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The influence of leverage and public accounting firm reputation on audit delay with the moderating variable of company complexity

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Abstract

This study aims to determine the effect of leverage and PAF reputation on audit delay with company complexity as a moderating variable in energy sector companies listed on the IDX for the period 2022-2024. Of the 90 companies, 64 companies that met the criteria were selected, resulting in a total of 192 observations. The analysis was conducted quantitatively using SPSS with a multiple linear regression model and moderation regression analysis, after the data underwent classical assumption testing. The results show that PAF reputation has a negative effect on audit delay, while leverage has no effect on audit delay. Furthermore, company complexity strengthens the positive effect of leverage on audit delay, while company complexity cannot moderate the effect of PAF reputation on audit delay. This study differs from previous studies because it uses company complexity as a moderator variable, which has rarely been studied. In addition, this study uses the latest data (2022-2024), which reflects the post-pandemic situation and the latest OJK regulations.

Keywords: Audit Delay, Leverage, PAF Reputation, Company Complexity

INTRODUCTION

According to Suryaningsum and Ayusulistyaningrum (2024), financial statements are report that explain the financial position of accounting activities in a certain period to be submitted to interested parties. In order for financial statements to be a reliable source of information, they needs to be examined by an auditor include the auditor's opinion before being submitted to users (Anas et al., 2023). Therefore, auditors should carry out their responsibilities in a professional manner to make sure that the results of the audit are communicated in a timely.

According to Herawaty and Nugraha (2023) the timeliness of financial report disclosures can influence decision making, however, if the information is not disclosed in a timely manner, the information contained therein may no longer be relevant to the situation at hand, rendering it useless for decision making. Srbinoska and Srbinoski (2021) explain that although timeliness in submitting financial report is very important, in reality, this process takes a long time, starting from the submission of reports to independent auditors, the implementation of audits, and the submission of corrections for material misstatements in the reports, this may lead to delays in the publication of financial statements. Audit delay refers to the time gap between the end of the fiscal year and the date when audit opinion is released (Harianto & Saputro, 2022).

Company listed on the IDX are required to provide audited annual financial reports, in compliance with POJK No. 14/POJK.04/2022. These reports must be sent to the OJK and made public no later than three months after they are prepared. If reports are not submitted on time, the company may face administrative penalties and suspension. Although the IDX has established regulations and sanctions, both administrative and suspension, some companies still fail to submit their financial reports. The phenomenon of late submission of financial reports can be explained as follows.

Table 1 shows that the number of companies that have not filed their financial reports by December 31 for the period 2022-2024, has increased every year. In 2022, 61 companies were late in submitting their financial reports, in 2023 the number increased to 81 companies, and in 2024 it increased again to 86 companies.

Table 1. Late Reporting Companies were Fined IDR 50,000,000.00 Period 2022-2024

Tahun	Total Peusahaan Terlambat
2022	61
2023	81
2024	86

Source: idx.co.id

The phenomenon of audit delay can also be seen in the case of an energy sector company, PT Sky Energy Indonesia Tbk, which was late in submitting its annual financial report for 2021 and experienced an audit delay of 189 days, with the date of issuance of the audit opinion on july 8, 2022. In addition, the financial statements for the 2022 fiscal year were only audited on February 4, 2025, indicating an audit delay of 766 days. (Audited Financial Statements of PT Sky Energy Indonesia, 2021 and 2022).

PT Sky Energy Indonesia Tbk shares are potentially subject to delisting after being suspended for more than 2.5 years since August 1, 2022. The audited financial statements for 2022 have been completed and published in early February, while the audited financial statements for 2023 are still in the process of being audited by PAF with 25% progress and a target completion date of June 2025. The 2024 audited financial statements are also still undergoing internal audit and are targeted for completion in October 2025 (indopremier.com).

The phenomenon of audit delay can be explained through two main theoretical perspectives. First, agency theory explains that if financial reports are not submitted on time, the value of the financial information will decrease and worsen information asymmetry. Kieso et al. (2018) explain that the untimeliness of financial report information can deprive the information of its usefulness. The risk of conflicts of interest and loss of investor confidence increases when audit reports are late, making it difficult for principals to monitor the performance of agents in a timely manner. Second, from the perspective of signaling theory, signaling theory plays a role in explaining how companies send signals to stakeholders, whether good or bad, through the timeliness of financial report submission or audit completion. The longer it takes for audited financial reports to be submitted, or if they are even late, this will be considered a bad signal by investors because it is perceived that the company is experiencing problems. Meanwhile, if financial reports can be submitted in a timely manner, this will send a positive signal to stakeholders because there is transparency of information (Harianto & Saputro, 2022).

Many researchers have studied the factors that influence audit delay. The results of studies by Yacoob and Mohamed (2021) and Illahi and Oknaryana (2023) show that leverage positively affects audit delays, while Mahira et al. (2024) show that leverage actually reduces audit delays, and Rani and Triani (2021) show that leverage has no effect. The results of research by David and Butar (2020), Siswanto and Suhartono (2022), and Yanti et al. (2022) show that PAF size has a negative effect on audit delay, while Febrianingrum et al. (2023), Safitri and Triani (2021), and Endri et al. (2024) show that PAF reputation has no effect on audit delay.

In past studies, have shown still inconsistencies in the research findings, and the phenomenon of audit delay still occurred frequently, making it an issue that needed to be examined more deeply. Therefore, the author was interested in continuing the research on audit delay. This study examined leverage and PAF reputation as independent variables, and the moderating variable was company complexity. These three factors are closely related to audit delay. The first factor is leverage, Wariyanti (2017) explains that leverage refers to a ratio that assense the relationship between from lenders, intending to enhance the company's equity by illustrating its capability. The leverage ratio of a business

affects how its financial statements appear; a substantial leverage ratio may convet a bad impression to stakeholders. With this signal, stakeholders will assess that the company is performing poorly because the company's debt portion is high compared to its equity or own capital. This occurs since a large debt ratio can elevate a firm's financial vulnerability. Moreover, auditors must be cautious when conducting audits, as the firm might struggle to fulfill its debt repayments. Auditors require extra time to evaluate the company's capability to honor its payment commitments.

In addition, the complexity can influence the leverage effect and PAF reputation. The complexity can moderate both aspects of audit delay. As mentioned by Widihyani (2017) complexity in an organization or its functions arises from how departments are arranged and how responsibilities are assigned, showcasing different divisions. The large number of subsidiaries owned by a company can cause the company to experience longer audit report delays, because high complexity requires additional time to complete financial reports (Herawaty & Nugraha, 2023).

Although the variables of leverage and PAF reputation have been extensively studied by previous researchers, the presence of company complexity as a moderating variable in this reseach is still rarely found. Companies with high complexity will cause longer audit delays because auditors must be more careful in conducting audits with high transaction complexity. This will have an impact on the influence of leverage and PAF reputation on audit delays. Company complexity will strengthen the positive influence of leverage on audit delays, and company complexity will weaken the negative influence of PAF reputation on audit delays.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Agency Theory

The concept of agency theory was initially presented by Jensen and Meckling (1976), where they explain the connection between principas and agents. Agents are parties entrusted to run companies, while principals are owners who grant authority to agents. The implementation of agency theory is important in audit delay. Having relevant information available quickly can increase its capacity to influence decisions, while untimeliness can deprive information of its usefulness (Kieso et al., 2018). A drop in the worth of financial details will affect the imbalance of information. Sometimes managers and principals as owners have different levels of information (Zuhrotun & Triana, 2023). hence, it is essential to submit financial reports promptly to minimize information asymmetry. reports.

Signal Theory

Spence (1973) explains the behavior of recipients of information provided by information owners that can influence decision-making. In relation to audit delay, signal theory plays a role in explaining how companies send signals to stakeholders, whether good or bad, through the timeliness of financial report delivery or audit completion in increasing or decreasing the credibility and value of financial reports.

Audit Delay

Accourding to Siswanto and Hartono (2022), the term "audit delay" refers to the periode that spans from the date of reporting to when the audit report is officially released. The gap between the conclusion of the fiscal year and when the audit recommendation are mode represents an audit delay (Harianto & Saputro, 2022).

The Effect of Leverage on Audit Delay (H_1)

Yuniastuti and Nasyaroeka (2017) explain Debt-to-Equity serves as a measurements to evaluate how much debt exists in comparison to equity, aimed at understanding the financial backing from creditors to the business proprietors. According to Ashton et al. (1987), auditors will be more thorough in conducting audits on companies with high debt levels, this will impact how long the audit will take. From an agency theory perspective, a high debt ratio (leverage) can cause the principal to assess management performance as poor, as it is considered ineffective in running the company well

and unable to manage debt and financial risks. Audit procedures conducted by auditors on companies with high leverage will take longer because they must find the cause of the excessive debt, and the financial risks may be greater, so auditors must examine debt obligations and interest payments more carefully, and check for possible manipulation in the financial statements. This will have an impact on the length of time it takes to submit financial reports, triggering an increasingly long audit delay.

In connection with signal theory, having a significant amount of leverage can convey a bad message to stakeholders, as a steep debt ratio indicates the considerable financial risks the company might face. Moreover, auditors must exercise cution when performing audits, because of the possibility that the company will default on its payments. This will make the audit process longer and result in increased audit delay. The results of this study are in line with Illahi and Oknaryana (2023) and Yacoob and Mohamed (2021), which show that leverage has a positive effect on audit delay.
H_1: Leverage has a positive effect on audit delay

The Effect of PAF Reputation on Audit Delay

In relation to agency theory, principals certainly wants to receive accurate, credible, and timely information as a guarantee that the financial reports are free from misstatements. Therefore, they place more trust in financial statement audits conducted by PAFs with high reputations, as they are considered to be more independent, experienced, and have incentives to maintain their good name.

In relation to signaling theory, companies that hire big four accounting firm give off the impression that they are well-run and free of secret information. High audit quality is correlated with an PAF reputation. In order to protect the audit firm's image and prevent the big four audit firms from delaying the audit process, they will make an effort to continue being dependable and competent. As a result, big four audit firms are able to finish audits more quickly than non-big four audit firms. As a result, Big Four audit firms are able to complete audits faster than non-Big Four audit firms. These findings David and Butar (2020), who state that PAF reputation has a negative effect on audit delays due to their greater knowledge and experience. These findings are also in line with Siswanto and Suhartono (2022) and Yanti et al. (2022), show that audit delays are negatively affected by PAF reputation.
H_2: PAF reputation has a negative effect on audit delay**.**

The Effect of Leverage on Audit Delay with Company Complexity as a Moderating Variable (H_3)

From an agency theory perspective, the higher the complexity of a company, the greater the potential for conflicts of interest between principals and agents due to information asymmetry. According to Herawaty and Nugraha (2023), to minimize the possibility of information asymmetry between principals and agents, independent auditors need more time to analyze complex companies. Sambuaga and Santoso (2020), Herawaty and Nugraha (2023) and David and Butar (2020) show that company complexity can prolong audit delays. When this condition occurs in companies with high debt ratios, it will cause even longer audit delays. Research by Illahi and Oknaryana (2023) and Yacoob and Mohamed (2021) shows that leverage can prolong audit delays. Companies with high complexity and high leverage can allow for greater information asymmetry, because complex companies have broader activities, more divisions, and more complex transactions, so that not everything can be properly monitored, compounded by high leverage. Thus, auditors need to perform more in-depth audit procedures to reduce information asymmetry in complex companies with high leverage.

From a signaling theory perspective, corporate complexity can reinforce the positive effect of leverage on audit delays. According to Marcelino and Mulyani (2021), complex companies with high leverage can send negative signals to shareholders, causing companies to delay the publication of their financial reports, which in turn leads to longer audit delays. Research by Saifi et al. (2024) states that large-scale companies are usually caused by several factors, one of which is debt financing. This can make the audit process longer, as companies must carry out confirmation and audit processes. These findings indicate that as corporate structures become larger, processes become more complex, so that the relationship between leverage and audit delay has the potential to become stronger in companies with high complexity. Therefore, higher leverage, especially in highly complex companies, will result

in longer audit completion times.

H_3: Company complexity strengthens the positive effect of leverage on audit delay.

The Effect of PAF Reputation on Audit Delay with Company Complexity as a Moderating Variable (H_4)

In relation to agency theory, the reputation of PAFs can act as a third party in suppressing conflicts of interest between management and shareholders, where PAFs with high reputations function as external monitoring tools that can reduce agency risk and accelerate audit delays. In relation to signaling theory, companies that use the services of reputable PAFs send a positive signal that the company has good governance and does not have any hidden information. The study by David and Butar (2020) states that PAF reputation can shorten audit delays due to their greater knowledge and experience. These findings are also in line with the research by Siswanto and Suhartono (2022) and Yanti et al. (2022). However, different results were obtained by Febrianingrum et al. (2023), Safitri and Triani (2021), and Endri et al. (2024), who found that KAP reputation has no effect on audit delays.

Inconsistency may be influenced by other factors such as the company complexity, which can make the audit process longer. Therefore, company complexity was added as a moderating variable. According to Herawaty and Nugraha (2023), complexity has a positive effect on audit delay because the more complex the company's operations are, the more careful the auditor must be during the audit process. This is what requires a lot of time for substantive testing. caution is required by auditors during the audit process, which is why it takes a lot of time for substantive testing. Sambuaga and Santoso (2020) and David and Butar (2020) also show that company complexity can prolong audit delays.

From the perspective of agency theory, high complexity can increase information asymmetry because shareholders find it difficult to monitor the company, so that the complexity of the company will limit the effectiveness of PAF's reputation in reducing audit delays. Research by Hanif and Ariani (2023) states that although auditors with good reputations can usually work more effectively, the level of complexity still causes the audit process to take longer. In signaling theory, companies try to send good signals to the public by using the services of the Big Four accounting firms. However, in more complex companies, even if PAF has a good reputation, its effectiveness in reducing audit delays will decrease because the complexity of the company will increase the risk of inaccurate information, so high-reputation accounting firms must conduct more in-depth examinations. Therefore, the hypothesis in this study is that company complexity weakens the negative effect on audit delays
H_4: Company complexity weaken the negative Effect of the PAF reputation on audit delays.

METHODS

Population and Sample

The population used in this study consist of energy sector listed on the Indonesia Stock Exchange (IDX) during the period 2022 to 2024. Purposive sampling was used to determine the sample in this study. The criteria are: (a) companies in the energy sector listed on the IDX between 2022 and 2024. (b) companies in the energy sector that published financial reports during the research period. (c) companies that have subsidiaries. These criteria were used to identify 64 companies with 192 observations (64 x 3 years of research period).

Operational Definition of Variables

Table 2. Operational Definition of Variables

No	Variable	Operational Definition	Measurement	Sources
1	*Audit delay*	The time interval between the closing date and the date the audit reportsis issued is know as the audit delay (Siswanto & Hartono, 2022)	The discrepancy between the audit opinion date and the year-end balance sheet.	1. Fadhila and Surjandari, (2022) 2. Ashton et al. (1987)
2	PAF Reputation	a public accounting firm is a company that was founded in accordance with legal requirements and has a business licensi (UU No. 5 2011)	dummy variable, where 1 represents the Big Four accounting firms and 0 represents non-Big Four accounting firms.	David and Butar, (2020) Siswanto and Suhartono (2022)
3	Leverage	Yuniastuti and Nasyaroeka (2017), is a ratio used to evaluate debt with the goal of figuring out how much money creditors have given business owners (Yuniastuti & Nasyaroeka, 2017)	DER Total Debt/Total Equity	Yacoob and Mohamed (2021)
4	Company Complexity	Suwardjono (2014), asserts that the creation of divisions of labor and departments that concentrate on various number of units leads to complexity, and is also closely related to the number of subsidiaries or branches owned by the company (Suwardjono, 2014)	The number of subsidiaries owned by the company.	David and Butar (2020)

Data Anaysis Methods

Data analysis in this study was conducted using a quantitative approach with the support of SPSS software. The analysis began with descriptive statistics to provide and overview of the the reseach data. next, classical assumption, including normality, autocorrelation, multicolliearity, and heteroscedasticity tests, to ensure the suitability of regression model used. If all classical assumtions were met, the process continued with hypothesis testing using t test and moderated regression analysis to test the empirical effect between variables.

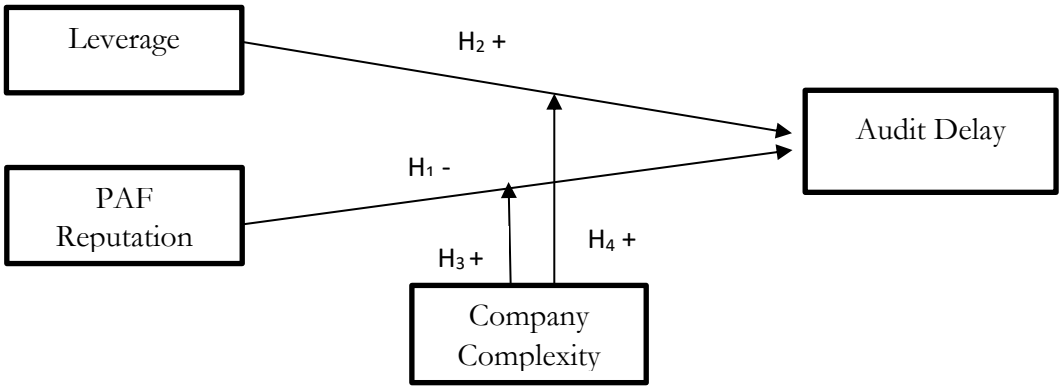

Figure 1. Framework

RESULT AND DISCUSSION

Descriptive Statistical Analysis

According to Ghozali (2018) descriptive statistics is an analysis that shows a description of data in terms of mean values, deviation, maximum, minimum, sum, range, kurtosis, and skewness.

Tabel 3. Descriptive Statistics Test

	N	Minimum	Maximum	Mean	Std. Deviation
Audit Delay	192	48	251	87.81	25.603
Leverage	192	-9.00	35.33	1.3532	3.40758
PAF Reputation	192	0	1	.33	.473
Complexity	192	1	182	17.70	27.600

Source: Processed data, 2025

Table 3 shows there are 192 data points for companies in the energy sector for the 2022-2024 period. The following is an explanation of the descriptive analysis results:

1. variable of audit delay has a maximum value of 251 (PT Ratu Prabu Energi Tbk, 2023), and minimum value of 48 by PT Dwi Guna Laksana Tbk in 2024, and a mean value of 87.81 and a standard deviation of 25.603. The mean value is greater than the standard deviation value, which means that the audit delay data in the energy sector companies is homogeneous.
2. The independent variable of leverage has a maximum value of 35.33 by PT SMR Utama Tbk in 2024, and a minimum value of -9.00 by PT Indah Prakasa Sentosa Tbk in 2024. The mean value is 1.3532 and the standard deviation is 3.40758. The mean value is smaller than the standard deviation, which means that the leverage data in the energy sector companies is heterogeneous.
3. The independent variable of PAF reputation is measured using a dummy variable with a maximum value of 1 and a minimum value of 0. The mean value is 0.33 and the standard deviation is 0.473. The mean value is smaller than the standard deviation, which means that the KAP reputation data in the energy sector companies is heterogeneous.
4. Corporate complexity showing a maximum value of 182 and minimum value of 1 The mean value is 0.33 and the standard deviation is 0.473. The mean value is smaller than the standard deviation, which means that the KAP reputation data in the energy sector companies is heterogeneous.

Normality Test Result

The normality test used a one-sample Kolmogorov-Smirnov test. Which requires that the asymp Sig value be above 0.05 (Ghozali, 2018).

Tabel 4. Normality Test

One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
N	192
Asymp. Sig. (2-tailed)	.000[c]

Source: Processed data, 2025

The data are not normally distributed, as seen by Tabel 4, where the asymp. Sig is 0.000 < 0.05. this study applies the central limit theorem, which claims that for large observation data sets (n > 30), the assumption of normal distribution can be discarded.

Autocorrelation Test Results

The Durbin-Watson was used to conduct the autocorrelation test. For there to be no autocorrelation, the dw value must be greater than du and less than (4-du).

Table 5. Durbin-Watson test Results

Model	Durbin-Watson
Before Cochrane Orcutt	1.348
After Cochrane Orcutt	1.921

Source: Processed data, 2025

Table 5 shows a Durbin-Watson value of 1.348. The du value for k-3, n=192, and a=5% is 1.7956, which means that the Durbin-Watson value is not between du and 4 -du, indicating the presence of autocorrelation. Therefore, an autocorrelation test is necessary. In this study, the autocorrelation test treatment was performed using the Cochrane Orcutt method. The Cochrane Orcutt method is a method used to overcome autocorrelation problems by converting research data into Lag (Ghozali, 2018). After applying the Cochrane Orcutt method, the Durbin-Watson value changed to 1.921, while the du value for k-3 and n=192 and a=5% was 1.7956. Because the dw value (1.921) > du (1.7956) and dw (1.921) < 4 - 1.7956 (2.2044), there is no autocorrelation in this study.

Multicollinearity Test Results

Multicollinearity testing was performed examining the tolerance and VIF value. Multicolinearity does not occur if the tolerance value > 0.1000 and VIF value < 10 (Ghozali, 2018).

Table 6. Multicollinearity Test Results

No	Variabel Independen	Tolerance	VIF
1	Leverage	.997	1.003
2	PAF Reputation	.951	1.051
3	Complexity	.951	1.052
Dependent Variable: Audit Delay			

Source: Processed data, 2025

Table 6 indicates that there is no multicollinearity because each variable has a Tolerance more than 0.10 and VIF value less than 10.

Heteroscedasticity Test Results

The heteroscedasticity test was conducted using the Glejser test, with the decision that heteroscedasticity did not occur if the significance value of each independent variable was greater than 0.05 (Ghozali, 2018). The Glejser test results can be seen in Table 7 as follows:

Tabel 7. Glejser Test Results

No	Variabel Independen	Sig.
1	Leverage	.335
2	PAF Reputation	.886
3	Complexity	.411
Dependent Variable: ABRESID		

Source: Processed data, 2025

Table 7 shows that the significance value of each independent variable is > 0.05, so based on the glejser test results, there is no heteroscedasticity.

Hypothesis Test Results

Table 8. Hypothesis Test Results

Model	Test	Value	B	Sig.	Description
1 (without moderation)	R^2	. 045			
	F-test	.009[b]			
	t- test	Leverage	.317	.545	>0.05 (*Not significant)
		PAF Reputation	-12.426	.001	<0.05 (*Significant)
		Complexity	.098	.204	>0.05 (Not significant)
2 (With moderation)	R^2	065			
	F-test	.004[b]			
	t- test	Leverage	-.396	.513	>0.05 (Not significant)
		PAF Reputation	-8.398	.053	>0.05 (Not significant)
		Lev_Compleks	.144	.021	<0.05 (*Significant)
		PAF_Compleks	-.363	.060	>0.05 (*Not significant)
		Complexity	.151	.246	>0.05 (Not significant)

Source: Processed data, 2025

Table 8 shows that the adjusted R^2 value in model 1 is 0.045, meaning that the variables of leverage, PAF reputation, and company complexity can explain 4.5%. After adding interaction variables, the adjusted R^2 value increases to 0.065, meaning that the variables of leverage, PAF reputation, company complexity, the interaction variable between leverage and complexity (Lev_ complex), and the interaction between PAF reputation and company complexity (PAF_ complex) can explain 6.5% of audit delay, while 93.5% is explained by other variables outside the regression model.

Table 8 shows a Sig. of less than 0.05 (0.009), meaning that the regression model before adding the interaction variable is feasible (fit). Furthermore, after adding the interaction variable, the Sig. is less than 0.05 (0.004), meaning that the regression model is feasible (fit).

According to Ghozali (2018), the criterion for determining wehether a hypothesis is accepted is a Sig. value < 0.05, meaning that the independent variable partially influences the dependent variable.

Regression equation:

Model 1

$AD = a + b_1Lev - b_2PAF + b_3Complex + e$

$AD = 61.889 + 0.317Lev - 12.426PAF + 0.098Complex$

Based on Table 8, the Sig. value of leverage is 0.545 > 0.05, while the moderating variable of company complexity is 0.204 > 0.05, meaning that the independent variable leverage and the moderating variable of company complexity do not affect audit delay. Meanwhile, PAF reputation has a Sig. value of 0.001 < 0.05, meaning that PAF reputation has a negative effect on audit delay.

According to Ghozali (2018), moderate regression analysis is used an analytical method that ensure sample data consistency and allow reseachs to control the influence of moderator variables.

Regression equation:

$AD = a - b_1Lev - b_2PAF + b_3Lev\_Complex - b_4PAF\_Complex + b_5 Complex + e$

$AD = 60.882a - 0.394 Lev - 8.398 PAF + 0.144 Lev\_ Complex - 0.363 PAF\_ Complex + 0.151 Complex$

Table 8 shows that after including the interaction variable between the independent variables and moderation, the Sig. values of leverage (0.513), PAF reputation (0.053), and moderation variable complexity (0.246) mean that they have no effect on audit delay. Then, the interaction variable between leverage and company complexity (Lev_Complex) has a Sig. value of 0.021 < 0.05, meaning that complexity can strengthen the positive effect of leverage on audit delay. Meanwhile, the interaction

variable between PAF reputation and company complexity (PAF_ Complex) has a Sig. value of 0.060, > 0.05, meaning that company complexity cannot moderate the effect of PAF reputation on audit delay.

DISCUSSION

The Effect of Leverage on Audit Delay

The results of this study indicate that leverage has no effect on audit delays. Therefore, the hypothesis stating that leverage has a positive effect on audit delays is rejected. This means that high or low leverage does not guarantee a longer or shorter audit period. Auditors may remain committed to conducting the audit process on time in order to meet the specified financial reporting deadlines, especially for companies listed on the Indonesia Stock Exchange that are bound by applicable regulations. These results are in line with the research by Rani and Triani (2021), Thinh et al. (2022), and Iryani et al. (2025), which show that leverage does not affect audit delay.

The absence of leverage's influence on audit delays can be attributed to several reasons, including the fact that energy sector companies in Indonesia typically have stable debt, and auditors have taken this into account from the outset of audit planning. There are also strict OJK regulations and sanctions that encourage companies and auditors to complete audits on time, regardless of the level of leverage. Furthermore, professional auditors have a set way of working when auditing companies, whether they have high or low leverage, so that the audit process does not take longer.

The Effect of PAF Reputation on Audit Delay

The results of this study indicate that PAF reputation has a negative effect on audit delay. First hypothesis is accepted. These results are in line with agency theory, where by principals naturally want to produce accurate, credible, and timely financial reports as a guarantee that the financial reports are free from misstatement. Therefore, they are more likely to entrust the examination of financial statements to a PAF with a high reputation, as it is considered to be more independent, experienced, and motivated to maintain its good name, so that it will be professional in conducting audit procedures accurately, quickly, and on time. In relation to signaling theory, companies that use the services of the big four PAF send a positive signal that the company has good governance and does not have any hidden information. A high PAF reputation indicates high audit quality. They will strive to maintain their credibility and professionalism so that the PAF's reputation is maintained, so that the big four PAFs will not delay the audit process.

The results of this study are in line with David and Butar (2020), which shows that PAF reputation has a negative effect on audit delay. The big four PAFs are trusted to complete audits faster because they have the competence and expertise, so the audit delay experienced by companies will tend to be short. This finding is also in line with Siswanto and Suhartono (2022) and Yanti et al. (2022), who showed that audit delays are negatively affected by PAF reputation.

The Effect of Leverage on Audit Delay with Company Complexity as a Moderating Variable

The results of this study indicate that company complexity can strengthen the positive effect of leverage on audit delay. Therefore hypothesis 3 is accepted.

From a signaling theory perspective, complex companies with high leverage can send negative signals to shareholders regarding high financial risk, and the audit process will take longer because complex companies have many procedures and information that must be verified. According to Marcelino and Mulyani (2021) and Saifi et al. (2024) state that complex companies with high leverage can send bad signals to shareholders, causing companies to delay the publication of their financial reports, and the audit process will take longer due to the large number of activities and high complexity, resulting in longer audit delays.

This study supports agency theory, whereby the higher the complexity of a company and the greater its leverage, the greater the potential for conflicts of interest between principals and agents due

to information asymmetry. According to Herawaty and Nugraha (2023), independent auditors need more time to analyze complex companies. Sambuaga and Santoso (2020) and David and Butar (2020) also show that company complexity can prolong audit delays. When this condition occurs in companies with high debt ratios, it will cause audit delays to be even longer. Research by Illahi and Oknaryana (2023) and Yacoob and Mohamed (2021) shows that leverage can prolong audit delays. Companies with high complexity and high leverage can cause greater information imbalance, because complex companies have broader activities, so not all of them can be monitored properly, coupled with high leverage which will make management's image look bad in the eyes of the principal. Therefore, auditors need to perform more in-depth audit procedures to reduce information imbalance in complex companies with high leverage, which ultimately makes audit delays even longer.

These findings indicate that the relationship between leverage and audit delay has the potential to be stronger in highly complex companies. Therefore, higher leverage, especially in highly complex companies, will result in longer audit completion times.

The Effect of PAF Reputation on Audit Delay with Company Complexity as a Moderating Variable

The results of this study indicate that company complexity cannot moderate the effect of PAF reputation on audit delay. hypothesis 4 is rejected. PAF reputation remains a dominant factor, and the level of corporate complexity is not strong enough to moderate this effect.

Signaling theory states that companies with good PAF reputations send positive signals to the public regarding their quality and credibility. The Big Four PAFs are still able to complete audits on time in both highly complex and low-complexity companies. Anggraini et al. (2024) mention that auditors with a good reputation may have higher standards in the audit process, for example, reflected in accurate internal control assessments or efficiency in evidence assessment. Therefore, a trusted PAF will still conduct audits professionally, thoroughly, and on time, even in complex companies.

In relation to agency theory, PAFs with good reputations are believed to be able to handle information asymmetry through a careful examination process. This finding shows that PAFs with good reputations are capable of managing agency problems, both for companies with high and low complexity.

These findings explain the reasons behind the inconsistencies in previous studies, namely those by David and Butar (2020), Siswanto and Suhartono (2022), and Yanti et al. (2022), which indicated that PAF reputation had a negative effect on audit delay. Meanwhile, Febrianingrum et al. (2023), Safitri and Triani (2021), and Endri et al. (2024) showed that there was no effect. The rejection of the moderating role of company complexity indicates that company complexity cannot explain the differences in results obtained in previous studies. Thus, the relationship between CPA reputation and audit delay is direct and is not influenced by the level of company complexity. This study is in line with Ferdianto et al. (2022), which shows that the number of subsidiaries does not moderate the size of PAF on audit dela.

CONCLUSION

The purpose of this study is to determine how leverage and PAF reputation affect audit delay with company complexity as a moderating variable in energy sector companies listed on the IDX for the period 2022-2024. The following conclusions can be drawn based on the results of the analysis using multiple linear regression and MRA as well as the results of the discussion.

1. The leverage does not effect on audit delay in energy sector companies listed on the IDX (2022-2024), first hypothesis (H_1) was rejected.
2. The PAF reputation variable has a negative effect on audit delay in energy sector companies listed on the IDX (2022-2024), thus accepting the second hypothesis (H_2).
3. complexity can moderate the effect of leverage on audit delay. Thus, hypothesis (H_3), which states that company complexity strengthens the positive effect of leverage on audit delay, is accepted.

4. The complexity of the company was unable to moderate the influence of the PAF reputation on audit delay, so the fourth hypothesis (H_4) was rejected.

Several limitations of this study should be considered. This study is limited to energy companies listed on the IDX from 2022 to 2024, so the results cannot be generalized to other industries. In addition, the relatively low adjusted R2 value (6.5%) indicates that there are still many other factors outside the model that can affect audit delays, company size, or profitability, audit opinions, and others.

Therefore, it is recommended that future research expand the sample to various industrial sectors, add independent variables such as profitability, audit opinion, or company age, and extend the research period so that audit delay can be explained more broadly. From a theoretical perspective, the results of this study reinforce agency theory and signaling theory by emphasizing the importance of PAF reputation as an external monitoring tool in reducing information asymmetry. In addition, company complexity is shown to moderate the effect of leverage on audit delay. From a practical standpoint, these findings indicate the importance of selecting reputable PAFs to improve the quality of internal control, especially for companies with high complexity and leverage. For regulators and investors, the results of this study provide additional indicators related to the quality of governance and the timeliness of financial reporting in the process of supervision and investment decision-making.

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