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Factors affecting earnings management: manufacturing companies in Indonesia

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Abstract

Proving whether profitability, managerial ownership and firm size influence earnings management were the objectives of this study. All manufacturing companies listed on the Indonesia Stock Exchange in the 2014-2018 period were made the population in this study. The sample selection technique used was purposive sampling, the sample used amounted to 34 companies for 5 years. So, the observation data amounted to 170 data. Data analysis using Structural equation modeling (SEM) with Warp PLS 4.0. From the test results prove that the profitability variable affects earnings management, while managerial ownership and company size do not affect earnings management. Therefore, the recommendations for future research is to add another variable because there may be other variables not included in this study, which may affect earnings management such as good corporate governance, auditor reputation, company age, leverage, and so on.

Keywords: Profitability, managerial ownership, company size, earnings management.

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1. Introduction

Cases of offense in the capital market which are handled by the Financial Services Authority (OJK) are the main issues in this study. The Openness of issuers and public companies, securities trading, and investment management are examples of cases of alleged capital market offense handled by OJK. The presentation of financial statements is one example of a case related to the openness of issuers and public companies. Providing information to users of financial statements in decision making is the purpose of preparing a financial statement. Besides that, the financial statements also refer to responsibilities related to management planning as the manager of the company to the stakeholders in one period. Profit is one of the main indicators to measure the performance and accountability of management (Statement of Financial Accounting Concepts No. 1), there by making poor financial management better.

So that performance looks good, then this triggers management to take creative accounting actions, example namely by changing accounting methods, shifting the recognition period of income or costs, and taking advantage of opportunities to make accounting estimates. But in reality, it is often misused. The act of creative accounting is known as earnings management. Earnings management according to Fischer and Rosenzweig [1], as a manager's action by presenting a report that raises (decreases) the profit for the current period of the business unit for which he is responsible, without causing an increase (decrease) in the economic profitability of the unit in the long run. Managers make the motivation bonus an encouragement to get bonuses. The profit achieved by the company is used as the basis for bonus calculations. So that managers will choose the right accounting methods to be able to increase reported income in the current period [2]. Motivation of the contract arises because the agreement between the manager and the owner of the company is based on managerial agreement and debt agreement. Higher the debt/equity ratio of the company, then the challenges of the company will tighter and the agreement more difficult, more managers likely to use accounting methods that increase revenue. To spend all the regulations issued by the government, then encourage the emergence of politics [2].

Cohen, et. al. [3] in his study entitled earnings management trends and earnings informativeness in the period before and after the announcement of Sarbanes Oxley, found evidence that earnings management continued to improve from 1997 to 2002. Several factors influence earnings management actions, includ-

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ing profitability, ownership managerial, and company size. Profitability is a measure of the level of success or failure of a company in getting profits during a certain period. The value of company profitability is an indicator of measuring company performance. If the ability and performance of the company while generating profits increases, the value of profitability of the company is higher, and vice versa if the profit generated by the company decreases, the value of the company's profitability will also decrease. This is in line with the first earnings management motivation hypothesis, the bonus plan hypothesis. Thus, if the company gets profitability that tends to be small, the company will try to maximize profitability by taking creative accounting actions in the financial statements.

According to Wibisana and Ratnaningsih [4] prove that the level of profitability affects earnings management actions. Meanwhile, according to Yusrilandari, et. al. [5] and Bestivano [6] found evidence that profitability does not affect earnings management because investors do not care about information ratios so that management ignores profitability. Besides profitability, another factor that influences earnings management is managerial ownership. Managerial ownership is the participation of management in the ownership of company shares. The greater managerial ownership in the company, it is hoped that managers will be more motivated to improve their performance because management has the responsibility to meet the wishes of shareholders who are none other than themselves as shareholders so that it is expected to reduce earnings management. Research Liu [7], Fayoumi et. al. [8], Cornett et. al. [9] and Yermack [10] find evidence that there is a positive relationship between share ownership and earnings management. However, research by Gabrielsen et. al. [11] and Warfield, et. al. [12] find empirical evidence that managerial ownership is negatively related to earnings management. However, research from [5] conducted the same research but showed different results, namely earnings management is not influenced by managerial ownership.

Company size is also one of the factors that influence earnings management. Companies that have a large size tend to report their financial condition carefully because they will get more attention from stakeholders. Whereas small-sized companies will report higher profits to show the quality of company performance, Makaombohe, et. al., [13]. With this, it is concluded that managers who lead small companies have a strong incentive to do income smoothing compared to large companies. With such allegations, the size of the company affect the company's earnings management, if the size of the company is large, the higher the efficiency of earnings management. Research findings from Rahmani & Mir [14] and Rice [15] find evidence that earnings management is influenced by firm size. While [5], Gunawan, et. al. [16], and Lee and Choi [17] show that company size does not influence earnings management. Therefore, the questions in this study are 1) Does profitability influences earnings management ?, 2) Does managerial ownership influence earnings management ?, 3) Does company size affect earnings management?

2. Literature Review and Hypothesis Development

Agency theory assumes that management can behave opportunistically to maximize its interests by carrying out earnings management. This will affect the quality of reported earnings because earnings do not reflect actual economic performance. This managerial action can be misleading and can cause outsiders to make the wrong economic decisions, Xie et. al. [18]. Making a profit is one of the goals of the company. If the level of profitability obtained by the company is high, then the principal considers that the company's performance is going well and supervision is going well. Meanwhile, if profitability is low, then the manager's performance looks bad in the eyes of the principal in performing his duties. Therefore, earnings management actions are usually carried out by management to obtain personal goals if management can improve the welfare of shareholders. Equality of goals between the two parties that makes management act in the interests of the owner, according to agency theory can minimize the occurrence of conflict of interest. According to [14] if both groups try to maximize their utility, then that reason becomes a strong foundation for believing that the principal's interests will always be fulfilled by the agent. So that management seeks to smooth income to maximize the utility between the two parties, these conditions can minimize agency problems that will occur. The high agency cost to be incurred by the principal depends on the magnitude of the agency problem. Research findings of [4] declares that the level of profitability affected earnings management actions. H_1: profitability affects earnings management

Managerial ownership is the number of shares owned by company managers. In decision making and corporate strategy, the role of the manager also participates in determining the existence of managerial ownership. If there is a manager's involvement as a shareholder, the agent will no longer work to represent the interests and welfare of shareholders but will work to optimize his well-being. This ownership causes no majority shareholder to be able to intervene in the authority of the manager so that all shareholders have relatively equal voting rights from one another. As a result, principals find it difficult to supervise and control management, which raises agency problems between agents and principals. These conditions can minimize agency problems by reducing agency costs by giving management authority to have managerial ownership in the company. The research results of Putri and Yuyyeta [19] stated that earnings management is influenced by managerial ownership. The second hypothesis is: H_2: Managerial ownership affects earnings management

One element that influences earnings management is company size. If the size of a large company, then the performance and supervision of the company look good in the eyes of investors. So that managers will try to increase the size of the company by doing income smoothing that is used to attract stakeholders. A conflict of interest will occur if the principal gives the manager the power to hold shares and make decisions that will lead to conflicts of interest. This is by following agency theory which states that if the size of the company with a small scale certainly management will be greater to smooth income so that deviant management activities can be limited by principals by using monitoring mechanisms of management behavior to align interests. Research findings from [14] and [15] find evidence that company size influences earnings management. The third hypothesis is: H_3: Firm size influences earnings management

3. Research Method

While the sample was all manufacturing companies that always publish financial statements in the period 2014-2018. To determine the sample members in this study a purposive sampling method was used. The modified Jones model was used as measurement of earnings management variables. The modified Jones model used as measurement of earnings management variables are as the following stages:

1. Calculate the difference between earnings and cash flows from operating activities, using the following calculation: $TA_{xy} = NI_{xy} - CFO_{xy}$

2. Calculate the accrual value with a simple linear regression equation with the equation: $TA_{xy}/A_{xy} - 1 = \alpha 1(1/A_{xy} - 1) + \alpha 2(\Delta Rev_{xy}/A_{xy} - 1) + \alpha 3(PPE_{xy}/A_{xy} - 1) + E_{xy}$

3. From the above equation, non-discretionary accruals (NDA) can be calculated by re-entering the formula: $NDA_{xy} = \alpha 1(1/A_{xy} - 1) + \alpha 2(\Delta Rev_{xy}/A_{xy} - 1 - \Delta Rec_{xy}/A_{xy} - 1) + \alpha 3(PPE_{xy}/A_{xy} - 1)$

4. Determine the value of discretionary accruals which is an indicator of accrual earnings management by calculating total accruals with non-conditioner accruals, with the formulation: $DA_{xy} = TA_{xy}/A_{xy} - 1 - NDA_{xy}$

Information:
TA_{xy} = Total accrual x in period y.
NI_{xy} = Net income x in period y.
CFO_{xy} = Operating cash flow x in period y.
$A_{xy} - 1$ = Total asset x in period y.
ΔRev_{xy} = Changes net sales x in period y.
PPE_{xy} = Property, plant, and equipment x in period y.
$\alpha 1, \alpha 2, \alpha 3$ = Parameters obtained from the regression equation.
E_{xy} = Error term x in period y.
NDA_{xy} = Discretionary accruals in period y.
ΔRec_{xy} = Changes account receivables x in the y period.
DA_{xy} = Discretionary accrual x in period y.

Partial Least Squares-Structural Equation Modeling (SEM) analysis is used to analyze the path (path analytic) with latent variables. PLS can be used with data collected through secondary data (Ittner et al. [20]; Papadopoulos & Amemiya [21]; Lee et al. [22]). This statistical analysis was chosen because it has several advantages, Hair, et al., [23] First, the SEM component-based technique (PLS / Partial Least Square) works well with small sample sizes and does not require data normality. Second, SEM analysis can test multiple dependence simultaneously as a model in this study. Third, this technique applies different procedures for analyzing data that contain measurement models, structural models, and overall models, Wold [24].

4. Result and Discussion

While the determination of sample members in the study was to use the purposive sampling method, to obtain 170 observational data. The average block VIF (AVIF) value of 1,028 indicated that the ideal and acceptable AVIF value. The average full collinearity VIF (AFVIF) value of 1,090 also revealed the ideal and acceptable AFVIF value. Moreover, the GoF tenenhaus value (GoF) of 0,295 which indicated that the value was moderate.

The results of the test show the significance of the profitability variable which is proxied by return on equity of 0,001 < smaller than the significance level of 0,05 with a positive difference value of 0,275 which means that the profitability variable has a positive effect on earnings management. The higher the profitability produced by a company, the more it will affect the earnings management actions. The higher return on equity shows that the equity owned by the company is used as much as possible so that it can make a profit. When profits generated by the company in a period are very high, these conditions affect the desire of management to manage earnings, because management has fulfilled the cues the amount specified to get a bonus.

The results of this study are as follows; the bonus plan hypothesis if the company can obtain profits that exceed the specified signals, the manager seeks to regulate accounting numbers in the financial statements so that the manager gets a bonus every year. According to [14] if both groups try to maximize their utility, then that reason becomes a strong foundation for believing that the principal's interests will always be fulfilled by the agent. So that management seeks to

Table 1. Hypothesis testing results.

Path	Direct Effect		Remark
	Coefficient	p-value	
Return on Equity → Earnings Management	0,275	<0,001	H_1 is accepted
Managerial Ownership → Earnings Management	0,045	0,277	H_2 is rejected
Company Size → Earnings Management	0,054	0,240	H_3 is rejected
Indikator Model Fit Average Path Coefficient (APC)	0,125	0,024	
Average R-square (ARS)	0,087	0,062	
Average Adjusted R Squared (AARS)	0,071	0,088	

manage earnings to maximize the utility between the two parties.

The results of this study agree with the opinions of [4] who in their research found evidence that profitability affects earnings management. However, the results of this study disagree with the research of [6] stating that earnings management is not influenced by the level of profitability. The second hypothesis testing shows that managerial ownership does not influence earnings management. The significant value of the managerial ownership variable is 0,277 > greater than the significance level of 0,05 with a different value of 0,045, which means that the managerial ownership variable does not affect earnings management. Access to information that has involvement with managers in the company is one of the initiatives to manipulate information if it can harm both. These results do not support the theory agency because of the alignment of interests between management and the principal, these conditions can minimize the existence of problems in the agency. So that the amount of proportion owned by management in the company does not affect the existence of earnings management actions in decision making in a company. The results of this study support the results of research from [5] which state that earnings management is not influenced by managerial ownership. However, the results of this study disagree with the research of [19] who in their research found that managerial ownership influences earnings management. The third hypothesis in the test shows that firm size does not affect earnings management. These results indicate that the size of the company does not affect the actions of earnings management agents in managing the company. The results of this study are in line with research by [16] in their research found evidence that company size does not affect earnings management. However, it does not support research results from [14] and [15] showing that company size affects earnings management.

5. Conclusion

The summary of this research can be concluded that only profitability variables that affect earnings management. While managerial ownership variables and firm size do not affect earnings management. This research still has many shortcomings, so the limitation in this study is the adjusted R squared value is only 7.1% so that 92.9% of earnings management variables are influenced by other variables besides profitability, managerial ownership, and company size. Therefore, the recommendations for future research is to add another variable because there may be other variables not included in this study, which may affect earnings management such as good corporate governance, auditor reputation, company age, leverage, and so on.

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