Audit Committee: Woman, Experience, Education on Earnings Management

Novia Florencea, Yulius Kurnia Susanto
Trisakti School of Management
Jakarta, Indonesia
novia.florencea@gmail.com, yulius@tsm.co.id

Abstract—The purpose of this research is to obtain empirical evidence about the effect of board size, board independence, directors expertise, board meetings, audit committee expertise, audit committee meetings, audit committee woman, audit committee education, concentrated shareholders, and managerial ownership on earnings management. The population in this research is all listed manufacturing companies in Indonesia Stock Exchange during 2013 to 2016. Samples are obtained through purposive sampling method, in which 66 listed manufacturing companies in Indonesia Stock Exchange meet the sampling criteria resulting 264 data available are taken as sample. Multiple linear regressions and hypothesis testing are used as the data analysis method in this research. The result of this research shows that audit committee woman statistically has influence earnings management. While board size, board independence, directors expertise, board meetings, audit committee expertise, audit committee meetings, audit committee education, concentrated shareholders, and managerial ownership statistically do not have influence earnings management. If the number of woman in audit committee is higher, the level of earnings management will be lower and vice versa. Woman audit committee may be more conservative and have higher ethical value.

Keywords—earnings management; audit committee woman; corporate governance; concentrated shareholders; managerial ownership

I. INTRODUCTION

Earnings management is manager’s choice of accounting policies, or real actions that can affect earnings to achieve some specific reported earnings objective [1]. Earnings management is an important element of financial statements, but sometimes can be misused by management for their own interest. The conflict of interest between shareholders and management leads to Agency Theory [2]. This theory states that all human beings are forced to do anything for their own benefit. If a business owner is the same person as management, the company is going to benefit in the same direction.

The collapse of world’s largest companies such as Enron, WorldCom and Adelphia Communications caused great shocked for investors and stakeholders. They used extreme earnings management to manipulate financial statements and gave bias view to investors and stakeholders. In Indonesia, some companies also got caught using earning management to manipulate their financial statements. They are Kimia Farma in 2001 and PT Indofarma in 2004.

However, not all earnings management is bad. Earnings management is like a coin which has two sides, the good side and the bad side. The good side is managers as agents can use earnings management as a vehicle for credible communication of inside information to investors. The bad side is managers tend to use earnings management for their own best interest, like maximizing bonus. So the bottom line is it all comes back again to the intention of the managers to exercise earnings management. To reduce bad earnings management, managers must open it out to public by making disclosure so stakeholders are well-informed [1].

This research is a development from Ngamchom and Susanto [3-5]. The independent variables used [3] are board size, board independence, CEO duality, directors expertise, board meetings, proportion of an audit committee, audit committee expertise, audit committee meetings, concentrated shareholders and type of shareholders with the highest proportion of the company. The differences from Ngamchom are [3]: (1) CEO duality, proportion of an audit committee and type of shareholder with the highest proportion of the company are not applicable. So this research replaces them respectively with audit committee woman, audit committee education, and managerial ownership; (2) the sample period, this research use five years period from 2012 to 2016.

However, many research conducted by different researchers produce different results. The purpose of this research is to obtain empirical evidence about the effect of board size, board independence, directors expertise, board meetings, audit committee expertise, audit committee meetings, audit committee woman, audit committee education, concentrated shareholders, and managerial ownership on earnings management.

A. Board Size and Earnings Management

Nahandi et al. stated that size of board is the number of directors on the board and an important factor in the effectiveness of the board [6]. However, board size differs from one country to another. There’s no ideal size of board, the board is said to be right when the board can operate effectively [7]. In Nigerian Stock Exchange (NSE), according to SEC, CCG, 2003 all listed companies in the NSE should have a sufficient size of board relative to the scale and...
complexity of the company’s operation and be composed in such a way to ensure diversity of experience without compromising independence, compatibility, integrity and availability of members to attend meeting, also the size should not be less than five (5) comprising executives and non-executives members [8]. While in Indonesia, according to Financial Service Authority (OJK) in regulation No. 33/POJK.04/2014 about Board of Director and Commissioner of Emitter or Public Companies stated that the member of the board of director should be at least 2 (two) persons and the member of the board of commissioner should at least 2 (two) persons [9].

Yermack stated that a smaller board is argued to be more effective because they have less difficulty in monitoring performance [10]. A CEO with poor performance is likely to be dismissed by smaller boards. A range of additional evidence is consistent with the finding that companies achieve the highest market value when the boards are small. According to agency theory, large size of a board of directors will cause agency cost such communication expenditures between those directors. Hypothesis as follows:

**H₁: Board size has influence on earnings management**

**B. Board Independence and Earnings Management**

The board of directors exists primarily to protect the interests of the shareholders of a firm. The issue of the board’s independence is important because directors who are usually appointed to the board are those who are known to the top management of the firm and in the appointment the CEO usually has a significant influence in deciding who is to be on the board [11]. Ngamchom shows that board independence has negative correlation with earnings management [3]. This study has the same result with Xie et al., Johari el al, and Susanto et al. [12-14], the greater the number of independent directors in the company, the better monitoring over management, which will reduce earnings management practices. On the contrary, Abdullah using data from Kuala Lumpur Stock Exchange (KLSE) showed that there’s no significant relationship between board independence and earnings management [11]. Perhaps, the boards of directors in Malaysia focus more attention on the long-term aspects of the firm instead of on the operational details. Hypothesis as follows:

**H₂ Board independence has influence on earnings management**

**C. Directors Expertise and Earnings Management**

A director with a corporate or financial background may be more familiar with the ways that earnings can be managed and may have better understanding the implications of earnings manipulation. In contrast, a director with no corporate or financial background may be a well-intentioned monitor but may not have the training to fully understand earnings management [12]. Consistent with that statement, director with expertise in finance and accounting could reduce agency problem, because they help in control and inhibit the earnings management [3].

The empirical evidence about the effect of director with expertise in finance and accounting on earnings management is shown in [3], the result is they are negatively correlated. This result is consistent with Xie and Wardhani [12,15], the more directors with financial background, the less earnings management practices. While in contrast, Johari found no correlation between knowledge as well as experience in finance and accounting to earnings management [13]. Hypothesis as follows:

**H₃ Directors expertise has influence on earnings management**

**D. Board Meetings and Earnings Management**

It is argued that board meetings and attendance of the meetings are considered to be important channels through which directors obtain firm specific information and able to fulfill their monitoring role. On the other hand, there are researchers that consider board meetings not necessarily useful due to the limited time non-executives spend with the company and consider such time could be better utilized for a more meaningful exchange of ideas with the management. Also, frequent meetings involve managerial time and increase travel expenses, administrative support requirements and directors’ meeting fees. This may affect enterprise activities within the firm as resources are being channeled towards less productive activities [7]. Hypothesis as follows:

**H₄ Board meetings has influence on earnings management**

**E. Audit Committee Expertise and Earnings Management**

Audit committee is a committee who works professionally and independently who is formed by board of commissioner. Generally, the purpose of audit committee is to preserve community trust in accounting, auditing and control system mechanism. In Indonesia, audit committee should at least has one independent party who has expertise in finance and accounting [9]. Audit committee who has knowledge in accounting and auditing will be able to do their duties more effectively [16].

The empirical evidence about the effect of proportion of audit committee expertise in finance and accounting on earnings management is shown in Ngamchom [3], the result is they are negatively correlated. This finding can be interpreted that the high proportion of financial and accounting expertise can control earnings management more efficiently. This result is consistent with Xie and Ayemere [12,16]. Hypothesis as follows:

**H₅ Audit committee expertise has influence on earnings management.**

**F. Audit Committee Meetings and Earnings Management**

Number of audit committee meetings is the frequency of meetings held by the audit committee within one year. The empirical evidence about the number of audit committee meeting on earnings management is shown in Ngamchom [3], the result is they are negatively correlated. This study is consistent with Xie and Ayemere [12,16], the more active audit committee held meetings, the less level of discretionary current accruals occurred. While, Chandrasegaram found that there is no relationship between audit committee meeting and earnings management [17]. Hypothesis as follows:
Hypothesis as follows:

$H_0$: Managerial ownership has influence on earnings management.

II. METHOD

The population of this research is manufacturing companies listed in Indonesia Stock Exchange from period 2013 until 2016. The sample selection technique is purposive sampling-judgment. Purposive sampling method is sample selection method based on criteria and certain consideration [25]. The criteria are determined to avoid problems to arise which can influence the results of this research. Some criteria used for sample selection in this research are:

<table>
<thead>
<tr>
<th>TABLE I. SAMPLE SELECTION PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria Description</strong></td>
</tr>
<tr>
<td>Manufacturing companies consistently listed in Indonesia Stock Exchange from period 2012 to 2016</td>
</tr>
<tr>
<td>Manufacturing companies which do not consistently publish financial statements as of December 31 from period 2012 to 2016</td>
</tr>
<tr>
<td>Manufacturing companies which do not consistently use IDR in the financial statements from 2012 to 2016</td>
</tr>
<tr>
<td>Manufacturing companies which do not number disclose the number of board director meetings in the financial statement from period 2013 until 2016</td>
</tr>
<tr>
<td>Manufacturing companies which do not disclose the number of audit committee meetings in the financial statement from period 2013 until 2016</td>
</tr>
<tr>
<td><strong>Number of sample firms used</strong></td>
</tr>
</tbody>
</table>

The dependent variable in this research is earnings management. The measurement of earnings management is adapted from the measurement by previous researcher which used absolute discretionary accruals as a major proxy for earnings management [19]. This study used the cross-sectional version of the modified Jones model.

$\text{TACC}_t/\text{TA}_{i,t-1} = \alpha(1/\text{TA}_{i,t-1}) + \beta_1(\Delta \text{REV}_t - \Delta \text{REC}_t/\text{TA}_{i,t-1}) + \beta_2(\text{GPPE}_t/\text{TA}_{i,t-1}) + \epsilon_t$

(1)

Where $\text{TACC}_t$ Total Accrual for firm $i$ in year $t$, $\text{TA}_{i,t-1}$ Total Assets for firm $i$ in year $t-1$, $\Delta \text{REV}_t$ The change in Sales between year $t-1$ and year $t$ for firm $i$, $\Delta \text{REC}_t$ The change in Receivables between year $t-1$ and year $t$ for firm $i$, $\text{GPPE}_t$ Gross Property, Plant, and Equipment for firm $i$ in year $t$, $\epsilon_t$ Error term as discretionary accruals. Board size is measured the number of directors on the board [6]. Board independence is measured percentage of independent non-executive directors from total number of directors [13]. Directors’ expertise is measured using dummy variable. If the board consists of majority of the directors who are financial experts, among researchers. Aygun found the positive relationship between managerial ownership and earnings management [23]. In contrast, Agustia found negative relationship between managerial ownership and earnings management [24]. Hypothesis as follows:

$H_0$: Audit committee meetings has influence on earnings management.

$H_0$: Audit committee woman has influence on earnings management.

$H_0$: Audit committee woman has influence on earnings management.

$H_0$: Audit committee education and earnings management

Educational level reflects individual’s cognitive ability and skills [20]. The empirical evidence about education background of audit committee on earnings management is shown in [4], the result is they are negatively correlated. The higher the education level of the audit committee is less likely to be able to reduce the occurrence of earnings management. This result is different with the research conducted by Wardhani [15]. They found that there is no relation between education backgrounds of audit committee on earnings management. Hypothesis as follows:

$H_0$: Audit committee education has influence on earnings management.

I. Concentrated Shareholders and Earnings Management

Concentrated shareholders tend to lead conflict of interest between majority and minority because they have more controlling power over the company. They can exercise control to bring private benefit and override minority shareholders’ interest. They also can give power to managers and encourage managers to engage in earnings management [21].

The empirical evidence about concentrated shareholders on earnings management is shown in Ngamchom [3], the result is they have negative correlation in resource sector. It is caused by the good corporate governance of companies equalizes all shareholders, so major shareholders cannot intervene in the financial reporting process. But the result is contrast in business sector which have positive correlation. It is consistent with Alves and Sáenz found negative correlation between ownership concentration and earnings management [21,22]. Hypothesis as follows:

$H_0$: Concentrated shareholders has influence on earnings management.

J. Managerial Ownership on Earnings Management

The research about relationship between managerial ownership and earnings management give the different results
value of 1 will be given, otherwise 0. Financial expertise of the board should include academic and professional qualifications in finance and the at least 5 years of experience dealing with the financial matters in the industry [26]. Board meetings is measured calculating how many board meetings were held within one year in the company [3].

Audit committee expertise is measured the ratio of audit committee who have accounting working experience to total audit committee in the company [4]. Audit committee meetings is measured the number of meeting of the audit committee within one year [3]. Audit committee woman is measured using dummy variable. Value of 1 will be given if there are female audit committees, otherwise value of 0 [4]. Audit committees education is measured using dummy variable, value of 1 will be given if the chairman of audit committee with post graduate, otherwise value of 0 [4]. Concentrated shareholders is measured the proportion of shares owned by the major shareholder of the company [22]. Managerial ownership is measured using dummy variable, value of 1 will be given if there are any shares owned by management, otherwise 0.

III. RESULTS AND DISCUSSION

The following descriptive statistics and hypothesis testing:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>0.00310</td>
<td>0.545880</td>
<td>0.06258902</td>
<td>0.072851793</td>
</tr>
<tr>
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<td>15</td>
<td>5.22</td>
<td>2.572</td>
</tr>
<tr>
<td>BOD_IND</td>
<td>0.00000</td>
<td>1.000000</td>
<td>23837841</td>
<td>256436446</td>
</tr>
<tr>
<td>BOD_EXP</td>
<td>0</td>
<td>1</td>
<td>0.99</td>
<td>0.288</td>
</tr>
<tr>
<td>BOD_MEETING</td>
<td>2</td>
<td>66</td>
<td>15.23</td>
<td>9.878</td>
</tr>
<tr>
<td>AUDITCOM_EXP</td>
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<td>1.000000</td>
<td>62185265</td>
<td>279708106</td>
</tr>
<tr>
<td>AUDITCOM_MEETING</td>
<td>1</td>
<td>46</td>
<td>7.18</td>
<td>6.277</td>
</tr>
<tr>
<td>AUDITCOM_Woman</td>
<td>0</td>
<td>1</td>
<td>0.38</td>
<td>0.485</td>
</tr>
<tr>
<td>AUDITCOM_EDU</td>
<td>0</td>
<td>1</td>
<td>0.36</td>
<td>0.481</td>
</tr>
<tr>
<td>CONC_SHARE</td>
<td>0.101700</td>
<td>0.981800</td>
<td>49337803</td>
<td>234966944</td>
</tr>
<tr>
<td>MAN_OWN</td>
<td>0</td>
<td>1</td>
<td>45</td>
<td>498</td>
</tr>
</tbody>
</table>

Source: Data Output SPSS 21.0

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD_SIZE</td>
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<td>.185</td>
</tr>
<tr>
<td>BOD_IND</td>
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</tr>
<tr>
<td>BOD_EXP</td>
<td>0.411</td>
<td>0.835</td>
</tr>
<tr>
<td>BOD_MEETING</td>
<td>0.054</td>
<td>0.388</td>
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<tr>
<td>AUDITCOM_EXP</td>
<td>-0.051</td>
<td>.425</td>
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<tr>
<td>AUDITCOM_MEETING</td>
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<td>.182</td>
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<tr>
<td>AUDITCOM_WOMAN</td>
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<td>.001</td>
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<tr>
<td>AUDITCOM_EDU</td>
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<tr>
<td>CONC_SHARE</td>
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<td>0.370</td>
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<tr>
<td>MAN_OWN</td>
<td>0.098</td>
<td>0.121</td>
</tr>
</tbody>
</table>

Source: Data Output SPSS 21.0

The test result shows that board size has significance level .185, which is above .05, H_0 is not accepted. This means that board size has no influence on earnings management. The test result shows that board independent has significance level .147, which is above .05, H_0 is not accepted. This means that board independent has no influence on earnings management.

The test result shows that directors expertise has significance level .833, which is above .05, H_0 is not accepted. This means that directors with expertise in finance and accounting has no influence on earnings management. The test result shows that board meetings has significance level .388, which is above .05, H_0 is not accepted. This means that board meetings has no influence on earnings management.

The result shows that audit committee expertise has significance level .425, which is above .05, H_0 is not accepted. This means that proportion of audit committee expertise in finance and accounting has no influence on earnings management. The test result shows that audit committee meetings has significance level .182, which is above .05, H_0 is not accepted. This means that number of audit committee meetings has no influence on earnings management. The test result shows that audit committee woman has significance level .227. This can be interpreted as if the number of women in audit committee is higher, the level of earnings management will be lower and vice versa. This result is consistent with Susanto, Man, and Qi [4,18,19]. This is due to the arguments that women audit committee may be more conservative and have higher ethical value. The test result shows that audit committee education has significance level .154, which is above .05, H_0 is not accepted. This means that education background of audit committee has no influence on earnings management. The test result shows that concentrated shareholders has significance level .370, which is above .05, H_0 is not accepted. This means that concentrated shareholders has no influence on earnings management. The test result shows that managerial ownership has significance level .121, which is above .05, H_0 is not accepted. This means that managerial ownership has no influence on earnings management.

IV. CONCLUSION

Based on the hypotheses test, the conclusion is audit committee woman has influence on earnings management. While, board size, board independence, directors expertise, board meetings, audit committee expertise, audit committee meetings, audit committee education, concentrated shareholder, and managerial ownership have no influence on earnings management. There are some limitations of this research 1) this research is focused mainly on manufacturing companies which are listed in Indonesian Stock Exchange as sample. Therefore, the result cannot cover the other type of companies, 2) this research only consists of 10 independent variables, while there are so many other variables which have effect on earnings management, 3) this research only focuses on accruals earnings management, and not accounting for the real earnings management. Recommendations for future research are to expand the research population, add other independent variables for example leverage, and expand the research into real earnings management.
REFERENCES