Factors influencing earnings management on manufacturing company on BEI

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Abstract
This study aims to analyze the factors that influence earnings management in automotive companies on the Indonesia Stock Exchange (IDX). The analysis variables of earnings management practices are company size, auditor reputation, managerial ownership, institutional ownership, Financial Leverage, and the education level of the president director. The research period is 2016-2020. The sample used is purposive sampling, with as many as 18 pieces—multiple linear analysis data testing methods. The test data results obtained: simultaneously the variables of firm size, auditor reputation, managerial ownership, institutional ownership, Financial Leverage, and the education level of top directors affect Earnings Management, while partially, managerial ownership has a significant negative effect on Earnings Management. Company size, auditor reputation, institutional ownership, Financial Leverage, and education level of top directors have no consideration on Earnings Management.

Keywords: Earnings Management, Manufacturing Company

Introduction
Financial information must always be published continuously by the manager's performance report to company owners, investors, and stakeholders. The news is a tool to find out how much liquidity the company has, attracting investors to invest in the company (John J. Wild, 2005). The company always strives to maximize profit achievement to maintain its business competition. Maintaining stakeholder trust is something the company needs to do. When the company gains the trust of stakeholders, the company can achieve success and survive in business competition. Therefore, if you want to gain the confidence of stakeholders, you must show the performance results that have been completed and appear in the financial statements and can be seen in the past and current periods. (Scoot and William R: 2000). The company's performance can be shown in the financial report. Financial statements are the primary key for companies that can be used as an essential source of information for stakeholders (Samryn, 2012).

There is a high possibility that stakeholders pay attention to earnings reports which can motivate managers to plan new strategies so that the utterances produced are by the expectations of stakeholders, one of which is by doing earnings management (earnings management). Earnings management is method managers, or financial statement makers use to manage earnings for personal interests (Watts and Zimmerman: 1990). Healy dan Wahlen (1999) revealed that earnings management arises when managers consider the preparation of financial statements that can cause information asymmetry for interested parties about the actual conditions in the company. Several factors can affect earnings management practices, among these variables research both at home and abroad, such as company size, auditor reputation, company ownership structure, and financial leverage.

In the concept of earnings management (earnings management), according to Alves, Sandra (2012), which uses agency theory, it states that earnings management is influenced by conflicts between the interests of management (agents) and shareholders (principals) that arise because every company wants to achieve the desired level of prosperity. Company size is a value that shows the size of a company, where this size can be done using total sales, total assets, market capitalization.
Rice (2013)\textsuperscript{[36]} reveals that leverage, institutional ownership, firm size, and value significantly affect earnings management. Partially, fit size has a significant negative effect on earnings management, while power, substantial privilege, and firm value have no significant impact.

Guna et al. (2010)\textsuperscript{[16]} explain that medium or prominent companies are not necessarily more aggressive in carrying out earnings management practices through positive earnings reporting mechanisms to avoid earnings losses and decreases. Research conducted by Kim et al. (2003)\textsuperscript{[27]} suggests that all company sizes always report positive earnings to avoid earning losses or earning drops.

The presence of commissioners is also predicted to affect corporate tax aggressiveness. According to Fama & Jensen (1983)\textsuperscript{[15]}, the more commissioners, the more effective the supervision of the manager's performance is. With strict control from independent commissioners, it will reduce the opportunity for managers to be aggressive towards corporate taxes. Managers carry out tax aggressiveness because of their interest in increasing company profits by reducing its burden.

The company ownership structure is the composition of the parties responsible for the company's ownership. Saffuddin et al. (2012)\textsuperscript{[39]} suggest that institutional ownership variables have no significant effect on earnings management. In their research, Prima Dewi et al. (2013)\textsuperscript{[24]} stated that institutional ownership significantly negatively impacts earnings management. In contrast to Handayani's research. S (2009)\textsuperscript{[37]} found that the company's ownership structure did not affect earnings management practices. Indriastuti (2012)\textsuperscript{[23]} found that the company's ownership structure significantly negatively affects earnings management.

Auditor reputation is the combined probability of an auditor's ability to find an error in the client's financial reporting and then report the condition, whether intentionally or not. Yasar (2013)\textsuperscript{[40]} revealed that the companies studied in Turkey did not find the effect of auditor reputation on earnings management for companies that use big four or nonbig four auditors. Charles E. et al. (2010)\textsuperscript{[7]} stated that the companies studied in Iran with a high auditor reputation tend not to practice earnings management.

Gerayli et al. (2011)\textsuperscript{[35]}, Cornett et al. (2006)\textsuperscript{[9]} In his research, he said that companies audited by Big Four auditors showed no practice manipulating earnings reports. Another factor that underlies the practice of earnings management in terms of financial statements is by looking at the size of leverage. Saffuddin (2012)\textsuperscript{[39]} shows that the leverage variable has no significant effect on earnings management.

Meanwhile, Jelincik (2007)\textsuperscript{[22]} said that companies with high leverage ratios tend not to do earnings management. In contrast to Zhang R (2006)\textsuperscript{[46]}, he shows that leverage affects earnings management practices but is not significant in his research. Nia et al. (2013)\textsuperscript{[32]} of companies in Iran that financial power has a significant negative effect on companies that practice earnings management, so each research finding has its uniqueness in their respective studies.

Based on the research background above, it can be stated that there are differences in results or research gaps, both in terms of research results and in terms of variables used by researchers. The formulation of the problems that can be identified in this study are as follows: to determine and analyze the effect of firm size, auditor reputation, managerial ownership, institutional ownership, financial leverage, and education level of the president director simultaneously and partially on earnings management practices in manufacturing companies listed in Indonesia stock exchange.

Agency theory by Jensen and Meckling (1976)\textsuperscript{[25]}, Ang. J.S., Rebel A.C., and James W.L. (2000), is a model used to formulate a conflict between management (agent) and the owner (principal). Battle list of interests between the owner and the agent occurs because the agent may not always act by the shareholder’s interests; you could say that only personal desires take precedence. This triggers an increase in agency costs.

Positive accounting theory (Watts and Zimmerman: 1990). This theory seeks to clarify why accounting policies become a problem for companies and parties interested in existing financial statements and to predict the accounting policies that companies will choose under certain conditions. This theory is based on the view that the company is a nexus of contracts. The company is an estuary for various contracts that come to him—for example, agreements with employees (including managers), suppliers, consumers, and financiers. Signaling theory (Brigham, E. F., and Ehrhardt, 2005)\textsuperscript{[6]} states that company executives have better information about their company to be encouraged to convey this information to potential new investors. The company's stock price increases. The ranking of companies that have gone public is usually based on this financial ratio analysis. This analysis is conducted to facilitate the interpretation of the financial statements that have been presented by management. The demand for shares in large quantities will increase the share price. High profitability shows the company's prospects are good so that investors will respond positively to the signal, and the company’s value will increase.

The theory of earnings management was developed by John. J. Wild et al. (2005), DeAngelo (1986), Jones (1991)\textsuperscript{[26]}, and Dechow. The following are the results of a review of previous research. Based on the description described in the last paragraph, it can be told the form of the conceptual framework as follows:
Methods
The research approach used is explanatory (Husein: 1999), a study that aims to analyze the relationship between one variable and another, wherein this study aims to obtain empirical evidence regarding the influence of variables, firm size, auditor reputation, institutional ownership, managerial ownership, financial leverage on earnings management practices. The location of this research was carried out on the Indonesia Stock Exchange, data obtained by accessing www.IDX.co.id and from the Capital Market Information Center (PIM), using data from the Indonesian Capital Market Directory (ICMD). The research object used in this study is a manufacturing company listed on the Indonesia Stock Exchange for 2016-2020. Based on the type, the data presented in this study is quantitative. The data used in this study is external secondary data, namely company name, investors, auditor data, company age, company size, type of company ownership, and financial statement data of each company, which were obtained from the Indonesia Stock Exchange (IDX) in 2016-2020. The population and research sample are manufacturing companies on the IDX that meet the criteria in this study. The analysis method of this research is the data analysis technique with the multiple linear regression analysis methods (multiple linear regression) using the SPSS program.

Result and Discussion
This research was conducted on manufacturing companies listed on the Indonesia Stock Exchange from 2016 to 2020. Using the purposive sampling method, the number of samples to be analyzed is 18. Thus the number of pieces for five years is 85 samples (18 x 5). Descriptive statistical analysis is used to determine the description of data seen from the maximum value, minimum value, average value (mean), and standard deviation value. The variables used are earnings management, company size, auditor reputation, management ownership, institutional ownership, financial leverage, education level of the president director. Based on descriptive statistical analysis, the sample description is obtained as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>75</td>
<td>-13.7013</td>
<td>6.3390</td>
<td>-3.5767</td>
<td>3.57564</td>
</tr>
<tr>
<td>UP</td>
<td>75</td>
<td>1.0083</td>
<td>1.1001</td>
<td>1.0718</td>
<td>.02076</td>
</tr>
<tr>
<td>RA</td>
<td>75</td>
<td>0</td>
<td>1</td>
<td>.4533</td>
<td>.50117</td>
</tr>
<tr>
<td>KPM</td>
<td>75</td>
<td>0.0002</td>
<td>0.5833</td>
<td>.1093</td>
<td>.17463</td>
</tr>
<tr>
<td>KPI</td>
<td>75</td>
<td>0.0667</td>
<td>0.9861</td>
<td>.5206</td>
<td>.30219</td>
</tr>
<tr>
<td>FL</td>
<td>75</td>
<td>-0.3103</td>
<td>11.2540</td>
<td>.9506</td>
<td>1.67154</td>
</tr>
<tr>
<td>TP</td>
<td>75</td>
<td>0</td>
<td>1</td>
<td>.3600</td>
<td>.48323</td>
</tr>
</tbody>
</table>

Source: Processed Data, 2020

1. Provit Management
This study measures earnings management using discretionary accruals (DA) value. Based on the data in table 7 above, the minimum value of discretionary accruals (DA) is -13.7013, the maximum value is 6.3390, the average value (mean) is -3.5767, and the standard deviation value is 3.57564. The mean value generated by DA is declared to be less good (not worth 0); this means that the company takes earnings management actions by lowering profits, either by reducing income or increasing expenses (Rice and Agustina, 2012).

2. Company Size
The firm size variable is measured using natural log size, where the data used is the number of company assets. Based on the results of descriptive statistics, the lowest value obtained in the firm size variable is 1.01, while the highest value obtained is 1.1 with a standard deviation of 0.02. The mean value of 1.07 fit size is declared good because it is above 0.50 of total assets based on the provisions of the Capital Market Supervisory Agency (BAPEPAM Number: KEP-196/BL/2012), with the conclusion that the companies sampled in this study have quite transparent in presenting its financial statements (Rice, 2013).

Fig 1: Conceptual Framework
3. Auditor Reputation
In this study, the auditor’s reputation variable was measured using a dummy scale: if the company uses a Public Accounting Firm affiliated with the Big 4 and 0 if the other. In descriptive statistics, the mean value of the auditor reputation variable is 0.45, whereas many as 45% of the companies used as research samples use Big 4 KAPs. Companies used as research samples suspected of carrying out Earning Management use non-Big 4 KAP audit services, which are as much as 55% compared to companies that use Big 4 KAP audit services, which are 45%.

4. Ownership Management
Management ownership is measured by using the percentage of ownership by management. Based on descriptive statistics, the lowest value obtained by the management ownership variable is 0.02%, the highest value is obtained at 58%, with a standard deviation of 0.17. The mean value of the management ownership variable of 11% is declared unfavorable because it is below 50%; this means that the company used as the research sample has a trim level of ownership by management so that it cannot assist in monitoring the company's activities.

5. Institutional Ownership
Institutional ownership is measured by using the percentage of ownership by the institution. Based on descriptive statistics, the lowest value obtained by the institutional ownership variable is 0.67%, while the highest value is 99%, with a standard deviation of 0.3. The mean on the institutional ownership variable of 52% is declared good because it is greater than 50% which means that the large proportion of ownership by institutions outside the company can assist in supervising management actions.

6. Financial Leverage
Financial Leverage, which is proxied into the Debt to Equity Ratio (DER), is obtained by the value of debt divided by equity. The minimum value obtained from financial leverage is -0.31, and the maximum value is 11.25, with a standard deviation of 1.67. The mean value obtained by 95% is declared unfavorable. This is because the average assets of the companies sampled in the study are financed by debt.

7. Education level of the chief director
The education level of the president director was measured using a dummy scale, namely a value of 1 for the level of education above undergraduate and a value of 0 for the level of education below undergraduate. Based on descriptive statistics, the mean value obtained is 0.36, this means that from the sample of companies observed, there are only 36% of companies led by president directors with a bachelor's level of education or above, and president directors lead most companies with a bachelor's level of education. Education below a bachelor's degree is equal to 64%.

Based on the average probability graph, it shows that the points are around the diagonal line so that the regression model is feasible to use to analyze the effect of the variables of firm size, auditor reputation, management ownership, institutional ownership, financial leverage, and the education level of the president director on earnings management. The following is a picture of the normality test results.

![Normality Test Results](Fig2.png)

Source: Secondary data processed, 2020

Fig 2: Normality Test Results
The coefficient of determination (R²) is basically to find out how much influence the independent variable (X) has on the dependent variable (Y). The value of R² ranges from 0 to 1, if R² = 0, it means that there is no relationship between the independent variable and the dependent variable; if R² = 1, it means that the independent variable has a perfect relationship with the dependent variable. The value of the coefficient of determination (R²) can be seen in the following table:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.417</td>
<td>.174</td>
<td>.101</td>
<td>3.39043</td>
</tr>
</tbody>
</table>

Based on Table 2 above, the R² value is 0.174; this means that 17.4% of the variation in earnings management can be explained by variations in the six independent variables, namely company size, auditor reputation, managerial ownership, institutional ownership, financial leverage, and the education level of the president director. At the same time, the remaining 82.6% is explained by other variables that are not used in this model.

The F statistical test shows whether there is a joint effect between the dependent variable (Y) and the independent variable (X), namely the influence of the variables of firm size, auditor reputation, managerial ownership, institutional ownership, financial leverage, and education level of the president director simultaneously. Effect on earnings management. The results of the F statistical test are presented in Table 3 below.

<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>164,444</td>
<td>6</td>
<td>27,408</td>
<td>2.385</td>
<td>.038</td>
</tr>
<tr>
<td>Residual</td>
<td>782,663</td>
<td>68</td>
<td>11,495</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>947,105</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3 above, the results of the ANOVA test or obtained F-count of 2.385 with a significance level of 0.038. With the acquisition of a significance level of 0.038 (p < 0.05), this means that the model used is fit. Regression models can be used to predict earnings management. It can be said that the variables of firm size, auditor reputation, managerial ownership, institutional ownership, financial leverage, and education level of the president director together affect earnings management.

The t-statistical test was conducted to test the effect of an independent variable individually in explaining the variation of the dependent variable. This means that it can be seen that the variable is a significant explanatory or not on the dependent variable. The results of the multiple regression analysis used in this study are shown in Table 4 below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>12,902</td>
<td>21,579</td>
<td>.598</td>
<td>.552</td>
<td>-</td>
</tr>
<tr>
<td>UP</td>
<td>-15,743</td>
<td>19,930</td>
<td>-.091</td>
<td>-.790</td>
<td>.432</td>
</tr>
<tr>
<td>RA</td>
<td>.196</td>
<td>.897</td>
<td>.027</td>
<td>.219</td>
<td>.828</td>
</tr>
<tr>
<td>KPM</td>
<td>-5,986</td>
<td>2,765</td>
<td>-.292</td>
<td>-2.165</td>
<td>.034</td>
</tr>
<tr>
<td>KPI</td>
<td>1,482</td>
<td>1,646</td>
<td>.125</td>
<td>.901</td>
<td>.371</td>
</tr>
<tr>
<td>FL</td>
<td>.031</td>
<td>.259</td>
<td>.014</td>
<td>.118</td>
<td>.906</td>
</tr>
<tr>
<td>TP</td>
<td>.439</td>
<td>.858</td>
<td>.059</td>
<td>.512</td>
<td>.610</td>
</tr>
</tbody>
</table>

Source: Data processed, 2020
Based on the explanation of the statistical test results shown in table 10, thus the following mathematical equations can be made.

\[ EM = 12.902 - 15.743X_1 + 0.196X_2 - 5.986X_3 + 1.482X_4 + 0.031X_5 + 0.439X_6 + \varepsilon \]

1. Results of the first hypothesis test (Ha1) the effect of firm size on earnings management

The results of this study indicate a negative relationship between firm size and earnings management, but it is not significant. This study supports the signal theory (Ross: 1977) [38]. This study supports the research of Chtourou et al. (2001) [8], Rice and Agustina (2012) [37], and Rice (2013) [36] but does not support the research of Rice and Agustina (2012) [37], Handayani and Rachadi (2009) [37], and Liukani (2013).

2. Second hypothesis test results (Ha2) effect of auditor's reputation on earnings Management

This study indicates that the auditor's reputation variable has no significant effect on earnings management but has a positive relationship; the better the auditor's reputation, the greater the company's motivation to perform earnings management. The results of this study do not support the signal theory (Ross, 1977) [38] and keep the results of research from Prima Dewi (2013) [41] and Nawaiseh (2015).

3. Third Hypothesis Test Results (Ha3a) The effect of management ownership on earnings management

This study indicates that the managerial ownership variable has a significant negative effect on earnings management. It is interpreted that the greater the managerial ownership in the company, the motivation to carry out earnings management will decrease and even do not carry out earnings management. The results of this study support agency theory (Berle and Means) but are not by Liu and Zhou's research (2004) [47].

4. Results of the fourth hypothesis Test (Ha3b) the effect of institutional ownership on earnings management

The institutional ownership variable test results on earnings management are not significant. Still, the results show that the ng coefficient value is positive, which means there is a positive relationship between institutional ownership and earnings management. High institutional ownership tends to motivate management to practice earnings management to obtain compensation related to the report. Generated finance. This is in line with agency theory (Jensen, J.MC, 1991). The results of this study support the research of Liukani and Zhou (2013) and Yang et al. (2009) but do not support the research of Rice (2013) [36], Rice and Agustina (2012) [37], Alves (2012) [3].

5. Fifth hypothesis test results (Ha5) effect of financial leverage against earnings management

The results of this study do not show a significant effect between financial leverage on earnings management but the coefficient value obtained is positive (0.031), which means that there is a positive influence between financial leverage power management. This research supports the signal theory (Ross, 1977) [38]. This research supports the study of Nawaiseh (2005), Rice (2013) [36], Rice and Agustina (2012) [37] but does not support the research, Zagers, and Mamedova (2008) [45].

6. Results of the Sixth Hypothesis Testing (Ha6) The effect of education level of the president director on earnings management

The results of the t-statistical test (partial test) show that there is no effect between the education levels of the president director on earnings management because of the significance value (> 0.05). Still, the coefficient value is positive, which means that there is a unidirectional relationship between the education levels of the president director on earnings management.

Conclusion

The purpose of this study is to examine the factors that influence earnings management. The independent variables used are company size, auditor reputation, managerial ownership, institutional ownership, financial leverage, and the education level of the president director. The conclusions that can be drawn from the results of this study are as follows. Firm size does not affect earnings management. Still, it has a negative relationship, so it can be concluded that the larger the fit size, the less motivation to perform earnings management. The auditors’ reputation does not affect earnings management use the company's management still he desires good performance in the eyes of potential investors. The size of big4 or non-big 4 KAPs cannot significantly limit earnings management practices occurring in the company. Management ownership has a significant negative effect on management. Institutional ownership does not affect earnings management. Therefore institutional ownership is not strong enough to detect earnings management practices. In addition, companies that external executives and institutional ownership dominate may not be able to reduce the occurrence of earnings management practices; this is due to the alleged lack of transparency in the selection of external executives. Financial leverage does not affect earnings management. The education level of the president director does not affect earnings management. The results of this study provide the following academic, practical, and managerial implications. Namely, increasing investor under is meant in making investment decisions. Investors pay attention to factors that affect earnings management in making investment decisions to make no mistakes in investing. Companies that want to increase investment from outside parties to reduce earnings management practices or even do not carry out earnings management because it can provide information that is not by investors’ expectations so that it can be detrimental. The limitations and suggestions in this study are as follows. This study is only limited to five years of observation. To producetolourther, researchers are advised to increase the number of samples by increasing the observation period. This study resulted in an R2 of 0.174 or 17.4%. Several main variables have not been included in this model, so future researchers are advised to add some of these variables, such as earning power, firm value, and age, to obtain a better model.

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