p-values for Cross-section F and Cross-section Chi-square are both 0.0000, well below the 0.05 significance threshold. This indicates that the fixed effect model is preferable over the standard effect model due to notable differences among cross-section units, such as different companies. Therefore, the Chow test confirms the appropriateness of using the Fixed Effects Model (FEM). To decide whether FEM or the Random Effects Model (REM) is better, a Hausman test should be performed.

Hausman test

Based on the Hausman test results in Table 1.4, the probability value for the Random cross-section is 0.5681, which is above 0.5. This indicates that the variation between companies is not correlated with the independent variables in the model. Therefore, the Hausman test suggests that the Random Effect (REM) model is appropriate. To verify this, a Lagrange Multiplier Test (LM Test) should be conducted to see if the REM model is more suitable than the Common Effect (CEM) model.

Lagrange Multiple Test (LM Test)

Based on the Lagrange Multiplier (LM) Test results in Table 1.5, the Breusch-Pagan p-value is 0.0000, which is less than 0.05. This indicates that the Random Effect (REM) model is the suitable choice. Therefore, the study should adopt the Random Effect (REM) model.

Classical Assumption Test

Schmidheiny (2024) mention that the choice of estimation method in panel data models relies on the underlying effects structure. Panel models with random effects use the Generalized Least Squares (GLS) approach, while models with common effects and fixed effects rely on the Ordinary Least Squares (OLS) method. One advantage of using GLS in random effects models is that it is not limited by the classical assumptions of OLS, such as homoscedasticity and the absence of multicollinearity. Hence, assumption testing is not required for the random effects model.

However, when using a common or fixed effects framework, conducting classical assumption tests is essential to ensure the validity and reliability of the regression results.

Table 1.3
Chow Test Results

Effects Test	Statistics	df	Prob.
Cross section F	2.444245	(42,169)	0.0000
Cross section Chi- square	102.048957	42	0.0000

Table 1.4
Hausman Test Results

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross- section	2.020783	3	0.5681

Table 1.5
Lagrange Multiple Test Results

	Cross section	Hypothesis Test Time	Prob.
Pagan Breusch	19.45329	6.317720	25.77101
	(0.0000)	(0.0120)	(0.0000)

Table 1.6
Hypothesis Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	182.8485	28.93251	6.319828	0.0000
AT	-7.655260	1.828721	-4.186127	0.0000***
ACGD	-18.01051	9.939649	-1.811986	0.0714**
SIZE	-0.022915	0.009861	-2.323812	0.0211***
R-squared	0.111779	F-statistic		8.851188
Adjusted R-squared	0.099151	Prob(F-statistic)		0.000015

*** significant at alpha 5%, ** significant at alpha 10%*

Hypothesis Testing
Individual Parameter Significance Test (t)

According to the t-test results for individual parameters, Audit Tenure (AT) has a coefficient of -7.655260 and a p-value of 0.0000, which is less than 0.05. This indicates that AT significantly negatively impacts Audit Report Lag (ARL), meaning longer auditor assignments tend to shorten the ARL. Meanwhile, the Audit Committee Gender Diversity (ACGD) coefficient is -18.01051 with a p-value of 0.0714. At a 10% significance level, ACGD has a significant influence on ARL, indicating that gender diversity affects audit report timeliness. Although marginally significant, the direction and magnitude of this coefficient suggest that greater gender diversity on

audit committees may be associated with a shorter audit report lag (ARL). The negative correlation indicates that including female members on audit committees might enhance the efficiency of the financial reporting process. Lastly, the Company Size (SIZE) variable, included as a control, has a coefficient of -0.022915 and a p-value of 0.0211. Since this p-value is below 0.05, SIZE significantly reduces ARL, likely because larger companies have more structured reporting processes and resources. Overall, the variables AT, ACGD, and SIZE all demonstrate significant effects on Audit Report Lag.

Simultaneous Significance Test (F Test)

Based on the results of the simultaneous significance test (F test), the F-statistic is 8.851188 with a Prob F-statistic of 0.000015. Since this probability value is below the 0.05 significance level, it indicates that the independent variables—Audit Tenure (AT), Audit Committee Gender Diversity (ACGD), and Company Size (SIZE)—collectively have a significant effect on the Audit Report Lag (ARL). This demonstrates that the overall regression model effectively accounts for variations in ARL, with at least one independent variable exerting a significant impact on the dependent variable.

Determination Coefficient Test (R²)

The R-squared coefficient of 0.111779 and the adjusted R-squared of 0.099151 indicate that approximately 11.18% of the variation in Audit Report Lag (ARL) is explained by the three independent variables. Factors outside the model influence the remaining 88.82%. While the regression is statistically significant overall, the low R-squared value implies the model has limited capacity to account for ARL variation. Consequently, further research should incorporate additional relevant variables for more thorough insights.

Discussion

The t-test results reveal that the Audit Tenure (AT) variable has a coefficient of -7.655260 and a p-value of 0.0000, indicating statistical significance at the 5% level. This finding supports the efficiency perspective, which argues that familiarity with client operations can expedite the audit process and reduce ARL. It also aligns with prior empirical research by Pradipta & Zalukhu (2020) and Abouelela et al. (2025). From the viewpoint of agency theory (Jensen & Mackling, 1976), however, this efficiency must be balanced with auditor independence. Extended tenures could pose a risk of reduced professional skepticism. Nonetheless, in this study, longer tenure appears to yield more efficient audits without a documented decline in audit quality, consistent with Gipper et al. (2021).

The Audit Committee Gender Diversity (ACGD) variable, with a coefficient of -18.01051 and a p-value of 0.0714, is significant at the 10% level of significance. This supports the resource dependence theory and is consistent with Yahaya (2025), who argue that gender-diverse audit committees enhance board performance and oversight (Gul et al., 2011). Female representation may contribute different risk perspectives and promote more rigorous audit supervision, resulting in shorter ARLs. From a governance perspective, these findings suggest that promoting gender diversity is not only about representation or regulatory compliance, but also has practical implications for timeliness and audit effectiveness. Organizations may benefit from forming more inclusive audit committees, particularly when combined with members who possess the necessary expertise, independence, and active engagement. The marginal significance of this variable also suggests the need to explore potential moderating or mediating factors—like board culture,

leadership style, or overall corporate governance quality—that could affect the relationship between ACGD and ARL.

The control variable, Company Size, has a coefficient of -0.022915 and a p-value of 0.0211, which is below the significance threshold of 0.05. This suggests that larger companies generally experience a significantly shorter Audit Report Lag. Larger firms generally possess more advanced financial reporting systems, skilled staff, and greater resources, allowing audits to be completed more swiftly. Larger companies tend to have better systems and resources for timely reporting. This finding aligns with signaling theory (Spence, 1974) as large firms are incentivized to deliver timely reports to uphold their market credibility (Alhawamdeh et al., 2024).

CONCLUSION

This study examines the impact of audit tenure and gender diversity on the audit committee on audit report lag among energy sector companies listed on the Indonesia Stock Exchange from 2020 to 2024. The results confirm that both audit tenure and gender diversity have significant effects on the timeliness of audit report issuance. A longer audit tenure is associated with a shorter audit report lag, suggesting that familiarity with client operations increases audit efficiency. This supports the efficiency perspective while acknowledging potential agency risks if tenure is not well-regulated. In this study, regulatory limits appear to mitigate such risks effectively. The results underscore the importance of striking a careful balance in auditor tenure to optimize audit efficiency without compromising independence. They also emphasize the importance of enhancing the skills and contributions of audit committee members beyond their representation to promote more robust governance practices.

Audit committee gender diversity also correlates negatively with audit report lag, although at a 10% significance level. It suggests a tendency toward more timely reporting in gender-diverse audit committees, which reinforces the resource dependence theory. While not universally conclusive, this trend suggests that diversity in governance bodies may improve audit processes.

The findings also show that company size significantly influences ARL, underscoring that larger firms are more likely to have structured reporting systems that support timely audits. Following signaling theory (Spence, 1974), firms may also use timely reporting to send positive signals to investors and other stakeholders.

However, this result must be interpreted with caution. The mixed empirical findings Kayleen & Harindahyani (2020) and Atmafidea & Syarief (2022) suggest that other contextual factors, such as industry type, board dynamics, or institutional environment, could mediate the effect of gender diversity. Future studies should explore the interaction effects between audit tenure and other governance mechanisms such as audit committee expertise, auditor rotation, or board independence. Mixed-method or longitudinal research could better capture the dynamic impact of gender diversity on audit processes. These recommendations would further enrich understanding of the factors influencing audit report timeliness and contribute to better corporate governance practices.

This study is limited to companies in the energy sector, so the results may not be generally applicable to other sectors. Therefore, it is recommended that further research examine other industry sectors, such as manufacturing, finance, or technology, to gain a more comprehensive understanding of the effects of audit tenure and gender diversity on audit report lag (ARL). In

addition, comparative studies across sectors can also be conducted to test the consistency of the findings and show whether specific sector characteristics strengthen or enhance the relationships between the variables studied. In addition, expanding the research to the regional level, such as a cross-country study of ASEAN, can provide a broader perspective on differences in governance and regulatory cultures that may affect the effectiveness of audits and financial reporting.

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