Cost of Equity Analysis through the role of Earnings Aggressiveness and Profit Persistence: Evidence from Manufacturing Companies in Indonesia

Atang Hermawan*, Dewi Ayu Anggita Sari, Ardi Gunardi

Faculty of Economics and Business, Universitas Pasundan, Indonesia

Info Articles	Abstract
	To survive, companies need to make various business development efforts which require capital that not all companies can fulfill independently. So in this case the company needs other parties (external parties) to meet its capital needs, namely investors and creditors. Obtaining capital from external parties, be it share capital or loans, poses their respective risks. Therefore, this study aims to provide an overview of how earnings aggressiveness, earnings persistence, and cost of equity are in manufacturing companies listed on the Indonesia Stock Exchange for the 2014-2018 period. Earnings persistence as moderating variables considering that these variables can be indicators of future earnings obtained in the long term. The research method used is descriptive verification method with data analysis is done by Simple Linear Regression Analysis, Moderated Regression Analysis (MRA), classical assumption test, correlation analysis, and coefficient of determination. While the hypothesis testing used is a statistical method of partial test (t test) using SPSS 20 for Windows. The results of this study indicate that earnings aggressiveness has a positive effect on the cost of equity and the persistence of earnings as a moderating variable weakens the effect of earnings aggressiveness on the cost of equity.

INTRODUCTION

The company is a business entity formed with the aim of making a profit or profit. Profits can be obtained by the company depending on how it tries to position itself and maintain its existence in the minds of consumers from the intense competition between companies in the market. To survive, companies need to make various business development efforts which require capital that not all companies can fulfill independently. So in this case the company needs other parties (external parties) to meet its capital needs, namely investors and creditors. Obtaining capital from external parties, be it share capital or loans, poses their respective risks. The company is obliged to provide compensation or benefits to investors and creditors for the capital they provide, which from the company's perspective this obligation is referred to as the Cost of Capital.

According to Anggraeny (2019) regarding the Cost of Capital that the existence of financing from external parties requires the company to incur costs as a form of return. The return given to the capital provider (investor) from the company is in the form of dividends or capital gains, while for the capital provider in the form of loan funds (creditors) the return is in the form of interest. So in general the Cost of Capital consists of Cost of Debt (cost of debt) and Cost of Equity (cost of own capital/equity). Delita and Mulyani (2018) states that the cost of equity (Cost of Equity) is the rate of return expected by investors on investments made within a company, which means that the cost of equity represents an opportunity cost (opportunity cost) for investors. So it can be seen that the purpose of investors investing their funds in the capital market is to maximize the return (rate of return) which can be in the form of dividend income or income from the difference between the selling price and the purchase price of shares (capital gain). The amount of dividends that must be distributed to investors depends on the profits earned by the company.

Studies show that improved earnings quality can contribute to a reduction the cost of equity (da Silva & Nardi, 2017). Other researchers also note that there is a significance between the cost of equity and earnings quality in companies that have high earnings quality in Saudi Arabian companies (Bekheet, Faramawi, & Ezat, 2019). Earning aggressiveness has an effect on the cost of equity either simultaneously, partially (Khaddaf, Lubis, Amalia F, & Rahmanta, 2014) or positive (Sunarto, 2008). This is different from the following research which shows that earnings aggressiveness has a negative effect on the cost of equity which indicates total accruals that do not reflect long-term profit growth or potential misspecified (Sunarto, Oktaviani, & Hardiningsih, 2016). In conditions of a financial crisis, the relationship between earnings quality and the cost of equity is more dominant than before the financial crisis (Eliwa, Haslam, & Abraham, 2016). Management related to aggressive earnings in the cheaper pre-IPO period is different from the dominant hypothesis where IPO companies sell shares at increasing prices through upward manipulation of earnings (Nagata, 2013).

The quality of earnings has an important role in the fundamental performance of the company that is the work for the future so that the source of quality on earnings can have certain consequences (Dechow, Ge, & Schrand, 2010). Earning persistence variable can moderate the relationship between earnings aggressiveness and cost of equity (Khaddaf et al., 2014). Different things are shown by earnings persistence as a moderating variable which weakens the relationship between earnings aggressiveness and cost of equity (Sunarto, 2008; Sunarto et al., 2016). The existence of pros and cons related to the relationship between these variables encourages researchers to find out the relationship if it is implemented in manufacturing companies in Indonesia. Research with earnings persistence as moderating variable is still limited so that it encourages researchers to explore the relationship between these variables either through analysis or influence testing.

Laim, Nangoy, and Murni (2015) stated that dividends are distributed in the same amount for each share and the amount of the dividend depends on the remaining profit after deducting the deductions specified in the deed of establishment and also depends on the decision of the General Meeting of Shareholders (GMS). The following phenomenon shows that dividends are strongly influenced by profit, the first news quoted on June 25, 2019 in Kontan.co.id - Jakarta, that "The Annual General Meeting of Shareholders (AGMS) of PT Polychem Indonesia Tbk (ADMG) agreed not to distribute dividends from

the 2018 financial year profit. "(because) there was a loss, so we could not distribute dividends," said PT Polychem Indonesia Tbk Corporate Secretary Chandra Tjong... It was noted that sales and operating revenues rose slightly by 11.9% year on year (yoy) to US$ 356.63 million from US$ 318.58 million previously. Meanwhile, the company still recorded a loss in 2018 of US$1.25 million. For the record, in 2017 the company also lost up to US$ 8.13 million" (Dewi, 2019).

It is known that the financial performance condition of PT. Polychem Indonesia Tbk (ADMG) has deteriorated since 2014 due to the high cost of goods sold and competition with imported products. The accrual recording method used for most of the company's financial reporting is utilized by the management as an earnings management tool (discretionary accruals). Givoly, Hayn, and Katz (2010) in Candra and Ekawati (2015) states that companies with low accruals show high earnings quality, due to the tendency of company managers to use accruals to carry out earnings management actions, this is due to the freedom of managers to disclose earnings, so that automatically management as the manager of the company has wider access rights to internal information and company prospects compared to shareholders or investors. By recording the applicable accruals, the management can recognize profits faster and slow down the recognition of losses, so that the current year's profit will appear higher (earnings aggressiveness). Earnings management practice is allowed in accounting, but the practice will cause some problems such as information asymmetry. Bhattacharya, Daouk, and Welker (2003) in Sunarto (2008) stated that Earnings opacity, is a condition in which earnings reported in financial statements fail to describe actual economic performance, which can lead to an increase in information risk. The level of earnings opacity in a company can be measured using two variables: earnings aggressiveness and earnings smoothing, y ang where this research leads to the aggressiveness of earnings management actions to improve earnings (income maximization). The action of earnings aggressiveness which causes earnings to be blurred can reduce the quality of company earnings.

Based on the description above, it can be seen that there is a relationship between earnings aggressiveness, earnings persistence, and cost of equity. Previously, several studies have been conducted on the relationship between these three variables. In Sunarto (2008) dissertation shows that earnings aggressiveness has a positive effect on the cost of equity so that the presence of earnings aggressiveness causes the cost of equity to increase, the same results were obtained in the research of Andriani and Afriyenti (2019) and Malau, Murwaningsari, Mayangsari, and Aryati, (2019), then in his research, earnings persistence is known to function to weaken the relationship between earnings aggressiveness and cost of equity.

Sunarto (2008) in his research explains that: "Earning aggressiveness is a tendency to delay the recognition of losses and accelerate the recognition of profits. Earnings aggressiveness is also a management action related to earnings manipulation, by increasing the accrual components and at the same time reducing costs, so that the reported earnings are higher than the actual ones. If the company performs aggressive accounting, the current book value of assets and profits will be higher, but the profit forecast will be lower and the cost of capital (and/or normal profit) will increase.

This means that the current year's profit is relatively higher than it actually is, so it is possible that future earnings will decline (ceteris paribus). In other words, earnings aggressiveness is an earnings report that cannot provide a true picture of economic profit. The aggressiveness of earnings reflected by the current year's profit is relatively high, which is then used by management as a positive signal to influence the current dividend growth. Shareholders will also feel their prosperity increases through dividend growth. If dividends are used as a proxy for the cost of equity, dividend growth will have an impact on increasing the cost of equity. Thus, the accrual policy that creates earnings aggressiveness will have a positive influence on the current cost of equity (current cost of equity).

The rationale expressed from previous studies can be seen that the variable earnings aggressiveness has a relationship or influence on the cost of equity, but has a different effect depending on the point of view, if viewed from the current year, earnings aggressiveness causes the cost of equity to increase, but if seen based on profit forecast and dividend growth it will cause a decrease in cost of equity.

H1: There Influence Earnings aggresiveness Against Cost of Equity.

Sunarto (2008) in his research explains how the earnings persistence variable plays a moderating role in the relationship between the variable earnings aggressiveness and the cost of equity, which is briefly described as follows:

"Conceptually, earnings persistence is a profit that has the ability as an indicator of future earnings generated by the company repeatedly (repetitive) in the long term (sustainable). When profits are sustainable, dividends are expected to grow stationary (stable), and shareholder wealth increases. Earning persistence as a measure of earnings quality has an impact on increasing earnings information, otherwise earnings aggressiveness will obscure earnings information, and earnings opacity creates information risk that affects the cost of equity.

This argument shows the existence of earnings ambiguity caused by earnings aggressiveness, and therefore, items or profit items are needed that can reduce this ambiguity. Earnings persistence is assumed as earnings quality is a positive signal to dividend growth. Earning persistence is expected to reduce earnings ambiguity by moderating the relationship between earnings aggressiveness and cost of equity. If the earnings proxy used as a moderating relationship is able to reduce earnings ambiguity, then the interaction between earnings persistence and earnings aggressiveness will produce a negative and significant sign.

Earning persistence is positioned as a moderating variable based on the argument that if earnings carry information about future earnings (persistent), then earnings persistence can reduce earnings opacity (earnings aggressiveness and earnings smoothing), so that the interaction between earnings persistence and earnings opacity is expected to be negative. Conversely, if earnings do not carry information about future earnings (non-persistent earnings), then these profits will increase earnings opacity, so the interaction between non-persistent earnings and earnings opacity is positive.

The results of Sunarto (2008) research show that earnings persistence weakens the relationship between earnings aggressiveness and cost of equity. Then Delita and Mulyani (2018) and Khaddaf, Lubis, Amalia F, and Rahmanta (2014) with a similar premise prove that earnings persistence plays a role in moderating the relationship between earnings aggressiveness and cost of equity and weakens the effect. From the results of these studies, it can be seen that earnings persistence acts as a moderating variable in the relationship between earnings aggressiveness and the cost of equity, more precisely, it weakens the effect of earnings aggressiveness on the cost of equity.

H2: Moderate Earnings Persistence Relations Earnings agressiveness Against Cost of Equity

METHODS

In this research, the method used is descriptive and verification method with a quantitative approach. Descriptive research method was conducted to determine the existence of independent variables, namely to examine each variable earnings aggressiveness, earnings persistence, and cost of equity. The verification method was carried out to determine the relationship and how much influence the independent variables had on the dependent variable to test the hypothesis, which in this study tested the effect of earnings aggressiveness on the cost of equity with earnings persistence as a moderating variable.

Operationalization Variable

Independent Variabel

The independent variable or independent variable is a variable that affects or is the cause of the change or the emergence of the dependent (bound) variable. The independent variable in this study is earnings aggressiveness. Earnings aggressiveness is measured by the Total (Aggregate) approach

Accruals, with formula:

$$\frac{(\Delta CAt - \Delta CLt - \Delta CASHt + \Delta STDt - DEPt + \Delta TPt)}{TA_{t-1}}$$

Information:

ΔCAt = Change in Current Assets ($CAt - CA_{t-1}$);

ΔCLt = Change in Current Liabilities ($CLt - CL_{t-1}$);

$\Delta casht$ = Change in Cash ($Casht - Cash_{t-1}$);

$\Delta STDt$ = Change of Short Term Debt ($STDt - STD_{t-1}$);

DEPt = Depreciation and Amortization period t;

ΔTPt = Change of Tax Payble ($TPt - TP_{t-1}$)

TAt_{-1} = Total Assets period t_{-1});

Dependent Variable

The dependent variable or the dependent variable is a variable that is influenced or becomes a result, because of the independent variable. The dependent variable in this study is the cost of equity, measured by dividends which is the return on share capital or own capital / equity capital. Therefore, the Constant-Growth Valuation (Gordon) Model approach is used, which is the formula for calculating the cost of equity for ordinary shares, with formula:

$$r_s = \frac{D_1}{N_s} + g$$

Information:

r_s = Cost of Common Stock Equity

D_1 = Expected devidend per share to be paid at the end of the year, $D_1 = DPSt_{-1}(1 + g)$

g = Constant devidend growth

N_s = Net proceeds from the sale of common stock, which is derived from $N_s = P_0 - f$ (P_0 = current price of common stock and f = flotation cost; costs incured as a result of issuing new shares; only used when the company issues new shares.

Moderator Variables

The moderator variable is a variable that affects (strengthens or weakens) the relationship between the independent and dependent variables. The moderator variable in this study is earnings persistence. Earnings persistence is measured by the Net Income Before Extraordinary Item (NIBE) approach or profit from company's normal activities, with the regression equation:

$$\frac{NIBE_t}{TA_t} = \alpha + \beta \frac{NIBE_t}{TA_{t-1}} + \varepsilon$$

Which is the value of the standard deviation of the residual from the equation.

Information:

$NIBE_t$ = Net income before extraordinary items/net income from normal activities for periode t (current year).

TA_t = Total Assets periode t (current year).

TA_{t-1} = Total Assets periode t-1 (previous year).

Population and Research Sample

The population in this study are manufacturing companies listed on the Indonesia Stock Exchange consecutively during the 2014-2018 period. From this population, several companies were selected as research samples using non-probability sampling technique with purposive sampling method, namely determining the sample according to the criteria needed in the study. From the results of purposive sampling obtained as many as 28 manufacturing companies that became the research sample.

Data Analysis Method

Descriptive analysis is used to describe the variables of earnings aggressiveness, cost of equity, and earnings persistence independently of the research sample. The descriptive analysis tool used is the

maximum value, minimum value, mean (average value), and standard deviation using the EViews 9.0 application.

Verification analysis is used to find out the truth of the proposed hypothesis regarding the effect of earnings aggressiveness on the cost of equity with earnings persistence as a moderating variable. The data analysis method was carried out by simple linear regression analysis, moderated regression analysis (MRA), classical assumption test, correlation analysis, and coefficient of determination. While the hypothesis testing used is a statistical method of partial test (t test) using EViews 9.0. Simple linear regression analysis is used to analyze the first hypothesis (H1), namely that there is an effect of earnings aggressiveness on the cost of equity, with the following equation:

$$Y = \alpha + \beta X$$

Information:

Y = Cost of Equity

α = Constant

β = Coefficient of Regression

Meanwhile, moderated regression analysis (MRA) with an interaction test model is used to analyze the second hypothesis (H2), namely earnings persistence moderates the relationship between earnings aggressiveness and cost of equity with the following equation:

$$Y = \alpha + \beta_1 X + \beta_2 Z + \beta_3 XZ + \varepsilon$$

Information:

Y = Cost of Equity

α = Constant

$\beta_1, \beta_2, \beta_3$ = Regression Coefficient

X = Earnings Aggressiveness

Z = Profit Persistence

XZ = Interaction

ε = Error

RESULTS AND DISCUSSION

Table 1. Result of Variable Descriptive Statistics

Variabel	Mean	Std.Deviasi	Minimum	Maximum
Earnings Aggressiveness	-0,0127	0,06585	-0,1390	0,2924
Persistensi Laba	0,0087	0,00913	0,0006	0,0514
Cost of Equity	0,0800	0,12792	-0,2034	0,3429

Based on the resulting Table 1, it is known how the description of each variable is. The concept of earnings aggressiveness is the opposite of the concept of conservative accounting where conservative accounting shows an increasingly negative value in the accrual component of the company, so that earnings aggressiveness will have a positive value. It is known that the average value of total aggregate accruals in manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 is -0.0127. This shows that the manufacturing companies that are the sample of this research do not take earnings aggressiveness on average, which can be seen from the average total aggregate accruals which is negative, meaning that the average company applies more conservative accounting. There are as many as 13 companies that have values above the average or can be said to be more aggressive, the maximum value owned by Supreme Cable Manufacturing Corporation Tbk (SCCO) in 2014 was 0.2924. Then as many as

15 companies have an average total aggregate accruals below the average, which can be said to be more conservative, the minimum value owned by Multi Bintang Indonesia Tbk (MLBI) in 2018 is -0.1390.

Quality earnings are persistent profits, namely profits that can reflect the sustainability of profits in the future. NIBE is expressed as persistent earnings, if the regression produces a small residual standard deviation ($\sigma\epsilon$) (≤ 0.05). It is known that the average standard deviation of the residuals in manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 is 0.0087 This shows that the manufacturing companies that are the sample of the study have a persistent profit on average, this is because the average The company always earns a profit every year in a relatively stable size or does not experience significant changes. There are as many as 6 manufacturing companies that have an average standard deviation of residuals above the average, which can be said that these companies have less persistent profits than other sample companies, the maximum value is owned by the company Hanjaya Mandala Sampoerna Tbk (HMSP) in 2015 of 0.0514. Then there are as many as 22 manufacturing companies that have an average standard deviation of residuals below the average, which can be said that these companies have more persistent profits than other companies, the minimum value owned by the company Kertas Tjiwi Kimia Tbk (TKIM) in 2015 amounted to 0.0006.

Cost of equity is the minimum rate of return expected by investors, so companies need to pay dividends above the cost of equity to maintain owner confidence and firm value. It is known that the average cost of equity in manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 is 0.0800 or 8%. This shows that the manufacturing companies that are the sample of this research have a low cost of equity when compared to the maximum value of this study. There are as many as 14 manufacturing companies that have an average Cost of Equity above the average, which can be said that these companies have a higher rate of return than other companies, the maximum value is owned by the company Supreme Cable Manufacturing Corporation Tbk (SCCO) in 2014 was 0.3429. Then as many as 14 manufacturing companies that have an average Cost of Equity below the average, which can be said that these companies have a lower rate of return than other companies, the minimum value is owned by the Paper Tjiwi Kimia Tbk (TKIM) company in 2017 is -0.2034.

In this study, the One Sample Kolmogorov-Smirnov Test was used based on a significant level of 5% as a data normality test tool. Where the data is said to be normally distributed if the significant value is above 5% or (Sig) > 0.05.

Tabel 2. Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		140
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	,12022882
Most Extreme Differences	Absolute	,077
	Positive	,074
	Negative	-,077
Kolmogorov-Smirnov Z		,906
Asymp. Sig. (2-tailed)		,385
a. Test distribution is Normal.		
b. Calculated from data.		

From table 2, it is known that the significant value is above 5%, so that the data is normally distributed.

Testing is done by looking at the amount of Variance Inflation Factor (VIF) and Tolerance. There is no multicollinearity symptom if the tolerance number is above 0.1 or close to 1 and the VIF is less than 10 (VIF <10).

Tabel 3. Multicollinearity Test Results

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	X	,976	1,025
	Z	,770	1,299
	X*Z	,786	1,272

a. Dependent Variable: Y

From table 3, it is known that the tolerance value of each variable is above 0.1 and the VIF value of each variable is less than 10, so there is no symptom of multicollinearity.

In this study, the Glejser test was used, in which there were no symptoms of heteroscedasticity if the significant value was above 0.05 (sig) > 0.05.

Tabel 4. Heteroscedasticity Test Results

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1(Constant)	,093	,008		11,916	,000
X	-,161	,085	-,161	-1,889	,061
Z	,442	,691	,061	,639	,524
X*Z	-,004	,006	-,057	-,606	,546

a. Dependent Variable: Absolut_Residual

From table 4, it is known that the significant value of each variable is above 0.05, meaning that there are no symptoms of heteroscedasticity.

The Durbin-Watson test (DW test) was used in this study, with the following assessment categories:
a) There is a positive autocorrelation, if the DW value is below -2 (DW < -2)
b) There is no autocorrelation, if the DW value is between -2 and +2 or -2 < DW < +2
c) Negative autocorrelation occurs if DW is above +2 or DW > +2. (Danang Sunyoto, 2016:98)

Tabel 5. Autocorrelation Test Result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,342[a]	,117	,097	,12155	1,762

a. Predictors: (Constant), X*Z, X, Z
b. Dependent Variable: Y

From table 5, it can be seen that the Durbin-Watson (DW) statistical value of the regression result is 1.762, the DW value is between -2 and +2 or -2 < DW < +2, so it can be concluded that there is no autocorrelation symptom in the regression model.

Tabel 6. Simpe Linear Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.086081	0.010709	8.038073	0.0000
X	0.479782	0.160234	2.994266	0.0033

R-squared	0.061005	Mean dependent var	0.079990
Adjusted R-squared	0.054201	S.D. dependent var	0.127920
S.E. of regression	0.124405	Akaike info criterion	-1.316362
Sum squared resid	2.135781	Schwarz criterion	-1.274338
Log likelihood	94.14532	Hannan-Quinn criter.	-1.299285
F-statistic	8.965628	Durbin-Watson stat	0.074006
Prob(F-statistic)	0.003261		

Based on table 6, a simple linear regression equation can be formed as follows:

Y = 0,086 + 0,480 X

Information:

Y   = Cost of equity

X = Earnings aggressiveness

Constant of 0.086 indicates that if there is no influence from the independent variable or if the company does not act on earnings aggressiveness, the average cost of equity in manufacturing companies listed on the Indonesia Stock Exchange will increase by 0.086. The variable earnings aggressiveness (X) has a positive regression coefficient of 0.480, indicating that each increase in total aggregate accruals by one unit is predicted to increase the cost of equity by 0.480. With these results, it can be seen that earnings aggressiveness can be a positive signal that has an impact on dividend growth, which of course if viewed from the perspective of investors can prosper the shareholders. Dividends are used as a proxy for the cost of equity, which will experience growth in line with the same increase in cost equity.

Tabel 7. Results of Correlation Analysis and Coefficient of Determination

Koefisien Korelasi (R)	Koefisien determinasi (R^2)
0,247	0,061 (6,1%)

Table 7 shows that the correlation coefficient between earnings aggressiveness and cost of equity is 0.247. This indicates that earnings aggressiveness has a weak relationship with the cost of equity. The coefficient of determination (R2) of 0.061 indicates that earnings aggressiveness contributes 6.1% to the cost of equity in manufacturing companies listed on the Indonesia Stock Exchange. While the remaining 93.9% is the influence of other factors outside the variable earnings aggressiveness.

Based on table 6, which is obtained from the comparison of t arithmetic with t table, t count is greater than t table (2,994 > 1 , 978), then supported by a significance value of 0.003 below 5% proving that Ho is rejected and the hypothesis is accepted, meaning that earnings aggressiveness has an effect to the cost of equity in manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018. Then with the results of the regression coefficient and correlation coefficient which is positive, it shows a positive effect of earnings aggressiveness. The results of this study are in accordance with the results of research from Sunarto (2008), from Andriani and Afriyenti (2019), Malau et al. (2019), Khaddaf et al. (2014) and Sunarto (2008) which prove that earnings aggressiveness has a positive effect on the cost of equity.

Tabel 9. Result of Moderated Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.081586	0.014583	5.594525	0.0000
X	0.490043	0.158467	3.092396	0.0024
Z	0.009098	1.287476	0.007067	0.9944
XZ	-0.031300	0.012076	-2.591972	0.0106

R-squared	0.116638	Mean dependent var	0.079990
Adjusted R-squared	0.097152	S.D. dependent var	0.127920
S.E. of regression	0.121548	Akaike info criterion	-1.348866
Sum squared resid	2.009241	Schwarz criterion	-1.264819
Log likelihood	98.42059	Hannan-Quinn criter.	-1.314711
F-statistic	5.985762	Durbin-Watson stat	0.144274
Prob(F-statistic)	0.000731		

Based on table 9, the moderating regression equation can be formed as follows:

Y = 0,082 + 0,490 X + 0,009 Z - 0,031 X*Z

Information:

Y   = Cost of equity

X = Earnings aggressiveness

Z = Earnings Persistence

X*Z   = Moderation Interaction

Constant of 0.082 indicates that if there is no influence from the independent variable or if the company does not take earnings aggressiveness and does not measure earnings persistence, the average cost of equity in manufacturing companies listed on the Indonesia Stock Exchange will increase by 0.082. The variable earnings aggressiveness (X) has a positive regression coefficient of 0.490, indicating that each increase in total aggregate accruals by one unit is predicted to increase the cost of equity by 0.490. This means that companies with higher total aggregate accruals tend to have a higher cost of equity. The moderating interaction variable, namely the interaction between the earnings aggressiveness variable and the earnings persistence variable, has a negative coefficient of 0.031 or (-0.031), indicating that every increase in total aggregate accruals is accompanied by an increase in the standard deviation of the residual from earnings predictions (NIBE) of one unit, which is predicted to be reduce the cost of equity by 0.031. This means that the earnings persistence variable (Z) as a moderating variable weakens the positive relationship between earnings aggressiveness and cost of equity. Income proxy as a moderating variable is able to reduce ambiguous income so that the interactions that occur in earnings persistence and earnings aggressiveness show negative results. The results of this study are in line with previous research (Sunarto, 2008; Sunarto et al., 2016).

Tabel 10. Results of Correlation Analysis and Coefficient of Determination

Koefisien Korelasi (R)	Koefisien determinasi (R^2)
0,230	0,053 (5,3%)

Table 10 shows that the correlation coefficient between earnings aggressiveness moderated by earnings persistence and cost of equity is -0.230. This indicates that earnings aggressiveness moderated by earnings persistence has a weak relationship with the cost of equity. The coefficient of determination (R^2) of 0.053 indicates that earnings aggressiveness moderated by earnings persistence contributes 5.3% to the cost of equity in manufacturing companies listed on the Indonesia Stock Exchange. While the remaining 94.7% is the influence of other factors outside the variable earnings aggressiveness moderated by earnings persistence.

Based on table 9 obtained from the comparison of tcount with ttable, tcount is smaller than negative ttable (-2.592 < -1.978), supported by a significance value of 0.011 below 5% proving that Ho is rejected the hypothesis is accepted, meaning that earnings persistence acts as a moderating variable in the effect of earnings. aggressivenss to the cost of equity. Then the results of the regression coefficient of moderating interaction and correlation coefficient which are negative indicate that earnings persistence plays a role in weakening the effect of earnings aggressiveness on the cost of equity. The results of the study are in accordance with the results of research by Sunarto (2008), Delita and Mulyani (2018), and Khaddaf et al. (2014) which yield the results that earnings persistence plays a role in moderating the effect of earnings aggressiveness on the cost of equity by weakening the relationship between earnings aggressiveness and cost of equity.

CONCLUSION

Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 have no indications of carrying out earnings aggressiveness. Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 have persistent profits. Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 have a low cost of equity value when compared to the maximum value of the entire sample company. Earnings aggressiveness has a positive effect on the cost of equity in manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018. This shows that an increase in the total value of aggregate accruals caused by earnings aggressiveness can increase the value of the cost of equity. Earning persistence moderates the effect of earnings aggressiveness on the cost of equity in manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 with a weakening effect, meaning that earnings aggressiveness actions taken by the company if accompanied by high earnings persistence will reduce the cost of equity. The research carried out still has limitations both in terms of the sample used and in the use of the variables so that it is hoped that further research can use more varied variables to describe the cost of capital.

REFERENCE

Andriani, L., & Afriyenti, M. (2019). Kualitas Akrual Memoderasi Earnings Opacity Terhadap Biaya Ekuitas. *Jurnal Eksplorasi Akuntansi*, *1*(3).

Anggraeny, N. C. (2019). *Pengaruh Pengungkapan Corporate Social Responsibility, Pengungkapan Intelectual Capital, Dan Asimetri Informasi Terhadap Cost of Equity Capital (Studi Empiris Pada Perusahaan Yang Terdaftar Di Indeks Kompas 100 Tahun 2014-2016)*. Universitas Muhammadiyah Ponorogo.

Bekheet, M. N., Faramawi, F. A. A., & Ezat, A. N. M. (2019). The Impact of Earnings Quality on Cost of Equity to improve the Investment Decisions: An applied study on the Saudi Stock Market. *International Journal of Applied Engineering Research*, *14*(22), 4194–4202.

Bhattacharya, U., Daouk, H., & Welker, M. (2003). The World Price of Earnings Opacity. *The Accounting Review*, *78*(3), 641–678.

Candra, E. R. S., & Ekawati, E. (2015). Analisis Kualitas Akrual Pada Biaya Modal Perusahaan. *Simposium Nasional Akuntansi XVII*.

da Silva, R. L. M., & Nardi, P. C. C. (2017). Full adoption of IFRSs in Brazil: Earnings quality and the cost of equity capital. *Research in International Business and Finance*, *42*, 1057–1073. https://doi.org/10.1016/j.ribaf.2017.07.041

Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, *50*(2–3), 344–401. https://doi.org/10.1016/j.jacceco.2010.09.001

Delita, I., & Mulyani, E. (2018). Pengaruh Earnings Aggresiveness Terhadap Cost of Equity Dengan Persistensi Laba Sebagai Variabel Moderating (Studi Empiris Pada Perusahaan Manufaktur Yang Terdaftar Di Bei Tahun 2014-2016). *Jurnal WRA*, *6*(1), 1193–1204.

Dewi, H. K. (2019). Merugi, PT Polychem Indonesia Tbk (ADMG) Tidak Bagikan Dividen. *Kontan.Co.Id*. Retrieved from https://investasi.kontan.co.id/news/merugi-pt-polychem-indonesia-tbk-admg-tidak-bagikan-dividen

Eliwa, Y., Haslam, J., & Abraham, S. (2016). The association between earnings quality and the cost of equity capital: Evidence from the UK. *International Review of Financial Analysis*, *48*, 125–139. https://doi.org/10.1016/j.irfa.2016.09.012

Givoly, D., Hayn, C., & Katz, P. S. (2010). Does Public Ownership of Equity Improve Earnings Quality? *The Accounting Review*, *85*(1), 195–225.

Khaddaf, M., Lubis, A. F., Amalia F, K., & Rahmanta. (2014). The Effect of Earnings Aggressiveness, Earnings Smoothing on Return of Stock. *Journal of Economics and Behavioral Studies*, *6*(6), 509–523.

Laim, W., Nangoy, S. C., & Murni, S. (2015). Analisis Faktor-Faktor yang Mempengaruhi Dividend Payout Ratio pada Perusahaan yang Terdaftar Di Indeks LQ-45 Bursa Efek Indonesia. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *3*(1).

Malau, M., Murwaningsari, E., Mayangsari, S., & Aryati, T. (2019). Pengaruh Opasitas Laba, Asimetri Informasi, dan Keinformatifan Laba Terhadap Biaya Ekuitas di Perusahaan Manufaktur. *Jurnal Akuntansi Trisakti*, *6*(1), 43. https://doi.org/10.25105/jat.v6i1.4918

Nagata, K. (2013). Does earnings management lead to favorable IPO price formation or further underpricing? Evidence from Japan. *Journal of Multinational Financial Management*, *23*(4), 301–313. https://doi.org/10.1016/j.mulfin.2013.05.002

Sunarto. (2008). *Peran Persistensi Laba Memperlemah Hubungan Antara Earnings Opacity Dengan Cost Of Equity Dan Trading Volume Activity, Studi Empiris Pada Perusahaan Go Public Di Indonesia Selain Sektor Keuangan Dan Properti*. Universitas Diponegoro.

Sunarto, Oktaviani, R. M., & Hardiningsih, P. (2016). Kualitas Akrual Memoderasi Earnings Opacity Terhadap Biaya Ekuitas. *Simposium Nasional Akuntansi XIX*. Lampung.