# THE INFLUENCE OF AUDIT QUALITY ON ACCRUAL PROFIT MANAGEMENT WITH FINANCIAL DISTRESS AS A MODERATION VARIABLE

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## Abstract

Earnings management is a common problem in public companies that challenges auditors in overseeing the realisation of financial reports that are relevant and accurate to external parties. The purpose of this research is to examine the influence of auditor's role on manager's behaviour. The four independent variables of the auditor's role consist of auditor independence, measured using the proxy formula, client importance, public accounting firm (PAF) size, PAF industry specialization and audit tenure measured using dummy variables. The dependent variable, accrual earnings management, is measured using the modified Jones' model (Dechow et al., 1995). The moderation variable, financial distress, is measured using the Altman Z-score. The research data sample includes 61 public manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2016–2022, obtained through purposive sampling techniques. The data analysis method uses multiple linear regression. The results of this study indicate that auditor independence through client importance and audit tenure does not significantly affect accrual-based earnings management. Public accountant size has a negative effect on accrual-based earnings management, while industry specialization of public accountant has a positive effect. FD can strengthen the impact of auditor independence through client importance and public accountant size on accrual-based earnings management and weaken the influence of public accountant's industry specialization and audit tenure on accrual-based earnings management.

**Keywords:** Audit Quality, Earnings Management, Financial Distress, Financial Statement

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## 1. INTRODUCTION

In recent years, the economy in Indonesia has experienced many significant fluctuations. This arises from many global phenomena that have emerged, from COVID-19 to the war between Ukraine and Russia. This phenomenon not only has an impact on the Indonesian economy but also has an impact on the world economy (Pagiling et al., 2023). This is exacerbated by the prediction of a recession in the United States which will have a chain impact on the economies of various countries, including Indonesia. This is because world trade is still dominated by the United States' dollar currency.

The impact of this phenomenon will be felt directly in the Indonesian economy, because many manufacturing, mining and other companies that import and export are directly affected by the weakening of the rupiah. This will have an impact on expensive import inventories that companies need to pay for and reduced export value from company sales. Reduced company income will also be related to the company's ability to pay workers so that there is a cut loss effort from the company. Constraints on companies on the producer side in paying for labor will be felt directly on the consumer side as well as on the community itself, where this will reduce people's ability or purchasing power so that the economy will be hampered (Putri et al., 2021). This is the domino effect caused by the events of the last year. The economic downturn will be in line with a decline in company performance, where this will become a problem in the sustainability of a company, which will create a motive from the management, resulting in earnings management, where managers will try to influence or manipulate the records and real operations of the company so that the company can maintain the level of profitability. their profits in the current time period. This will result in the profit stated in the financial report where earnings management has been carried out will reduce the accuracy of the information regarding the reflection of the company's own performance (Putra, 2011).

This concrete form of profit management practice has recently been carried out one of our local company, where at the end of 2022 the company recorded a profit but it turned out that the company recorded negative cash flow. This is a strong suspicion that the company practices earnings management, specifically accrual earnings management. However, in 2022, the public accountant that audited the company will provide a fair opinion without exception. Because the company case is a case that only occurred at the end of 2022, the case is still being investigated by the authorities. However, at the same time, the public accounting firm (PAF) that audited company has been sanctioned by the Indonesian Financial Services Authority (*Otoritas Jasa Keuangan*, *OJK*) and the Ministry of Finance because it was involved in a scandal with the other client company. With the strong suspicion case against the company and the scandal that occurred at other client, a common thread emerged in the role of the same auditor. In addition to previous research. It was highlights the importance of controling for financial performance when investigating earning management that are correlated with financial performance (Dechow et al., 1995). Auditors as a form of supervision in companies have the responsibility to detect material misstatements in the company's financial reports so that the auditor can provide an opinion on the fairness of the client company's financial statements by complying with professional ethics where the public interest is the top priority (Al Husban et al., 2022).

In determining how big the auditor's role is in influencing managers in carrying out earnings management practices, variables are needed to measure the size of the auditor's role. One indication of the process or audit that affects earnings management is audit quality. The quality of the audit process carried out by the auditor will be able to influence earnings management because with a quality audit process, the detection of irregularities in a financial report can be more effective so that company management will be more reluctant or unwilling to practice earnings management actions because this will be reflected. on the audit opinion issued by the auditor which is directly used by stakeholders in making judgments about company performance (Payamta et al., 2024).

In Herusetya's (2012) research, audit quality itself can be measured using several proxies such as auditor independence, size. Public accountant industry specialization and tenure audit. Auditor independence through client importance itself is believed to influence the quality of an auditor's auditing, this is because independence is closely related to integrity as one of the auditor's professional ethics. The public accountant size itself is a theory where large-scale public accountants such as the Big 4 itself are believed to provide better audit quality so that the public accountant size itself can be used as a proxy for audit quality. Public accountant industry specialization can be used as a proxy for audit quality because public accountants with certain industry specializations are believed to provide better audit quality. audit tenure or the audit engagement itself is believed to influence the integrity and objectivity of the auditor so that it will affect the quality of the audit provided by the auditor so that this variable can be used as a proxy variable (Herusetya, 2012).

The research gap in this research is the relevance of the last year taken compared to previous research that used the same proxies. In addition, the use of financial distress as a moderating variable is still relatively rare in similar studies. In this research, we will research and find out about the quality of audits on earnings management, specifically on accrual earnings management through real data evidence with data and factors that are relevant to the present, so that the results of the research will be more relevant to understand in recent years. Each variable is measured using proxies that are usually used for each variable with reference to previous research.

The structure of the paper is as follows. Section 2 focuses on discussing the theories and concepts used in writing the research where the theories and concepts come from various scientific sources. Section 3 contains the techniques used in the research consisting of specifications regarding the measurement of variables carried out, the population and sample data used, along with the empirical model intended for testing hypotheses. Section 4 represents the results of the analysis of the formulation of problems and hypotheses that have been carried out previously. Finally, Section 5 contains a summary of the entire research, and

limitations and suggestions given by researchers based on a review of the process and findings of the research that has been carried out.

## 2. LITERATURE STUDY AND HYPOTHESES DEVELOPMENT

Agency theory is a theory that in corporate governance when there is a division or differentiation between the owner (shareholder/ principal) and management (agent) it can give rise to agency conflicts (Jensen & Meckling, 1976). Agency conflict is defined as an action where the agent acts or makes decisions that are not in line with or are not expected by the shareholder or principal (Nur, 2012, as cited in Oktaviani et al., 2015). In Indonesia itself, agency theory has been regulated in the agreement No. 47 between the Republic of Indonesia and Australia on the framework for security cooperation (2007) concerning company management carried out directly by the company's directors. Apart from that, the law also stipulates that the commissioners have the task of supervising the policies made by the directors in carrying out the company's operations (Triyuwono, 2018). Basically, shareholders can also make mistakes in appointing directors and commissioners to carry out their duties in running and supervising the running of the company. This error in appointment or selection is usually also called adverse selection. Adverse selection is usually caused by a lack of adequate information or knowledge regarding the character and abilities of the directors or commissioners selected by the principal. Agency problems do not only originate or occur between shareholders/principals and directors, but there are also problems from other parties, such as between the government and the community and employers and workers (Amar et al., 2022).

The quality of the audit in question is basically referred to as how effective the audit has been carried out by the auditor on the client's financial statements with the aim of checking the fairness of the information provided by the company through the financial reports. Audit quality is a multidimensional and complex concept, where perceptions of audit quality can vary among stakeholders, depending on how involved stakeholders are in the audit process and their views on how audit quality should be measured (Sihombing & Izzah, 2022). For example, investors have their own views on audits. Investors have a need for company financial reports for decision making. To be useful for decision making, financial reports must be highly reliable, so investors measure audit quality by the reliability of the financial statements. Investors will consider financial statement preparers and auditors who have expressed opinions on financial statements. Investors can expect that companies that have passed audits can produce reliable financial reports (Pujilestari & Herusetya, 2013).

Earnings management is described as a practice used by management with the aim of manipulating the company's profit level where the profit level does not directly reflect the company's performance. This practice usually has two forms, including accrual earnings management practices and real earnings management practices. The practice of accrual earnings management means management activities to manipulate profits through accounting records. For example, management carries out profit practices by recognizing a transaction as company income more quickly than it should, or the company also shifts expenses from this period to the next period with the aim of increasing profits in the current period. Management's motivation in carrying out earnings management practices is usually because the personal manager is seen as competent in leading the company and it could also be that the manager wants to get a high bonus based on the profits generated by the company or the motive is so that the company can look good so that many potential investors will come to invest in the company (Rahmawardani & Muslichah, 2020). Apart from the manager's motivation to increase profits, managers also carry out profit management by reducing the company's profit level, so that the company can pay less tax based on the profit level or the company can also get tax facilities due to the lower profit level.

Financial distress or what is commonly known as financial difficulty in a company is described in a situation where a company's asset size and profitability are inadequate or lower than the size of the company's liabilities. Because the company has profitability problems, this will cause negative cash flow for the company. In theory, negative cash flow will make it difficult for companies to produce liquid assets which will then become a problem with their liquidity. In the long term, companies will find it difficult to set aside their cash to pay long-term debt, which means that the company's solvency will also experience problems. In the end, if this is not resolved by the company, the company itself will go bankrupt (Sihombing & Izzah, 2022). Basically, management will act, namely prioritizing short-term debt payments by allocating company assets or resources as a form of short-term debt payment. However, this will reduce the company's overall performance. With a decline in company performance, the company will also be assessed by stakeholders and investors as not growing. Therefore, in theory, financial distress itself is a bad situation which is a red light for managers to resolve the problem as soon as possible (Jostarndt, 2007).

Basically, independence for an auditor is important because it is a form of integrity and objectivity, which means that independence can influence the auditor's professionalism in the results of the auditor's audit, which is the auditor's responsibility, especially towards the interests of the principal (professional influence). In Susanto and Herusetya's (2014) research, it was found that auditor independence has a negative effect on earnings management, where the higher the auditor's independence, the lower the earnings management. This explains that even though auditors who are economically dependent on their clients do not tolerate earnings management at the client's company, they strive to maintain the auditor's reputation by providing better audit quality (Susanto & Herusetya, 2014).

*H1: Client importance has a negative effect on accrual profit management.*

The size of public accountant is measured through the definition determined by the Regulation No. 17/PMK.01/2008. In this regulation the Indonesian government, specifically the Ministry of Finance, divides the size of public accountant into three levels (first, second and third tier) (Oscar & Harindahyani, 2019). In theory, the size of the public accountant, which is measured by the size of its

resources, including the number of experts, allows the auditor's results to be better. For this reason, most investors can trust first tier public accountants, namely the Big 4, in carrying out audits. With a high reputation at the Big 4, the company itself will be more reluctant to practice earnings management due to reputational risk, where the company will be more exposed if an anomaly is discovered by the public accountant. There is research that contradicts this theory, namely research by Alshare et al. (2023) which proves indications of the significant influence of the public accountant size variable on earnings management which is positive. However, there is also research that supports this theory, namely research by Rahdal et al. (2017) where this research found indications of a significant negative influence of public accountant size variables and earnings management. By considering theory and research that proves this theory, this theory will be the basis for the following hypothesis (Rahdal et al., 2017):

*H2: Public accountant size has a negative effect on accrual profit management.*

Public accountant specialization means how much knowledge and experience the public accountant has. With the public accountant having more experience in a particular industry, it is believed that the public accountant can better assess and know the ins and outs of the client company auditing process in the industry the public accountant specializes in. This is different from research by Hegazy et al (2015) which found that there was no evidence of a significant influence between public accountant industry specialization on earnings management. However, there is research using a sample of companies in Indonesia in the last two years, Marsetio and Yuliati (2022) found evidence that public accountant specialization is indicated to have a significant positive influence on earnings management. So, it can be explained by the argument that auditors with specialization will need more resources to audit all of the client company's assets so that the auditor's ability to discover client earnings management is not as effective. In addition, the sample obtained from this research came from companies based in Indonesia over a period of eight years, so with these considerations it can be determined that the hypothesis of this research will follow the results of the last year's research (Marsetio & Yuliati, 2022).

*H3: Public accountant industry specialization has a positive effect on accrual profit management.*

Basically, audit tenure is believed to have a relationship with earnings management because the length of the audit engagement can affect audit quality, where an audit engagement that has been established for a long time with a client company will give rise to the growth of a "relationship" between the auditor and the client which can damage the auditor's objectivity in the auditing process. Kurniawansyah's (2016) research proves that there are indications that the audit engagement period variable has a positive effect on earnings management, where the longer the audit engagement period that has been established between client companies, the higher the possibility of profit practices at that company.

*H4: Audit tenure has a positive effect on accrual profit management.*

Financial distress or conditions of financial difficulty in client companies. Basically, the situation of a company's financial difficulties can be a motive for company managers to practice earnings management. This is supported by research by Nazalia and Triyanto (2018) which found that there is a significant positive influence between companies and financial distress on accrual earnings management practices. This strengthens management motivation so that it is thought to be able to show or significantly strengthen the relationship between auditors who have high economic dependence on the clients of the companies they audit (Nazalia & Triyanto, 2018).

*H5: Financial distress strengthens the negative relationship between auditor independence (client importance) and accrual profit management.*

Companies with financial distress situations will basically strengthen managers' motivation in carrying out earnings management practices. In theory, companies that are audited by first tier or Big 4 public accountants, which have a lot of resources and experts, will be able to provide more accurate auditing so that they can pressure managers to carry out earnings management practices. External research also supports this, where research by Viana et al. (2022) found evidence that companies experiencing financial distress with Big 4 public accountants that carry out audits show low levels of earnings management practices in companies with financial distress that are audited by non-Big 4 public accountants.

*H6: Financial distress strengthens the negative relationship between public accountant size and accrual profit management.*

Referring to auditors from public accountants who specialize in certain industries are believed to be superior in experience to auditors from non-specialist public accountants. For this reason, in theory, companies with specialist public accountant auditors can be superior in detecting earnings management practices compared to being audited by non-specialist public accountants, where specialist public accountant auditors are more able to limit managers' flexibility in using earnings management practices. With the motivation to practice earnings management in companies experiencing financial distress, this should provide further evidence of the relationship between public accountant specialization and earnings management. This is also supported by research by Nazalia and Triyanto (2018) which found evidence that financial distress has a significant influence on management's attitude in carrying out earnings management.

*H7: Financial distress strengthens the positive relationship between public accountant industry specialization and accrual profit management.*

Audit tenure or the audit engagement period itself has been regulated by the Ministry, namely in POJK No. 9 of 2023 (Financial Services Authority, 2023) itself. In accordance with the audit tenure hypothesis in earnings management, the longer the audit engagement period that an auditor has had with a client company, the more indications there are of the practice of earnings management. This can be explained as a result of an auditor having a longer audit engagement which will create an emotional relationship with the client, so that the objectivity and integrity of the auditor in assessing or auditing the client is believed to decrease. The presence of financial distress in client companies can make managers more motivated in carrying out earnings management as shown in research by Nazalia and Triyanto (2018) so that this

will reveal more clearly the relationship between audit tenure and earnings management.

*H8: Financial distress strengthens the positive relationship between audit tenure and accrual profit management.*

## 3. RESEARCH METHODS

In this research, the technique applied in sampling is a purposive sampling method, where the selection of sample data is taken using techniques with certain considerations and criteria specifications (Sekaran & Bougie, 2016). The criteria or specifications that are part of this research involve sample data taken from public companies in the manufacturing industry sector and listed on the Indonesia Stock Exchange (IDX). The company data taken must be complete and the data has been audited by a public accounting firm for the period 2016–2022 or for seven years. Company data in the form of financial reports can be accessed or downloaded via the company's website or via the IDX website (https://www.idx.co.id/). Essentially, this research utilizes quantitative data analysis techniques, involving the collection, analysis, and interpretation of numerical data, with the purpose of gaining understanding and finding answers to the research problems.

The following empirical model is used in this research:

$$ABSDAC_{i,t} = a + \beta_1 CI_{i,t} + \beta_2 BIG4_{i,t} + \beta_3 SPCL_{i,t} + \beta_4 TENURE_{i,t} + \beta_5 FD_{i,t} + \beta_6 LIQ_{i,t} + \beta_7 LEV_{i,t} + \beta_8 PROFIT_{i,t} + \beta_9 COVID_{i,t} + \varepsilon \quad (1)$$

The multiple linear regression method is used with the aim of being a tool to analyse the relationship between the independent variable and the dependent variable while considering the effect of each independent variable contained in the study. The empirical model contained in this study is used to prove the effect of the relationship of the independent variables which include auditor independence (*CI*), PAF size (*BIG4*), PAF industry specialisation (*SPCL*), and audit tenure (*TENURE*) on the dependent variable, namely absolute discretionary accruals management (*ABSDAC*) along with proving the effect of the moderating variable, namely *FD* on the relationship between the independent variables and the dependent variable. In addition, this study also uses four control variables, three of which consist of company performance factors including liquidity (*LIQ*) through current ratio, profitability (*PROFIT*) through return on assets (ROA), and leverage (*LEV*) through debt-to-equity. The last control variable is COVID-19 (*COVID*). This is because by using differentiation of the year period before and after COVID-19, this study can distinguish between changes in impact caused by the pandemic and changes caused by ordinary earnings management practices. Data from manufacturing companies are used in this research because the manufacturing sector is the most affected sector by COVID-19 in Indonesia. The *COVID* variable is measured using a dummy variable, where by inputting a large index of auditor independence, PAF size, PAF industry specialisation, and audit tenure along with moderating variables and control variables, the results can be estimated.

Accrual profit management is measured using the modified Jones' model formula (Dechow et al., 1995), along with the formula for the calculation stages contained in this formula.

$$TAC_{i,t} = N_{i,t} - CFO_{i,t} \quad (2)$$

$$TAC_{i,t}/A_{i,t-1} = \beta_1\left(1/A_{i,t-1}\right) + \beta_2\left(\Delta REV/A_{i,t-1}\right) + \beta_3\left(PPE_{i,t}/A_{i,t-1}\right) + \varepsilon_{i.t} \quad (3)$$

$$NDA_{i,t} = \beta_1\left(1/A_{i,t-1}\right) + \beta_2\left((\Delta REV - \Delta REC)/A_{i,t-1}\right) + \beta_3\left(PPE_{i,t}/A_{i,t-1}\right) \quad (4)$$

$$ABSDAC_{i,t} = \left(TAC_{i,t}/A_{i,t-1}\right) - NDA_{i,t} \quad (5)$$

Equation (2) is used to calculate the total accruals of a company (*TAC*) by subtracting the company's cash flow operation (*CFO*) from its net income (*N*). After obtaining the total accruals value, it is further estimated by substituting the previously calculated total accruals of a company value (*TAC*), the company's total assets from the previous year ($A_{i,t-1}$), the change in the company's revenue ($\Delta REV$), and the company's total fixed assets (*PPE*) into multiple regression equation as shown in Eq. (3), to determine the precise values of $\beta_1$, $\beta_2$, and $\beta_3$.These three variable coefficients are then incorporated into the subsequent Eq. (4) to calculate nondiscretionary accruals (*NDA*) with the additional substitution of a new variable, Change in the company's accounts receivable ($\Delta REV$). The resulting *NDA* value is then substituted into Eq. (5) to obtain the absolute discretionary accruals (*ABSDAC*).

One of the other alternative measurements in accrual earnings management can use the performance matched model, but this study will still use the modified Jones' measurement because Sebayang and Veronica's (2014) research found that modified Jones' model can be better at measuring earnings management from the t-test probability level and the direction of the coefficient.

Auditor independence through the client importance proxy uses the formula used in previous research, namely *CI* is calculated using the natural logarithm of a public accountant's client company assets divided by the total natural logarithm of the public accountant's client company assets in a certain period (Herusetya & Natalie, 2021).

$$CI_{i,t} = SIZE_{i,t} / \left[\sum_{i=1}^{n} SIZE_{i,t}\right] \quad (6)$$

Public accountant size is measured using a dummy variable (*SIZE*) where if a public accountant is categorized as a Big 4 public accountant it will be given a value of 1 and a public accountant that is not categorized as a Big 4 public accountant will be given a value of 0.

Public accountant industrial specialization is measured using the formula for the share of assets

of a public accountant's client company in a particular industry and then the results are processed again into a dummy variable. The following is the public accountant industrial specialization formula used in this research:

$$SPCL = (Public\ Accountant's\ Company\ Total\ Assetsin\ a\ Particular\ Industry)/ (Total\ All\ CompanyAssets\ Audited\ in\ a\ Particular\ Industry) \times 100\% \quad (7)$$

If the *SPCL* value is 20% or higher, then the value of the *SPCL* variable proxy is 1, whereas if the value is below 20%, then the value of the *SPCL* variable proxy is 0, this is in accordance with research by Susanty (2022) and is based on with arguments from the research development of Craswell et al. (1995).

Audit tenure is measured using a dummy variable where if the audit engagement period of a public accountant for a client company is one to three years then it is given a value of 0 and if the audit engagement period is more than three years then it is given a value of 1.

*FD* as a moderating variable is measured using the Altman's (1968) Z-score method formula.

$$Z = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 0.99 \quad (8)$$

If the Z-value is above 2.99, it means the company is not indicated to be experiencing *FD*, if the Z-value is between 1.81 and 2.99, it means the company is not indicated to be experiencing *FD* but is at a vulnerable level, and if the Z-value is below 1.81 then the company is indicated experiencing *FD*.

## 4. RESULTS AND DISCUSSION

The descriptive statistical analysis method was employed as the initial step of the analysis in this study. The following table presents the results of the analysis method.

**Table 1**. Results of descriptive statistical analysis

| *Variable* | *N* | *Minimum* | *Maximum* | *Mean* | *Std. deviation* |
|---|---|---|---|---|---|
| *ABSDAC* | 427 | -4.499474 | 4.358672 | -0.075242 | 0.8772517 |
| *CI* | 427 | 0.0001516 | 0.873052 | 0.0412006 | 0.1038279 |
| *BIG4* | 427 | 0 | 1 | 0.3723653 | 0.4840021 |
| *SPCL* | 427 | 0 | 1 | 0.1826698 | 0.3868488 |
| *TENURE* | 427 | 0 | 1 | 0.4637002 | 0.4992655 |
| *FD* | 427 | -17.78081 | 17.40795 | 1.68854 | 3.673795 |
| *LIQ* | 427 | 0.06014 | 16.28213 | 2.111788 | 1.900764 |
| *PROFIT* | 427 | -2.640402 | 0.6069661 | 0.028984 | 0.1807272 |
| *LEV* | 427 | -45.95938 | 29.31668 | 1.105223 | 3.262941 |
| *COVID* | 427 | 0 | 1 | 0.2857143 | 0.4522839 |

*Source: STATA 17 results.*

If the standard deviation value of a variable data is higher than the mean value of the variable, it can be concluded that the variable data is quite varied. In the descriptive statistical analysis processed using STATA 17 for this research, the variables are accrual earnings management (*DAC*), auditor independence (*CI*), public accountant size (*BIG4*), public accountant industry specialization (*SPCL*), audit tenure (*TENURE*), financial distress (*FD*), profitability (*PROFIT*), leverage (*LEV*), and COVID-19 (*COVID*) have a standard deviation value that is greater than the mean value, which means that the data for these variables is quite varied, on the other hand, the liquidity variable (*LIQ*) has a standard deviation value lower than the mean value. Means the data does not vary. The extreme values found in both leverage and liquidity have been verified for their accuracy through manual calculation. Although these values can still be categorized as outliers, they are still used in the research to ensure that the results of the data processing remain realistic.

Based on the results of correlation analysis using the Pearson correlation method, it can be seen that there is a weak significant relationship between several variables, including the *CI* variable and the *BIG4* variable, the *BIG4* variable and the *SPCL* variable, the *SPCL* variable and the *TENURE* variable. This can cause problems because there is a correlation between the independent variables. However, the problem between the three independent variable relationships is still considered weak because the results of Pearson correlation, the correlation coefficient shows weak significance (above 10%, below 30%). Based on the dummy variables in the data, the specific numbers are as follows: 159 companies are audited by Big 4 firms, while 268 are not; 78 companies are categorized as having industry specialization (*SPCL*), while 349 are not; 198 companies have an audit tenure of over three years, while 229 do not; 122 companies are affected by COVID-19, while 305 are not.

**Table 2**. Results of Pearson correlation analysis

| *Variable* | *ABSDAC* | *CI* | *BIG4* | *SPCL* | *TENURE* | *FD* | *LIQ* | *PROFIT* | *LEV* | *COVID* |
|---|---|---|---|---|---|---|---|---|---|---|
| ***ABSDAC*** | 1 | | | | | | | | | |
| ***CI*** | -0.0558 | 1 | | | | | | | | |
| ***BIG4*** | 0.1207* | -02391* | 1 | | | | | | | |
| ***SPCL*** | 0.2600* | -0.1574* | 0.5887*** | 1 | | | | | | |
| ***TENURE*** | 0.0260 | -0.0594 | 0.0221 | 0.1073* | 1 | | | | | |
| ***FD*** | 0.1503* | -0.1269* | 0.3350** | 0.0942 | -0.0621 | 1 | | | | |
| ***LIQ*** | 0.1579* | -0.0654 | 0.1070* | 0.0971 | -0.0490 | 0.3088** | 1 | | | |
| ***PROFIT*** | 0.0814 | -0.0360 | 0.2197 | 0.0634 | 0.0304 | 0.5370*** | 0.1661* | 1 | | |
| ***LEV*** | -0.0169 | 0.0234 | -0.0269 | -0.0367 | 0.0285 | 0.0991 | -0.0861 | 0.0400 | 1 | |
| ***COVID*** | -0.0047 | 0.0032 | -0.0475 | -0.0307 | 0.3059** | -0.0447 | -0.0377 | -0.0266 | 0.0461 | 1 |

*Note: *, **, and *** indicate significance levels of 10%, 5%, and 1%, respectively.*
*Source: STATA 17 results.*

Apart from the results of the Pearson correlation analysis of the three previous pairs of variables. There is a strong significance problem in the variable pair between the *SPCL* variable and the *BIG4* variable as shown by the correlation coefficient results (above 50%, below 80%). This can be explained because the Big 4 public accountants themselves have many clients in manufacturing industry companies so there is a link between these two variables, and this is reinforced by measurements that both use dummy variables. It is feared that this will cause problems for further testing of the hypotheses model. Apart from that, the *BIG4* variable and the *SPCL* variable on the dependent variable, namely the *DAC* variable, provide an initial prediction where there is a significant correlation between the two independent variables and the dependent variable, so there is a possibility that the hypothesis of the two independent variables will be accepted.

The classical assumption test in this research includes three tests, namely the normality test, multicollinearity test, and heteroscedasticity test. The normality test was carried out using three methods, namely the Shapiro-Wilk method, the Shapiro-Francia method, and the Skewness/ Kurtosis method. Based on the results of the normality test with the STATA application in testing using the Shapiro-Wilk model, it can be concluded that the *BIG4* data, *TENURE* data have the characteristics of normally distributed data (signification level above 10%). Meanwhile, *CI* data, *SPCL* data, *FD* data, *LIQ* data, *PROFIT* data, *LEV* data, and *COVID* data have data that is not normally distributed (significance level below 10%). In testing normality using the Shapiro-Francia model, it can be concluded that the normally distributed data are *BIG4* data, *SPCL* data, and *TENURE* data (significance level above 10%), while the remaining variables are indicated as not normally distributed. Finally, the normality test using Skewness/Kurtosis in the STATA application shows that only *BIG4* data and *TENURE* data are normally distributed while the remaining variables are indicated as not normally distributed (signification level below 0.01%). In this study, the Box-Cox treatment was not carried out because the data from the dependent variable (*DAC* data) had a range of values up to negative, so it was not possible to carry out the Box-Cox treatment.

In the multicollinearity test, the variance inflation factor (VIF) tests multicollinearity in models without interaction variables and also in models with interaction variables. Model testing with interaction variables began to be carried out in preparation for hypotheses testing regarding the role of moderating variables in moderating the influence of the independent variable on the dependent variable. The results of the multicollinearity test of the VIF method in the model without interaction variables show that the overall VIF value for all variables does not exceed the value of 5, this indicates that all variables in the model without interaction variables do not have multicollinearity problems. Meanwhile, in the multicollinearity test with a model with interaction variables, there is one variable, namely the *FD* variable, whose VIF value is above 5, this could indicate that the *FD* variable in the model with interaction variables has the potential to cause problems with multicollinearity but not to the point of multicollinearity problems. serious (serious problem if the VIF value is above 10). Apart from that, this can also be normal because this is a general weakness in models with interaction variables. However, overall the average value or mean value in the two models does not exceed 5 so that on average all the variables in the two models will not cause problems with multicollinearity.

Heteroscedasticity testing aims to see whether the data contained in the variables has various variations. If the data has uniform variations then the data means it has homogeneous properties so it is feared that this could cause problems with heteroscedasticity. Heteroscedasticity testing in this study used the STATA application with the Breusch-Pagan method, where the test results on the model without interaction variables showed that the model was not indicated to experience heteroscedasticity because the probability value (Prob > Chi 2) was above 0.00, whereas in the model test with variables interaction can indicate that the model is experiencing heteroscedasticity because the probability value is below 0.00. In this study, the Box-Cox treatment was not carried out because the data from the dependent variable (*DAC* data) had a range of values up to negative, so it was not possible to carry out the Box-Cox treatment.

**Table 3.** T-statistical test results (hypotheses testing) (without interaction variables)

| *ABSDAC* | *Coefficient* | *Std. error* | *t* | *P > \|t\|* |
|---|---|---|---|---|
| *CI* | -0.1011591 | 0.3855597 | -0.26 | 0.793 |
| *BIG4* | -0.208098 | 0.0847131 | -2.46 | 0.014*** |
| *SPCL* | 0.6866732 | 0.1407733 | 4.88 | 0.000*** |
| *TENURE* | 0.0110927 | 0.0854791 | 0.13 | 0.897 |
| *FD* | 0.0308657 | 0.0179083 | 1.72 | 0.086** |
| *LIQ* | 0.0457875 | 0.0194179 | 2.36 | 0.019 |
| *PROFIT* | 0.0082103 | 0.175556 | 0.05 | 0.963 |
| *LEV* | -0.0036315 | 0.0125983 | -0.29 | 0.773 |
| *COVID* | 0.0143442 | 0.0917154 | 0.16 | 0.876 |
| Constant | -0.2732979 | 0.1000013 | -2.73 | 0.007 |
| Prob > F = 0.000<br>R-squared = 0.1011<br>Adj. R-squared = 0.0817 | | | | |

*Note: *, **, and *** indicate significance levels of 10%, 5%, and 1%, respectively.*
*Source: STATA 17 results.*

After testing the classical assumptions, before carrying out regression to test the model and hypotheses, the research data is treated by robustizing the data by using the automatic commands provided by STATA and after that the regression is carried out. When testing the model specifications using the F-test, it can be concluded that the model without interaction variables has no

problems because the probability value in the F-test shows that the results are below 0.01 or are significant. In the results of the model specification test using the coefficient of determination test above, it can be seen that in the model without interaction variables, the independent variable has the capability to explain changes in the dependent variable, namely 0.1011 or 10.11%.

For the hypothesis testing using a one-tailed approach, the t-test probability value is divided by two. Based on the t-hypothesis test with the STATA application, it can be concluded that:

1. The influence of the independent variable *CI* on the dependent variable *DAC* shows that the t-test probability value is 0.3965 (0.793 divided by 2) or 39.65% with a negative coefficient direction, namely -0.1011591. This shows that the independent variable *CI* does not have a significant effect on the dependent variable *DAC* so that *H1* is rejected. This is different from the results of Susanto and Herusetya's (2014) research which explains that auditor independence using the *CI* proxy has a significant negative effect on accrual earnings management. This may be due to the fact that the study used a much larger sample data and with a more varied company industry.

2. The influence of the independent variable *BIG4* (public accountant size) on the dependent variable *DAC* shows that the probability value of the t-test is 0.007 (0.014 divided by 2) or 0.7% with a negative coefficient direction, namely -0.208098. This means that the *BIG4* variable has a significant negative effect on the *DAC* variable with a significance level of 1% so that *H2* is accepted. However, the results of this study differ from Alshare et al.'s (2023) research which found that there is a significant positive effect on earnings management, the difference in results may be due to differences in the method of measuring earnings management, where the study used the performance matched model method and the company sample from the study was also taken from Jordan, not Indonesia.

3. The influence of the independent variable *SPCL* (public accountant industrial specialization) on the dependent variable *DAC* shows that the probability value of the t-test is 0.000 or below 0.1% with a positive coefficient direction, namely 0.6866732. This shows that the independent variable *SPCL* has a significant positive effect on the *DAC* variable so that *H3* is accepted. This is not in accordance with Hegazy et al.'s (2015) research which found evidence that PAF industry specialisation has no significant effect on earnings management. This may be because the sample taken in the study was a sample of companies in Egypt, while the measurement of PAF industry specialisation in that study was defined by the auditor's accumulated years of experience in auditing an industry. However, the results of this study are in accordance with the research of Marsetio and Yuliati (2022) where the study found that industry specialisation has a significant positive effect on earnings management, where in that study the measurement of PAF industry specialisation and the measurement of earnings management used the exact same method.

4. The influence of the independent variable *TENURE* (audit tenure) on the dependent variable *DAC* shows that the probability value of the t-test is 0.4485 (0.897) or 44.85% with a positive coefficient direction, namely 0.0110927. This shows that the independent variable *TENURE* does not have a significant influence on the *DAC* variable, so *H4* is rejected. This is not in line with Kurniawansyah's (2016) research which finds evidence that audit tenure has a significant positive effect on accrual earnings management where the longer the audit engagement in a company, the higher the indication of the company's earnings management. Although the study had a similar sample, based on the earnings management measurement formula used by the study, it used the matched performance model measurement. This may occur because the measurement used in earnings management in this study (modified Jones model) does not consider ROA in the final calculation.

**Table 4.** T-statistical test results (hypotheses testing) (with interaction variables)

| *ABSDAC* | *Coefficient* | *Std. error* | *t* | *P > \|t\|* |
|---|---|---|---|---|
| *CI* | 0.1358879 | 0.2340602 | 0.58 | 0.562 |
| *BIG4* | 0.1630325 | 0.1174127 | 1.39 | 0.166* |
| *SPCL* | 0.5137979 | 0.2072382 | 2.48 | 0.014*** |
| *TENURE* | 0.0353073 | 0.115876 | 0.30 | 0.761 |
| *FD* | 0.1333936 | 0.0318453 | 4.19 | 0.000*** |
| *CI × FD* | -1.308974 | 0.2092368 | -6.26 | 0.000*** |
| *BIG4 × FD* | -0.1562503 | 0.0279796 | -5.58 | 0.000*** |
| *SPCL × FD* | 0.026949 | 0.0456284 | 0.59 | 0.555 |
| *TENURE × FD* | -0.0223114 | 0.0333179 | -0.67 | 0.503 |
| *LIQ* | 0.0232111 | 0.0180179 | 1.29 | 0.198 |
| *PROFIT* | -0.00929631 | 0.2502802 | -0.37 | 0.711 |
| *LEV* | -0.0071683 | 0.0115053 | -0.62 | 0.534 |
| *COVID* | 0.0014023 | 0.088377 | 0.02 | 0.987 |
| Constant | -0.2938748 | 0.1002391 | -2.93 | 0.004 |
| Prob > F = 0.0000<br>R-squared = 0.1827<br>Adj. R-squared = 0.1570 | | | | |

*Note: *, **, and *** indicate significance levels of 10%, 5%, and 1%, respectively.*
*Source: STATA 17 results.*

Testing *F* on a model with interaction variables with the aim of seeing the influence of the moderating variable, previously carried out treatment by robustizing the data and after that a regression was carried out. The results of this F-test show that the value in the F-test is below 0.01 or is significant, which means that the model with interaction variables has no problems, and in testing the model specifications using the coefficient of determination test in this model, the independent variable has the capability to explain changes in the dependent variable, namely amounting to 0.1827 or 18.27%.

Next, we test the t-test hypothesis with a model containing interaction variables with the aim of testing the hypotheses on the influence of the moderating variable. Based on the hypotheses testing of the STATA application t-test with this model, it can be determined that:

1. In the variable *FD* as a moderating variable, where the interaction variable *CI* × *FD* with the dependent variable *DAC* has a t-test probability value of 0.000 or brought to 0.1% and the direction of the coefficient is negative, namely -1.308974. This proves that the *FD* variable can strengthen the negative influence of the *CI* variable on the *DAC* variable with a significance level of 1%, so it means that *H5* is accepted. This is in accordance with Nazalia and Triyanto's (2018) research which shows that *FD* itself can provide more motivation for managers to carry out accrual earnings management so that these results can clearly show the relationship between auditor independence through *CI* on earnings management.

2. In the variable *FD* as a moderating variable, where the interaction variable *BIG4* × *FD* with the dependent variable *DAC* has a t-test probability value of 0.000 or brought to 0.1% and the direction of the coefficient is negative, namely -0.1562503. This proves that the *FD* variable can strengthen the negative influence of the *BIG4* variable on the *DAC* variable with a significance level of 1%, so it means that *H6* is accepted. This can be explained because companies that experience financial tend to carry out earnings management and these results can further clarify that there are differences in the level of earnings management for companies audited by Big 4 and those audited by non-Big 4. This is also in accordance with the research of Viana et al. (2022) who have found evidence that if companies experiencing *FD* and audited by non-Big 4 PAF tend to do more earnings management than companies with *FD* but audited directly by Big 4 PAF.

3. In the variable *FD* as a moderating variable, where the interaction variable *SPCL* × *FD* with the dependent variable *DAC* has a t-test probability value of 0.555 or 55.5% and the direction of the coefficient is positive, namely 0.026949. This proves that the *FD* variable does not have a significant influence in strengthening the *SPCL* variable on the *DAC* variable, so it means that *H7* is rejected. This explains that although *FD* can motivate company management to carry out earnings management practices according to Nazalia and Triyanto's (2018) research, which should clearly show the difference between companies audited by PAF that have industry specialisation and companies audited by PAF that do not have industry specialisation. However, this study proves that *FD* cannot moderate, where even companies that are not audited by auditors who have industry specialisation can carry out earnings management in the presence of *FD*, this is what can weaken the relationship from PAF industry specialisation to accrual earnings management.

4. In the variable *FD* as a moderating variable, where the interaction variable *TENURE* × *FD* with the dependent variable *DAC* has a t-test probability value of 0.503 or 50.3% and the direction of the coefficient is negative, namely -0.0223114. This proves that the *FD* variable does not have a significant influence in strengthening the *TENURE* variable on the *DAC* variable, so it means that *H8* is rejected. This explains that although *FD* can motivate company management to carry out earnings management practices according to Nazalia and Triyanto's (2018) research, which should clearly show the difference between companies audited by PAF that have industry specialisation and companies audited by PAF that do not have industry specialisation. However, this study proves that *FD* cannot moderate, where even companies that are not audited by auditors who have industry specialisation can carry out earnings management in the presence of *FD*, this is what can weaken the relationship from PAF industry specialisation to accrual earnings management.

## 5. CONCLUSION

Based on the results of research conducted by previous researchers, it is concluded that auditor independence and audit tenure have no significant effect on accrual earnings management, while PAF size has a significant negative effect and PAF industry specialisation has a significant positive effect on accrual earnings management. In addition, financial distress can strengthen the negative relationship between auditor independence through auditor independence and PAF size on accrual earnings management, but weakens the positive relationship between PAF industry specialisation and audit tenure on accrual earnings management.

Research has implications which include theoretical implications and practical implications, namely this research can have theoretical implications in further research with similar topics as a reference point. As well as a basis for critical re-discussion of previous theories from a different perspective. Then, this research can have implications for practitioners on all company stakeholders, especially principals and auditors, to be more aware of the factors in the auditor's role that can influence management attitudes in the occurrence of earnings management practices.

Apart from that, this research also has several research limitations. Firstly, in this research, precisely when testing the classical assumptions, the data used was proven not to be normally distributed. This is proven by the three normality test methods (Shapiro-Wilk, Shapiro-Francia, Skewness) which show that the majority of variables used in this research are not normally distributed. Secondly, basically, this research has passed the multicollinearity test if seen from the average of all variables from models that do not use interaction variables or models that use interaction variables. However, in the multicollinearity test of the model with interaction variables, one variable, namely the financial distress variable, was indicated to have potential collinearity problems because the VIF value exceeded 5 (the VIF *FD* was 5.55). Thirdly, this research also has a heteroscedasticity problem as evidenced by the Breuch-Pagan method test from model data using interaction variables, where the probability is below 0.00. Fourthly, the proxy variables used in this research are mostly dummy proxy variables so that the measurement of variables in this research can be less accurate.

In the research that has been carried out, the researcher hopes that in future research that has a similar topic, it can be further developed with the following explanation. In future research with similar topics, it is hoped that data from multi-sector and multi-country data will be used. This is aimed at obtaining a sample that is more representative of the actual company population so

that the results can be assumed to be more accurate. In future research with a similar topic, it is hoped that it will involve independent variables regarding the wider role of auditors. This is intended because there are still many roles of auditors that can be researched with their influence on management behavior in carrying out earnings management. In subsequent research on a similar topic, a more recent variable measurement model can be used, such as measuring earnings management, the conditional revenue model or the new approach model can be used. In addition, in calculating the public accountant's industrial specialization, it can use the method of accumulated years of experience of a public accountant rather than the market share of industrial assets audited by the public accountant.

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