http://ejournal.seaninstitute.or.id/index.php/Ekonomi
Jurnal Ekonomi, Volume 12, No 02, 2023
ISSN: 2301-6280 (print) ISSN: 2721-9879 (online)

MARKET REACTION TO EARNINGS MANAGEMENT AND THE ROLE OF AUDIT QUALITY: EVIDENCE FROM INDONESIA

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ARTICLEINFO

Keywords:
Earnings management
Discretionary accruals
Market reaction
Audit Quality

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ABSTRACT

This study aims to determine whether the earnings management influences market reaction and whether audit quality moderates the relationship between earnings management and market reactions. The research sample has 115 manufacturing companies that go public in Indonesia Stock Exchange listed in 2013 – 2015 so that the number of samples (n) = 345 observations. Discretionary accruals are used to gauge the earnings management.. This study uses boostrap test to examine the hypothesis. The result shows that earnings management affects the market reaction positively. So it indicates if the market still gives a positive reaction to the report that generates earnings even though it contains earnings management. The interaction between book value equity and audit quality has a significant positive effect on the relationship between earnings management and market reaction.

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1. INTRODUCTION

Credible financial accounting data is necessary for the capital market. Financial reporting of a high calibre aids investors in determining the worth of the firm. One of the scandals of earnings management is the practice of reporting fraud by giant companies in Europe and America such as Enron, WorldCom, Xerox, and Parmalat seriously hurt the global economy, and as a result, readers of financial statements are no longer confident in them.

Enron and World Com declared bankruptcy in late 2001 and early 2002. The Securities and Exchange Commission (SEC) later investigated Enron and World Com and discovered that their bankruptcy was caused by earnings management practises [1]. Practitioners and academics began to pay more attention to the earnings mamajemen after that. This highlights the significance of financial reporting quality, with a particular emphasis on earnings quality. By giving information about financial performance to a variety of consumers, audited financial statements have an influence on the financial capital market and agency relationships.. As a result, managers must prepare these statements suitable with Generally Accepted Accounting Principles (GAAP).

Earnings for the time are influenced by a variety of variables, many of which can be as unexpected as the firm's power bill for the period. Among these are the cost of the firm's inputs, the price of the firm's goods, and the variety of the firm's products [2]. It is possible to manipulate profit as a source of revenue. Earnings are products of cash flow and accruals that can be managed through accruals, modifications to the capital structure, and adjustments to the accounting principles [3]. In earnings management studies conducted by companies in the import business, Jones (1991) uses total accruals [3]. Since the use of deliberation during the financial reporting process is a requirement of the accrual basis of earnings, earnings management is a possibility. Underestimating prospective warranty expenses on sold goods or bad loans on credit sales, for instance, could boost present income.

Managers compensation typically based on a performance-based incentive schemes that encouraged management to manipulate the amount of revenue until the results of which will enhance the company's stock price, the consequences on the incentives that will be accepted. These incentives gives managers strong incentives to record analysts' earnings estimates to increase their chances of reaching final estimates

Our research is motivated by a lack of empirical studies that focus on measuring effects of earnings management to market return of stock in the Indonesian context, considering these shortcomings, is very important to look for the their relationship. Second, the occurrence of earnings management is studied under the institutional arrangements of a typical emerging market and hence the results can be extended to other similar markets. Third, This research offers explicit support for the accounting standard's compiler. The use of managers' discretion in selecting accounting techniques is authorised by Generally Accepted Accounting Principles (GAAP), although it has been linked to financial manipulation.

The most commonly acknowledged managerial goal is to increase shareholder value as shown in the value of the firm. The stock price has evolved into a crucial indicator of how effective management is in reaching this goal. Gavious (2007) defines earnings management as positive discretionary accruals, i.e. an increase in earnings, and a report pegged by the investor against reported earnings and appears unable to decipher earnings management information, at least ten days after the full publication of a set of financial statements [4].Twenty days after the date of disclosure when analysts released their recommendations and price targets, investors seemed to react negatively to the discretionary accruals.

This study investigate whether earnings management practices influence stock returns in short window designs up to five days before and after the release of financial statements. Gavious (2007) distinguishes companies that make earnings management from companies that do not make earnings management based on discretionary accruals [4]. Businesses modify their financial records to declare marginal profits growth or conceal losses [5].

Depending on the company's auditor, the level of earnings management may vary. If an audit of higher quality is conducted, the company has the option of choosing a more cautious approach to financial reporting. Despite managers usually having significant incentives to increase reported earnings and make their performance look better than it is, the external auditors are supposed to be independent of the management.

In the literature, audit quality is known as earnings quality metric [6], The Big Four auditors were utilised by the authors mentioned above to differentiate the audit quality of U.S. firms. Numerous research on audit quality and measurement advocate using audit firm sizes as a proxy for audit quality; assume that larger audit firms typically conduct more thorough examinations and are more possible than smaller audit firms to be associated with more accurate information [7].

According to several research, audit quality and earnings management have a negative association., among others: [8; 9; 10]; prove that audit quality (proxied with the Big Four auditors) significantly limits earnings management efforts through EPS rounding. However, a lot of studies show that the Big Four auditors may not always deliver superior audit quality than auditors who do not belong to the Big Four [11]. [12] found no substantial distinction between the earnings management action of firms audited by the Big Four auditors and non-Big Four auditors in the context of the Greek circumstance. According to [13], in the instance of Malaysia, audit quality does not actually hinder earnings management techniques. When earnings management is seen as a mediating variable, the link between audit quality and financial performance is mediated. To put it another way, audit quality provided by either Big Four or non-Big Four audit firms does not actually increase financial performance when earnings management procedures are carried out by these organisations' management divisions. According to [14] there is statistically no discernible difference between the earnings management practises of companies who have their financial statements audited by the Big 4 and those that have not. The Big 4 auditors are anticipated to perform a monitoring function,

assure the accuracy of accounting data, and govern the relationship between family businesses and earnings management.

Earnings management practices can certainly affect the quality of earnings information because the earnings information presented in the financial statements does not reflect the actual state of the company's performance, so the users of the financial statements do not get accurate information to make investment decisions. In Indonesia, Financial Accounting Standards (SAK) allow accountants to influence earnings through selection of accounting methods or policies. Indonesia belongs to a group of nations with lax investor protection, which leads to aggressive earnings management methods [15]. his study adds to the continuing discussion about the market reaction to the release of financial statements with earnings management and the effectiveness of audit quality in minimizing earnings management. and improving earnings quality with a setting in Indonesia as a developing country.

2. METHOD

2.1 Type and Data Source

The population in this research is manufacturing company of basic industry type and chemical which is listed on the Indonesia Stock Exchange. The sample was chosen based on purposive sampling method with the following sample collection results: 1) Companies registered from January 1, 2012 to December 31, 2015 continue (143) 2) No data the date of publication of financial report) (22), 3) Financial statement incomplete (6) 4) Final sample of 115 companies or 345 observations.

Measurement. This study employed a modified Jones discretionary accruals model [16], which was later characterised by [17]. Various studies using return on assets (ROA) as control variables show that misspesification happens in the Jones model [16]. The discretionary accruals calculation model is shown below.

$$\text{Accruals } t = a\,(1 / \text{Assets } t\text{-}1) + b\,\Delta\text{Sales } t + c\,\text{PPE } t + d\,\text{ROA } t + \mu\, t \quad (1)$$

From the Regression equation (1), total accruals (Accruals); Sales changes (ΔSales); And gross property, land and equipments (PPE) are each deflated by initial asset. Total accrual represents the difference between net income and cash flow operation Non- discretionary accruals is the coefficient of Regression (1) and discretionary accruals is the difference between actual accruals and Non- discretionary accruals.

Market reaction. This resarch analyze market reaction to evidece of earnings management, proxied by discretionary accruals, by exploring whether the presence of earnings management affects return reaction, after the issue of a full set of financial statements. The issue date and not the earnings anouncement date is used as the information contained in a full set of financial statements is needed by investor to unvarel earning managements [18]. In line with [4] this study use short windows approach to isolate investors reaction to the release of full set of financial statements and specially to examine whether share returns react to earning management. Event study specify an event window sorrounding the event of interest in order to capture the pre event and post even reaction. We examine the return reaction using an 11 day (-5,+5) window.

2.2 Analysis Method

As with previous studies in relation to value relevance studies, this study uses a stock return regression model in a combination of accounting fundamentals reporting, assuming that financial statements provide investors with relevant and valuable information. The research model was adapted from [4] as follows:

Model 1: $CAR_{it} = \beta 0 + \beta 1\, \beta Vit + \beta 2\, Eit + \beta 3\, NEG\_Eit + DACC\, it + \varepsilon it$ (2)

Model 2: CAR*it = β0 + β1 βVit + β2 Eit + β3 NEG _Eit +* AUDIT + *DACC it + DACC it** BV + *DACC it** E*εit + DACC it** NEG_E + DACC* AUDIT+ *εit*
(3)

CAR : Cumulative Abnormal Return is a sum of abnormal returns from -5 to +5 days from the date of publication of financial statements
BV : Book Value of Equity
E : Earnings after interest but before tax
NEG E : Earnings before extraordianary = E if E <0: 0 otherwise
DACC : discretionary accruals of firm i periode t
AUDIT : Audit Quality= 1 if auditor is a Big 4 auditor; 0 otherwise

3. RELUST AND DISCUSSION

3.1. Descriptive Statistics

This study uses discretionary accruals (DACC) as a proxy of earnings management variable. The DACC forming component consists of total accrual (TA), 1 / Assets, Fixed Assets (PPE), Sales changes (Δ SALES), and Return on Assets (ROA). Descriptive statistics of the DACC and its components are presented in Table 1.

Table 1. Descriptive Statistics of Discretionary Accruals

	Minimum	Maximum	Mean	Deviation Standard
TA	-309.68	5965.67	18.56	320.03
1/ Assets	$4,2 \times 10^{-9}$	$2,17 \times 10^{-4}$	$1,6 \times 10^{-5}$	$2,6 \times 10^{-5}$
Δ SALES	-9,47	10087.08	38,85	554,94
PPE	0,00	10.468,92	36,92	567,50
ROA	-1,25	1.14	0,04	0,30
DACC	-5,80	16,16	-5.7971E-08	0,99

The table 1 shows that DACC (Discretionary Accruals) as a proxy of earnings management has an average value of -5.7971E-08 or close to 0 indicating that the sample company generally performs earnings management with a value that is not too large with a negative direction means the average company make decreasing income (lower earnings) than is appropriate.
The variables of this study consist of earnings management, cummulative abnormal return, book value, earnings after interest; before tax, earnings before extraordianary item. The results of statistical descriptive data are presented in table 2.

Table 2. Descriptive Statistics of Main Variable

	Minimum	Maximum	Mean	Deviation Standard
E	-4799552	27523000	660912,91	2908938,65
BV	-18211,11	53057,63	2455,63	6147,65
NEG_E	-4799552	0,00	-64977,40	336982,89
CAR	-0,30	725223,15	22645,55	68477,13
AUDIT	0,00	1,00	0.3721	0,48

From table 2 it appears that the average CAR is positive, it shows the average number of abnormal returns during the observation period indicates a positive market response .

3.2. Hypotheses Test Results

This study uses the bootstrap method because of the data normality test results of Kolmogorov-Smirnov (K-S) test shows that the data is not perfectly normal as shown in the table below:

Tabel 3. The Results of Data Normality Test

Variables	Asymp. Sig. (2-tailed)
Earnings	0.00
Book Value	0.00
Neg Earnings	0.00
CAR	0.00
DACC	0.00

Bootstrapping is a method to derive strong estimates of atandar errors and confidence intervals to estimate proportions, mean, median, odds ratios, correlation coefficients or regression coefficients. The result of regression analysis using bootstrapping method with sample size 1000, as presented in table 4 below.

Table 4. The Results of the Bootstrap Regression Analysis of Model 1

Variables	Regression	Sig.	Lower	Upper
Constants	22.701	0.002	15268	30746
DACC	1.016	0.219	57	5033
DACC*AUDIT	73.040	0.147	35658	723283
R^2 0.003	0,003			
Adj R^2- 0.003	-0,003			
F-value 0.514	0,514			
Sig.	0599			

The regression analysis of model I does not include control variables. The AUDIT variable is not an independent variable but a moderator variable. The result shows the value of F-value 0.514 with significance of 0.599 so it can be concluded that the independent variables (DACC and DACC * AUDIT) together do not affect the CAR. From the regression analysis it is seen that both the DACC and the DACC * AUDIT level of significance exceeding 0.05 means that DACC and interaction between DACC and AUDIT have no effect on CAR. In the next analysis, conducted regression testing using model 2, namely by entering the control. variable. The results are shown as follows.

Table 5. The Results of Bootstrap Regression Analysis of Model 2

Variables	B	Sig.	Lower	Upper
Constants	12858.77	0.003	5057	18927
DACC	980.91	0.031**	-1334	2414
E	-0.002	0.557	-0.009	0.006
BV	0.458	0.390	-0.427	2.104
NEG_E	0.025	0.125	-0.004	0.067
DACC*AUDIT	-41491	0.748	-51623	681125
E*AUDIT	0.007	0.144	-0.002	0.018
BV*AUDIT	3.516	0.080*	0.887	8.633
NEG_E*AUDIT	-0.027	0.091*	-0.068	0.000
R^2	0.173			
Adj R^2	0.154			
F-value	9.788			
Sig.	0.00			

** *significant* at p<0.05; * *significant* at p<0.10

From the table above, obtained the significance of the F value of 0.00, smaller than 0.05 so the model is said to be good and can be used to predict independent variables. The value of coefficient of determination (R2) is 0.173, meaning 17.3% CAR variable can be explained by all independent variables in model 2. The rest (82.7%) is influenced by other factors. The value of Adj R2 0.154 greater than model 1 of - 0.003 indicates that model 2 (by inputting control variables) is better than model 1 (without entering control variables).

The model 2 is proven that the DACC individually has a positive and significant effect on CAR (sig. at 5%). This proves that earnings management affects the market reaction positively. So this indicates if the market still gives a positive reaction to the report that generates profit even though the profit contains earnings management. This is in accordance with the alternative hypothesis that earnings management will have a positive effect on market reaction..

Other variables that significantly influence market reaction are interaction variables (BV * AUDIT) and (NEG_E * AUDIT) respectively at 3,516 (sig. at 10%) and -0.027 (sig. at 10%). This proves that the interaction between book value equity and audit quality variables will have a significant positive effect on the relationship between earnings management and market reaction, while the interaction between loss after interest before tax and audit quality will negatively affect the relationship between earnings management and market reaction. It can be concluded that audit quality becomes moderating variable in relation between earnings management and market reaction when book value and loss after interest before tax is controlled.

3.3. Discussion

This study aims to test the market reaction of earnings management on publication of financial statements and audit quality role as a moderating variable. The first hypothesis in this study is that earnings management has an effect to market reaction. In the first model without control variables (earnings, book value, negative earnings) shows that partially, earnings management and interaction between earnings management and audit quality has no effect on CAR. Similarly, earnings management and audit quality have no effect on CAR. These findings indicate that without such control variables, earnings management has no effect on market reaction, and audit quality is not a moderator variable.

In the second model with control variables (earning, book value, negative earnings), the results show that the DACC individually has a positive and significant effect on CAR (sig. at 5%). This proves that earnings management affects the market response positively. So this indicates if the market remains to react positively to

the income generating report even though it contains earnings management. This contradicts the alternative hypothesis that earnings management will have an negative effect on market reaction, and contrary to the results of research by [4], 1] and [19].The researcher suspect that the findings contradict with the hypothesis, this may be because of the firm size which uncontrolled, as [20] have done who find that earnings management raised positive abnormal returns in large firms, and lowered negative abnormal returns in small firms.

The next finding is the variable of equity value with audit quality has positive significant effect on the relationship between earnings management and market reaction, while the interaction between loss after interest before tax with audit quality will negatively affect to the relationship between earnings management and market reaction. It can be concluded that audit quality becomes moderator in the relationship between earnings management and market reaction when book value and loss after interest before tax is controlled, thus the second hypothesis has been proven.

4. CONCLUSION

The practice of earnings management makes financial reporting misleading to users of information from financial statements, regardless of which accounting information remains a vector of information that allows users to formulate or revise their exposure to the firm's

economic perspective. At the time of publication of financial statements will appear speculation that will affect the stock price and market return. The audit process is considered a monitoring mechanism that will reduce the manager's incentive to earn earnings management. This study aims to test the market reaction of earnings management on financial statement publication and the role of audit quality as a moderating variable.

The results of this study prove that earnings management affects the market reaction positively. So this indicates if the market remains to react positively to the income generating report even though it contains earnings management. Other evidence indicates that the interaction between book value equity and audit quality variables will have a significant positive effect on the relationship between earnings management and market reaction, while the interaction between loss after interest before tax and audit quality will negatively affect the relationship between earnings management and market reaction. It can be concluded that audit quality becomes moderating variabel in relation between earnings management and market reaction when book value and loss after interest before tax is controlled.

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