# THE EFFECT OF FINANCIAL DISTRESS AND AUDIT QUALITY ON EARNINGS MANAGEMENT

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**ABSTRAK**

Tujuan penelitian ini adalah untuk menganalisis hubungan antara kondisi keuangan perusahaan dan kualitas audit terhadap manajemen laba. Disamping itu, analisis perbedaan antara kondisi keuangan perusahaan yang baik dan buruk dilakukan dengan tujuan untuk mengetahui karakteristik perusahaan pada posisi keuangan masing-masing. Penelitian dilakukan pada perusahaan yang terdaftar di Bursa Efek Indonesia tahun 2011-2015. Hasil penelitian menunjukkan adanya hubungan yang signifikan antara kondisi keuangan perusahaan dengan manajemen laba. Di sisi lain, variabel audit quality berbeda secara signifikan berdasarkan kondisi keuangan perusahaan. Hasil penelitian menunjukkan bahwa perusahaan yang mengalami kondisi keuangan buruk cenderung menggunakan auditor non-Big4.

## INTRODUCTION

Earnings management has become a mainstream topic for academic researchers. Most stakeholders especially investors and creditors who provide financing to the firms have considerable attention and concern for firms' earnings management since this might affect their decision making in investment and financing. The motivation of managers to manage earnings is triggered by their desired and pressure on the firm to provide the desired earnings quality.

Previous research found that financial distressed firms engage more in earnings management (Y. Chen, Chen, & Huang, 2010; Habib, Bhuiyan, & Islam, 2013; Howe & Houston, 2016). The firms that have worse financial condition and lead to bankruptcy attempt to manage their earnings to the desired earnings quality. Distressed firms face an issue with the financing thus manage their earnings to portrait the desired financial performance attracting the investor or bank (Bisogno & Luca, 2015). Distress firms that show high negative abnormal accruals indicating big bath activity by the firm (Johl, Jubb, & Houghton, 2007). The same result also found by (Chen et al., 2010) that suggest firm tried to reduce the reported earnings to increase the likelihood of reporting a profit in the next year.

There are some evidences that financial distress firms most likely to manage their income upward (Howe & Houston, 2016; Huson, Malatesta, & Parrino, 2004; Kothari, Shu, & Wysocki, 2008). There are also distressed firms that try to downward their income so that they can portrait the increase financial performance in the following years (Y. Chen et al., 2010). Previous research pointing the important of firms' financial condition to managers' behavior in managing the reported earnings to the desired outcomes.

On the other hand, previous studies suggest that audit quality help to reduce the earnings management (Hessayri & Saihi, 2015; Niu, 2006; Niu & Niu, 2010; Siagian & Tresnaningsih, 2011; Yang, Lai, & Tan, 2008). Chen, Lin, and Zhou (2005) examined the relationship between audit quality and earnings management in Taiwan Listed Firms. The results suggest that high-quality auditors provide more precise information, accurate and reliable audit procedures thus constrain earnings management practices of the firms. The possibility that the firms' earnings management might be reduced by the presence of high-quality auditors even during the worse financial condition of the firms. The main purpose of this study is to investigate whether financial distress might affect managers decision into earnings management and how the audit quality of the firms might reduce that relationship significantly.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Financial Distress and Earnings Management

The major issue regarding earnings management is to which extent that management is permitted to manage their earnings and how it leads to fraud. Management tent to manage their earnings to increase their earnings quality and meet investor expectations (Carruth, 2001; Marai & Pavlovi, 2013).

The motivation of managers to manage their earnings upward or downward is to provide reported earnings with desired quality that meet their expectation. The managers of distressed firms are more likely to manage the reported earnings upward thus avoiding the fired risk from the Top Management (Howe & Houston, 2016; Huson et al., 2004; Kothari et al., 2008). There is also a possibility of firm manages their earnings downward. A study in China for the period of 2002-2006 suggest that in the year firms reported loss, the discretionary accruals were negative. The most likely explanation is the firm tried to reduce the reported earnings thus to increase the likelihood of reporting a profit in the next year. They attempt to avoid the Special Treatment regulation designed by the China Government. In the first 2 years of loss, the managers manage the earnings downward so that in the following years they seek to increase their earnings to avoid being de-listed (Chen et al., 2010).

Managers of distressed firms engage more in earnings management practice compare to the non-distressed firms (Chen et al., 2010; Habib et al., 2013; Howe & Houston, 2016). A study by Mohammadi and Amini (2016) indicates that the increase of free cash flow as a standard of financial distress also increase the possibility of earnings management. This result indicates that there is a positive and significant relationship between firms' financial distress and earnings management. Firms with higher levels of financial distress engage more in upward earnings management (Campa & Camacho-miñano, 2015; Howe & Houston, 2016).

The firms that experiencing financial distress and have risk of bankruptcy manipulate their earnings to portrait better financial performance. Earnings management helps firm to have better earnings quality reported thus maintaining the bank financing for distressed firms (Bisogno & Luca, 2015). According to the research conducted by Nagar and Sen (2016) on earnings management, when the financial distress becomes severe, firms willingly to cut-back on production, engage in income-increasing accruals management, and increase their spending on selling, general and administrative expenses. All these efforts are to increase their earnings to their desired income possible.

According to the previous studies that have been mentioned above, firms in a financial distress condition may engage in earnings management. Therefore, to address the relationship between financial distress and earnings management, the following hypothesis are developed:

H1: Financial distress significantly affects earnings management.

### Audit Quality and Earnings Management

Previous studies showed an evidence that audit quality reduce earnings management (Hessayri & Saihi, 2015; Siagian & Tresnaningsih, 2011; Yang et al., 2008). Firms hire non-Big Four auditors to increase the possibility in managing the earnings, while the firms that less need to manage their earnings tend to hire the Big 4 auditors. A client of Big Four auditors have less desire in manage the earnings relatives to the clients of non-Big Four Firms. Big Four Auditors have capability in constraining their clients' efforts in managing the earnings than non-Big Four firms (Jordan, Clark, & Hames, 2010). Constraint with the previous researches, Yasar (2013) finds that audit firm size, as proxy for audit quality, does not have an impact on discretionary accruals. This means that there is no difference in audit quality between Big Four and non-Big Four auditors for restriction of earnings management in Turkey.

A study by Niu (2006) examined the association between corporate governance mechanisms and the quality of accounting earnings. the results show a significant negative coefficient on audit firm, suggesting that firms which are audited by an industry-specialized auditor are more likely to have less absolute value of abnormal accruals, a finding that is consistent with prior research.

Alves (2013) investigated combined effect of audit committee existence and external audit on earnings management. The paper finds a positive relationship between both audit committee existence and external audit and discretionary accruals. However, this study suggests that the existence of an audit committee and external auditor jointly reduces earnings management.

Following the study conducted by (DeAngelo, 1981), Audit firm size has significant relationship with audit quality. Thus, explained that audit firm size proxy by Big Four or Non-Big Four can measured audit quality. Firms audited by the Big Four have higher audit quality than Non-Big Four audited firms. Other studies have proved that firm audit by Big4 have a negative effect on earnings management (Hessayri & Saihi, 2015; Siagian & Tresnaningsih, 2011; Yang et al., 2008). Therefore, I assume that audit quality may reduce earnings management. Hypothesis is conducted as follow:

H2: Audit quality significantly affects earnings management.

## RESEARCH METHODOLOGY

The population of this research is companies listed in Indonesian Stock Exchange (IDX) from 2010 to 2015. The test period of the research is five years spam. The data is obtained based on the firms' financial statements of 2010-2015, I include the data of year 2010 to compute some variables that needed the calculation of the year (t) in comparison to year (t-1) considering the testing of research hypothesis. The sample is selected based on the following conditions:

1. All firm's financial information needed in the period of 2010-2015 is available for the research.
2. The firm is not one of the financial banks or institutes.
3. The firms are accepted in the IDX from year 2010 and keep listed until year 2015.
4. Firm's financial information use Indonesian Rupiah (IDR) as the currency.

### Dependent Variable

The dependent variable of this research is Earnings Management. Discretionary accruals is used as proxy for Earnings Management. I used Kothari, Leone, and Wasley (2005) Performance-Matched Discretionary Accruals described as follows:

$$TA_{jt}/A_{jt-1} = \alpha 1/A_{jt-1} + \alpha_1(\Delta REV - \Delta REC)_{jt}/A_{jt-1} + \alpha_2 PPE_{jt}/A_{jt-1} + \alpha_3\, ROA_{jt} + \varepsilon_{jt}$$

where
TA: total accruals
REV: revenues in year t less revenues in year t-1
REC: account receivable in year t less revenues in year t-1
PPE: gross property, plant, and equipment
ROA: return on asset
A: total assets
j: firm index
i: year index

### Independent Variables

The independent variables of this research is Financial Distress and Audit Quality. Audit quality measured by the audit firm size. I used Altman (1986) Z-score model to determine the firms' financial condition. A dummy variable is used as 1 for low Altman Z-Score (< 2.073) and 0 otherwise. The

Altman Z-Score model is described mathematically as follow:
*Z-Score = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E*

where :
A = Working Capital/Total Assets
B = Retained Earnings/Total Assets
C = Earnings Before Interest and Tax/Total Assets
D = Market Value of Equity/Total Liabilities
E = Sales/Total Assets

To test the hypothesis, the model is described statistically as follow:

$DA_{jt} = \alpha_0 + \alpha_1 Z + \alpha_2 BIG4_{jt} + \alpha_3 FZ_{jt} + \alpha_4 CFO_{jt} + \alpha_5 LEV_{jt} + \alpha_6 IB_{jt} + \varepsilon_{jt}$

Where
DA: Discretionary accruals.
Z: Financial distress, taking value 1 for low Altman Z-Score (< 2.073) and 0 otherwise.
BIG4: Audit quality, taking value 1 if firm was audited by BIG4 and 0 otherwise.
FZ: Firm Size is calculate using Log Asset.
CFO: Cash from operating.
LEV: Leverage is calculated by total debt/total assets
IB: Independent board is defined as proportion of independent non-executive directors on the board of directors.
j: firm index
i: year index

The control variables are included in the model. I include firms size as one of the controls variables. Earnings management should be lower in large firms because, compared to other firms, they have lower information asymmetry, stronger governance structures, stronger external monitoring, and face higher political costs (Leventis & Dimitropoulos, 2012; Meek, Rao, & Skousen, 2007; Rusmin, Astami, & Hartadi, 2014). A control variable of cash flow from operating is incorporated to control for discretionary accruals (Rusmin, 2010). High financial leverage has been found to be related to the violation of debt covenants, which is one of the motivation of the managers to manipulate earnings (Yang et al., 2008). I include independen board as control variables because a strong board environment influences audit committee monitoring effectiveness (Chandar, Chang, & Zheng, 2012)

## RESEARCH FINDINGS
### Descriptive Analysis

The total data used in this research is 1509 data. The description of the variables are shown below:

Table 1
*Descriptive Statistics Results*

| Variables | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Discretionary accruals | 1509 | 0.0000 | 0.9804 | 0.0716 | 0.0853 |
| Financial Distress | 1509 | 0,0000 | 1.0000 | 0.5200 | 0.5000 |
| Firm Size | 1509 | 21.1410 | 40.0420 | 28.3571 | 1.9676 |
| Operating Cash Flow | 1509 | -0.8609 | 1.1266 | 0.0679 | 0.1118 |
| Audit Quality | 1509 | 0.0000 | 1.0000 | 0.4100 | 0.4910 |
| Leverage | 1509 | 0.0002 | 0.9935 | 0.4768 | 0.2180 |
| Independent Board | 1509 | 0.0000 | 0.6000 | 0.2195 | 0.1086 |
| Valid N (listwise) | 1509 | | | | |

Table 1 shows that the mean value of Discretionary Accruals (DA) is 0.0716, the positive value of DA means that firms tend to increase their earnings using accruals earnings management. Financial distress (FD) variables shows a mean value 0.5200 shows that half of the sample data chosen are distressed firms. Audit quality mean value is 0.4748 shows that almost half of the sample data chosen are firms audited by Big4.

**Test result**

Table 2 show the regression analysis result to test the hypothesis.

Table 2

*Regression Analysis Result*

| Variables | Coefficient | t | Sig. | Hypothesis Analysis |
|---|---|---|---|---|
| (Constant) | | 3.580 | 0.000 | |
| Financial Distress | -0.104 | -3.477 | *0.001 | H1 Accepted |
| Audit Quality | -0.024 | -0.843 | 0.399 | H2 Rejected |
| Firm Size | -0.053 | -1.876 | 0.061 | |
| Operating Cash Flow | -0.074 | -2.732 | *0.006 | |
| Leverage | 0.156 | 5.407 | *0.000 | |
| Independent Board | 0.011 | 0.423 | 0.672 | |
| *a. Dependent Variable: Discretionary accruals* | | | | |

Note *: Significant at the 0.05 level

The results show that the relationship between financial distress and discretionary accruals is significant. Therefore, the hypothesis 1 is accepted. The negative relationship between financial distress and discretionary accruals means the most of the firms are tent to manage the earnings downward when the firms faced worse financial conditions. This result supports the previous research by Johl et al. (2007) and Chen et al. (2010). The likely explanation of the result is distress firms are expecting the increase of reported earnings in the following years, therefore they tent to manage the earnings downward in the current year. This is most likely indicating the big bath activity by the firms. The audit quality is found to be insignificant towards discretionary accruals. Therefore, I reject hypothesis 2. Meanwhile, the sign of the relationship between audit quality and discretionary accruals is negative means that the firms audited by non-big4 auditors engage more in earnings management. The big4 auditors has better capability in constraining the firms' earnings management activity. Thus, firms that have a need to manage the earnings will engage more with non-big4 firms (Jordan et al., 2010). The other variables that proved to be significant in affecting earnings management are operating cash flow and leverage. Operating cash flow has negative relationship with earnings management. Firms that have low cash flow from operating tend to manage the earnings upward. This shows firms' effort in managing the reported earnings to the desired outcome despite of the deficit of operating cash flow. Meanwhile, leverage has positive relationship with earnings management. The more the firms' leverage increase, the more firms engage in earnings management. Firms' that have large leverage shows that the firms have a large debt. The likelihood of the violation of the debt covenants to be occurred is high thus firms try to manage their earnings upward (Yang et al., 2008).

**Comparison Analysis**

The following Table 3 is the result of comparison analysis of all variables between distressed firms and non-distressed firms. The comparison analysis is conducted to provide better understanding about the characteristics of the distressed firms in some aspects.

Table 3
*The Comparison Analysis of All Variables between Distressed Firms and Non-Distressed Firms*

| Variables | Firms Category | N | Mean | t | Sig | Mean Difference |
|---|---|---|---|---|---|---|
| Discretionary accruals | Distress | 780 | 0.0695 | 0.439 | 0.323 | -0.0043 |
| | Non Distress | 729 | 0.0739 | | | |
| Firm Size | Distress | 780 | 28.7565 | 0.975 | 0.000 | 0.8267 |
| | Non Distress | 729 | 27.9298 | | | |
| Operating Cash Flow | Distress | 780 | 0.0462 | 0.000 | 0.000 | -0.0451 |
| | Non Distress | 729 | 0.0912 | | | |
| Leverage | Distress | 780 | 0.5743 | 0.000 | 0.000 | 0.2019 |
| | Non Distress | 729 | 0.3725 | | | |
| Independent Board | Distress | 780 | 0.2268 | 0.003 | 0.007 | 0.0151 |
| | Non Distress | 729 | 0.2117 | | | |
| Audit Quality | Distress | 780 | 0.3600 | 0.000 | 0.000 | -0.0990 |
| | Non Distress | 729 | 0.4600 | | | |

The results show that there are significant different in some aspects between distressed firm and non-distressed firms such as firm size, operating cash flow, leverage, independent board, and audit quality. The positive mean difference value of firm size shows that distress firms are mostly have a bigger firm size. While the negative mean difference value of operating cash flow means that distress firms have lower operating cash flows. Leverage and independent board have positive mean difference value that means most of distress firms have high leverage ratio and more independent board members. Firms with high leverage ratio shows that the firms have large debt that it leads to the bad financial conditions. Last, the audit quality has negative means difference value, means that most of distress firms are audited by non-big4 firms. From the results above, I assume that most of distressed firms has deficit operating cash flow, high debt, and audited by non-Big4 auditors. All of these aspects increasing the possibility of the firms to manipulate their earnings to the desired income.

## CONCLUSION

Earnings management has always become an important issue in business research area. Managers motivation to manipulate earnings comes from the management pressure or the desired of benefit. This study examines the effect of firms' financial condition and audit quality to earnings management. The managers of distressed firms manage the reported earnings upward to avoid the fired risk from the Top Management (Howe & Houston, 2016; Huson et al., 2004; Kothari et al., 2008). On the other hand, previous studies showed an evidence that audit quality reduce earnings management (Hessayri & Saihi, 2015; Siagian & Tresnaningsih, 2011; Yang et al., 2008). The results of this study show that the financial distress affects earnings management significantly. The result suggests that most of the firms are tent to manage the earnings downward when the firms faced worse financial conditions. Distressed firms are expecting the increase of reported earnings in the following years, therefore they tent to manage the earnings downward in the current year. Meanwhile, the audit quality has shown insignificant relationship with earnings management. An additional test of comparison analysis conducted to provide better understanding of the distressed firms characteristics. The results suggest that most of distressed firms has lower operating cash flow, high leverage ratio, and audited by non-Big4 auditors thus increasing the possibility of the firms to manipulate their earnings to the desired income.

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