

Financial distress and earning management: The role of audit quality

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Abstract

This research aimed to examine the effect of financial distress on earnings management, moderated by audit quality in manufacturing companies listed on the Indonesian stock exchange 2017 – 2020. The type of data in this study is secondary data with a sample selection method, purposive sampling method. The analysis model used is panel data, regression analysis, and data processing using Eviews12. The sample in this research is 83 manufacturing companies for the 2017-2020 research year. The results of this study indicate that the financial distress variable has a significant negative effect on earnings management, and the audit quality variable weakens financial distress on earnings management.

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INTRODUCTION

Financial reports are used for correspondence between external (external) and internal (internal) meetings with companies or organizations. The fundamental motivation behind the financial statement announcement is to convey the organization's annual financial information to stakeholders. The financial report is also a benchmark of operational implementation and performance carried out by an organization or company, with the main component of this financial report being profit. Moreover, profit data is used to assist clients in developing existing policies within the organization or company (Ghazali et al., 2015). Because of the importance of information in financial reports to attract investors, a manager can display and report company earnings as their interest. For the following situations, managers will be motivated to participate in earnings control by reporting very high earnings and the company's economic figures with more significant numbers, known as earnings management.

In general, financial distress is when a company experiences a higher total value of creditor claims than the liquidation of total assets (Li et al., 2020). This situation can occur in various circumstances and have implications for the company's performance in the future. Companies that experience financial distress for a long time can cause bankruptcy; therefore, various corrective actions need to be taken to overcome this. Agency theory can explain why companies tend to cover up their level of financial difficulty and prefer to manipulate profits. This condition is related to the manager's interest in maintaining his performance appraisal and providing signals to external parties (e.g., investors). Earning management and financial distress are the two debated issues in the last two decades. Some researchers have found that financial distress can cause companies to choose accrual financing management over real earnings management (Li et al., 2020; Hassanpour, 2017). However, these findings still need to be fully supported (Jacoby et al., 2019), where it was found that companies experiencing financial difficulties tend to report relatively small positive incomes when compared to healthy companies. Other studies also state that even though companies are financially distressed, they are still engaged in income-decreasing earnings management practices (Rakshit & Paul, 2020). In the same vein, previous studies were also found by preliminary research, where managers in companies experiencing financial distress can manage earnings by increasing income or decreasing income (Dechow et al., 1995; Rosner, 2003).

This study examines the relationship between financial distress and earnings management. The study's results can provide theoretical contributions as follows: first, studies on financial distress and earnings management have been developed from various perspectives. For example, Jacoby et al. (2019) includes the concept of political affiliation in the financial distress and earnings management relationship model. Meanwhile, another research (Li et al., 2020) uses internal control as a moderation. The current study directs attention to audit quality as an essential factor in earning management (Orazalin & Akhmetzhanov, 2019). Audit quality can determine the quality of a company's financial statements that are useful in decision-making. Stakeholders can trust the audited financial statements for their reliability because external auditors examine financial statements and assure their opinions that the company has pretty presented the financial statements following the applicable Financial Accounting Standards.

Previously, several researchers in Indonesia used audit quality to explain earnings management. For example, Dewi and Priyadi (2016) found that good corporate governance can moderate the negative relationship of leverage to earnings management. The good corporate governance proxy used in this study is audit quality. Similar research was conducted by Nazalia an Triyanto (2018), which showed that audit quality could be a moderating variable in research

on the influence of leverage on earnings management with good corporate governance as a moderating variable. Implementing corporate governance is expected to minimize the risk of companies experiencing financial distress, which can reduce the occurrence of earnings management in a company. This study is intended to update the literature regarding the role of audit quality in earnings management and financial distress, especially in the manufacturing sector in Indonesia.

HYPOTHESES DEVELOPMENT

Financial distress on earnings management

The relationship between financial distress and earnings management can be explained through information asymmetry (Beatty & Harris, 1999). The information asymmetry between companies and investors allows companies experiencing financial difficulties to engage in earnings management to reduce future financial difficulties' negative impact (Jacoby et al., 2019). In other words, management is trying to present a fictitious financial position to protect their interests in the future. This condition is also in line with agency theory which can be a framework for explaining why companies can behave opportunistically to maximize their profits at the expense of external capital providers (Jensen & Meckling, 2019). Literature in the last four decades has documented that financially distressed public companies are motivated to manipulate their financial reports by increasing earnings. However, different behavior can also occur in companies that have no interest in external financing, so they are less likely to be interested in engaging in earnings manipulation.

Recently, the phenomenon of earning management has also developed where companies can also use a selection of methods: accrual and actual earnings (Li et al., 2020). Financial distress is a company that is not in good condition before going bankrupt is referred to as in financial distress. Financial distress occurs when a company's business's continuity is disrupted, so it cannot fulfill its obligations as a debtor. If the condition of financial distress is higher, it will result in high motivation in earnings management. This is in line with Tsaqif and Agustiningsih (2021) and Ghazali et al. (2015), who reveal that financial distress influences earnings management. Based on the analysis and findings of previous studies, the research hypothesis is stated as follows:

H1: Financial distress affects earnings management.

Financial distress against earnings management moderated quality audit.

Financial distress occurs when the company's cash flow is insufficient to pay existing debts or when current assets and current liabilities do not match, causing the company to face financial difficulties. The condition of financial difficulties experienced by this company will then create problems, which investors will react to. One of the direct consequences that can occur in financial reports that report financial difficulties is a decrease in stock prices and company value in the eyes of investors. Facing these consequences, companies that want to maintain their existence in the capital market will tend to manipulate financial reports (Du & Lai, 2018; Li et al., 2020). Various studies in various countries have proven the relationship between financial distress and earnings management, especially in public companies.

Profit is part of the financial statement, which is often the target of management engineering to avoid financial distress. Financial reports must have high credibility to increase investor confidence in the company. One effort to increase credibility is through audits. A good audit quality is needed where the measure for audit quality is often seen from whether using big four or non-big four auditors. Previously, Gusmiarni et al. (2020) revealed the effect of audit quality as a moderator of financial distress on earnings management (Gusmiarni et al., 2020). Based on the analysis and findings of previous studies, the research hypothesis is stated as follows:

H2: Financial distress affects earnings management moderated by audit quality.

METHODS

In this study, the authors used a quantitative research approach. The research was conducted using data registered on the Indonesia Stock Exchange (IDX) from 2017 to 2020 as research objects. This research has the nature of causality because there is a relationship between one or more variables without comparing historical data variables, so a causal relationship can be known for each independent and dependent variable.

Population and sample

The population of this study is all manufacturing companies listed on the Indonesia Stock Exchange. The observation period in this study is from 2017 to 2020. Sampling used a purposive sampling method. Purposive sampling is a sampling technique with consideration of certain criteria (Etikan, 2016).

Tabel 1.

Samples criterion

No.	Uraian	Jumlah
1.	Number of manufacturing companies listed on the Indonesia Stock Exchange during the 2017-2020 period	192
2.	Manufacturing companies that do not publish complete financial statements on the Indonesia Stock Exchange during the 2017-2020 period	(57)
3.	Financial statements of manufacturing companies that do not use the rupiah currency	(31)
4.	Manufacturing companies with incomplete account data	(21)
5.	Total companies sampled	83
6.	Year of observation 4 years	332

Measurement

Profit management- the focus of this research will only discuss accrual earnings management. Accrual income or accrual earnings management are actions or techniques carried out by company managers to change profit figures in financial reports to achieve specific goals (Chandra & Kaling, 2021). The practice of accrual earnings can be measured using the Jones model modified by Kothari, Leone, and Wasley (2005) to calculate discretionary accruals. The calculation of the accrual earnings management model Jones modified by Kothari, Leone, and Wasley (2005) in the following way:

$$\frac{TA_{it}}{Assets_{i,t-1}} = K + k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{(\Delta REV_{it} - \Delta AR_{it})}{Assets} + k_3 \frac{PPE_{it}}{Assets_{i,t-1}} + k_4 \frac{ROA_{it}}{Assets_{i,t-1}} \varepsilon_{it}$$

$$Tait = Exbit - CFO_{it}$$

Information:

Tait = Total accruals of company i in year t

EXBIT = Profit before extraordinary items and discontinued operations of company i in year t

CFO_{it} = Cash flow cash from operating activities (operating cash flows) company i in year t

Asset_{it} = Total assets of company i in year t - Δ

Rev_{it} = Change in company income i in year t

PPE_{it} = fixed assets (factory, property and equipment) of company i in year t

ΔAR_{it} = Change in trade receivables of company i in year t

ROA_{it} = Profit before tax

K = Coefficient

ε_{it} = Error

Financial distress by using the Altman's Z-score model in predicting financial distress because it has a ratio that is able to describe the condition of a company's financial distress which is closely related to financial distress (Binti and Ameer 2010). Calculation of financial distress model Altman's Z-score in the following way:

$$Z = 6.56 X1 + 3.26 X2 + 6.72 X3 + 1.05 X4$$

Information:

X1 = Net working capital / Total assets

X2 = retained earnings / total assets

X3 = EBIT / Total assets

X4 = Book value to equity / Book value to total liabilities

Audit Quality Audit quality uses a nominal scale measurement, where the value is 1 if the company is audited by the big four KAP and 0 if others.

RESULTS AND DISCUSSION

Statistics decriptive

Based on table 2 in this study, there is one dependent variable, namely earnings management (ML). There is one independent variable, financial distress (FD), and a moderating variable, audit quality (KA). The analysis results show descriptive statistics explained as follows: The earnings management variable, as measured using the modified Jones model, shows a minimum value of -0.327413 owned by Astra Otoparts Tbk, and the maximum value is 0.283541 owned by Merck Indonesia Tbk. With a negative minimum value, this indicates that earnings manipulation activities occur in the companies in this study sample. The average value is -6.0241090, and the standard deviation is 0.0765914, with a total of 334 observations, resulting in a median value of 0.004231. The standard deviation figure for earnings management is greater than the average value, which can lead to a tendency for management to manage earnings within the company.

Tabel 2.
Statistics decriptive

	ML	FD	KA
Mean	-6.02E-13	1.690560	0.373494
Median	0.004231	2.074666	0.000000
Maximum	0.283541	16.44939	1.000000
Minimum	-0.327413	-22.10059	0.000000
Std. Dev.	0.076591	5.838164	0.484462

The financial distress variable, as measured using the Altman Z Score model, shows a minimum value of -22.10059 owned by the company Panasia Indo Resources Tbk, the maximum value of 16.44939 Herbal Medicine & Pharmaceutical Industry Sido Muncul Tbk. The means score that the company Panasio Indo Resource Tbk has a minimum value, which means that the financial condition is poor, and the company Herbal and Pharmaceutical Industry Tbk, which has the maximum value, indicates that the company has the lowest potential for bankruptcy. The average value of 1.690560 indicates that most manufacturing companies on the IDX cannot ascertain whether the company is bankrupt because it has a Z score of <2.99. Moreover, the standard deviation is 5.838164; the standard deviation is greater than the average value, indicating that the average financial distress has a high level of deviation. The number of observations of 334 data produces a median value of 2.074666.

The audit quality variable measured using a dummy shows as many as 124 company financial reports. Alternatively, the equivalent of 37% of the sample company financial statements use the services of the big four KAPs, and the remaining 208 company financial reports, or the equivalent of 63%, use the services of non-big four KAPs. The minimum value is 0 in manufacturing companies in 2017-2020, and the maximum is 1 in manufacturing companies in 2017-2020. The average value is 0.373494, and the standard deviation is 0.484462, with a total of 334 observations, resulting in a median value of 0.

Model fit test

Table 3 shows that the Chow model 1 test produces a Chi-square period value that is smaller than $\alpha = 0.05$, namely $0.0000 < 0.05$. The results of the calculations of the Chow Test to reject H0 and accept H1 so that a decision can be made that the fixed effect model is the best model compared to the standard effect model and must continue the Hausman test to ensure the fixed effect is an appropriate model. Table 3 shows that the Chow model 2 test produces a Chi-square period value that is smaller than $\alpha = 0.05$, namely $0.0000 < 0.05$. The results of the calculations of the Chow Test were a decision to reject H0 and accept H1; so that a decision could be made that the fixed effect model was the best model when compared to the fixed effect model and had to continue the Hausman test to ensure the fixed effect was the appropriate model.

Table 3.
Chow and Hausman test

Effects Test	Chow test		
	Statistic	d.f.	Prob.
Cross-section F	1.903	-82246.000	0.000
Cross-section Chi-square	163.116	82.000	0.000

Hausman test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.750	2.000	0.034

The coefficient of determination (R²) is shown by the Adjusted R-Square value of 0.483847, equivalent to 48% (see table 4). That is, earnings management can be affected by financial distress and audit quality by 48%, and the difference of 52% is determined by other factors that are unavailable in this model.

Tabel 4.

Regression analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.026843	0.012264	-2.188730	0.0296
FD	0.000627	0.001565	0.400825	0.6889
KA	0.084808	0.032273	2.627813	0.0091
FD*KA	-0.005096	0.002481	-2.053520	0.0411
Adj. R	0.483847			

Based on the test results, the t-value is -2.578223, and the probability value is 0.0105. It shows that the significance level of the financial distress variable is more significant than 0.05 or 0.0105 < 0.05, which indicates that the financial distress variable affects earnings management. These results follow the first hypothesis (H1) formulated previously. A company that is experiencing a condition of funding difficulties will cause financial distress to the company. This will increase the company's tendency to carry out earnings management by reducing profits to signal outsiders that the company's financial condition is in trouble and vice versa.

This study's results align with research conducted by Tsaqif & Agustiniingsih (2021) and Aziatul, Shafieb & Sanusib (2015). With the hypothesis that financial distress affects earnings management. The negative coefficient relationship between financial distress and earnings management indicates that company managers will practice earnings management when the company is not in trouble and will do the opposite if the company is in trouble. Companies that do earnings management but do not experience financial difficulties because the company has run out of ways to manipulate and manage earnings before financial difficulties. However, the results of this study differ from those of Sucipto and Zulfa (2021). They argue that financial distress does not affect earnings management. The results of Sucipto and Zulfa's research (2021) show that the higher the value of financial distress, the higher the earnings management, and earnings management activities can be influenced by internal and external factors depending on the company's needs.

Secondly, the t-value is -2.053520, and the probability value is 0.0411. These results show that the significance level of the audit quality variable as a moderator of financial distress on earnings management is smaller than 0.05 or 0.0411 < 0.05, indicating that the audit quality variable affects and weakens the relationship between financial distress and earnings

management. This result follows the second hypothesis (H2) formulated previously. This shows that audit quality proxied by the big four KAP auditors can moderate the relationship between financial distress and earnings management. So that the big four KAP auditors can limit earnings management actions when experiencing financial difficulties. Large audit firms such as the big four have sufficient resources to conduct a rigorous audit process. Big four KAP auditors can increase the possibility of finding misstatements, ultimately resulting in high audit quality. Large audit firms also have incentives to protect the company's reputation and report all findings of misstatements during the audit process, which can limit earnings management practices (Gerayli et al., 2011). In addition, auditors at the big four KAPs tend to be more experienced and have great trust from clients with good reputations, thus enabling many clients to use auditors from the big four KAPs.

This study's results align with research conducted by Gusmiarni et al., (2020), which states that financial distress in earnings management can be moderated by audit quality by weakening the relationship between financial distress and earnings management. The higher the audit quality, the fewer earnings management actions within the company when experiencing financial difficulties. Therefore, the financial statements have been audited by a third party independently, namely the big four KAP auditors. Where KAP big four is better for detecting potential fraud. However, the results of research conducted by Hermawan & Damayanti (2018) and Felicya and Sutrisno (2020) argue that audit quality cannot moderate financial distress on earnings management. This shows that the quality of audits conducted by auditors from national KAPs affiliated with the big four does not guarantee low earnings management practices. Because earnings management is not the main focus of the auditor, where earnings management carried out by company management does not violate applicable standards or rules.

CONCLUSION

Based on the analysis results, this study is as follows: first, financial distress affects earnings management. This research shows that the higher level of funding difficulties experienced by the company will cause financial distress to the company. That this will increase the tendency of the company to carry out earnings management by reducing profits to signal outsiders that the company's financial condition is in trouble otherwise. Audit quality variables affect and weaken the relationship between financial distress and earnings management. This study shows that audit quality can moderate the financial distress variable on earnings management, which is proxied by the big four KAP auditors. So that the big four KAP auditors can limit earnings management actions when the company experiences financial difficulties. Large audit firms such as the big four have sufficient resources to conduct a rigorous audit process. This can increase the possibility of finding misstatements which will ultimately result in high audit quality. In addition, auditors at the big four KAPs tend to be more experienced and have great trust from clients with good reputations, thus enabling many clients to use auditors from the big four KAPs.

Further researchers are advised to increase the number of samples studied by expanding the research. For example, observing different objects from companies listed on the Indonesia Stock Exchange so that they can describe earnings management in detail and the research samples used are more varied. Future researchers are advised to add other variables that can affect earnings management, such as good governance, leverage, ownership structure, or other appropriate variables, so that the variety of research becomes wider. Future researchers can add a more extended research period for results that support earnings management so that more

accurate results will be obtained. Future researchers are advised to consider different models of earnings management so that different results can be seen.

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