A new decade for social changes
Corporate Governance, Audit Quality, Firm Size and Leverage: Their Effect on Earnings Management

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Abstract: The objectives of this research are to estimate and analyze the effect of corporate governance, audit quality, firm size, and leverage on earnings management, either partially or simultaneously. The research method used is panel data regression analysis. Purposive sampling approach was used, choosing six companies that consistently participated in the Corporate Governance Perception Index (CGPI) program from 2014 to 2019 and are listed on the Indonesia Stock Exchange. The results show that CGPI has a significant negative effect, audit quality has no significant effect, firm size has a significant negative effect, leverage has a significant positive effect on earnings management. CGPI, audit quality, firm size, and leverage simultaneously have a significant effect on earnings management with a coefficient of determination (R²) of 0.7936, indicating that all independent variables can explain variations in earnings management by 79.36%, while the remaining 20.64% is explained by other factors not to be included in the model.

Keywords: Audit Quality, CGPI, Earnings Management, Firm Size, Leverage.

1. Introduction

Earnings management is a phenomenon that often occurs in the business world. As explained by Jensen and Meckling (1976), the difference in interests between principal and agent has encouraged the practice of earnings management in the corporate world. Leuz et al. (2002) in their research concluded that compared to other ASEAN countries, companies in Indonesia are indicated to have the highest earnings management practices. Likewise, Ratmono (2010) in his research results, concluded that to avoid reporting annual losses, public companies in Indonesia tend to practice earnings management.

Manipulation of accounting practices usually occurs because of the accrual basis applied in the preparation of financial statements. Due to the demands of performance, managers tend to use the accrual basis as a way of manipulating financial statements by reporting higher, lower, or even income smoothing to be in accordance with the company interests and targets set.

Regarding the rampant practice of accounting manipulation, good corporate governance should be applied to reduce these practices. With good corporate governance, a company should have a system that is able to prevent and detect earnings management practices. Good corporate governance practices are expected to achieve the objectives of transparency, accountability,
responsibility, independence, and fairness, so as to encourage the implementation of good corporate governance, including in financial reporting. In addition, this practice is expected to prevent conflicts of interest in relation to different interests between the shareholders and the management.

The Indonesian Institute for Corporate Governance (IICG) in collaboration with SWA magazine has conducted a voluntary assessment of the implementation of corporate governance practices through a rating with the corporate governance perception index (CGPI). The assessment includes aspects of compliance, aspects of conformity, and aspects of performance. The score obtained will indicate the level of confidence the company has in the implementation of good governance. Several studies had been conducted, including research by Agustin (2012) and Wuryanti (2013) which concluded that CGPI has a negative effect on earnings management, while Vajriyanti, et al. (2015) stated that a high CGPI value will moderate the effect of earnings management on company value.

Another factor considered to influence earnings management is audit quality. A reputable external auditor is expected to be able to find and report if a company has indications of irregularities. Audit quality is essential because auditors, acting as independent third parties, should be competent in assessing financial statements and their services are of value to shareholders or investors. In line with agency theory, audit quality is expected to suppress earnings management practices. Deis and Giroux (1992) stated that audit quality consists of four factors, namely tenure, the large number of clients, the financial health of the client and the existence of a third party review. While Bodie, et al. (2008) argued that audit quality is related to the accountant's understanding of the client's business. There are several studies related to audit quality and its effect on earnings management, among others, Becker et al. (1998), Hwang and Lin (2008), Jordan et al. (2010), Eny, et al. (2015) and Triadi and Dewi (2016) who concluded that audit quality has a negative effect on earnings management.

Firm size also reflects whether or not a company is trusted. Investors, in some cases, believe that large companies have integrity in financial reporting because they are considered to have a reliable accounting information system to avoid earnings management practices. However, there are some arguments stating that large companies have more ability to manipulate financial statements because of complexity of the organization as well as the reporting that must be performed. Regarding the effect of Firm size on earnings management, several studies have been conducted by Jao and Pagalung (2011), Cornett et al. (2009) and Liu and Lu (2007) among others, who concluded that firm size has a negative effect on earnings management.

The leverage factor is also considered as having a linkage to the manager's desire to practice earnings management. It is undeniable that a company's debt has consequences of the obligations to meet certain requirements by creditors in order to be judged as creditworthiness. To meet these requirements, it is common for companies to manipulate their financial statements to be in good standing which is in accordance with the demands of creditors. Leverage measures how much the company's financing is financed by debt. The debt covenant hypothesis in positive accounting theory emphasizes that in relation to debt ownership, creditors require certain financial performance that must be met by debtors so that the funds invested are safe. This encourages debtors to meet these performance targets, thereby encouraging earnings management practices. In line with this perspective, several studies related to leverage on earnings management have been carried out, including research by Naftalia and Marsono (2013), Tarjo (2008), and Lin et al. (2009) which shows that leverage has a positive effect on earnings management.
2. Literature Review and Hypothesis

2.1. Corporate Governance

Corporate governance is a system that regulates and controls the company to create added value for all stakeholders (Priharta et al., 2022). In this study corporate governance is measured by the Corporate Governance Perception Index (CGPI). CGPI is an index of assessment published by IICG. The score range is based on following rating categorization:

\[
\text{CGPI} = \begin{cases} 
55 - 69.99 & : \text{Quite reliable;} \\
70 - 84.99 & : \text{Reliable;} \quad \text{and} \\
85 - 100 & : \text{Very reliable.}
\end{cases}
\]

2.2. Audit Quality

Bodie et al. (2008) define audit quality as the ability of auditors in understanding the client's business, which also means understanding the techniques of conducting earnings management practices. Audit quality is measured by scoring (Priharta and Rahayu, 2019) which covers six elements of audit quality, namely: (1) competence, (2) independence, (3) auditor specialization, (4) audit tenure, (5) peer review, and (6) affiliated with the big 4. The audit quality score is calculated as follows:

\[
\text{AUDIT} = \frac{\text{Score obtained}}{6}
\]

2.3. Firm Size

Firm size as a proxy for political costs, is considered to have an effect on earnings management. Medium and large sized companies have demands that financial performance be in line with investor expectations, thus encouraging management to meet these expectations. This behavior in turn will have an effect on the practice of manipulation and income smoothing (Priharta and Rahayu, 2019). Firm size, indicating the size of the company, is assessed by market capitalization as a measurement (Riyanti, 2012). The calculation is performed by the following formula:

\[
\text{SIZE} = \ln (\text{Market Capitalization})
\]

2.4. Leverage

Companies that have leverage will use these funds carefully because there are limits that must be obeyed and the funds are under the supervision of the creditor. Companies that have high leverage tend to choose accounting procedures with changes in reported earnings from future periods to current periods because it will provide a small leverage ratio (Priharta et al., 2017). Leverage is the company's funding from debt with following calculation (Priharta and Rahayu, 2019):

\[
\text{LEV} = \frac{\text{Debt}}{\text{Equity}}
\]

2.5. Earnings Management

Earnings management is often defined as time planning in determining revenues, expenses, gain and loss for making profit increase (Priharta, 2022). In this study, earnings
management using a specific accrual model such as research (Utami, 2006), is measured by the below formula:

\[ EM = \frac{\text{Accrual of Working Capital}}{\text{Sales}} \]

2.6. Hypothesis
This research intends to prove whether corporate governance, audit quality, leverage and firm size can affect earnings management. The relationship between variables is shown in Table 1.

<table>
<thead>
<tr>
<th>Symbols</th>
<th>Variables</th>
<th>Proxy</th>
<th>Expected relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>Earnings Management</td>
<td>Accrual of working capital/Sales</td>
<td>-</td>
</tr>
<tr>
<td>CGPI</td>
<td>Corporate Governance Perception Index</td>
<td>CGPI Score</td>
<td>-</td>
</tr>
<tr>
<td>AUDIT</td>
<td>Audit Quality</td>
<td>Score obtained/6</td>
<td>-</td>
</tr>
<tr>
<td>SIZE</td>
<td>Firm Size</td>
<td>Ln (market capitalization)</td>
<td>-</td>
</tr>
<tr>
<td>LEV</td>
<td>Leverage</td>
<td>Debt/Equity</td>
<td>+</td>
</tr>
</tbody>
</table>

3. Methods
This research uses panel data regression analysis. The data has time series characteristics as well as cross section because it consists of six individuals from six companies in the 2014-2019 period. Secondary data was obtained through the website www.idx.co.id and the Indonesian Capital Market Directory. The population used are companies that participate in the CGPI assessment conducted by IICG in collaboration with SWA magazine. In using purposive sampling, these following criteria have resulted in 6 (six) companies as research samples: (1) the company has participated in the CGPI assessment since 2014-2019; (2) the company has been listed on the Indonesia Stock Exchange; (3) the company has complete data needed in the research.

In the model, the dependent variable is earnings management with CGPI, audit quality, firm size and leverage as independent variables. Each measurement variable is carried out as follows.

The earnings management formulation in this research is presented in the following model:

\[ EM_{it} = \alpha + \beta_1 CGPI_{it} + \beta_2 AUDIT_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \epsilon_{it} \]

4. Results And Discussion
The panel data used in this research consists of three models namely, common effect, fixed effect, and random effect. Based on paired testing of these three models, the most appropriate one is the fixed effect. The results of the research are as shown in table 2 below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-5.0930</td>
<td>0.0014</td>
</tr>
<tr>
<td>CGPI</td>
<td>-5.6783</td>
<td>0.0000</td>
</tr>
<tr>
<td>AUDIT</td>
<td>-0.0581</td>
<td>0.7464</td>
</tr>
</tbody>
</table>
Based on data processing as presented in table 2, the following regression equation is obtained:

\[ EM = -5.0930 - 5.6783CGPI - 0.0581AUDIT - 0.0376SIZE + 0.2587LEV \]

The CGPI variable has a significant negative effect on earnings management, meaning that better corporate governance is proven to reduce earnings management practices. In line with agency theory, these results reaffirm that different interests between managers and owners can be avoided by practicing good corporate governance.

Audit quality has a negative but not significant effect on earnings management. This result indicates that the presence of external auditors has not been fully able to reduce or minimize earnings management practices. This can happen because the audit is generally carried out not as a whole but on a sample.

Firm size has a significant negative effect on earnings management. This result confirms that large companies generally get big attention from the public, so they always try to maintain their reputation. In addition, usually, large companies already have an adequate internal control system to avoid earnings management practices.

Leverage has a significant positive effect on earnings management. This indicates that companies having large amounts of debt, tend to practice earnings management in order to meet certain debt ratios or other credit requirements to be met by debtors. This is in line with the debt covenant hypothesis in the positive accounting theory.

Furthermore, the proposed hypothesis on the factors that affect earnings management can be seen in table 3 below:

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Results</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGPI</td>
<td>- / Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>AUDIT</td>
<td>- / Insignificant</td>
<td>Rejected</td>
</tr>
<tr>
<td>SIZE</td>
<td>- / Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>LEV</td>
<td>+ / Significant</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

By using the F-test, it is known that the variables of CGPI, audit quality, firm size, and leverage simultaneously have a significant effect on earnings management. The adjusted R-squared value of 0.7936 indicates that all independent variables can explain the variation in the rise and fall of earnings management by 79.36%, while the remaining 20.64% is influenced by other factors.

5. Conclusion
The results of this research contribute to the strengthening of agency theory related to the effect of CGPI on earnings management which is significantly negative. These results indicate that a difference in interests between the principal and the agent indeed occurs which can be avoided by practicing good corporate governance. The significant negative effect of firm size on earnings management, contributes to the strengthening of signaling theory showing that the firm size reflects the amount of information that the company gets attention from the public. Therefore, the company will maintain its reputation, and it also indicates that the company has a good and adequate internal control system. Leverage, which has a significant positive effect, contributes to the debt covenant hypothesis in positive accounting theory that certain credit requirements have indeed encouraged managers to fulfill them by doing certain earnings management practices. Based on the description above in relation to companies and investors, attention should be paid to these variables in managing the organization for the company, or in determining investment decisions for investors. For future research, it is recommended to use a different audit quality proxy which has the possibility to answer the insignificant effect in this research.

References


