THE IMPACTS OF AUDIT COMMITTEE SIZE, INFORMATION ASYMMETRY, OPERATING CASH FLOW AND EXTERNAL AUDIT QUALITY ON EARNINGS MANAGEMENT OF MANUFACTURING COMPANIES IN INDONESIA

Ghina Atikah Azhar*1, Islahuddin *2
1,2Program Studi Akuntansi Fakultas Ekonomi dan Bisnis Universitas Syiah Kuala
e-mail: ghinaatikah@gmail.com*1, pak_islah@yahoo.com*2

Abstrak
This study was done to find out impacts of audit committee size, information asymmetry, operating cash flow and external audit quality on earnings management of manufacturing companies in Indonesia. Samples used were 35 of all manufacturing companies listed in the Indonesia Stock Exchange (IDX) in the period of 2011-2015. Audit committee size was determined by comparing the number of audit committee member in a company and the minimum requirement of audit committee member according to the regulation of Financial Services Authority (OJK). Information asymmetry, operating cash flow, and external audit quality were measured based on relative bid-ask spreads, total operating cash flow on the total company assets, and dummy variable of Big 4 and non-Big 4 accounting firms, respectively. The data obtained was analyzed by multiple linear regression analysis. The results indicated that independent variables simultaneously influence earnings management practice. Partially, operating cash flow and external audit quality affected earnings management whereas audit committee size and information asymmetry did not affect earnings management.

Keywords: Earnings Management, Audit Committee Size, Information Asymmetry, Operating Cash Flow and External Audit Quality.

1. Introduction
In 2001, big companies such as PT. Lippo Tbk, PT Kimia Farma Tbk and PT Indofarma Tbk caused financial scandals in Indonesia. These scandals involved financial statement manipulation (Prabowo, 2014). In 2008-2009, economic crises also occurred worldwide that moved the topic of moral hazard from economic journals to daily newspaper (Wang and Yang, 2012).

According to Financial Accounting Standard (PSAK) No. 1, the purpose of financial statement is to provide information related to balance sheet, financial performance and cash flow that important to financial statement users. Financial statement is also a form managerial responsibility regarding to their activity in maximizing company resources that entrusted to them. Earnings information that existed in it becomes the main focused to evaluate manager performance and responsibility towards external parties (Yusrianti and Satria, 2014).

Earnings management is a form of intervention on the selected accounting method from managerial side in the process of disclosing company information (Yusrianti & Satria, 2014). The practice of earnings management will reduce reliability of information in financial statement, while managers assumed it as something that can protect them and the company from any unexpected events (Watts and Zimmerman, 1986) in Deegan and Unerman (214:2008). The less reliable financial statement would misguide investors in their decision making process. Earnings management somehow becomes an attractive option as it could represent a good company performance. Manager usually selected accrual method to increase earnings information.

Various studies have been conducted to learn and discover potential factors that could affect earnings management. Study by Komal and Bilal (Komal & Bilal, 2016) on audit committee financial experts’ role in limiting earnings management was carried out to add an understanding of the past literature, a model of present ideas, and a future direction on the topic. As a matter of fact, the author emphasized that large audit committee size represents
members with more diverse experiences and proficiencies. Therefore, larger audit committee will be able to decrease earnings management practice.

Puspitasari (Puspitasari, 2016) studied the influence of information asymmetry with other relevant proxies on Liquates 45 (LQ-45) companies and Jakarta Islamic Index (JII). The results show that information asymmetry influences real earnings management in LQ-45 companies, possibly because managers have more information than shareholders and stakeholders.

Gitman and Zutter (Gitman & Zutter, 2015) stated Operating Cash Flow (OCF) is the cash flow from normal operations such as producing and selling goods or services. The statement of cash flow enables financial managers and other interested parties to analyze firm’s cash flow. Additionally, it can be used as a source to evaluate development toward aimed goals or to limit inefficiencies.

The question is whether big four auditors are better than smaller associates in the monitoring process (Wang & Yang, 2012). The demand for high quality audit is increasing. In addition, Inaam, et al. (Inaam, Khmoussi, & Fatma, 2012) stated that audit is a monitoring tool for shareholders. Big 4 public accounting firms are assumed to have higher audit quality than non-Big 4 as they are less reliant on their clients.

The purpose of this research is to find empirical evidence about the impact of audit committee size, information asymmetry, operating cash flow and external audit quality on earnings management of manufacturing companies in Indonesia either simultaneously or partially. Compare to other research, this research investigated how audit committee size, information asymmetry, operating cash flow and external audit quality variables can affect accrual earnings management.

The remainder of this paper is organized as follows. Section 2 reviews the selected previous studies and formulates the hypothesis. Section 3 presents methodological framework for the basic of analysis. Section 4 discusses the empirical findings and their implications the and finally section 5 provides the closing remarks of this paper.

2. Review of Selected Previous Studies

Agency theory focuses on the relationships between principals and agent. Due to various information asymmetries, many uncertainties exist between shareholders and managers. Jensen and Meckling (Jensen & Meckling, 1976) paper was a key in the development of agency theory. Agency theory stated that a well-functioning firm is able to minimize agency costs. Within this theory, the principals assumed agent will be compelled with self-interest, and principals will expect that managers will take self-serving actions (Deegan & Unerman, 2008).

Simangunsong (Simangunsong, 2015) Positive Accounting Theory (PAT) explains and predict possible consequences that could occur as manager choose his/her preferences. Positive approach is related with the effort to relate back hypothesis with real facts.

According to Scott (2006) in Simangunsong (2015), earnings management is managerial behaviour that opt to choose accounting policy usually accrual method for specific goal. Earnings management is a form of manager intervention in the process of disclosing financial information in order to maximize company utilities that could mislead investors or financial statement users (Yusrianti & Satria, 2014).

Section 2 of SOX (2002, 2002) defines audit committee as a committee (or equivalent body) established by and amongst the board of directors of an issuer for the purpose of overseeing the accounting and financial reporting processes of the issuer and the audits of the financial statements of the issuer; and if no such committee exists with respect to an issuer, the entire board of directors of the issuer resource based theory focused on size and expertise (non-accounting experts) of audit committee.

Aforementioned information suggests inconsistent findings exist among studies on impacts of audit committee size, information asymmetry, operating cash flow and external audit quality on earnings management. This research is, therefore, conducted to investigate impacts of audit committee size, information asymmetry, operating cash flow and external audit quality on earnings management either partially or simultaneously.

Elianna (Elianna, 2015), in her research, believes that audit committee concept can be different according to purpose, function and responsibility
given. Prabowo (Prabowo, 2014) mentions the numbers of audit committee members support the monitoring function of management. The author continues that the establishment of audit committee size is inseparable element in the control of accounting process. Therefore, larger audit committee size is expected to reduce earnings management practice in manufacturing companies listed in IDX.

Agus (2016) emphasizes that Capital Market Supervisory Board and Finance Institution (BAPEPAM-LK) has tried to create an early warning system in internal corporate environment by enforcing regulations so that Indonesian companies must have audit committee. Therefore, the losses related to financial numbers in a company can be avoided in stock market. In that case, audit committee can serve as an early fraud detector in internal environment. According to the Indonesian regulations No. 21/2011 about OJK (Financial Service Authority), starts from 31 December 2012, both the task of Central Bank (BI) in monitoring banking institutions and the task of BAPEPAM-LK in monitoring stock market are shifted to the OJK. Therefore, audit committee is expected to reduce earnings management practice in Indonesia.

Besides audit committee size, information asymmetry is also one of the contributing factors to the practice of earnings management in companies. Information asymmetry occurs as the transactions cost and information cost exist between principals (corporate managers) and agents (shareholders) (Deegan & Unerman, 2008). The relationships that surrounded by various information asymmetries create uncertainty. The existence of information asymmetry and the tendency of external parties to focus on earnings as indicator of company performance lead managers to practice earnings management (Agustia, 2013).

Puspitasari (Puspitasari, 2016) who investigate the influence of information asymmetry with other relevant proxies on LQ-45 companies and JII Index finds that information asymmetry influences real earnings management of LQ-45 companies, but do not influence real earnings management. The first is caused by higher information have by managers than those have by both shareholders and stakeholders; and the latter is related to limited access of managers to internal information. Tyasari (Tyasari, 2009) research also finds information asymmetry positively influences and is able to explain earnings management, meaning that higher information asymmetry increases earnings management.

Operational activities for manufacturing companies consist of buying traded goods, selling the goods their related activities. All earnings related transactions reported in income and loss statements belong to operating cash flow category. The cash inflows from operating activities include account receivable, insurance receipt, cash from royalty, fee, commission, and etc. The cash outflows, on the other hand, cover buying goods for sale, interest paid for company liabilities, cash payment to suppliers of goods and service, and payment of staff salary (Martani, 2012).

Roychowdhurry (Roychowdhury, 2006) observes the possibilities of firms that reported small positive forecast and small positive forecast error conducted real earnings management. The study suggests that one way manager manipulates earnings is through operating cash flow. For investors company policy influences future cash flow prospect whereas for the government company policy influences the amount of tax that will be received and the role of protection given for the public in general. Evaluation of earnings management activities solely conducted based on accrual is unfit (Roychowdhury, 2006). Consequently, Cinthya and Indriani (2015) who study free cash flow influence on earnings management for manufacturing firms listed in IDX from 2010-2014 finds negative influence of free cash flow on earnings management practice. This is possibly because of the higher free cash flow that companies owned, the better their performance will be.

Public accounting firm size can be an indicator of the high audit quality (Becker et al. 1998: Herusetya, 2012). Big auditors in particular are hired as important external monitoring shields against accounting choices, which might misrepresent earnings (Wang & Yang, 2012). Khurana and Raman (2004) in Ahmad (Ahmad, Suhara, & Ilyas, 2016) state that the capability and independency level to disclose material misstatements in financial reports vary across audit firms. They claim big audit firms tend to spend more money and time for training and formal education for their auditors to enhance their capacity and capability. Ahmad (Ahmad et al., 2016) finds that audit quality and earnings management are negatively
related. Results obtained is in agreement with that reported by Inaam (Inaam et al., 2012) that big 4 public accounting firms negatively affected accrual earnings management. This might be possible as more effective monitoring will likely motivate firms to manage earnings management with more difficult technique to identify. However, in his research Simangunsong (Simangunsong, 2015) finds that audit quality has significant and positive influences on earnings management before and after the implementation of IFRS.

Based on the description above, it can be a model of research:

![Figure 2.1]

**Theoretical Framework**

<table>
<thead>
<tr>
<th>Audit Committee Size</th>
<th>Information Asymmetry</th>
<th>Cash Flow</th>
<th>External Audit Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Taking the literature review and previous findings as the point of departure, the researcher hypothesizes:

**Ha**₁: Audit committee size, information asymmetry, operating cash flow and external audit quality has simultaneous influences on earnings management.

**Ha**₂: Audit committee size has negative influence on earnings management.

**Ha**₃: Information asymmetry has a positive influence on earnings management.

**Ha**₄: Cash flow has a negative influence on earnings management.

**Ha**₅: Public accounting firm size has a negative influence on earnings management.

3. Research Methodology

Data

This study used quantitative method and intended to conduct hypothesis testing. Secondary data sources covering journals, books, thesis, and annual manufacturing companies financial statements from 2011-2015 were used. Study populations were all manufacturing companies have initial public offering (IPO) after 2010 with positive net incomes and had published complete annual reports for 5 years in Indonesia Stock Exchange (IDX). A number of 51 companies fulfilled these study and 35 companies were randomly selected as research samples. A modified Jones Model (Dechow, Sloan, & Sweeney, 1995) was used to identify a discretionary accrual. In this model the data was processed and analyzed using five year time series analytical approach. Discretionary accruals were calculated using the following formula:

\[ TACit = Nit - CFOit \]

Non-Discretionary Accrual (NDA) was then estimated using multiple regression analysis with ordinary least square (OLS) basis as follow:

\[ TACit/Ait-1 = \beta_1(1/Ait-1) + \beta_2(\Delta REVT/Ait-1) + \beta_3(PPEt/Ait-1) + e \]

The model divided all variables by Ait-1 to reduce the possibility of heteroscedasticity. After that, regression coefficient of the model was used to calculate non-discretionary accrual (NDA) value using the equation as follow:

\[ NDAit = \beta_1(1/Ait-1) + \beta_2(\Delta REVT/Ait-1) - \Delta RECt/Ait-1 + \beta_3(PPEt/Ait-1) \]
Next, discretionary accruals (DA) were calculated as follow:

$$DA_{it} = \frac{TAC_{it}}{A_{it-1}} - NDA_{it}$$

Description:
- $TAC_{it}$ = Total accruals of company (i) in t period
- $N_{it}$ = Net income of company (i) in t period
- $CFO_{it}$ = Cash flow from operating activity of company (i) in t period
- $A_{it-1}$ = Total asset of company (i) in year (t-1)
- $\Delta REV_{t}$ = Changes of company (i) income from year t-1 to year t
- $\Delta REC_{t}$ = Changes of company (i) receivable from year t-1 to year t
- $PPE_{t}$ = Fixed assets (property, plant and equipment) of company in t period
- $DA_{it}$ = Discretionary accruals of company (i) in t period
- $NDA_{it}$ = Non-Discretionary accruals of company (i) in t period
- $\beta_1, \beta_2, \beta_3$ = Regression coefficient
- $E$ = Error

Using the formula from Nelson and Jamil (2012) cited from Cinthya and Mirna (Cinthya & Indriani, 2015) the variable of audit committee size (ACS) was measured by dividing the number of audit committee size have by sample companies with minimum number of audit committee size according OJK regulation:

$$ACS = \frac{\text{Total number of audit committee size from sample companies}}{\text{The number of audit committee size as regulated by the OJK}}$$

Information asymmetry variable was measured with equation based on Putra et al. (2014) in Puspitasari (Puspitasari, 2016):

$$\text{SPREAD} = \frac{(\text{ask}_{i,t} - \text{bidi}_{i,t})}{\left\{ \frac{(\text{ask}_{i,t} + \text{bidi}_{i,t})}{2} \right\} \times 100\%}$$

Where $\text{ask}_{i,t}$ is the highest ask price i firm stock that occurred in year t, and $\text{bidi}_{i,t}$ is the lowest bid price on i firm that occurred in year t.

Operating cash flow variable form operation activity is measured through the equation described by Kurniasih (Kurniasih, 2010), as follow:

$$\text{Operating Cash Flow} = \frac{\text{Net operating cash flow}}{\text{Total Assets}}$$

The audit quality was measured by using dummy variables that were numbered with 1 if public accounting firm is affiliated with Big 4, and numbered with 0 if others.

Model Specification

To investigate the influence of audit committee size, information asymmetry, operating cash flow and external audit quality on earnings management, this study employs multiple regression models of the panel data, as follows:

$$\text{EM} = a + b_1ACS + b_2AI + b_3OCF + b_4EAQ + e$$

where $Y$ is future cash flow, $a$ is constant term, $b_1$, $b_2$, $b_3$, $b_4$ are the estimated parameters for audit committee size ($X_1$), information asymmetry ($X_2$), operating cash flow ($X_3$),external audit quality ($X_4$) and $e$ is the error term.

4. Findings and Discussion

Descriptive Statistics

Descriptive statistics is the analysis of data that provide a concise description of a given data set. The analysis includes the maximum and minimum values, mean and standard deviations. The following table presents the results of descriptive statistics of the data studied.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>156</td>
<td>-4.61</td>
<td>.08</td>
<td>-2.1806</td>
<td>.81825</td>
</tr>
<tr>
<td>ACS</td>
<td>156</td>
<td>1.000</td>
<td>1.667</td>
<td>1.04952</td>
<td>.143254</td>
</tr>
<tr>
<td>IA</td>
<td>156</td>
<td>.080</td>
<td>2.646</td>
<td>.69122</td>
<td>.460871</td>
</tr>
<tr>
<td>OCF</td>
<td>156</td>
<td>-1.63</td>
<td>.363</td>
<td>.08042</td>
<td>.088761</td>
</tr>
<tr>
<td>EAQ</td>
<td>156</td>
<td>.000</td>
<td>1.000</td>
<td>.44571</td>
<td>.498471</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>156</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Output 23.0 (2017)
The descriptions from Table 4.1 above show average earnings management as a dependent variable is -2.1806 with maximum and minimum values of 0.08 and -4.61, respectively. Audit committee size as independent variable has average value of 1.04952 with the maximum value of 1.667 and the minimum value is 1.000. The minimum and maximum values indicated that all of the 156 companies have fulfilled the minimum number of audit committee size according to the regulations in Indonesia. Furthermore, information asymmetry has an average value of 0.69122, with maximum value of 2.646 from PT. Astra Auto Part Tbk. (AUTO) in 2013 and the minimum value of 0.080 from from PT. Ricky Putra Globalindo Tbk. (RICY) in 2014. For operating cash flow variable, the mean is 0.08042 with maximum value of 0.363 that belongs to PT. Merck Tbk. (MERK) data in 2015 and minimum value of -0.163 163 that belongs to PT. Kabelindo Murni Tbk. (KBLM) in 2013. External audit quality has mean value of 0.44571 with maximum value of 1.000 and minimum value of 0.000. The results indicated that some companies were audited by Big 4 accounting firms, while other companies were audited by non-Big 4 accounting firms.

Hypothesis Testing
F-Statistical Test

F-statistical test is undertaken to examine how strong is the effects of all independent variables simultaneously on the dependent variable. Table 4.2 provides the result of F-statistical test of these research variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>18.455</td>
<td>4</td>
<td>4.614</td>
<td>8.165</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>85.323</td>
<td>151</td>
<td>.565</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>103.778</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Earnings Management
b. Predictors: (Constant), External Audit Quality, Information Asymmetry, Audit Committee Size, Operating Cash Flow

As shown in Table 4.2, it can be seen that the significant value is 0.000 and lower than the significance level of 0.05 (5%). As the results, the first hypothesis ($H_1$) is accepted because the independent variables are simultaneously influenced earnings management.

T-Statistical Test

T-statistical test was conducted to test the influence of one independent variable on the dependent variable. Ghozali (2011) mentioned T-statistical test is the test performed to examine partial influence of independent variable on dependent variable. Table 4.3 reports the results of t-statistical test of these research variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-2.990</td>
<td>.459</td>
<td>-6.514</td>
<td>.000</td>
</tr>
<tr>
<td>ACS</td>
<td>.783</td>
<td>.437</td>
<td>.143</td>
<td>1.793</td>
</tr>
<tr>
<td>IA</td>
<td>.194</td>
<td>.129</td>
<td>.111</td>
<td>1.507</td>
</tr>
<tr>
<td>OCF</td>
<td>-3.893</td>
<td>.778</td>
<td>-.412</td>
<td>-5.005</td>
</tr>
<tr>
<td>EAQ</td>
<td>.342</td>
<td>.144</td>
<td>.208</td>
<td>2.367</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EM
From the results of the regression equation above can be explained as follows:

1) If audit committee size variable increases by 1, it will increase the extent of earnings management practices by 0.783 (78.3%).
2) If information asymmetry variable increases by 1, it will increase the extent of earnings management practices by 0.194 (19.4%).
3) If operating cash flow variable increases by 1, it will decrease the extent of earnings management practices by -3.893 (389%).
4) If external audit quality variable increases by 1, it will increase the extent of earnings management practices by 0.342 (34.2%).

Coefficient of Determination Test

Coefficient of determination test is used to examine how substantial is the independent variable at explaining the dependent variable. The coefficient of determination can be seen from the value of R Square in Table 4.4 below:

![Table 4.4](image)

The table above shows that the R Square value is 0.178 (17.8%). It means that 17.8% from the change in dependent variable can be explained by audit committee size (X₁), information asymmetry (X₂), operating cash flow (X₃), and external audit quality (X₄). Meanwhile, the others 82.2% can be influenced by other variables that are not used in this research.

Discussion

Based on results of t-statistical test on Table 4.3, t value for ACS is 1.793 and the probability is 0.75 which is higher than 5% significant value. This means that there is no significant influence of audit committee size on earnings management. Thus, the second hypothesis (H₂) that stated audit committee size has negative influence on earnings management is rejected. It is assumed that audit committee was only created to fulfill the regulations of OJK. This result is consistent with the study of I Guna and Herawaty, (I Guna and Herawaty, 2010) who found there is no significant influence of audit committee size on earnings management.

For information asymmetry variable, t value is 1.793 with significant level of 0.134. The significant value is higher than 5%, therefore, there is no significant influence of information asymmetry on earnings management. Hence, the third hypothesis (H₃) that stated information asymmetry has positive influence on earnings management is rejected. This result is consistent with Puspitasari (Puspitasari, 2013) who found information asymmetry has no influence on earnings management in the JII index companies.

Operating cash flow variable have t-score of -5.005 and significant value of 0.000. The significant value is lower than 5%, so there is a significant partial influence between operating cash flow and earnings management. Thus, it can be concluded that the fourth hypothesis (H₄) that stated operating cash flow has negative influence on earnings management is accepted. This result is consistent with the study of Roychowdhury (Roychowdhury, 2006) who found that company manipulated real earnings management through operating cash flow activity.

Furthermore, external audit quality variable had a t value of 2.367 and significant value of 0.19 which was smaller than 5%. Therefore, there was a significant influence of external audit quality on earnings management. This suggested the fifth hypothesis (H₅) that stated external audit quality had negative influence on earnings management was accepted. This result is consistent with the study of Lukman et al. (2016) who found audit quality and earnings management are negatively related.

5. Conclusion

1. Independent variables in this research only explain 17.8% the variance of earnings management. Therefore, future research could look for other independent variables that might influence earnings management practice such as profitability, company size, and free cash flow.
2. Future researcher may extent the research subjects from population so that the findings can be generalized to all types of companies.

3. Different practices regarding audit committee and external audit quality in other sectors and other countries may reflect different effects on earnings management. Therefore, there is a potential to examine these factors deeper.

4. To give more valid results of the phenomenon, further research should be done in longer period if there is sufficient fund and time to conduct it.

Suggestions
1) Independent variables in this research only explain 17.8% the variance of earnings management. Therefore, future research could look for other independent variables that might influence earnings management practice such as profitability, company size, and free cash flow.

2) Future researcher may extent the research subjects from population so that the findings can be generalized to all types of companies.

3) Different practices regarding audit committee and external audit quality in other sectors and other countries may reflect different effects on earnings management. Therefore, there is a potential to examine these factors deeper.

4) To give more valid results of the phenomenon, further research should be done in longer period if there is sufficient fund and time to conduct it.

References


I Gunawan, W. and Herawaty. 2010. Pengaruh Mekanisme Good Corporate Governance, Independensi Auditor, Kualitas Audit dan Faktor lainnya Terhadap Manajemen Laba, Jurnal Bisnis dan Akuntansi, 12 (1): 53-68


Lukman Ahmad, Edi Suhara, Yusri Ilyas. 2016. The Effect of Audit Quality on Earning Management within Manufacturing Companies Listed on Indonesia Stock