
**THE EFFECT OF LEVERAGE, PROFITABILITY, COMPANY SIZE, AND
INSTITUTIONAL OWNERSHIP ON PROFIT MANAGEMENT USING MODIFIED
JONES, A META-ANALYSIS STUDY**

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Abstract: Apart from being a form of management accountability for the use of entrusted resources, the profit and loss condition of a company is also often used by the company's stakeholders widely because it has predictive value. This makes the management try to do earnings management so that the company's performance looks better by external parties. Many studies related to the effect of leverage, profitability, company size, and/or institutional ownership on earnings management actions have been carried out and have different significance results. This study aims to expand the theory and remove inconsistencies in the research results by using meta-analysis techniques. Meta-analysis itself is a way that can integrate the results of existing studies and reveal patterns of relative invariance and causes of differences in results. The data taken in this study are secondary data taken through various sources in the form of journals, research results, and literature studies that discuss the factors that influence earnings management actions. This study uses the Modified Jones model in detecting the presence of earnings management in a company. The data collection technique used the observation method using data from previous studies. The sample data used for this study were 29 studies. The results of the meta-analysis show that leverage, profitability, firm size and institutional ownership have a significant effect on earnings management actions.

Keywords: Earning Management, Meta Analysis, Modified Jones.

INTRODUCTION

Profit is a tool to measure company performance which is often used as a basis for making business decisions. Profit information as stated in Statement of Financing Accounting Concept (SFAC) Number 2 is the main element in financial statements and is very important for those who use it because it has predictive value. This makes the management try to carry out earnings management so that the company's performance looks better to external parties. Earnings management is a condition in which management intervenes in the process of preparing financial statements for external parties so that they can level, increase and decrease profits (Schipper, 1989). Healy and Wahlen (1999) state that earnings management occurs when management uses certain decisions in financial reporting and preparation of transactions that change financial statements, this aims to mislead stakeholders about the condition of the company's economic performance, as well as to influence contractual earnings that control accounting numbers. reported.

Theories that can help the discussion in this research are the agency theory which explains that there is a contract made by one or more principals who are

investors or owners with agents who are management parties where the principal gives an authority to the agent to carry out his duties. Even though a contractual relationship has been carried out in order to avoid conflict, in the relationship between the principal and agent it is not uncommon for conflicts to arise between the two. This difference in interests often creates problems between principals and agents, because in an effort to fulfill their respective interests, management as an agent can manipulate the reports it provides to the principal. Previous studies regarding the effect of leverage, profitability, company size, and/or institutional ownership on profit fraud have been carried out a lot and yielded mixed results; even inversely proportional to one another. So from the description above, the researcher intends to conduct a meta-analytic study of research that examines the influence of these 4 factors in detecting company earnings management. The author's hope is that readers can use the research results as a reference in detecting earnings manipulation by prioritizing the right indicators that influence the detection of earnings management so that they can anticipate; and in the end can maintain and increase public trust in the services of accountants, auditors, as well as in industry and companies in Indonesia.

METHODS

1. In this study, researchers used secondary data in the form of research data, from various sources, related to the influence of leverage, profitability, company size, and/or institutional ownership on earnings management actions using the Modified Jones method. The data used in this study were 29 studies between 2017 - 2022.
2. The dependent variable used in this study is Earnings Management (modified Jones) with leverage, profitability, firm size, and institutional ownership as independent variables. Detection of financial statement fraud in this study uses the Modified Jones model as developed by (DECHOW et al., 1995). The Modified Jones model can be measured through discretionary accruals which are calculated by differentiating total accruals from non-discretionary accruals. With the calculation model is as follows: menghitung nilai total accrual menggunakan persamaan

$$TACC = Net\ Income - CFO \text{ ----- (1)}$$

Information:

TACC = Total Accrual

CFO = Cash Flow from Operation Activities calculating ^ From

3. Enter a value TACC into the following equation

$$\frac{TACC}{TA_{t-1}} = \frac{1}{TA_{t-1}} + \frac{\Delta REV - \Delta REC}{TA_{t-1}} + \frac{PPE}{TA_{t-1}} \text{ (2)}$$

Information:

TA_{t-1} = Total Assets of the company in the previous year

REV = (revenue)

REC = (receivable)

PPE = Property, Plant, and Equipment

4. Calculation Discretionary accruals (DACC) with the following equation:

$$DACC = \frac{TACC}{TA_{t-1}} - \widehat{NDACC} \text{ (3)}$$

Glass (1976) (in Makowski et al., 2019) defines meta-analysis as a statistical analysis of a large collection of results from individual studies for the purpose of integrating findings. The stages of the meta-analysis technique in this study include (Angeline & Meiden, 2019): Convert or transform statistical effect sizes/statistical results from each study into a common measure, namely (r), where the effect size (r) will be used for accumulation, comparison and integration. The effect size of each study will be transformed into (r) using the procedure formula from (Hunter & Schmidt, 2004). In this study the statistical results that will be converted or transformed into (r) are t statistics with the formula:

$$r = \sqrt{\frac{t^2}{(t^2+df)}} \dots\dots\dots (4)$$

Information :

r = size Effect

t = Result t statistic

df = *degree of freedom*

Accumulating effect sizes and calculating average correlations (*average correlation coefficient* (\bar{r})) by formula:

$$\bar{r} = \frac{\sum(N_i.r_i)}{\sum N_i} \dots\dots\dots (5)$$

where :

\bar{r} = average correlation

N_i = the number of subjects (samples) in the study

r_i = effect size for each study

Calculate the total observed variance with the formula:

$$S_r^2 = \frac{\sum[N_i(r_i-\bar{r})]^2}{\sum N_i} \dots\dots\dots (6)$$

where :

S_r² = the observed total variance

\bar{r} = average correlation

N_i = the number of subjects (samples) in the study

r_i = effect size for each study

Calculating the sampling error variance with the formula:

$$S_e^2 = \frac{(1-\bar{r}^2)^2 K}{\sum N_i} \dots\dots\dots (7)$$

where :

S_e² = sampling error variance

\bar{r} = average correlation

N_i = the number of subjects (samples) in the study

K = the number of studies in the analysis

Calculating the true population variance with the formula:

$$S_p^2 = S_r^2 - S_e^2 \dots\dots\dots (8)$$

where :

S_p² = the true population variance

S_r^2 = the observed total variance

S_e^2 = sampling error variance

Calculating the true population variance with the formula:

$$[\bar{r} - S_p^2 Z\alpha; \bar{r} + S_p^2 Z\alpha] = [\bar{r} - S_p^2 (1,96); \bar{r} + S_p^2 (1,96)] \dots\dots\dots (9)$$

The criterion accepts or supports the hypothesis by using a 5% degree of confidence, if r count > r table, the hypothesis is not rejected, meaning that the independent variable has a significant effect on the dependent variable. The value of r ranges from -1 to +1 including 0, the greater the value of r (closer to 1), the stronger (tighter) the influence of the independent variable on the dependent variable. Conversely, the smaller the correlation value (closer to 0), the weaker the influence of the independent variable on the dependent variable. A value of 0 means that there is no effect of the independent variable on the dependent variable (Sarwono, 2006).

RESULTS AND DISCUSSION

Table 1. Hypothesis Testing

H	Sample/Study	Variable Dependen	Variable Independen	r-count (Mean Corelasi on (\bar{r}))	r-table	result	Informati on.
H ₁	3043/20	Modified Jones	Profitability	0.19094	0.035522	Sig.	supported
H ₁	3769/26	Modified Jones	leverage	0.17189	0.031919	Sig.	supported
H ₁	1674/12	Modified Jones	Institutional Ownership	0.19284	0.047884	Sig.	supported
H ₁	2880/21	Modified Jones	Company Size	0.20835	0.036513	Sig.	supported

Source: Secondary Data, processed (2022)

A company's performance is good if the level of profitability is high and vice versa if a company's performance is bad if the level of profitability produced by the company is low. A parameter of the company's ability to earn profits as stated (Harahap, 2009). With respect to Agency Theory, profitability can be an indication of earnings management actions in a company because in its efforts to fulfill their respective interests, management as an agent can manipulate the reports it provides to the principal; in this case management's interest so that its performance is considered good. So from the results of the meta-analysis above, it was found that of the 20 studies that examined the independent variable Profitability had a significant effect on earnings management as evidenced by the results (\bar{r}) calculated which was greater than r table. This effect is classified as weak as evidenced by the mean correlation (\bar{r}) of 0.19094 with a 95% degree of confidence between 0.1583; 0.2236. With the results of the meta-analysis that has been done, it is known that profitability has a significant effect in detecting earnings management. This is in line with studies conducted (Manuela et al., 2022a), and (Asih, 2014); and inversely proportional to research by (Napitupulu, 2012).

The leverage ratio is a ratio that measures how far the company is financed by liabilities or external parties with the company's ability as described by equity (Harahap, 2009). Therefore, the value of a high leverage ratio is considered to have a lot of debt to external parties. The greater the company's debt, the greater the risk faced by the company so that as a result these conditions encourage company management to practice income smoothing (Tampubolon, 2005). The results of the meta-analysis of the correlation of leverage examined in 26 studies showed a weak significant relationship with the mean correlation (\bar{r}) of 0.17189 with a 95% degree of confidence between 0.1549; 0.1889 and the result (\bar{r}) is greater than r table. These findings support the hypothesis that leverage has a significant effect on earnings management. This supports the results of research by (Sulistyanto, 2008), (Dikko et al., 2022), and (Tanubrata, 2018); but inversely proportional to research by (Panjaitan & Muslih, 2019). The larger the size of the company, the smaller the profit management by management (Siregar and Utama, 2005). The results of the meta-analysis study showed that 21 studies examined the independent variables. Firm size has a significant influence on earnings management, as evidenced by the results (\bar{r}) calculated, which is greater than r table. This effect is classified as weak as evidenced by the mean correlation (\bar{r}) of 0.20835 with a 95% degree of confidence between 0.1446; 0.2721. These findings support the hypothesis that firm size has a significant effect on earnings management. Institutional ownership has a negative influence on earnings management, the smaller the percentage of institutional ownership, the greater the tendency of managers to take certain accounting policies to manipulate earnings reporting (Widyastuti, 2009). The results of 12 studies show that institutional ownership has a significant effect on earnings management, as evidenced by the (\bar{r}) arithmetic which is greater than r table. The mean correlation (\bar{r}) is 0.19284 with a 95% degree of confidence between 0.0958; 0.2898 shows a significant correlation of the effect. These findings support the hypothesis that institutional ownership has a significant effect on earnings management. So these results are in line with research by (Palestine, 2008), and (Astuti & Indriani, 2018); but inversely proportional to research by (Manuela et al., 2022).

CONCLUSION

Based on the meta analysis research that has been done, there are suggestions that the researchers convey. All company stakeholders are expected to be able to use the results of this research in order to be able to detect the occurrence of earnings management by using the level of profitability ratios, leverage, institutional ownership, and company size. As for suggestions for subsequent researchers to increase the variation in the independent variables used, it can be done by analyzing the effect of audit quality, company age, management salary, and so on; or by using the Jones Model, de Angelo Model, Stubben's Discretionary Revenue Model as the dependent variable; as well as expanding the industry so that the research samples are more diverse, producing more comprehensive results.

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