

# EARNINGS MANAGEMENT IS AFFECTED BY FIRM SIZE, LEVERAGE AND ROA: EVIDENCE FROM INDONESIA

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## ABSTRACT

*Earning management carried out continuously by the company can reduce the credibility of the company's financial statements. Earning management can increase the user bias of financial statements and can interfere in trusting the company's profit amount from technical financial statements as profit figures without engineering financial statements. This article evaluates the impact on earnings management of firm size, leverage, and ROA. The analysis methodology uses quantitatively descriptive approaches. Indonesian stock exchange data were used in financial statements from 2014 to 2018. Indonesia Stock Exchange website accessed data sources Data sources. The results show that the business sizes have little impact on earning management, while leverage and profitability affect earning management.*

**Keywords:** Earnings Management, Firm Size, Leverage, ROA.

## INTRODUCTION

Research on earning management conducted with real and pure earning management (Barus, Sarumpaet, Edison, Maisyarah & Pulungan, 2019; Chen & Tsai, 2010). The Accrual earnings management will be first engineered to help meet revenue targets (Attig, 2020; Buchholz, 2020; Hewitt, 2020; Johnston & Soileau, 2020; Li, 2020; Martens, 2020; Wang et al., 2020), and then it is manipulated (Cadet & Chainay, 2020; Ghazaei Ardakani, 2020; Shrestha, 2020; Wang, 2020). Financial reporting can lead to earnings management (Lau, 2020; Alhmoed, 2020; Chalmers, 2019; Nasir, 2019; Menicucci, 2020). Accrual accounting systems also exist in GAAP that managers can use to make GAAP accounting considerations (Kaserer & Klingler, 2008).

This research makes several contributions. The study shows the important issues in Indonesia (Bałkiewicz, 2020; Fitri, 2020; Soewarno & Tjahjadi, 2020; Waskito et al., 2020), like the Firm size, leverage and ROA, affect to earnings management (Choi, 2008; Da-Silva, Weffort, Flores & Da-Silva, 2014; Dao & Ngo, 2020; Karthika & Nair, 2019; Memiş & Çetenak, 2012), focussing on companies' operations Earlier studies showed that the size of a company does not influence earnings management (Al-Sayani, Mohamad-Nor & Amran, 2020; Alareeni, 2018; Nadhir & Wardhani, 2019; Nugrahanti & Puspitasari, 2018; Susanto, Pirzada & Adrienne, 2019; Taufik & Kurniawati, 2019), while ROA and leverage have a positive effect on earning managements (Klobučar & Orsag, 2019). The research contributes to our understanding of earnings management (Bouaziz, Fakhfakh & Jarboui, 2020; Dong, Wang, Zhang & Zhou, 2020; He & Marginson, 2020; Imen & Anis, 2020; Kim & An, 2019; Reisch, 2020).

## LITERATURE REVIEW

The theory presented by (Jensen & Meckling, 1976) states that agency relationships are due to the person (principal) delegating authority to a subordinate to perform a specific job (agent). The auditor gives an opinion to account for the performance of the company to the principal. Principles consider the highly integral (Jambor et al., 2012; Lyutikov, 2013; Mateus & Vieira, 2012) and independent auditors' reports to be more trustworthy (Moradi, Salehi, Tarighi & Saravani, 2020; Nguyen, Nguyen & Vi Nguyen, 2020; Omer, Aljaaidi & Habtoor, 2020; "Report of independent auditor," 2020; Wuttichindanon & Issarawornrawanich, 2020). If there is not a clear separation of ownership in accounting information (Carney, 2020; Khalil, 2020; Krivačić & Janković, 2020; Sampaio et al., 2020), there is a chance a corporation has other objectives for the business and financial information that may not be good for the company (Hadi, Mcbride & Aarstad, 2010).

Earnings management means direct use of accrual for the purpose of earnings (Alqirem, Abu-Afifa, Saleh & Haniah, 2020; Dewey, 1989; Haveman, Blank, Moffitt, Smeeding & Wallace, 2015; Insinga, 2006; Jin, Hwang & Kang, 2018; Saaritsa, 2011; Shang & Qi, 2010), management disclosure by management to achieve certain benefits and advantages for managers and businesses (Albring, 2020; Guo, 2020; Kumar, 2020; No Title, Ricci et al., 2020; Yagi & Kokubu, 2020). Some understanding it is argued that earnings management relates to management decision-making concerning a company's financial statements. (Fang, 2016; Kothari,

2016; Rusdiyanto & Narsa, 2019). Management can influence financial reporting in many ways (Cohen et al., 2019; Thornley & Crowley, 2018; Tirado-Valencia et al., 2019), either through manipulation of company data or financial information (Akyildirim, 2020; Grahn, 2020; Reimsbach, 2020; Saleh, 2020; Svabova, 2020; Yamada, 2020), or through the selection of acceptable accounting methods (Andreotti & Lai, 2019; Liu & Zhao, 2012; Osorno et al., 2020; Yang et al., 2018).

The company's size is shown by the total company's assets (Abu-Mouamer, 2011; Blažková et al., 2020; Fleischer & Goettsche, 2012; Zinchenko et al., 2017). The size of companies can be divided into three categories: Small, medium and large companies (Noonpakdee, Phothichai & Khunkornsiri, 2018). When sales exceed the total cost of the company (Dulebenets, 2018; Miñan-Olivos et al., 2020), the company's operating profit is achieved (Aabo & Simkins, 2005). Management conducts a careful sales planning process to ensure they produce the desired amount of sales (Mc-Intyre, 2005). Management control benefits from ensuring the efficient (Amjath-Babu, 2019; Liu, 2019; Sorrentino & Capaldo, 2019; Wang, 2020; Zhang & Huang, 2020), effective and efficient implementation of the company's business strategy (Khachaturyan, 2018; Romero, 2020).

Leverage is a method of estimating a company's ability to service debts (Rao et al., 2020; Yeboah & Takacs, 2018). The company has a burden because liabilities make it harder to manage the company (Abdel-Khalek, Aziz & Abdellatif, 2019; Nasser & Paoliello, 2015; Usman & Vanhaverbeke, 2017).

Financial problems from not paying interest tax subsidies are used on an interest that benefits shareholders. (Jannah, Fahlevi, Paulina, Nugroho, et al., 2020; Luwihono, 2021; Susanto, 2021) Therefore, the decision must balance the benefits and costs (Hu, 2020; Li, 2020; Mubarik, 2020; Palma-Heredia, 2020; Rawa, 2020; Xia et al., 2020). More likely are larger firms to be affected by earnings management reports because their high leverage ratios make them vulnerable to earning management (Anjana & Balasubramanian, 2017). Leverage is categorized into two type's namely operating and financial leverage (Ghasempour & Ghasempour, 2013).

The ROA ratio assesses the percentage of the Firm income used to invest into the company's assets so the percentage can see the company's efficiency management of its ROA (Guenther, 2011). The greater ROA, the greater the profitability of the company (Assenova, 2020; Hussain, 2020; Ulupui, 2020; Wahyuningrum, 2020). How well a company can make an income is measured by the level of profits generated by assets, specifically the ratio of profit to assets (Abdel-Maksoud, Cerbioni). This ratio is used to assess how well a company is doing by tracking funds expended and company profits (Assenova, 2020; Hussain, 2020; Ulupui, 2020; Wahyuningrum, 2020). Higher ROA equals better returns (Choi, 2008). Higher ROA helps managers increase earnings to get higher bonuses (Ximing, Sicular, Shi & Gustafsson, 2008).

### **Firm Size Effect on Earnings Management**

The external auditors give more attention to larger companies, and they are more careful with their financial reports. It's concluded that large companies are less susceptible to engage in earnings management than small or medium sized companies (Aabo & Simkins, 2005). Based on the arguments above, the researcher suggests a hypothesis the following:

*H1 Firm size affects earnings management.*

## **Leverage's Effect on Earnings Management**

Leverage is the ratio of debt to shareholders or investors (Al-Hunnayan, 2020; Appiah, 2020; Khairulanuwar & Chuweni, 2020; Seth, 2020; Tran, 2020). Corporate bond sales can also provide funds (Brogan & Teasdale, 2014). When a company agrees to debt, it wants to be viewed as good debtors. (Coyne & Singh, 2008) As a result, the company has committed fraud by manipulating reported earnings to influence future debt negotiations (Cigdem-Bayram, Ong & Wood, 2017; Roden, 1987; Ryan, Ives, & Dunham, 2019), reduce creditors' concerns, and accept lines of credit ( Danis, 2017; Davis & White, 2013; Erragragui, 2018; Kossovsky, 2012; Schmiel Essen, 2010; Tagesson & Öhman, 2015). Therefore, the hypothesis is:

*H2: Leverage effect on the earnings management.*

## **Return on Asset Effect to Earnings Management**

Return on Assets measures the company's assets' efficiency by how much of the company's resources are employed in its activities (Barbera, 2020; Gulzar, 2020; Kumar, 2020; Meher, 2020; Wolf et al., 2016). The greater increase in share price means higher revenue and returns from resources which lead to higher confidence in the performance of the firm. Management wants earnings to be managed, so that earnings fluctuate to maintain investor confidence (Hessler, 2004; Mindak, Sen & Stephan, 2016). As follows, hypotheses can be formulated:

*H3 ROA effect on the earnings management*

## **METHODOLOGY**

The research studied in this study used quantitative data measured using a numeric scale. The approach is quantitative and uses descriptive data. Variables are clearly defined conceptually and operationally (Syafii, 2020; Juanamasta et al., 2019; Jannah et al., 2020) In this study the variables are used:

### **Variable Independent**

The dependent is affected by the independent variable. In this study, the independent variable include:

#### **Company Size**

The company size is indicated by the customer size or the total assets logarithm against the overall size of an enterprise (Malik, 2015; Aksoy, 2020; Ali, 2020; Hussain, 2020; Meher et al., 2020; Sriram & Lakshminarayana, 2020). The ratio is calculated as follows

$SIZE = \text{Logaritma} (\text{Total Asset})$

## Leverage

Leverage means the ability to compare the value of debt and assets. If the company's debts exceed its assets, the company faces greater risk (Burke, Dolan & Fiksenbaum, 2014; Nguyen et al., 2016). Debt agreements are valuable, so management tends to earn as it avoids (E. Choi, 2020; Del Bo, Bignami, Bruno, Cardinale & Perego, 2020; Erasmus & Mathunjwa, 2011; Mathieu, Robb & Zhang, 2006; Olgu, Hacıoğlu & Dinçer, 2015). Leverage is the total debt divided by the total equity over the last year (Dreachslin et al., 2017). The ratio is calculated as follows:

$$Leverage = \frac{The liability}{asset}$$

## Return on Assets

The ratio means the ability to produce profits with total assets (Al-Mansoori, 2017). The higher the return on assets ratio, the more efficiently a company uses its assets to generate profits (Abeysekera, 2011; Ardila et al., 2018; Brodt, 1988; Brown et al., 1994; Irani et al., 2005; Rani et al., 2015; Singapurwoko & El-Wahid, 2011; Usman & Ab Rahman, 2020; Rusdiyanto & Narsa, 2019). The ratio is calculated as follows:

$$ROA = \frac{NetIncome}{TotalAset}$$

## Variable Dependent (Y)

Earnings management is used as a dependent variable in this paper. Discretionary accruals do not need physical cash evidence; therefore the accrual component can be used without cash. Earnings management is really the practice of preparing financial reports to include leeway and reduce management's use of accounting methods. Jones, (1991) The Earnings management is measured by the ratio of work capital to income. The earnings management measurements:

$$EarningManagement = \frac{\Delta WorkingCapital}{\Delta Incomet}$$

$\Delta$  Working Capital Accruals =  $\Delta$ CL -  $\Delta$ DL -  $\Delta$ CAS

Detail:

$\Delta$ CL = Changes in the t-period current assets

$\Delta$ DL = Debt changes current t-period

$\Delta$ CAS = Cash and bank (equivalent cash) changes current t-period

## Population and Sample Techniques

Researchers used the financial statements from 2014 to 2018 in the Indonesian stock exchange. The research used the sampling technics were applied by researchers to a purposeful sampling technique in which the samples are based on considerations and satisfy the criteria, Telecommunications Company.

## RESULTS

Descriptive statistics to show the relationship between the variables in the research. Independent variables include Firm size, leverage and Return on Assets.

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Average</b>	<b>Std. Dev.</b>
Firm's Size	25	16.7	26.05	19.83	3.42
Leverage	25	0	0.9	0.48	0.31
Return on Asset	25	-140.9	25.7	-17.33	42.21
Earning Management	25	-38.7	69.96	1.33	20.61
Valid N (listwise)	25				

The table shows that the research sample count is 25 with the lowest number. The table shows the lowest firm samples of 25.69 the highest 26.05 value, compared with the standard average of 19.8292 with such a default value of 3.42125. The leverage is the lowest of the assets (0.01 and a maximum of 0.90), with the default total value being 0.4776 and assets with the lowest return of -140.91, 25.70 is the highest asset, with an average of -17.33296 by default. The lowest return for the asset is -38.74 and the lowest return is 69.96, while the 0 is the lower return on the revenue management value.

### Test of Linearity

			<b>Sum of Square</b>	<b>df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Sign.</b>
Earning Management Firm's Size	Between Group	(Combine)	9,013.61	24	429.22	1.1	0.55
		Linearity	92.34	1	92.34	0.24	0.66
		Dev. from Linearity	8,921.27	22	446.06	1.14	0.53
	Within Group		1,176.35	3	392.12		
	Total		10,189.96	25			

The table shows a sample number of 25 with a lowest solid-size value of 92 336, with 9013 607 being the highest value of the research samples, and a standard deviation of 1176 349, with an average total value of 392 116.

			<b>Sum of Square</b>	<b>df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Sign.</b>
Earning Management Debt	Between Group	(Combine)	8,741.30	24	437.06	1.207	0.48
		Linearity	65.35	1	65.35	0.18	0.69
		Dev. from Linearity	8,675.95	21	456.63	1.261	0.46
	Within Group		1448.66	4	362.17		
	Total		10,189.96	25			

Based on results of this paper's linearity test, Sig is found on the Anova table linearity deviation from  $0.456 > 0.05$ , which means a linear connection between leverage with Earnings management variable.

			<b>Sum of Square</b>	<b>df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Sig.</b>
Earning Management ROA	Between Group	(Combine)	9,030.26	24	392.62	0.339	0.9
		Linearity	1,002.72	1	1,002.72	0.865	0.52
		Dev. from Linearity	8,027.55	24	364.89	0.315	0.91
	Within Group		1,159.69	1	1,159.69		
	Total		10,189.96	25			

Results of this paper's linearity test, the Anova table of Sig shows this. Linearity deviation is  $0.91 > 0.05$ , indicating that the leverage variable has a linear connection to the income variable.

### T-test

The study tests which financial model, leverage, and return on assets are statistically significant in reporting on Indonesian company's financial performance.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.68	40.26		0.32	0.76
	Firm Size	-0.6	1.71	-0.1	0.35	0.73
	Leverage	2.35	18.19	0.04	2.13	.003**
	Return On Asset	0.034	0.11	0.07	2.31	.020**

a. Dependents Variable: Earning Managements

Each variable impact on earnings management can be described as follows from the research results:

### Firm Size Partial Test on Earnings Management

Based on data obtained from the research, the value of the tcount is  $-0,351$ , and the value of  $t_{table}$  is  $-1,71387$ . While Tcount's significance is  $0.729$ , this is  $>0.05$ . So,  $H_0$  is acceptable,  $H_1$  is rejected, so it's no significant business-size effect on income management. This means that  $H_1$  has been rejected.

### Leverage Partial Test on Earnings Management

Based on the research results done to get tcount results, the  $t_{table}$  is  $1.71387$ , then the  $t_{count} > t_{table}$  value. Whilst the importance of t count is  $0,03$ , meaning  $<0,05$ , it's mean that  $H_0$  is refused,  $H_1$  is accepted, which means that the leverage has a considerable positive impact on profit management.

### ROA Partial Test on Earnings Management

The table shows that the tcount results are  $2.310$  while the  $t_{table} = 1.71387$ , so the  $t_{count} > t_{table}$ . The important tarithmetic value is  $0.20$ , that is less than  $0.05$ . That it is possible to conclude that  $H_1$  is accepted means that the return on assets on income management has an important effect.

### F-test

The Firm size, leverage and Return on Assets variables are suitable for application in the study research model. The F-test was used. When the F- Test is greater than  $0.05$  then a variable Firm size, leverage, and Return on Assets model cannot be used, when the F- Test is less than  $0.05$  then a variable size, leverage, and Return on Assets model can be used

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8,022.81	3	2,674.27	7.905	.004a**
	Residual	5,412.79	21	338.3		
	Total	13,435.60	24			
a. Predictors: (Constant), Return On Asset, Leverage, Firm's Size, b. Dep. Variables: Earning managements						

Table above indicates that the significant F test level is  $0.004 < 0.05$  showing that together the effect on earnings management of the independent variable firm size, the leverage and asset return. These findings show that the model can be used.



## Test of Multiple Linear Regression

The analysis of regression used in the paper consists of several linear regression analyses, which examine a relationship between one dependent variable but another variable, one dependency and three variables.

Model		Unstand.Coeff.		Stand. Coeff
		B	Stand. Err.	B
1	(Const.)	12.68	40.26	
	Firm's Sizee	-0.6	1.71	-0.1
	Leverage	2.35	18.19	0.06
	Return On Asset	0.036	0.11	0.07
a. Dep. Variables: Earning managements				

This study's multiple linear regression equation can be represented as follows.:

$$MLit = \beta_0 + \beta_1 SIZE_{it} + \beta_2 DEBT_{it} + \beta_3 ROA_{it} + e_{it}$$

$$ML = 12.68 + (-0.60SIZE) + 2.35DEBT + 0.036ROA$$

## DISCUSSION

### Firm Size Effect on Management of Earnings

Testing the null hypothesis does not affect earnings management because the result is under or equal to 0.05. The null hypothesis has been rejected. This means assets cannot be manipulated by earnings. The Firm size relates to the company's financial performance to the size of the company. Companies with high levels of assets will need larger asset management staff. The company uses low level earnings management. According to research, more attention is being paid to the signaling effect of investors. Large companies should consider publishing financial reports in more detail. Many large companies have received higher stock prices and increased attention than smaller companies.

### Leverage Size Effect on Management of Earnings

The singification induced stress level is estimated to be 0.003. The effect of leverage on earnings management is significant. Total liabilities plus total assets can affect the size of a reported profit. Larger leverage creates an increased desire to manage earnings. Signal theory explains how companies must inform external parties of what is going on so external parties can assess the company's future prospects.

## ROA Effect on Management of Earnings

The analysis shows that ROA is 0.020 in importance. The ROA has an EBIT impact as it is less than 0.05 in importance or the hypothesis is accepted. The net profit to total assets ratio influences the reaction of a company to a decrease in net income and a rise in total assets. If growth in earnings has increased or declined, management administers earnings because investors prefer stable earnings to fluctuations. Confusion has affected investment in an enterprise which causes the credibility of the enterprise. The aim of this investigation (a telecommunications company) is to be used because it will impact our income greatly. The company will therefore probably take action on the management of income. Research studies and agency-supported theories show that companies sometimes revise income management reports to make their stocks appear to investors to be more attractive.

## CONCLUSION

The paper shows the significance of ROA at 0.020. EBIT may have an influence on ROA because the significance level is less than 0.05. Net income to total assets ratio affects how a company reacts to net income and total assets declines. Management does earnings management when investors prefer stability in earnings rather than fluctuating earnings. This has affected a company's investment by the confusion it has caused. Because we have chosen the telecommunications company, we can expect a big impact on our income. They are likely to take action against earnings management. Research studies and theory supported by the agencies show that companies sometimes make their stock look more attractive to investors.

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## CONFLICTS OF INTEREST

The authors declare no conflict of interest

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