

The Effects of Tax Avoidance, Accrual Earnings Management, Real Earnings Management, and Capital Intensity on the Cost of Equity

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Abstract

This study aims to examine the effects of tax avoidance, accrual earning management, real earnings management and capital intensity on the cost of equity. The population of this study is a manufacturing company listed on the Indonesia Stock Exchange which amounted to 146 companies. The sampling technique used was purposive sampling and resulted in 420 units of analysis. This type of research is quantitative causality by performing hypothesis testing analysis is done by using multiple linear regression model. The findings of this research are tax avoidance will add to the risks that must be borne by investors thus increasing uncertainty over their investment. Investors consider that accrual profit management actions are opportunistic as risk-taking actions as well as real profit management actions. While on Capital Intensity, investors assume the information on the company's fixed assets is not useful in making investment decisions. The conclusions that can be taken are tax avoidance, accrual profit management, and earnings management real positive to the cost of equity. However, capital intensity has a negative effect.

Keywords: the cost of equity; manager's actions; investment risk

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INTRODUCTION

Investment growth in Indonesia in 2010-2015 tends to decrease (BI, 2015). The decline in investment is triggered by the emergence of corporate risks that drive investment decline in addition to external factors, also from internal factors of the company. Internal risk is one of them related to the source of corporate funding that comes from debt and equity capital.

In the Capital Asset Pricing Model approach, the cost of equity is reflected in stock price movements. Stock price movements become the basis for the calculation of beta (β) which is a representation of corporate risk. High risk makes investors protect themselves by setting high minimum cost of equity or rate of return as well and give a low price on the corporate stock. The rate of return on this investment is cash paid to shareholders (in the form of dividends) and capital gain (loss), which is the difference between the stock price on the purchase and the stock price on the sale (Torkkeli & Kukkonen, 2017; Whitworth & Zhang, 2010).

Disclosure and / or quality of information in the financial statements affect on the cost

of equity (Francis, LaFond, Olsson, & Schipper, 2004; Lambert, Leuz, & Verrecchia, 2007). When the quality of information disclosed is low, there are signals of corporate cash flows in the future disrupted thereby increasing the cost of equity. Management can choose the method of accounting in the preparation of financial statements, this is called management discretion (Febrininta & Siregar, 2014). In the agency perspective, this is due to management interests and the management action is considered risky so investors set higher cost of equity or rate of returns.

One of the management actions that can affect the quality of information in the financial statements that can affect the cost of equity is tax avoidance. Tax avoidance is done in order to reduce the tax or cash burden the company have to pay to the tax authority. (Dyrenge, Hanlon, & Maydew, 2008, 2010). Emphasize that tax avoidance does not necessarily mean the company is involved in something that is not true. There are many tax provisions that allow and / or encourage companies to reduce taxes.

There are inconsistencies of research results on the effect of tax avoidance on cost of equity. Tax avoidance will significantly decrease the cost of equity (Goh, Lee, Lim, & Shevlin, 2016). With tax avoidance, the company will gain greater cash availability that can be used in production or investment activities thus increasing future cash flows generated by the company. The level of future cash flow (expected future cash flow) will affect the cost of equity (Lambert et al., 2007). On the other hand, tax avoidance can increase the cost of equity (Hutchens & Rego, 2015). Investors consider tax avoidance as a risky management action that increases uncertainty over their investment which means increasing the cost of equity. However (Cook, Moser, & Omer, 2017) state that investors respond differently to the cost of equity depending on the level of tax avoidance.

Other management actions that may affect the cost of equity are the actions of earning management. Earnings management may increase or decrease accounting earnings in order to get personal gain (Goel, 2016) and may violate or not violate generally accepted accounting principles (Frank, Lynch, & Rego, 2009). Earnings management can be divided into two, namely accrual earnings management and real earnings management. Accrual earning management is achieved by changing the accounting method or estimation used when presenting transactions in the financial statements, whereas real earning management is an action aimed at converting reported earnings in certain directions which is achieved by changing the time or structure of operations, investments or funding that have suboptimal business consequences (Zang, 2011).

Research of Francis et al.(2004) reveal that the accrual quality has a positive effect on the cost of equity. Similar results are also shown by several studies that accrual earnings management will affect the cost of equity (Meini & Siregar, 2014). Investors consider accrual earning management actions as a risky action so that the information presented in the financial statements also carries risks (Septyanto, 2013). As a result, investors want a higher rate of return in other words the cost of equity increases. However, Febrininta & Siregar(2014) reveal that accrual earning management does not affect the cost of equity because the methods used in accrual earnings management are sophisticated enough to make it difficult for investors to detect them.

Graham, Harvey, & Rajgopal (2005) reveal that managers are more likely to conduct real earnings management than accrual earnings management. In real earnings management, management can change the time and scale of real activities such as production, sales, investment, and financing throughout the accounting period in such a way that the targeted profit is met (Kim & Sohn, 2013). The consequences of real earnings management directly to current and future corporate cash flows are making it more difficult for investors to understand and are generally less monitored and overseen by boards of commissioners, auditors, regulators, and other stakeholders (Kim & Sohn, 2013). Real earnings management actions can be intended to cover actual corporate earnings or performance so as to distort earnings quality.

Real earnings management is positively related to the cost of equity as it increases noise and reduces investors' expectations of future cash flows (Kim & Sohn, 2013). However, (Meini & Siregar, 2014) reveal that real earnings management negatively affects the cost of equity. This can

happen because investors have not been able to see the negative effects of real profit management. Febrininta & Siregar (2014) reveal that real earnings management does not affect the cost of equity. This happens because the methods used in real earning management are quite sophisticated so that investors are difficult to detect.

In addition to tax avoidance, accrual earning management, and real earnings management, the factor that affects the cost of equity is capital intensity. Capital intensity is the book value ratio of property, plant, and equipment (PPE) to total assets. PPE is increasingly showing that the non-current assets are getting bigger, which will lower liquidity level of the company. The liquidity level which is getting decline can have an impact on corporate ability to earn cash when it comes to financial constraints. The declining level of liquidity also affects the company's ability which is declining to obtain external funding. As a result, operating and investment activities of the company will also be disrupted which may affect future cash flow of the company.

Impaired future cash flows can increase the cost of equity (Lambert et al., 2007). This is in accordance with Ortiz-Molina & Phillips (2014) which discloses non-liquid real assets decreases the company's operating flexibility and also increases the cost of equity. However, Francis et al.(2004) and Kim & Sohn (2013) reveal that capital intensity has no significant effect on equity cost. However, high capital intensity can increase the company's risk in the form of high volatility in corporate profitability due to unchanged fixed cost significance on variations in sales levels. The higher risks resulted in investors wanting a higher rate of return thereby increasing the cost of equity.

The purpose of this research is to examine the effect of tax avoidance, accrual earning management, real earning management, and capital intensity to equity cost. The study is conducted because there are inconsistencies in the results of previous research and the value of stock trading transactions on the IDX in 2014 increases eightfold compared to the value of corporate bond trading transaction (IDX Fact Book, 2015), so if there is stock market turmoil, the impact will be wider. The difference of this study with the previous research is the object namely manufacturing company that becomes the largest portion of companies listed on Indonesia Stock Exchange and the suitability of research variables with manufacturing companies, namely real management variables through sales manipulation, decrease of discretionary expense, and excessive production (Roychowdhury, 2006).

The agency theory explains that management takes the action of choosing an accounting method to increase profit in financial statements that can distort the quality of information or profit in the financial statements. Investors see the action as risky. As a result, investors set higher equity costs. Frank et al.(2009) reveal that tax avoidance is associated with financial reporting aggressiveness, whereas Balakrishnan, Blouin, & Guay (2012) reveal that tax avoidance increases the blurring of corporate information environments. Tax avoidance can degrade the quality of financial statement information. Lambert et al.(2007) reveal when the quality of information is low, information owned by investors to assess future cash flow is less accurate. As a result, investors assume there is uncertainty in the future cash flow of the company. Future cash flows are an indicator of return on investment in the form of dividends so that uncertainty of future cash flows will increase the uncertainty of investment returns or increase the cost of equity. This is reinforced by (Cook et al., 2017; and Hutchens & Rego, 2015) tax avoidance will increase the cost of equity.

H₁: Tax avoidance positively affects the cost of equity.

In agency theory, there is asymmetry information between management and investors. Management in choosing the choice of accounting methods that aim to provide benefits to the management itself resulting in low quality of accrual earning. Low quality of earnings accruals can be caused by the quality of accruals in financial reporting (Geraldina, 2013). Francis et al.(2004) reveal the quality of accruals positively affect the cost of equity. This is reinforced by

Kim & Sohn(2013); and Meini & Siregar (2014) who find that the accrual earning management has a positive effect on the cost of equity. Lambert et al.(2007) also reveals when the quality of information is low (as shown by accrual earnings management), information owned by investor to assess future cash flows is less accurate that will increase uncertainty of investment returns, causing investors to want higher returns and increased equity costs.

H₂: Accrual earning management positively affects the cost of equity.

Managers are more likely to perform real earnings management than accrual earnings management Graham et al., (2005). In real earnings management, management can change the time and scale of real activities such as production, sales, investment, and financing throughout the accounting period in such a way so that the targeted profit is met (Kim & Sohn, 2013). Actions of real earnings management include sales manipulation, discretionary load decreases, and excessive production Roychowdhury (2006). Increased sales by excessive discounting and / or excessive software credits will result in abnormal cash flow from operation (CFO). Decrease in discretionary expenses causes abnormal discretionary expenses. Excessive production will result in abnormal production costs. Real earnings management can result in abnormal profits from the three real activities so as not to reflect actual corporate earnings or performance. Investors want higher returns for companies with noisier income and lower future cash flow rates from which are expected (Lambert et al., 2007).

H₃: Real earnings management positively affects the cost of equity.

Investments in fixed assets by managers seem to be able to decrease asymmetric information. Capital intensity is the book value ratio of property, plant, and equipment (PPE) to total assets (Francis et al., 2004). PPE is increasingly showing that the non-current assets are getting bigger, which will lower the liquidity level of the company. The declining liquidity level can have an impact on the company’s ability to earn cash when it comes to financial constraints. It also affects the company’s ability which is getting decline to get external funding. As a result, the company’s operating and investment activities will also be disrupted which may affect the expected future cash flow that may increase the cost of equity (Lambert et al., 2007). Meanwhile, Ortiz-Molina & Phillips (2014) reveal non-liquid real assets decreases the company’s operating flexibility and also increases the cost of equity.

H₄: Capital intensity positively affects on the cost of equity.

METHOD

This research was a quantitative research with secondary data. The population of this study was manufacturing companies listed on the Indonesia Stock Exchange which amounted to 146 companies in 2017. Sampling technique used was purposive sampling. The process of sample selection was shown by Table 1.

Table 1. Research Sample

Criteria	Number	Measurement
Manufacturing companies listed on the IDX in 2017	146	Companies
IPO manufacturing company after January 1, 2011	(19)	Companies
Companies using USD in their reporting	(28)	Companies
Companies that did not have complete data for 2011 – 2015	(15)	Companies
Number of companies in research	84	Companies
Years	5	Years
Number of research sample	420	Corporate Years

The dependent variable in this study was the cost of equity using the Ohlson model approach that has been modified by Utami (2005). The cost of equity capital was calculated based on the discount rate used by investors to estimate future cash flow (Utami, 2005). Frank et al.(2009) measured tax aggressiveness by regressing total permanent BTD to nondiscretionary permanent items because of the difference between accounting profit and tax profit. They limited the size of tax aggressiveness that did not produce temporary differences. BTD calculations in this study were adapted from the study of Tang & Firth (2011) using abnormal book-tax differences (ABTD) and book-tax differences (BTD) to measure differences in accounting and tax profit as follows.

Measurement of earnings management accrual in this research used model of Jaggi, Leung, & Gul (2009) which was proxied by using performance-adjusted current discretionary accruals (PACDA) because it better captured accrual earnings management and management usually had the most discretion on current accrual activity. Therefore, this accrual profit management measurement used the model of Jaggi et al.(2009). PACDA was calculated by equations 4, 5, and 6. Roychowdhury (2006) revealed this real earnings management action included sales manipulation, discretionary load decreases, and excessive production. Approach used Roychowdhury (2006) included abnormal cash flow operation, abnormal discretionary expenses, and abnormal production costs, Abnormal cash flow from operation, the measurement could be seen in equations 7, 8, and 9. This research used model of Cohen & Zarowin (2010) to measure real earnings management, the equation 10. Capital intensity (CAP) was calculated by comparing the book value of Property, Plant, and Equipment (PPE) with total assets (Francis et al., 2004), equation 11.

Table 2. Variable Measurement

Variables	Equation	Explanation
Cost of Equity	$r = (B_t + X_{t+1} - P_t) / P_t$ (1)	r : cost of equity; B_t : book value per share period t ; P_t : stock price in period t ; X_{t+1} : earnings per share of period $t + 1$ estimated using the random walk model of equation 2
	$E(X_{t+1}) = X_t + \delta$ (2)	$E(X_{t+1})$: estimation of earnings per share in period $t + 1$; X_t : earnings per actual share in period t ; δ : drift term, namely the average change in earnings per share over 5 years.
Tax Avoidance	$BTD_{it} = \beta_0 + \beta_1 \Delta INV_{it} + \beta_2 \Delta REV_{it} + \beta_3 NOL_{it} + \beta_4 TLU_{it} + \epsilon_{it}$ (3)	BTD_{it} : Book-Tax Differences of company i on year t , $BTD =$ (pretax income - current tax expense / tax rate); ΔINV_{it} : changes in investment in gross property, plant, equipment and intangible assets from year $t-1$ to t ; ΔREV_{it} : change of income from period $t-1$ to t ; NOL_{it} : the value of net operating losses of company i in year t ; TLU_{it} : the amount of losses compensation of company i in year t ; ϵ_{it} : the residual value of company i in year t ; all variables were scaled to total assets in year t . The BTD regression results from this model yielded two values, namely fitted value (normal BTD) and residual value (ABTD). Tang and Firth (2011) revealed the use of ABTD was very reliably to measure corporate tax management such as tax avoidance by refining the effect of accrual accounting that was not used in tax avoidance. ABTD could also measure tax avoidance even if the company was losing money. Therefore, the measurement of tax avoidance (TA_{it}) on company i in year t in this study was calculated based on the ABTD, ie residual value or ϵ_{it} on the equation.

Accrual Earning Management	$TCA_{it} / A_{it-1} = \alpha_0 (1/ A_{it-1}) + \alpha_1 (\Delta REV_{it} / A_{it-1}) + \alpha_2 (ROA_{it-1}) + \varepsilon_{it} \quad (4)$ $ECA_{it} / A_{it-1} = \alpha_0 (1/ A_{it-1}) + \alpha_1 \{(\Delta REV_{it} - \Delta AR_{it}) / A_{it-1}\} + \alpha_2 (ROA_{it-1}) \quad (5)$ $PACDA = (TCA_{it} / A_{it-1}) - (ECA_{it} / A_{it-1}) \quad (6)$	<p>Calculating the total current accrual which was estimated each year, equation 4.</p> <p>Incorporating coefficients generated from previous calculations to predict current accrual (ECA), equation 5.</p> <p>Determining PACDA, equation 6.</p> <p>TCA: total current accruals for company i in year t, ie net profit before extraordinary items and discontinued operations plus depreciation and amortization minus cash flows from operating activities</p> <p>ΔREV: change in net income for company i in year t</p> <p>ΔAR: change of accounts receivable for company i in year t</p> <p>ROA: the ratio of net income before extraordinary item to total assets for company i in year t-1</p> <p>ECA: expected current accrual for company i in year t</p> <p>A: total asset for company i in year t</p> <p>ε_{it}: error value for company i in year t</p>
Real Earning Management	<p>abnormal cash flow operation</p> $CFO_{it} / A_{it-1} = \alpha_1 (1/ A_{it-1}) + \alpha_2 (S_{it} / A_{it-1}) + \alpha_3 (\Delta S_{it} / A_{it-1}) + \varepsilon_{it} \quad (7)$ <p>Abnormal discretionary expense.</p> $DISX_{it} / A_{it-1} = \alpha_1 (1/ A_{it-1}) + \alpha_2 (S_{it-1} / A_{it-1}) + \varepsilon_{it} \quad (8)$ <p>Abnormal production cost.</p> $PROD_{it} / A_{it-1} = \alpha_1 (1/ A_{it-1}) + \alpha_2 (S_{it} / A_{it-1}) + \alpha_3 (\Delta S_{it} / A_{it-1}) + \alpha_4 (\Delta S_{it-1} / A_{it-1}) + \varepsilon_{it} \quad (9)$ $REM = (- R_DISX) + R_PROD \quad (10)$	<p>CFO_{it}: operating cash flow of company i in year t</p> <p>A_{t-1}: total assets of company i in year t-1</p> <p>S_{it}: total sales of company i in year t</p> <p>ΔS_{it}: $S_{it} - S_{it-1}$, namely the difference in total sales of company i in year t with t-1</p> <p>The model would be estimated annually. Residual from the estimation result was abnormal CFO of company i in year t (R_CFO).</p> <p>$DISX_{it}$ was discretionary expense that was the sum of research and development expenses, advertising expenses, sales expenses, administration, and general. This model would be estimated every year. Residual from the estimation result was abnormal DISX of company i in year t (R_DISX).</p> <p>$PROD_{it}$ was the production costs namely the sum of cost of goods sold and inventory changes. This model would be estimated every year. Residual from the estimation result was abnormal PROD of company i in year t (R_PROD).</p> <p>From the calculation, Cohen and Zarowin (2010) multiplied R_DISX by negative 1 to make the relationship unidirectional. Meanwhile, R_PROD was not multiplied by negative 1 because higher production costs indicated that production excess to reduce the cost of good sold (COGS). Thus, the greater the REM, the discretionary load manipulation and the greater the production cost to increase the company's profit.</p>
Capital Intensity	$CAP_{it} = PPE_{it} / A_{it} \quad (11)$	<p>CAP: capital intensity of company i in year t</p> <p>PPE: book value of property, plant, and equipment of company i in year t</p> <p>A: total assets of company i in year t</p>

Size was included as a control variable to control empirical measurement error in the company beta (Goh et al., 2016). Therefore, size was also a fundamental factor against risk (Francis et al., 2004; Goh et al., 2016; Kim & Sohn, 2013). They also revealed the effect of this size

as opposed to the cost of equity. The larger the size of the company, the risks in the company was getting smaller so the cost of equity was getting smaller. This size was measured using a natural log of total assets.

Book-to-market ratio (BM) was included as a control variable for controlling empirical measurement error in corporate beta. Thus, BM was also a fundamental factor against risk (Francis et al., 2004; Goh et al., 2016; Kim & Sohn, 2013). BM was measured by using book value equity ratio to equity market value. Leverage was included as a control variable to control the influence of corporate capital structure. Goh et al.(2016); and Kim & Sohn(2013) disclosed the use of leverage in calculating the cost of equity associated with the effect of debt use structure. Leverage was calculated by comparing total debt to total asset value.

The data used in the research was sourced from the financial statements of manufacturing companies listed on the Indonesia Stock Exchange from 2011 until 2015. In addition, 2010 financial statement data was also required to support the measurement of variables that required prior period data. Hypothesis testing analysis was done by using multiple linear regression model. The main research model in this study was as follows.

$$COE_{it} = \beta_0 + \beta_1 TAV_{it} + \beta_2 AEM_{it} + \beta_3 REM_{it} + \beta_4 CAP_{it} + \beta_5 SIZE_{it} + \beta_6 BM_{it} + \beta_7 LEV_{it} + \epsilon_{it} \quad (12)$$

Explanation:

COE_{it} : the cost of equity of company i in year t;

TAV_{it} : tax avoidance of company i in year t;

AEM_{it} : accrual earning management of company i in year t;

CAP_{it} : *capital intensity*, namely the ratio of property, plant, and equipment book value and total asset value in company i in year t;

$SIZE_{it}$: the size of company in year t;

BM_{it} : *book-to-market ratio* in company i in year t;

LEV_{it} : *leverage* of company i in year t, namely the ratio of total debt to total asset value;

ϵ_{it} : the residual of the regression equation

RESULTS AND DISCUSSIONS

The results of descriptive statistical analysis only gave a general overview on the centralization and distribution of data without drawing conclusions. The descriptive statistical summary of the research variables were presented in Table 3.

Table 3. Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
COE	-0.235965	-0.635867	4.734000	-1.476.923	0.965066
TAV	-9.95E-19	0.000189	0.242242	-0.135176	0.032334
AEM	0.018649	0.008447	0.419573	-0.545127	0.105617
REM	2.08E-15	0.106181	1.946123	-1.464256	0.370919
CAP	0.363110	0.327581	0.948050	0.010395	0.204102
BM	1.280586	0.894382	12.83638	0.017100	1.524670
SIZE	28.13231	27.89205	33.13405	25.19398	1.588102
LEV	0.449360	0.454299	1.011582	0.050460	0.200975

Source: Processed, 2017

The recapitulation of the selection test of the panel data regression method was illustrated in Table 4. The method of fixed effect obtained the most recommendations based on the tests conducted. Therefore, the regression method in this study used fixed effect method.

Table 4. Selection Test of Panel Data Regression Model

Testing	Common Effect	Fixed Effect	Random Effect
Chow Test		√	
Hausman Test		√	
Langrange Multiplier Test			√

Source: Processed, 2017

Coefficient of determination or R Squared (R2) test was used to measure how far the ability of the regression model in explaining the variation of the dependent variable.

Table 5. Coefficient of Determination and F Test

Explanation	Value	Explanation	Value
R-squared	0.987211	Mean dependent var	-1.930947
Adjusted R-squared	0.983713	S.D. dependent var	4.016956
S.E. of regression	0.236687	Sum squared resid	18.43084
F-statistic	282.1880	Durbin-Watson stat	1.705842
Prob(F-statistic)	0.000000		

Source: Processed, 2017

Based on Table 5, the Adjusted R-Squared value was 0.9837. This showed that the variation of equity cost value could be explained by independent variable and control variable in regression model equal to 98.37%. The rest of 1.63% was explained by other factors outside the research model. The statistical probability of F was 0.0000, the value was below the significance level $\alpha = 0.05$. Thus, the model could be used in subsequent tests (t test).

Tax avoidance variable (TAV) had a coefficient of 0.865639 and a probability value of 0.0000 smaller than $\alpha = 0.05$ and the coefficient of tax avoidance was also positive so that tax avoidance positively affected on the cost of equity, so H_1 was accepted. Accrual Earning Management (AEM) had a coefficient of 0.183857 and a probability value of 0.001 smaller than $\alpha = 0.05$ so that accrual earning management had a positive effect on the cost of equity, so H_2 was accepted.

Real earning management variable (REM) had a coefficient equal to 0.048951 and probability value equal to 0.04755 smaller than $\alpha = 0,05$ so that real earning management had a positive effect to equity cost, so H_3 was accepted. The capital intensity (CAP) variable had a coefficient of -0.265967 and a probability value of 0.001 smaller than $\alpha = 0.05$, but the coefficient of capital intensity was negative in contrast to H_4 . Thus, it could be said that capital intensity did not affect on the cost of equity.

From the result of hypothesis testing showed that tax avoidance positively affected on the cost of equity. This positive influence meant the greater the tax avoidance done by the company, the cost of equity to be borne by investors would also increase. The results of this study were consistent with the results of the study conducted by Hutchens & Rego (2015) also revealed in their research that corporate risk (tax avoidance proxy) positively affected on the cost of equity. This was reinforced by Cook et al.(2017) that for companies with high level of tax avoidance, an increase in tax avoidance would raise the cost of equity.

The results of this study proved that tax avoidance would actually increase the cost of equity. Tax avoidance would increase the risk that investors must bear. In addition, when companies undertook tax avoidance, companies would face higher risks to be examined by tax authorities.. The company might also bear a higher burden in the future with the existence of a lack of tax and sanctions payments. As a result, future cash flows of the company and the investor's share over corporate earnings would be disrupted. Thus, investors consider tax avoidance as a risky action that increased uncertainty over their investment and consequently investors would raise the rate of equity costs. This was in accordance with the agency theory which stated that between

management or companies with investors had different interests. Therefore, investors needed to assess the risk on their investment in a company from disclosure / information in the financial statements mainly related to tax avoidance action by the company

Accrual earning management positively affected on the cost of equity. This positive influence meant the greater the accrual earnings management the company made, the greater the cost of equity. From the results of descriptive statistics showed that accrual earning management was positive that showed the average companies did accrual profit management. The result of this study was in accordance with agency theory which stated that between management of companies and investors there were differences in interests. On the one hand, management strived to improve performance by achieving the profit targets that must be met. Attempts to achieve profit targets with accrual earnings management made the accrual quality in financial reporting reduced. This could actually harm companies and investors. Companies might experience difficulties or losses when they needed capital by issuing new shares as investors assessed low performance and corporate stocks in the presence of reduced accrual quality. On the other hand, investors wanted a positive return on investment when investing in a company. However, with accrual earnings management that could lead to decrease in the quality of financial reporting, investors might obtain misinformation related to corporate performance and earnings. The result of this study were consistent with research conducted by (Francis et al., 2004; Utami, 2005; Kim & Sohn, 2013; and Meini & Siregar, 2014) which stated that accrual earning management positively affected on the cost of equity. Research conducted by Kim & Sohn, 2013; Meini & Siregar (2014) in Indonesia also strengthened the results of previous research.

Real earning management positively affected on the cost of equity. This positive influence meant that the greater the real earnings management that the company did, the cost of equity increased. The results of this study indicated that management conducted real earnings management through the manipulation of discretionary expenses and excessive production. This could also be seen from the average real earning management that had positive value which meant the companies in Indonesia conducted real earnings management through that way. Decrease in discretionary expenses caused abnormal discretionary expenses. Managers also conducted real earnings management through production manipulation by increasing production more than necessary to increase revenue. When the company produced more units, the fixed cost per unit would be lower. This strategy could reduce cost of goods sold and improve operating profit margin. Excessive production would result in abnormal production costs. The combination of abnormal discretionary costs and abnormal production costs would cover actual corporate earnings or performance.

Real earning management was done in order to cover actual corporate earnings or performance thereby distorting reported earnings quality as an indicator of future cash flows. As a result, investors wanted a higher rate of return for companies which earnings were susceptible interference to noise (noisier) and lower than expected cash flow rates. Along this line, real earnings management was positively related to the cost of capital as it increased noise and reduced investors' expectations of future cash flows. Thus, the market demanded a higher risk premium for this activity which was an addition for the risk premium of accrual earning management and consequently the investor would raise the equity cost rate. The result of this study was consistent with the result of research conducted by Kim & Sohn(2013) which indicated real earnings management was positively correlated to the cost of equity after controlling the effects of accrual earnings management.

Capital intensity did not affect the cost of equity. The result of this study was consistent with the result of the study conducted by Kim & Sohn (2013), and Febrininta & Siregar (2014). Their results also showed that capital intensity did not affect the cost of equity. Ideally, the presence of high fixed assets, the operational activities of the company would be more optimal compared to companies with low fixed assets. In addition, production volumes would also increase with the presence of high fixed assets. With more optimal operational activities and increased production

volume, the possibility of future cash flows that could be generated by the company was also getting bigger so welcomed well by investors. However, investors did not use the company's fixed asset information in their investment decision-making.

CONCLUSIONS

Tax avoidance will add to the risk that have to be borne by investors so as to increase uncertainty over their investment and consequently investors will increase the rate of equity costs. Investors consider the acts of earnings accrual management that are opportunistic as an action that contains risks so that the information presented in the financial statements also contain risks. As a result, investors want a higher rate of return that increases the rate of equity costs. Companies in Indonesia use real earnings management through decreasing discretionary expenses and excessive production to enlarge the value of accounting earnings as seen in the average of real earnings management which have positive value. Capital Intensity has no effect on equity cost. This shows that investors do not use the company's fixed asset information in investment decision- making.

The measurement of the equity cost in this study uses Ohlson proxy model modified by (Utami, 2005). Further research can use the model of implied cost of equity of Kim & Sohn(2013), Avg_Premium (Cook et al., 2015), AVG_RATE (Hutchens & Rego, 2015), and R_PEG (Goh et al., 2016) to measure the cost of equity. Measurement of tax avoidance in this study using the model of Tang & Firth (2011). There are still many tax avoidance proxies as submitted by Dyreng et al. (2010). Therefore, further research can use a more diverse tax avoidance proxy. Measurement of real earning management uses model of Cohen & Zarowin (2010) from the combination of abnormal discretionary expense and abnormal production cost. Future research may use a combination of abnormal cash flow from operation and abnormal discretionary expense as suggested by Cohen & Zarowin (2010) or a combination of all three as used Kim & Sohn (2013) untuk to measure real earnings management.

The Financial Services Authority (OJK) is required to oversee opportunistic behavior and provide protection to investors as this study shows the existence of earnings management to achieve targets. In addition, OJK needs to oversee tax avoidance action and work with tax authorities in suppressing such actions because it brings negative consequences of distorting the quality of the country's profits and losses.

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