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TAKING CARE OF EARNINGS MANAGEMENT: DETECTION USING
INTERNAL CONTROL REVIEW AND FINANCIAL RATIO ANALYSIS

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Abstract

This study aimed to analyse the role of internal control and financial ratio analysis on preventing and detecting earnings management in the financial statement of companies listed on the Indonesia Stock Exchange. This study uses a quantitative research approach with a panel data regression model. The calculation of earnings management was conducted based on the model developed by Kothari et al. (2005). Using 628 sample companies for the period of 2015-2016, the results show that effective internal control could reduce the tendency of earnings management and that financial ratios could significantly provide indication of irregularities in financial statements.

INTRODUCTION

Financial statements convey corporate financial information that is useful for users like shareholders, investors, creditors, and other interested parties. In a company, earnings management can be committed for various purposes that will hurt the other party, namely the shareholders. In recent years it is believed that the likelihood of irregularities that occur in accounting activities will increase (Modugu, Ohonba, & Izedonmi, 2012). Given this tendency, users of financial statements should pay more attention to earnings management by effectively identifying them. The use of financial ratio analysis for the detection of fraudulent financial statements is an effective way to detect its occurrence (Person, 1995; Dalnial, Kamaluddin, Sanusi, & Khairuddin, 2014).

Earnings management is usually also detectable by reviewing the internal control in an audit assignment. Internal controls can have an important role in evaluating whether the company has performed its operational activities properly, including in the preparation of its financial statement. A good internal control system is an important component in the prevention of earnings manipulation that can decrease the quality of

corporate earnings (Laslett, Glen & Gavin, 2011). When a company's internal control system is weak, managers can manipulate their reports using the weaknesses of the system.

Previous studies have studied the association of earnings management to corporate governance mechanisms (see for example Gaio & Raposo, 2014; Khafid & Arief, 2017) or examined earnings management using financial ratios (see Dalnial et al., 2014; Kanapickiene & Grundiene, 2015; and Emie & Hafizah, 2016). This research extends previous studies by including internal control effectiveness to detect earnings management. The effectiveness of internal control is assessed using the scores developed in the illustrative tools of Committee of Sponsoring Organisations of the Treadway Commission (COSO, 2013). This research is expected to help users of financial statements to identify earnings management in financial statements that can assist in investment decision making or other types of decisions. This study also contributes to the literature by providing empirical evidence in accordance with the prevailing conditions in Indonesia.

LITERATURE REVIEW

Theoretical Perspective

Jensen and Meckling (1976) explains that agency theory is a theory that explains the agency relations contract whereby one or more principals deal with the agent to carry out a service on behalf of a shareholder involving the delegation of some authority to decide to agent. Such a relationship can result in an agency problem that can cause managers to act for personal gain rather than to maximise the shareholders' wealth. The conflict of interest may affect the reported earnings quality, one of which is a fraudulent financial statement. Hall (2011) states that fraud is a misstatement of material facts made by one party to another with the intention to deceive and cause the other party who relies on that fact to suffer a loss.

Various means were suggested for users of financial statements to be able to detect earnings management. Internal Control can function as a preventive as well as detective tool to indicate the presence of earnings management. Internal control, according to the Committee of Sponsoring Organisations of the Treadway Commission (COSO), is a process influenced by the company's board of directors, management and other personnel, which is formed to provide reasonable assurance in achieving the following objectives: effectiveness and efficiency of operating activities, reliability of financial statements and compliance with applicable laws and regulations.

Analysis of financial statements ratio can also serve as a tool in the earnings management detection by comparing figures in financial statements to determine the financial position of a company and assess the performance of management within a certain period. Financial ratios like liquidity, leverage, profitability, asset composition and capital turnover can be used to detect the possibility of earnings management on a company's financial statements (Persons, 1995; Dalnial et al., 2014; Nia, 2015). Fraudulent financial statements in this research are referred as earnings management practices that are the selection of accounting policies undertaken by managers of applicable regulatory policies who are expected to maximise the company's utility or market value of the company's policies (Scott, 1997).

Hypotheses Development

Effect of internal control as an independent variable to detect earnings management.

Smith et al. (1997), Beasley (1996), Beasley et al. (2000), Reinstein (1998), Matsumura (1992), and Abbot et al. (2002) state that effective internal control reduces trends of earnings management in financial statements. The tendency of earnings management is influenced by the presence or absence of opportunities to do so (Glifandi, 2011). By having an effective internal control, the chances of earnings management can be reduced. Internal control plays an important role in detecting and preventing earnings management and protecting organisational assets, both tangible and intangible assets. Internal control guidelines and formulations widely adopted are from the Committee of Sponsoring Organisations of the Treadway Commission (COSO).

Caplan (1999) stated that weak internal controls have a large tendency to lead corporate managers to commit earnings management. Companies with weak internal controls indicate the possibility of fraud in terms of earnings management due to lack of control of the company regarding the activities and business processes that bring about more opportunities that can be utilised for the occurrence of earnings management. This leads to development of the first hypothesis as follows.

H1: Internal Control negatively affects earnings management on financial statements

Financial Ratios as variables to detect earnings management.

In a company, fraud activities have the greatest attention from shareholders, regulators, auditors, and public members (Kashem & Higson, 2012). Accounting fraud is consistently listed as a significant crime that has its own characteristics, threats, and strategic consequences (PwC's Global Economic Crime Survey, 2014).

In recent years, competition has become more intense. Under such circumstances it is possible that the firm's ethical foundations can be compromised when faced with pressure (Foreade et al., 2006). Professional professions continue to believe that the trend of earnings management in the financial statements and accounting irregularities will likely increase (Modugu et al., 2012).

One effective way of detecting earnings management is to apply financial ratio analysis (Persons, 1995). Kirkos, Spathis, and Manolopoulos, (2007) states that the detection of earnings management by examining financial statements has always been a viable solution. To evaluate the possibility of fraud measured by earnings management in a company, there are various ways to help users of financial statements in analysing the financial statements of a company. One common method is by using financial ratios (Dalnial et al., 2014).

The first ratio investigated in this study is the leverage ratio, which is the extent to which investors or businesses use borrowed money. A highly leveraged company may risk bankruptcy if the company is unable to pay a loan debt (Spathis, 2002). A high debt structure can increase the likelihood of fraud in the financial statements because the risk from equity owners and

managers moves to debt owners (Spathis, 2002). The company's management team can manipulate its financial statements if there is a need to meet certain debt requirements. Moreover, high leverage rates are generally associated with potential loan breaches and the reduced ability to obtain additional capital through loans (Nia, 2015). Therefore, this indicates that high debt levels can increase the likelihood of earnings management in the financial statements. The second hypothesis follows from this, which is:

H2a: Leverage positively affects earnings management on financial statements

Ge and McVay (2005) argue that the weaknesses of internal control have a positive effect on business complexity, negatively affect the size of a company and negatively affect the probability of the company. Most of the reported fraud cases concern overstating income, that is, by recording income earlier than they occur or fictitiously (Spathis, 2002). For corporate managers, increasing shareholder wealth is an important indicator of managerial success. To maximise the welfare of corporate shareholders, company executives may manipulate profitability ratios, resulting in improper reporting of financial statements (Kulkarni & Devale, 2012). Therefore, this shows that the higher level of profitability of a company, the lower the action of earnings management is done because the company's performance is getting better with the visible profit generated by the company. As such, the second sub hypothesis can be stated as:

H2b: Profitability negatively affects earnings management on financial statements

Certain accounts are more likely to be manipulated by management, such as sales, accounts receivable, allowance for doubtful accounts and inventory (Schilit, 1993; Green, 1991; Loebbecke, Eining, & Willingham, 1989). On fraud examination of the company's financial statements, Persons (1995) indicates that the company's current assets consist mainly of accounts receivable and inventory. Therefore, because there is subjective judgment in determining the value of these accounts, management can use them as a means of manipulating financial statements (Spathis, 2002). Hence, this indicates that the higher the proportion of receivables and inventories in total assets, the stronger the indication the management performs subjective judgments on those accounts to manipulate the financial statements. The third sub hypothesis for Hypothesis 2 can be stated as:

H2c: Asset composition positively affects earnings management on financial statements

Low liquidity will influence management to obtain incentives by taking fraud in financial statements (Persons, 1995). The liquidity ratio is used to determine the company's ability to pay off its short-term debt. The lower the liquidity, the more incentive to managers to commit fraud in the financial statements (Omoye and Eraghbe, 2014). Companies with lower working capital to total assets show that the company is unable to meet its obligations. According to Dalnial et al. (2014), the lower the company's liquidity, the more likely it is for corporate managers to generate fraudulent financial statements. Therefore, this condition shows that the lower the

liquidity, the more a company shows its inability to fulfil its obligations, which can lead a manager to commit earnings management. The fourth sub hypothesis is therefore:

H2d: Liquidity negatively affects earnings management on financial statements

The capital turnover ratio shows a firm's ability to generate sales by using all assets held for production activities. It also measures management's ability to deal with competing situations with other companies. Companies involved in earnings management will be less competitive than firms that are not involved in fraudulent practices in using their assets to generate revenue (Persons, 1995). The inability of firms to compete successfully may allow incentives for managers to engage in fraudulent acts on financial statements (Dalnial et al., 2014). Therefore, this situation shows that the higher the company's assets ability in generating sales, the higher the ability of the company to compete successfully, hence the lower possibility of engaging in the earnings management. The fifth sub hypothesis is therefore:

H2e: Capital Turnover ratio negatively affects earnings management on financial statements.

MATERIALS AND METHODS

The method used in this study is a quantitative research approach to studying non-financial companies listed on the Indonesia Stock Exchange (IDX) from 2015 until 2016. Sampling involved the purposive sampling method. Secondary data is collected from Eikon Economic and Business Data Center and from annual reports obtained from IDX website or company website. Sample criteria for inclusion in the study are as follows.

A company must be listed on the Indonesia Stock Exchange and cannot be included in the category of companies engaged in the financial industry period 2015 - 2016.

The company has an accounting period that ended December 31st.

The company has complete data available to calculate related variables.

The company does not have negative equity for the research period 2015 - 2016.

$$ABSDA_{it} = \beta_0 + \beta_1 (LEV_{it}) + \beta_2 (PROF_{it}) + \beta_3 (AC1_{it}) + \beta_4 (AC2_{it}) + \beta_5 (AC3_{it}) + \beta_6 (LIQ_{it}) + \beta_7 (CAPT_{it}) + \beta_8 (ICSCORE_{it}) + \epsilon_{it}$$

The research model used in this research is multiple panel regression model developed based on the hypothesis.

Description:

ABSDA_{it} = total absolute value of discretionary accrual of company i in year t, measured by Kothari (20015) model

LEV_{it} = leverage ratio i in year t (total debt/total asset)

PROFit = profitability ratio of firm i in year t (net profit/revenue)

AC1_{it} = asset ratio composition of company i in year t (current asset/total asset)

AC2_{it} = asset ratio composition of company i in year t (receivable/total asset)

AC3_{it} = asset ratio composition 3 company i in year t (inventory/total asset)

LIQ_{it} = liquidity ratio of firm i in year t (working capital/total asset)

CAPT_{it} = capital turnover ratio of firm i in year t (revenue/total asset)

ICSCORE_{it} = level of effectiveness of internal control system of company i in year t, measured by the COSO scoring tools

eit = error of firm i in year t

The dependent variable in this study is the earnings management model developed by Kothari, Leone, and Wasley (2005), which measures earnings management using discretionary accrual. The independent variables are several financial ratios, namely leverage, liquidity, profitability, asset composition and capital turnover. Other independent variables like the effectiveness of internal control is measured using the illustrative scoring tools (COSO, 2013). The scoring consists of 17 principles of internal control component based on the COSO illustrative tools adapted to the existing regulations in Indonesia.

The assessment of the internal control effectiveness uses the criteria of Good, Fair and Poor. A score of 3 is categorised as Good and is given as there is a conformity of the company's internal controls with the applicable standards in Indonesia; otherwise the value of 2 is given for the Fair category and the value of 1 for the Poor category. This approach in scoring is based on Hermawan (2009).

RESULTS AND DISCUSSIONS

The sample in this research are non-financial companies that satisfy the sample criteria described above. A total of 628 observations were collected for the research period of 2015-2016. Prior to analysis, the descriptive statistics and performing the regression test, we checked the outliers and performed the winsorization approach at 1% to overcome the problem of possible experience outliers existing in the data. The descriptive statistics is presented in the following table.

Table 1
Descriptive Statistics

Variable	Obs.	Mean	St. Dev.	Min	Max	Skewness
ABSDA	628	0.06099	0.05617	0.00033	0.27277	1.73495
LEV	628	0.46664	0.20076	0.03353	0.93124	-0.03023
PROF	628	0.02382	0.27975	-1.34797	1.35359	-1.71657
AC1	628	0.43883	0.23483	0.03063	0.96006	0.13699
AC2	628	0.13819	0.12327	0.00004	0.51443	1.18898

AC3	628	0.14557	0.13934	0.00018	0.57453	1.11605
LIQ	628	0.16045	0.23152	-0.53718	0.85752	0.34922
CAPT	628	0.76549	0.64994	0.00986	3.03375	1.48224
ICSCORE	628	48.05272	3.89368	36.15848	51.00000	-0.59918

Description:

ABSDA_{it} = total absolute value of discretionary accrual of company i in year t, measured by **Kothari (20015)** model

LEV_{it} = leverage ratio i in year t (total debt/total asset)

PROFit = profitability ratio of firm i in year t (net profit/revenue)

AC1_{it} = asset ratio composition of company i in year t (current asset/total asset)

AC2_{it} = asset ratio composition of company i in year t (receivable/total asset)

AC3_{it} = asset ratio composition 3 company i in year t (inventory/total asset)

LIQ_{it} = liquidity ratio of firm i in year t (working capital/total asset)

CAPT_{it} = capital turnover ratio of firm i in year t (revenue/total asset)

ICSCORE_{it} = level of effectiveness of internal control system of company i in year t, measured by the **COSO** scoring tools

The average value of absolute discretionary accrual (ABSDA) is 0.06339 with a standard deviation of 0.06979. The highest discretionary accrual value is 0.80335 owned by PT Waskita Beton Precast Tbk. (WSBP) company engaged in basic and chemical industries. The value indicates that PT Waskita Beton Precast Tbk. had a discretionary accrual of 0.80335 from the total assets of the previous year. The lowest discretionary accrual value is 0.00033, which is owned by Tempo Inti Media Tbk. (TMPO) Andy is a company engaged in the trade and services industry.

The average value of the leverage variable (LEV) is 0.46664 with a standard deviation of 0.20076. This shows that as much as 46.66% of the assets owned comes from corporate debt. These figures are relatively high and might indicate that there are difficulties in the financial problem (financial distress) in sample companies.

The average value of the profitability variable (PROF) is 0.00281 with a standard deviation of 0.45026. This shows that 0.28% of companies have profits compared to companies experiencing losses during that period. The higher the percentage of profitability gained the better because it shows strong company performance in generating company profits. The average value of the Asset Composition1 variable (AC1) is 0.43883 with a standard deviation of 0.23483. This shows that 43.88% of total assets come from the company's current assets.

The average value of the Asset Composition2 variable (AC2) is 0.13877 with a standard deviation of 0.12522. This shows that 13.87% of the company's total assets come from accounts receivable. The higher the value of the proportion of receivables, the greater the likelihood that the company will incur a loss because of the possibility of uncollectible accounts. The highest value of Asset Composition2 is 0.64357 and is owned by a sample company engaged in property and construction industry, PT Paramita Bangun Sarana

Tbk. (PBSA). This indicates that the proportion of the company's receivables has a significant contribution as a company asset.

The average value of Asset Composition3 (AC3) variable is 0.14654 with a standard deviation of 0.14266. This indicates that 14.65% of total assets come from the company's inventory. The average value of the liquidity variable (LIQ) is 0.16017 with a standard deviation of 0.23245. This shows that 16.01% of the sample companies can fulfil obligations and carry out the company's operations. The percentage is relatively low, indicating the possibility of the company being unable to fulfil its obligations. The higher the value of liquidity, the greater the margin of safety the company must cover regarding the short-term. The average value of the Capital Turnover variable (CAPT) is 0.78345 with a standard deviation of 0.75010. This shows that 78.34% of the sample companies generate more sales than assets owned by the company. The percentage figures indicate the ability of the sample company to compete successfully and avoid possible incentives by managers.

The average value of the internal control effectiveness score variable (ICSCORE) is 48.04299 with a standard deviation of 3.96151. The maximum value of scoring effectiveness regarding internal control is 56 and is owned by PT Aneka Tambang Tbk. (ANTM). The maximum value indicates that among the research observations, there are sample companies that obtain a good score for each assessment of the effectiveness of internal control.

We also used the Pearson correlation test to examine the relationship between the dependent and independent variables. The value of correlation exceeding 0.8 indicates that there is a strong relationship between the variables. The result is presented below.

Table 2
Pearson Correlation Coefficient among Variables

	ABSDA	LEV	PROF	AC1	AC2	AC3	LIQ	CAPT	ICSCORE
ABSDA	1								
LEV	0.117	1							
PROF	-0.0997*	-0.2472	1						
AC1	0.0843*	-0.0661	0.16	1					
AC2	0.0591*	0.1021	0.0129	0.572	1				
AC3	0.033**	0.0291	0.1072	0.6264	0.1716	1			
LIQ	-0.0325**	-0.5315	0.2815	0.6963	0.3474	0.4384	1		
CAPT	0.1315	0.0786	0.1017	0.5258	0.487	0.4217	0.2813	1	
ICSCORE	-0.0469**	0.0258	0.1903	-0.0104	0.0007	-0.1288	-0.0263	0.0925	1

*** significant correlation at $\alpha = 1\%$

** significant correlation at $\alpha = 5\%$

* significant correlation at $\alpha = 10\%$

Based on Table 2 above, the correlation analysis of this study shows that the independent variables PROF, AC1, AC2, AC3, LIQ and ICSCORE have significant relationship to the dependent variable (ABSDA) with significance levels at 5% and 10%.

The multicollinearity test is done by looking at the value of the variance inflation factor (VIF). If the resulting VIF value is above 10, then the value indicates that there is a high correlation between independent variables. In this study there is no VIF value exceeding 10, so there is no multicollinearity problem among the independent variables.

The heteroscedasticity test is used to determine whether or not the variant inequality of the residuals exists for all observations in the regression model. The result of the heteroskedasticity test of this research shows a probability value $\chi^2 = 0,0000$ value less than $\alpha = 5\%$ indicates that this research model has a heteroskedasticity problem. One way to handle the heteroskedasticity problem can be done by using the model of General Least Square (GLS).

In this study testing is done by using multiple linear regression with regression model of panel data. The result of the regression test of the research model is done by the FE estimation method with general least square treatment because after the heteroskedasticity test, this research data demonstrated it has a heteroskedasticities problem. The following table shows the results of the regression model of research. Based on these tables, the results of the research model regression coefficient values were obtained for each independent variable. The independent variables that have significant influence on the dependent variable with 1% significance level are ICSCORE, PROF, and AC2, and with 5% significance level are LEV, AC1, and LIQ.

Referring to Table 3, the value of the negative ICSCORE variable coefficient is -0.010638 with significance at 1% to the dependent variable, ABSDA. Therefore, it can be concluded that H 1 stated that the effectiveness of internal control has a negative effect on earnings management can be accepted because it has a significant level of influence on the dependent variable. The results of this study are supported by research conducted by Asbaugh-Skaife, Collins, Kinney, and LaFond (2008), which indicates that firms with internal control weaknesses will have lower quality accruals when compared to firms with no internal control weaknesses. Then, there are other studies that show that firms with weak internal control over financial statements have low accrual quality (Doyle, Ge, & McVay, 2007). Weak internal control can be attributed to lower levels of accounting conservatism (Goh & Li, 2011). This causes the tendency of management to manipulate their financial statements when the lack of internal control is present. Therefore, it can be said that internal control serves to detect any irregularities in the financial statements.

Table 3
Regression Results of Research Model

Fixed-effects (within) regression	No. of observation	=	628
	No. of groups	=	314
	R-squared	=	0.0828
	Prob> F	=	0.0000

ABSDA	Prediction	Coef.	Robust Std.Err.	t	P> t
ICSCORE	-	-0.010638	0.002073	-5.13	0.000 ***
LEV	+	-0.083392	0.041389	-2.01	0.044 **
PROF	-	-0.047348	0.013788	-3.43	0.001 ***
AC1	+	0.024314	0.012308	1.98	0.048 **
AC2	+	0.230892	0.075866	3.04	0.002 ***
AC3	+	-0.020595	0.068655	-0.3	0.764
LIQ	-	-0.090719	0.036671	-2.47	0.013 **
CAPT	-	0.016284	0.016524	0.99	0.324

Information:

ABSDA = absolute discretionary accrual value by **Kothari** et al. (2005). LEV = leverage is the ratio of the ratio between total debt to total assets of the company. PROF = Profitability is the ratio of the ratio between net profit to company revenue. AC1 = Asset Composition1 is the ratio of the ratio between the current assets to the total assets of the company transformed into log transformation. AC2 = Asset Composition2 is the ratio of the ratio between receivable and total company asset. AC3 = Asset Composition3 is the ratio of the ratio between inventory to total assets of the company. LIQ = Liquidity is the ratio of the ratio between working capital and total assets. CAPT = Capital Turnover is the ratio of the ratio between revenue and total assets of the company. ICSCORE = index of internal control effectiveness scores assessed based on information in the company's annual report.

Notes: *** significant correlation at level $\alpha = 1\%$, ** significant correlation at level $\alpha = 5\%$, * significant correlation at level $\alpha = 10\%$

Results of the regression model of panel data is in Table 3, and the value of the negative ICSCORE variable coefficient is -0.010638 with significance at 1% for the dependent variable, ABSDA. Therefore, it can be concluded that H 1 stated that the effectiveness of internal control negatively affects earnings management is acceptable because it has a significant level of influence on the dependent variable. The results of this study are supported by research conducted by **Asbaugh-Skaife** et al. (2008), which indicates that firms with internal control weaknesses will have lower quality accruals when compared to firms with no internal control weaknesses. Then, there are other studies that show that firms with weak internal control over financial statements have low accrual quality (**Doyle** et al., 2007). Weak internal control can be attributed to lower levels of accounting conservatism (**Goh & Li**, 2011). This causes the tendency of management to manipulate the financial statements when the lack of internal control exists. Therefore, it can be said that internal controls serve to detect any irregularities in the financial statements.

Referring to the regression model of panel data in Table 3, the value of coefficient of the LEV variable with a negative coefficient is -0.083392 with significance at 5% to the dependent variable, ABSDA. So, it can be concluded that companies that have high leverage levels indicate that most assets are owned by debt, and it will be more difficult for companies to get additional debt for their operations because there is a tendency for companies

not be able to meet their obligations. However, with increasing liabilities to creditors indicating the source of capital is highly dependent on external parties such that the financial statements of the company are strictly supervised by outsiders, this will reduce the likelihood of discretionary accruals occurring. Therefore, for the hypothesised LEV variable of leverage, the company has a significant negative effect, which is acceptable. The results of this study support the research L Christie (1990), Spathis (2002) and Emie and Hafizah (2016) who state that leverage has a positive correlation to accounting policies in increasing profits, which is not enough to avoid breach of a debt agreement. Higher debt structures can increase the likelihood of fraudulent actions on financial statements due to risk shifting from equity owners and managers to debt owners.

The independent variable PROF obtained a negative coefficient value of -0.047348 with significance at 1%. So, it can be concluded that the lower the value of profitability obtained by the company, the more the level of discretionary accrual will be due to the tendency the company to manipulate its financial statements so that the profitability of the company looks good. This is supported by research by Kreutzfeldt and Wallace (1996), Spathis (2002) and Emie and Hafizah (2016) who argue that companies with low profitability will provide incentives to management to overstate revenue or reduce the burden, resulting in corporate earnings management actions.

The independent variable AC1 obtained a positive coefficient of 0.024314 with significance at 5% and the independent variable AC2 has a positive coefficient value of 0.230892 with significance at 1%. In this result, it can be concluded that the higher the proportion of receivables and current assets of the firm against total assets, the more the level of discretionary accrual will be. This is supported by the research of Spathis (2002) and Emie and Hafizah (2016) who argued that fraud checks on financial statements indicate the company's current assets consist mostly of accounts receivable and inventory. This is consistent with research conducted by Spathis (2002) which shows that overstatement of receivables and current assets contributes three-quarters of SEC enforcement cases and that firms have the power to choose not to record unused inventory with real value.

The independent variable LIQ obtained a negative coefficient of 0.090719 with significance at 5%. It can be concluded from this result that the lower the company's liquidity, the more the amount of discretionary accrual due to the tendency of companies to manipulate financial statements so that the company looks able to fulfil its obligations and that management can obtain incentives with the actions taken. This is supported by research by Kreutzfeldt and Wallace (1996), Kirkos et al. (2007), Perols and Lougee (2011), and Emie and Hafizah (2016) who argued that companies with low liquidity levels are involved in earnings management. Therefore, to give a good picture of the state of the company, management overestimates the value of the asset.

The independent variable AC3 and the capital turnover ratio (CAPT) were not found to have significant effect on earnings management as measured by discretionary accrual level. This possibility is caused by a lack of calculations in ratios or other factors to show the effect of these variables as a whole. The independent variables that do not have significant levels are supported by

research conducted by Spathis (2002), Dani, Wan Ismail, and Kamarudin (2013), and Dalnial et al. (2014).

CONCLUSIONS

Based on the results of the tests conducted in described above, the effectiveness of internal controls plays a role in detecting earnings management in company financial statements. Companies that have effective internal controls will improve the quality of corporate profits so that the level of corporate earnings management tendency decreases, which is in line with research by Doyle et al. (2007), Chan and Farrell (2007), Asbaugh-Skaife et al. (2008) and Lenard, Petruska, Nature, and Yu (2016).

The variable leverage ratio, profitability, and liquidity have a negative effect in detecting earnings management in financial statements. Also, some asset composition variables are the ratio between current asset to total asset and comparison between receivable and total asset, which have a positive effect on earnings management on financial statements.

This conclusion is in line with Christie's (1990), Kreutzfeldt and Wallace (1996), Spathis (2002) and Emie and Hafizah (2016). The test results proved that to detect earnings management through the calculation of internal control analysis, financial ratios can be performed. However, one component of the asset composition variable, i.e. the ratio between inventory and total asset, and capital turnover is not found to be influential in detecting earnings management in financial statements.

The implication of this research is that internal control is an important factor in detecting earnings management. Therefore, regulators like the Financial Services Authority (OJK) can improve regulation related to internal control and earnings management actions to produce better companies and quality. In addition, some financial ratios can be used to detect earnings management, i.e. leverage, profitability, asset composition and liquidity, so that investors can use financial ratios to find deeper information to make investment decisions. Furthermore, it is important for companies to consider the financial ratio information and internal controls so that companies can avoid fraud on financial reports that harm the company.

This study uses only financial data acquired and collected manually. The questions used for scoring the effectiveness of internal controls have the possibility that the question were not thoroughly described in the company's control system, and companies that have ' Poor ' scores may not have effective controls due to the possibility that the value obtained is due to incomplete disclosure in the annual report.

It is hoped for further research to develop research data by collecting other relevant information beyond data that can be retrieved in the data centre. This will result in providing a more in-depth descriptive description of the components of internal control and develop a comprehensive internal control effectiveness assessment. It will also result in helping to gather evidence of other information that supports the effective level of internal control of an enterprise and update the guidelines of the components used for internal controls proposed by COSO in 2017.

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