

The Effect of Earnings Aggressiveness, Earnings Smoothing on Return of Stock

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Abstract: This study aims to examine the moderating role of trading volume activity and cost of equity between earnings aggressiveness and earnings smoothing on return of stock. It includes the analysis of earnings persistent in strengthening the relationship between earnings aggressiveness, earnings smoothing, the cost of equity and trading volume activity as well as their effect on return of stock. The sample of study is 32 banking companies which pay dividends and which shares actively traded at the Indonesian Stock Exchange (BEI) whereby the period of observation took place from 2007 to 2011. The method uses a multiple linear regression analysis using SPSS as the data processing tools. The results of this study establish that the earnings aggressiveness and earnings smoothing simultaneously and significantly affect the trading volume activity. The earnings smoothing has a negative effect and is significant on the trading volume activity, while earnings aggressiveness has a positive effect and is significant on the trading volume activity. Meanwhile, the trading volume activity has positive effect and is significant on return of stock and the earnings persistence is moderating the relationship between earnings aggressiveness and earnings smoothing on the trading volume activity.

Keywords: *Earnings aggressiveness, earnings smoothing, cost of equity, earnings persistence, trading volume activity, stocks return*

1. Introduction

Beaver (2002) states that the accrual is a major issue for many years. He emphasizes on the upcoming period accruals management whereby the companies make profits through some policy characteristics such as overstate earnings, loss avoidance and income smoothing, while in previous research some aspects of earnings management have been discussed which include: motivation and approaches in earnings management, discretionary and non- discretionary on component estimation. According to the agency theory, the motivation of accrual management can be grouped into two categories: opportunistic and signaling (Beaver, 2002). The motivation in opportunistic management through an aggressive accounting policy results in a higher profit rate than real income. If the earnings report cannot describe the real profit, the profit leads to overstate earnings. Meanwhile, in the signaling motivation, management presents financial information that is expected to give a sign of prosperity to the shareholders with increasing stock price or value of the company. Penman and Zhang (2002) state that sustainable earnings have high quality and they are used as an indicator for future earnings which is also referred as the persistence of earnings (Sloan, 1996; Dechow and Dichev, 2002; Francis et al., 2004).

Based on the theories discussed above, the earnings management actions for the short term are more likely to perform opportunistic motivation by recognizing all credit revenues. For the long term, it rather acted based on signaling motivation to shareholders' prosperity with increased stock prices. To anticipate the opportunistic motivations of investors, the analysis should assess the persistence of earnings regarded as a measure of earnings quality. Some authors have argued on the measurement of earnings persistence. For example, Sloan (1996) measures the earnings persistence based on the relationship between current earnings and future earnings performance, while Dechow and Dichev (2002) measure the earnings persistence based on the quality of accruals; where the accruals' quality is defined as estimation errors resulting from the regression of working capital accruals. This research is expected to contribute as a theoretical basis, especially on the development of predictive models on stock returns over the cost of capital and stock trading volume activity. In this model, the earnings persistence is positioned as a moderating variable used to test the interaction between earnings persistence on the earnings smoothing and earnings aggressiveness that are expected to weaken the relationship of the trading volume activity and influence the stock returns. So is the interaction between earnings persistence on the earnings aggressiveness and earnings smoothing, which is expected to weaken the relationship of the cost of equity and affect the stock return. Moreover, this study is expected to offer a

practical contribution for the users of financial statements in analyzing the investment-related decisions of capital market instruments. Meanwhile, the management is expected to benefit from the presentation of the financial statements, and is used as input in the determination of capital costs, particularly the cost of equity.

2. Literature Review

Agency Theory: In the agency theory, the relationship arises when one or more persons employ another person to provide a service and then delegate the decision-making authority to the agent. The relationship between the principal and agent may lead to conditions of information asymmetry because the agent is in a position where he or she has a lot more information about the company as compared to principals. Assuming that individuals act to maximize self-interest, then the information asymmetry will encourage the agents to hide some information that is not known to the principal. In that conditions, the agent may influence the accounting figures presented in the financial statements through the earnings management.

Return on Stock: Ang (1997) states that the return is the rate of profit on the investment by the investors. The investors are motivated to invest in an instrument that is desirable in the hopes of obtaining an appropriate return. Without advantages that have been claimed to be characteristic of an investment, investors certainly will not want to invest. Thus, every investment, whether the benefits are short or long term, has the main objective to gain direct or indirect return.

Trading Volume Activity: Nadia (2011) explains that the trading volume is the amount of exchange. The market exchange occurs when the agents assigns different values to the assets. To see the magnitude of trading volume, e can refer to the number of shares traded in a given period divided by the number of outstanding shares (Jogiyanto, 1998). Trading volume reflects the strength between the supply and demand which is a manifestation of investor's behavior. The increase in trading volume will be followed with the positive market situation (Ang, 1997). An increase in the trading volume followed with an increase in prices would be a symptom of an increasingly strong bullish conditions (Husnan, 1998). An active trade results in large trading volumes that will in turn, result in higher stock returns (Nadia, 2011). The research carried out by Chen and Yuan (2004) has shown that there is a significant positive trading volume on stock return, however, the results by Brajesh et al. (2010) state that the negative effect of trade volume is not significant to explain stock returns. The volume of stock trading can be used by investors to see if the purchased shares are actively traded on the stock market (Ang, 1997). Trading volume is an accepted as part of the technical analysis. Trading activity in very high volumes in an exchange will be interpreted as a sign of improved market (bullish). The research carried out by Chen et al. (2001) showed that a significant positive trading volume on stock return, while the results of the study Chen and Warfield (2005) showed that the negative effect of trade volume is not significant to explain stock returns.

Cost of Equity: Brigham (1983) states that each component of equity relates to the component costs of capital. Equity is an important component in preferred stock and common equity; where the two components of the cost of equity are reflected in the form of preferred and common dividends. Meanwhile, the cost of capital refers to the amount of dividends paid by the company to its shareholders. Estimated cost of equity can be done with a variety of approaches, among others: the capital asset pricing model (CAPM), a model of earnings growth and dividend yield plus the growth rate. The CAPM approach is more widely used in the theory of capital markets particularly in the portfolio theory. Jones (2004) has stated that the dividend growth model can be classified into two groups: zero-growth rate and constant growth and multiple-growth models. The zero-growth rate models reveal that the dividend stream with zero growth rate, resulting from a fixed dividend amount equal to the current dividend, D_0 is paid each year. Meanwhile, constant growth valuation models known as the Gordon Model, imply that the value of shares with the cash value and all dividends are to be received in the future.

Earnings Aggressiveness: Earnings aggressiveness is defined as the management actions that lead to the tendency of delaying the recognition of losses and accelerating the income, and subsequently impacting the quality of earnings (Altamuro et al., 2005). It is associated with management actions earnings manipulation (EM) (Bedard & Johnstone, 2004) where EM can be done by raising the values of the accrual component such as inventory and at the same time lowering costs, so the profit is higher than the actual earnings (Chan et al., 2001). If companies do aggressive accounting, the current book value and profit will

be higher, but forecast earnings will indicate that the two will be low and the cost of capital will be increasing (Kothari, 2001). Aggressive accounting policies, among others, are performed by the accrual policy. Some literature suggests that aggressive earnings is measured from the level or total accruals (Dechow et al., 1995; Barth et al., 2001; Bhattacharya et al., 2003). In particular, Bhattacharya determines earnings aggressiveness measured by total accruals obtained from the change in total current assets minus total current liabilities changes, changes in cash, depreciation, plus the change in long-term debt and current maturities of debt tax changes. All these components are divided by total assets a year earlier.

Earnings Smoothing: Earnings smoothing is a measure of earnings under the condition smoothly reported all the time. If the accounting profit is artificially smooth, then the profit figures fail to represent the actual performance of the economy, thus lowering the information on earnings' reports which led to earnings opacity. Eckel (1981) states that income smoothing divided into two streams; the naturally smooth and intentionally smoothed by management. In the first stream, income smoothing occurs naturally, and the process inherently produces a smooth income stream; while in the second stream, income smoothing occurs because management uses real techniques smoothing or artificial smoothing. The real smoothing occurs when management takes actions when the structure of the economy generate income smoothing, while artificial smoothing occurs when manipulating the timing of management accounting to generate income smoothing. In the literature of income smoothing, Moses (1987) posited that the accounting methods to reduce fluctuations in earnings rather than maximize profit or minimize are widely used in management.

Meanwhile, Bhattacharya et al. (2003) determine the earnings smoothing through the correlation between changes in accruals and cash flows divided by lagged total assets. In accordance with the nature of some of the accrual accounting processes, the correlation is expected to be negative. The greater correlation figures indicate greater earnings smoothing and resulting in greater earnings opacity. Furthermore, Francis et al. (2004) measure the smoothness of the ratio between earnings and cash flows variability. This measurement is based on profits attribute derived from the management view which uses private information of future income to "flatten" (smooth) fluctuations, so the profit is more representative. This measurement model is also used by Ecker et al. (2006). Moreover, Tucker and Zarowin (2006) measure the income smoothing by the negative correlation between the changes in discretionary accruals proxy and change pre-discretionary income. This measurement assumes that there is a series of managing earnings at the beginning of the period (pre-managed income) and managers use discretionary accruals to smooth earnings series.

Earnings Persistent: Penman (2003) has stated that the core operating income is derived from the core operating income of sales and other operating income cores. The core operating income of sales is derived from sales before tax which is obtained from the core gross margin minus the operating expenses. Meanwhile, the core gross margin is obtained from the core sales revenue minus the cost of sales. The earnings persistence in this study is based on the concept of core operating income (COI) or a statement of income, especially for the profit or loss obtained from the ordinary activities of the company. In other words, earnings persistence is measured by the net income before extraordinary items (NIBE). The researchers measure the earnings persistence with a different proxy. For example, Sloan (1996) in Freeman et al. (1982) has shown that the earnings persistence is the relationship between the current earnings and future earnings performance. Meanwhile, Francis et al. (2004) measure of earnings persistence by the regression slope coefficients of current earnings on lagged earnings. Meanwhile, Ecker et al. (2006) measure of earnings persistence parameter regression results of current and lagged earnings per share to earnings per share. Tucker and Zarowin (2006) have developed an analysis by estimating the relationship between current and future earnings based on the interaction of earnings per share and income smoothing. If income smoothing fixes the information on profit, then the relationship between the current and future earnings will be stronger.

Conceptual Framework And Hypotheses

Based on the conceptual framework of the research below are the proposed hypotheses:

H1 = Earnings aggressiveness and earnings smoothing have simultaneous partial effect on trading volume activity.

H2 = Trading volume activity affects stock returns

H3 = Earnings Persistence moderate earnings aggressiveness and earnings smoothing on the trading volume activity.

H4 = Earnings aggressiveness, earnings smoothing and earnings persistence affect the stock returns through cost of equity.

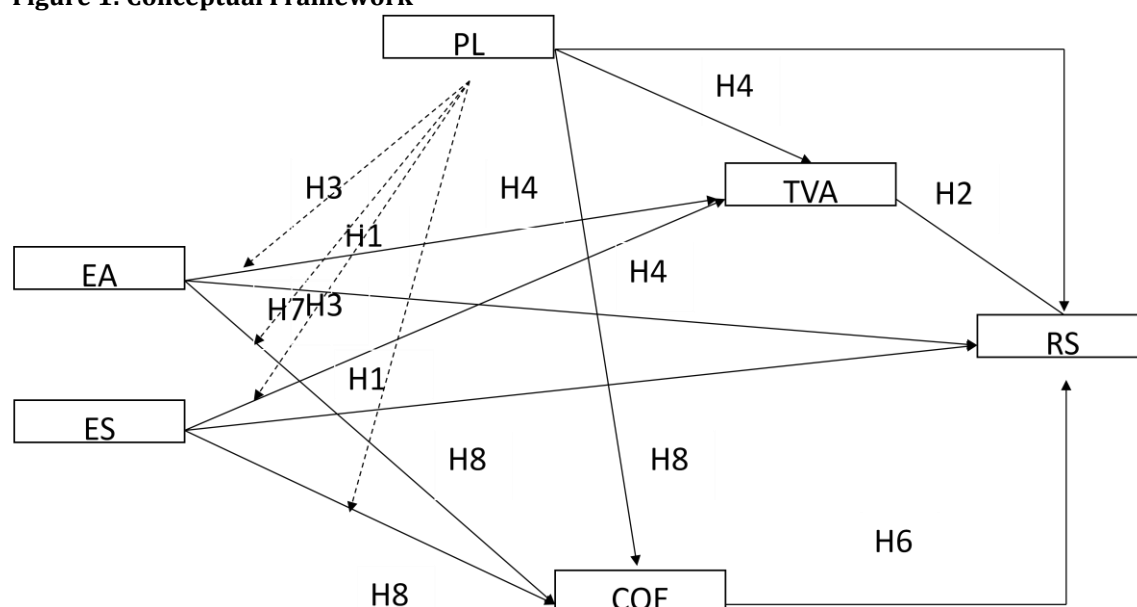
H5 = Earnings aggressiveness and earnings smoothing have a simultaneous partial effect on the cost of equity.

H6 = Cost of equity affect the stock returns.

H7 = Earnings Persistence moderates earnings aggressiveness, earnings smoothing on the cost of equity.

H8 = Earnings aggressiveness, Earnings smoothing and Earnings Persistence affect the stock returns through trading volume activity.

Figure 1: Conceptual Framework



3. Methodology

This is a causal comparative type of research that aims to analyze the influence of the independent variable (earnings aggressiveness and earnings smoothing) on the dependent variable (stock returns) with the mediating variable trading volume activity, the cost of equity and a moderating variable earnings persistence. The research was conducted on 32 public banking companies listed in the Indonesian Stock Exchange (BEI). The observation period of this study was from 2007 to 2011. The type of data used is secondary data, and they have been published by the Indonesia Stock Exchange through ICMD in the period of 2007 to 2011 and Capital Market Reference Center (CMRC). Aside from these two sources, the data are also taken from the annual report of Indonesian Bank in 2007 to 2011 as well as the Central Bureau of Statistics (BPS).

Table 1: Identification and Definition of Variables' Operationalization

No	Variable	Definition	Measures	Scale
1	Return on Stock (RS)	Return on stock is a closing stock price P_t deducted by P_{t-1} divided by P_{t-1}	Return on stock = $\frac{P_t - P_{t-1}}{P_{t-1}}$	Ratio
2	Trade Volume Activity (TVA)	Total of shares traded divide by the number of outstanding shares	Trade Volume Activity; A tool to gauge whether investors know the company information and use them in purchase and sale of shares.	Ratio
3	Earnings Aggressiveness (EA)	Management actions that lead to the tendency of delaying the recognition of losses and accelerate the recognition of income.	$AGRS = (\Delta CA_t - \Delta CL_t - \Delta CASH_t + \Delta STD_t - DEPT_t + \Delta TP_t) / TA_t - 1$	Ratio

4	Earnings Smoothing (ES)	Earnings management actions by reporting profits smooth all the time	SMTH = $\sigma(\text{NIBE}/\text{Assett-1}) / \sigma(\text{CFO}/\text{Assett-1})$	Ratio
5	Cost of Equity	Dividend Growth	$CoEt = (D_1/P_0) + gt$ gt : dividend (<i>growth</i>) periode t ; = $[(Dt - Dt-1) / Dt-1]$	Ratio
6	Interaction of earnings persistence with earning aggressiveness	Interaction 1	Earning Persistence * Earning Aggressiveness	Ratio
7	Interaction of earning persistence with earning smoothing	Interaction 2	Earning Persistence * Earning Smoothing	Ratio
8	Earning persistence	NIBE • Accrual Quality (AKRU)	$\text{NIBEt} / \text{TAt} = \alpha + \beta$ $\text{NIBE } t / \text{TAt-1} + \varepsilon$ • AKRU: $\sigma(\ddot{v})$ = Standard deviation from estimation residual on TCAt / $\text{Asset-1} = \alpha + \beta 1\text{CFOt} / \text{Asset-1} + \beta 2\text{CFOt} / \text{Asset} + \varepsilon$ $\text{CFO} = \text{NIBE} - \text{TAccrual}$	Ratio

Method Analysis: This study uses the statistical methods of regression and correlation analysis aiming to test the effect of independent variables (earnings aggressiveness and earnings smoothing) on the dependent variable (stock returns) with intervening variables (trading volume activity and cost of equity) and a moderating variable (earnings persistence). The equation is:

$$\text{TVA} = a_0 + a_1 \text{EA} + a_2 \text{ES} + e_1 \dots\dots\dots (1)$$

$$\text{TVA} = b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2 \dots\dots\dots (2)$$

$$\text{TVA} = c_0 + c_1 \text{EA} + c_2 \text{ES} + c_3 \text{PL} + c_4 | \text{EA-PL} | + c_5 | \text{ES-PL} | + e_3 \dots\dots\dots (3)$$

$$\text{COE} = a_0 + a_1 \text{EA} + a_2 \text{ES} + e_1 \dots\dots\dots (4)$$

$$\text{COE} = b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2 \dots\dots\dots (5)$$

$$\text{COE} = c_0 + c_1 \text{EA} + c_2 \text{ES} + c_3 \text{PL} + c_4 | \text{EA-PL} | + c_5 | \text{ES-PL} | + e_3 \dots\dots\dots (6)$$

$$\text{RS} = a_0 + a_1 \text{EA} + a_2 \text{ES} + a_3 \text{PL} + a_4 \text{TVA} + a_5 \text{COE} + e_1 \dots\dots\dots (7)$$

$$\text{RS} = b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + b_4 | \text{EA-PL} | + c_5 | \text{ES-PL} | + b_6 \text{TVA} + b_7 \text{COE} + e_2 \dots\dots\dots (8)$$

Moderating: The interaction test is called Moderated Regression Analysis (MIRA). This test is done by multiplying the moderating variable (earnings persistence) with the independent variables (earnings aggressiveness and earnings smoothing). If the multiplication of independent variables and moderating variable is significant, it can be concluded that the variable moderates the relationship between independent variables and dependent variable. Below is the proposed equation:

$$\text{TVA} = a_0 + a_1 \text{EA} + a_2 \text{ES} + e_1 \dots\dots\dots (1)$$

$$\text{TVA} = b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2 \dots\dots\dots (2)$$

$$\text{TVA} = c_0 + c_1 \text{EA} + c_2 \text{ES} + c_3 \text{PL} + c_4 | \text{EA-PL} | + c_5 | \text{ES-PL} | + e_3 \dots\dots\dots (3)$$

$$\text{COE} = a_0 + a_1 \text{EA} + a_2 \text{ES} + e_1 \dots\dots\dots (4)$$

$$\text{COE} = b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2 \dots\dots\dots (5)$$

$$\text{COE} = c_0 + c_1 \text{EA} + c_2 \text{ES} + c_3 \text{PL} + c_4 | \text{EA-PL} | + c_5 | \text{ES-PL} | + e_3 \dots\dots\dots (6)$$

$$\text{RS} = d_0 + d_1 \text{EA} + d_2 \text{ES} + d_3 \text{PL} + d_4 | \text{EA-PL} | + c_5 | \text{ES-PL} | + d_6$$

$$\text{TVA} + d_7 \text{COE} + e_1 \dots\dots\dots (7)$$

Mediation: The variable regression analysis of causal mediation steps is introduced by Barron and Kenny (1986). The proposed equation is:

$$\text{TVA} = a_0 + a_1 \text{EA} + a_2 \text{ES} + a_3 \text{PL} + e_1 \dots\dots\dots (1)$$

$$\text{COE} = b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2 \dots\dots\dots (2)$$

$$\text{RS} = c_0 + c_1 \text{EA} + c_2 \text{ES} + c_3 \text{PL} + c_4 \text{TVA} + c_5 \text{COE} + e_3 \dots\dots\dots (3)$$

4. Findings and Analysis

Moderating Test Analysis: The moderating variable in this study uses the method of absolute difference test value by Ghozali (2005). The proposed equation is as follows:

$$\begin{aligned} \text{TVA} &= a_0 + a_1 \text{EA} + a_2 \text{ES} + e_1 \dots\dots\dots (1) \\ \text{TVA} &= b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2 \dots\dots\dots (2) \\ \text{TVA} &= c_0 + c_1 \text{EA} + c_2 \text{ES} + c_3 \text{PL} + c_4 | \text{EA} - \text{PL} | + c_5 | \text{ES} - \text{PL} | + e_3 \dots\dots (3) \\ \text{COE} &= a_0 + a_1 \text{EA} + a_2 \text{ES} + e_1 \dots\dots\dots (4) \\ \text{COE} &= b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2 \dots\dots\dots (5) \\ \text{COE} &= c_0 + c_1 \text{EA} + c_2 \text{ES} + c_3 \text{PL} + c_4 | \text{EA} - \text{PL} | + c_5 | \text{ES} - \text{PL} | + e_3 \dots\dots (6) \end{aligned}$$

Table 2: Equation - $\text{TVA} = a_0 + a_1 \text{EA} + a_2 \text{ES} + e_1$

Variable	B	SE	Beta (β)	t	Sig.
<i>Constant</i>					
Earning Aggressiveness (EA)	0.262	0.053	0.405	4.935	0,000
Earning Smoothing (ES)	-1.274	0.518	-0.202	-2.461	0.015
R	0.05				
R ²	0,255				
Adjusted R ²	0,243				
SEE	0.66408				
F	20.917				
Sig. F	0,000				

Source: Data output SPSS

The model of goodness of fit can be done in two ways, namely the R-square value and the significance of F. The results show the R-square of 0.255 and $F = 20.917$ (sig. 0.000) as depicted in Table 2. The variables included in the regression model have the ability to explain the trading volume activity by 25.5 percent, while the remaining 74.5 percent are explained by other factors not included in the regression model. The earnings smoothing coefficient has a value of -1274, which indicates a negative and significant effect (sig 0.015), while earnings aggressiveness coefficient value of 0.262 has a positive and significant effect (sig 0.0000) on trading volume activity.

Table 3: Equation - $\text{TVA} = b_0 + b_1 \text{EA} + b_2 \text{ES} + b_3 \text{PL} + e_2$

Variable	B	SE	Beta (β)	t	Sig.
<i>Constant</i>					
Earning Aggressiveness (EA)	0.083	0.64	0.013	0.13	0.897
Earning Smoothing (ES)	0.223	0.052	0.344	4.259	0
Earning Persistence (PL)	0.214	0.064	0.349	3.365	0.001
R	0,565				
R ²	0,319				
Adjusted R ²	0,302				
SEE	0.63766				
F	18.898				
Sig. F	0,000				

Source: Data output SPSS

As depicted in Table 3, it is found that *R-square* value is 0.319 and F is 18.898 = (sig. 0.000). The variables included in the regression model have the ability to explain the trading volume activity by 31.9 percent, while the remaining 68.1 percent are explained by other factors not included in the regression model. The earnings smoothing coefficient has a value of 0.083, which indicates a positive but insignificant (sig

0.897) effect on trading volume activity, and These resultss are consistent with Sunarto (2008) who states that the earnings smoothing insignificantly affects the trading volume activity and altogether rejects the findings by Bhattacharya et al. (2003) that earnings smoothing has a significant and negative effect on the trading volume activity.

Moreover, the earnings aggressiveness has a coefficient value of 0.223, indicating the positive and significant influence (sig 0.0000) on the trading volume activity. These results is aligned with a research done by Bhattacharya et al. (2003) that the earnings aggressiveness has a positive effect on the trading volume activity. This is also supported by Beaver (2002) who states that the total (aggregate) accrual can not capture and it can also potentially misspecify the earnings for long-term growth. Similarly, with a study done by Sunarto (2008) it is stated that earnings aggressiveness negatively affect trading volume activity, while Bhattacharya et al. (2003) also showed that earnings aggressiveness significantly positive effect on trading volume. The earnings persistence has a coefficient value of 0.214 that positively significant influence on trading volume activity. This implies a significant earnings persistence variable (sig 0.001) acted as a moderating variable. Previous studies by Sloan (1996) find that the components of cash flow in earnings have a higher persistence than the accrual component. Persistence here is the profits of a company's ability to survive in the future. Accrual components have lower persistence than the cash flow component due to the level of subjectivity in the determination of high accruals. Meanwhile, a research by Barth et al. (2001) has been in harmony with Sloan's findings.

Table 4: Equation - - $TVA = c_0 + c_1 EA + c_2 ES + c_3 PL + c_4 |EA-PL| + c_5 |ES-PL| + e_3$

Variable	B	SE	Beta (β)	t	Sig.
Constant	1.575	0.1		15.759	0,000
Earning Agressiveness (EA)	0.321	0.062	0.421	5.197	0,000
Earning Smoothing (ES)	0.052	0.078	0.068	0.658	0.512
Earning Persistence (PL)	0.33	0.078	0.432	4.207	0,000
Interaction EA.PL	-0.248	0.078	-0.258	-3.181	0.002
Interaction ES.PL	-0.023	0.052	-0.034	-0.434	0.665
R	0,617				
R ²	0,380				
Adjusted R ²	0,354				
SEE	0.61348				
F	14.595				
Sig. F	0,000				

Source: Data output SPSS

As depicted in Table 4, the *R-square* value is 0.380 and $F = 14.595$ (*sig.* 0.000). The variables included in the regression model have the ability to explain the trading volume activity by 38.0 percent, while the remaining 62.0 percent are explained by other factors not included in the regression model. The earnings smoothing coefficient has a value of 0.052, indicating a positive but insignificant (*sig* 0.512) effect on the trading volume activity, and earnings aggressiveness gives a coefficient value of 0.321, indicating a significant and positive effect on trading volume activity. In turn, earnings persistence has a coefficient value of 0.330 which gives a significant and positive influence on trading volume activity. This means, earnings persistence significantly serves as the moderating variable.

As depicted in Table 4, the *R-square* value is 0.195 and $F = 14.777$ (*sig.* 0.000). The variables included in the regression model have the ability to explain trading volume activity by 19.5 percent, while the remaining 80.5 percent is explained by other factors not included in the regression model. The earnings smoothing coefficient has a value of -0.122, which indicates a negative and insignificant (*sig* 0.655) effect on cost of equity, and earnings aggressiveness a coefficient value of 0.141, indicating a significant and positive effect on cost of equity.

Table 5: Equation - $COE = a_0 + a_1 EA + a_2 ES + e_0$

Variable	B	SE	Beta (β)	t	Sig.
Constant	1.946	1.225		1.589	0.115
Earning Smoothing (ES)	-0.122	0.273	-0.038	-0.448	0.655
Earning Aggressiveness (EA)	0.141	0.028	0.428	5.018	0,000
R	0.442				
R ²	0,195				
Adjusted R ²	0,182				
SEE	0.34989				
F	14.777				
Sig. F	0,000				

Source: Data output SPSS

Table 6: Equation - $COE = b_0 + b_1 EA + b_2 ES + b_3 PL + e_2$

Variable	B	SE	Beta (β)	t	Sig.
Constant					
Earning Smoothing (ES)	-2.452	1.488		-1.648	0.102
Earning Aggressiveness (EA)	0.816	0.326	0.255	2.506	0.014
Earning Persistence (PL)	0.113	0.027	0.345	4.254	0
R	0.56				
R ²	0,314				
Adjusted R ²	0,297				
SEE	0.32443				
F	18.427				
Sig. F	0,000				

Source: Data output SPSS

In Table 6, it shows that R-square is 0.314 and F = 18.427 (sig. 0.000). The variables included in the regression model have the ability to explain the cost of equity of 31.4 percent while the remaining 68.6 percent is explained by other factors not included in the regression model.

The earnings smoothing coefficient has a value of 0.18, and it indicates a positive and significant effect (sig 0.014) on cost of equity. This hypothesis testing is different from that in the research by Francis et al. (2004), and Tucker and Zarowin (2006). Francis et al. (2004) show that the smoothness significantly has a positive effect on the cost of equity, while, Tucker and Zarowin (2006) show that income smoothing significantly leaves a positive effect on dividend yield. However, Bhattacharya et al. (2003) have aligned this findings by stating that earnings smoothing does not significantly affect the cost of equity based on dividend growth. Meanwhile, the earnings aggressiveness has a coefficient of 0.113 significantly has a positive effect (sig 0.000) on the cost of equity. These resultss is further supported by Bhattacharya et al. (2003) who state that earnings aggressiveness significantly has a positive effect on cost of equity based on dividend growth. This is aligned with a study by Sunarto (2008) who mentions that earnings aggressiveness positively influences the cost of equity. He argues that if the policy of earnings aggressiveness cannot describe the true economic profit, then the policy will bring earnings opacity. Moreover, the earnings persistence coefficient value of 0.032 has a significant effect on the cost of equity. This significance of earnings persistence (sig 0.000) means that is can act as a moderating variable.

In Table 7, it shows that the R-square is 0.351 and F = 12.850 (sig. 0.000). The variables included in the regression model are able to explain the cost of equity of 35.1 percent while the remaining 64.9 percent are explained by other factors not included in the regression model. Moreover, the earnings smoothing has a coefficient value of 0.092, which means that it has a positive and significant influence (sig 0.000) on cost of equity and earnings aggressiveness has a coefficient value of 0.149, meaning that it has positive and significant influence (sig 0.000) on cost of equity. Meanwhile, the earnings persistence has a coefficient value of 0.200 giving a significant influence (sig 0.014) on cost of equity. This implies a

significant earnings persistence variable (sig 0.014), that acts as a moderating variable. The interaction earnings smoothing * earnings persistence (interaction ES.PL) – 0.054 coefficient value significantly has a negative effect on the cost of equity, while the interaction between earnings aggressiveness * earnings persistence (interaction EA.PL) with a coefficient value of 0.046 negatively has an insignificant effect on the cost of equity. The regression results indicate that the earnings persistence significantly functions to weaken the relationship between earnings smoothing and cost of equity.

Table 7: Equation - - COE = c0 + ci EA + c2 ES + C3 PL + c4 |EA-PL| + c5 |ES-PL| + e3

Variable	B	SE	Beta (β)	t	Sig.
Constant	1.806	0.052		34.844	0,000
Earning Agressiveness (EA)	0.149	0.032	0.386	4.655	0,000
Earning Smoothing (ES)	0.092	0.041	0.237	2.256	0.026
Earning Persistence (PL)	0.2	0.041	0.517	4.914	0,000
Interaction EA.PL	-0.046	0.04	-0.095	-1.138	0.257
Interaction ES.PL	-0.054	0.027	-0.161	-1.985	0.049
R	0,592				
R ²	0,351				
Adjusted R ²	0,323				
SEE	0.3182				
F	12.85				
Sig. F	0,000				

Source: Data output SPSS

Table 8: F test – RS = c0 + c1 EA + c2 ES + c3 PL + c4 TVA + c5 COE + e0

Variable	B	SE	Beta (β)	t	Sig.
Constant	6.158	1.514		4.068	0,000
Earning Agressiveness (EA)	0.21	0.031	0.404	6.799	0,000
Earning Smoothing (ES)	-1.026	0.336	-0.203	-3.051	0.003
Earning Persisistence (PL)	-0.008	0.037	-0.017	-0.227	0.82
Trading Volume Activity	0.324	0.047	0.404	6.945	0,000
Cost Of Equity	0.247	0.092	0.156	2.688	0.008
R	0.859				
R ²	0.737				
Adjusted R ²	0.722				
SEE	0.32289				
F	63.488				
Sig. F	0,000				

Source: Data output SPSS

In Table 8, it shows that the R-square is 0.727 and F = 63.488 (sig. 0.000). The variables included in the regression model have the ability to explain the cost of equity of 72.7 percent while the remaining 0.273 percent is explained by other factors not included in the regression model. Moreover, the earnings smoothing has a coefficient value of -1.026, meaning that it has a negative and significant influence (sig 0.003) on stock return and the earnings aggressiveness has a coefficient value of 0.210, meaning that it has has positive and significant influence (sig 0.000) on stock return. While, the earnings persistence has a coefficient value of -0.008, pointing to the negative and insignificant influence (sig 0.820) on stock return and the trading volume activity has a coefficient value of -0.324, with a positive and significant influence (sig 0.000) on stock return. This indicates that the more number of shares are traded, the higher likelihood that the stock prices will rise. The increase in stock prices caused by the increase in the volume of trade shows optimism to a stock market. This study is consistent with the research conducted by Guner et al. (2008) and Kamath (2008), where trading volumes are significantly positively related to stock return. For the cost of equity, it is found that the coefficient value of 0.247 significantly has a positive

effect (sig 0.008) on stock returns. This is aligned with the research conducted by Francis et al. (2004) and Ohlson (2006) where the cost of equity significantly affects stock prices.

Mediating Test Analysis: The mediation tests was done using SPSS as a tool to analyze the results as follows:

1. Trading volume activity (TVA) mediating earnings aggressiveness on stock returns

Table 9: Trading volume activity (TVA) mediating earnings aggressiveness on stock returns

DIRECT and TOTAL EFFECTS						
	Coeff	s.e.	t	Sig(two)		
b(YX)	.3726	.0326	11.4265	.0000		
b(MX)	.3025	.0516	5.8619	.000		
b(YM.X)	.3632	.0468	7.7605	.0000		
b(YX.M)	.2627	.0303	8.6697	.0000		
INDIRECT EFFECT And SIGNIFICANCE USING NORMAL DISTRIBUTION						
	Value	s.e.	LL 95 CI	UL 95 CI	Z	Sig(two)
Effect	.1099	.0236	.0636	.1562	4.6530	.0000
VARIABLES In SIMPLE MEDIATION MODEL						
Y	RS					
X	EA					
M	TVA					

Source: Data output SPSS

From the above results, in the first equation, unstandardized coefficients of earnings aggressiveness on stock returns are 0.3726 and they are significant at 0.0000, and this indicates that there is a positive effect of earnings aggressiveness on stock returns. In the second equation, the unstandardized coefficients of earnings aggressiveness on the trading volume activity (TVA) are 0.303 and are significant at 0.0000, indicating that there is a significant positive effect of earnings aggressiveness on the trading volume activity, while in the third equation, the unstandardized coefficients of mediator trading volume activity on stock returns with earnings aggressiveness as control variable are 0.363 and significant at 0.0000. Lastly, in the fourth equation, the unstandardized coefficients are 0.263 significantly at 0.0000, meaning that they have a direct effect of earnings aggressiveness on stock returns with a control variable trading volume activity. Meanwhile, the indirect effect and significance of the value of 0.109 (0.0000) imply that the trading volume activity is mediating the earnings aggressiveness on stock returns.

2. Trading volume activity (TVA) mediates earnings smoothing on stock returns

Table 10: Trading volume activity (TVA) mediates earnings smoothing on stock returns

Table 16: Reading Volume Activity (TV) mediates earnings shock on stock						
DIRECT And TOTAL EFFECTS						
Coeff	s.e.	t	Sig(two)			
b(YX)	-2.3974	.4015	-5.9709	.0000		
b(MX)	-2.0599	.5374	-3.8327	.0002		
b(YM.X)	.4798	.0518	9.2547	.0000		
b(YX.M)	-1.4091	.3270	-4.3097	.0000		
INDIRECT EFFECT And SIGNIFICANCE USING NORMAL DISTRIBUTION						
Value	s.e.	LL 95 CI	UL 95 CI	Z	Sig(two)	
Effect	-.9884	.2805	-1.5381	-.438	-3.5236	.0004
VARIABLES In SIMPLE MEDIATION MODEL						
Y	RS					
X	ES					
M	TVA					

Source: Data output SPSS

From the above results, in the first equation unstandardized coefficients of earnings smoothing on stock returns is -2397 were significantly at 0.0000, indicating that there is a negative effect of earnings smoothing on stock returns. In the second equation, the unstandardized coefficients of earnings smoothing on the trading volume activity (TVA) were -2059 and it was significant at 0.0002, indicating that there is a significant negative effect of earnings smoothing on the trading volume activity, while in

the third equation, the unstandardized coefficients of mediator trading volume activity on stock returns with earnings smoothing as the control variable was 0.479 and they were significant at 0.0000. Lastly, in the fourth equation, the unstandardized coefficients were -1409 and they were significant at 0.0000, which means that they have a direct effect of earnings smoothing on stock returns with a control variable trading volume activity. The indirect effect and significance of the value of -0.988 (0.0004) imply that the trading volume activity is mediating the earnings smoothing on stock returns. Bhattacharya et al. (2003) determine the basis of earnings smoothing the correlation between changes in accruals and changes in cash flows which are expected to produce a negative correlation number.

3. Trading volume activity (TVA) mediating the earnings persistence on stock returns.

Table 11: Trading volume activity (TVA) mediating the earnings persistence on stock returns

DIRECT And TOTAL EFFECTS						
	Coeff	s.e.	t	Sig(two)		
b(YX)	.2561	.0378	6.7700	.0000		
b(MX)	.2853	.0489	5.8318	.0000		
b(YM.X)	.4574	.0565	8.1018	.0000		
b(YX.M)	.1256	.0346	3.6303	.0004		
INDIRECT EFFECT And SIGNIFICANCE USING NORMAL DISTRIBUTION						
	Value	s.e.	LL 95 CI	UL 95 CI	Z	Sig(two)
Effect	.1305	.0277	.0762	.1848	4.7096	.0000
VARIABLES In SIMPLE MEDIATION MODEL						
Y	RS					
X	PL					
M	TVA					

Source: Data output SPSS

From the above results, in the first equation, unstandardized coefficients of earnings persistence on stock returns were 0.256 and significant at 0.0000, indicating a positive effect of earnings persistence on stock returns. In the second equation, the unstandardized coefficients of earnings persistence on the trading volume activity were 0.285 and they were significant at 0.0000, indicating that there is a significant positive effect of earnings persistence on the trading volume activity, while in the third equation, the unstandardized coefficients of mediator trading volume activity on stock returns with earnings persistence as the control variable were 0.457 and were significant at 0.0000. Lastly, in the fourth equation, the unstandardized coefficients of 0.125 were significant at 0.0000, implying a direct effect of earnings persistence on stock returns with a control variable which is trading volume activity. Moreover, the indirect effect and significance of the value of 0.1305 (0.0000) imply that the trading volume activity mediates the earnings persistence on stock returns. Referring to the signaling motivation, the earnings persistence is expected to give a positive signal to financial statement users.

4. Cost of Equity (COE) mediating earnings aggressiveness on stock returns

Table 12: Cost of Equity (COE) mediating earnings aggressiveness on stock returns

DIRECT And TOTAL EFFECTS						
	Coeff	s.e.	t	Sig(two)		
b(YX)	.3726	.0326	11.4265	.0000		
b(MX)	.1444	.0266	5.4356	.0000		
b(YM.X)	.2818	.1082	2.6053	.0103		
b(YX.M)	.3319	.0355	9.3525	.0000		
INDIRECT EFFECT And SIGNIFICANCE USING NORMAL DISTRIBUTION						
	Value	s.e.	LL 95 CI	UL 95 CI	Z	Sig(two)
Effect	.0407	.0176	.0063	.0751	2.3177	.0205
VARIABLES In SIMPLE MEDIATION MODEL						
Y	RS					
X	EA					
M	COE					

Source: Data output SPSS

From the above results of unstandardized coefficients on earnings aggressiveness in the first equation on stock returns of 0.3726 (sig 0.0000), there is an indication of a positive influence of earnings aggressiveness on stock returns. In the second equation, the unstandardized coefficients of earnings aggressiveness on the cost of equity were 0.1444 (sig 0.000) that indicate a significant, positive effect of earnings aggressiveness on the cost of equity, whereas for the unstandardized coefficients in the third equation, the influence of the mediator variable of cost of equity on stock returns with a control variable of earnings aggressiveness is 0.2818 (sig 0.0103). Finally, the unstandardized coefficients in the four equations indicate a direct influence of earnings aggressiveness on stock returns by controlling the mediator variable of cost of equity of 0.3319 (sig 0.0000). The indirect effect and significance of the value of 0.407 (0.0000) imply that the cost of equity is mediating the earnings aggressiveness on stock returns. The cost of equity serves to mediate the earnings aggressiveness and stock returns. According to the agency theory, particularly for signaling motivation, discretionary accrual policy (total accruals) which generates earnings aggressiveness impact on the profit for the year is higher than the actual earnings. If the profit for the year is relatively high, the management on earnings aggressiveness is used as a positive signal to affect the current dividend growth (Sunarto, 2008).

5. Cost of Equity (COE) mediating earnings smoothing on stock returns

Table 13: Cost of Equity (COE) mediating earnings smoothing on stock returns

DIRECT And TOTAL EFFECTS						
	Coeff	s.e.	t	Sig(two)		
b(YX)	-2.3974	.4015	-5.9709	.0000		
b(MX)	-.5430	.2840	-1.9122	.0582		
b(YM.X)	.6173	.1152	5.3603	.0000		
b(YX.M)	-2.0622	.3681	-5.6030	.0000		
INDIRECT EFFECT And SIGNIFICANCE USING NORMAL DISTRIBUTION						
	Value	s.e.	LL 95 CI	UL 95 CI	Z	Sig(two)
Effect	-.3352	.1890	-.7056	.0352	-1.7738	.0761
VARIABLES In SIMPLE MEDIATION MODEL						
Y	RS					
X	ES					
M	COE					

Source: Data output SPSS

From the above results of unstandardized coefficients on earnings smoothing in the first equation on stock returns of -2.3974 (sig 0.0000), it indicates a negative influence of earnings smoothing on stock returns. In the second equation, the unstandardized coefficients of earnings smoothing on the cost of equity were -0.5430 (sig 0.0582) indicating an insignificant value and a negative effect of earnings smoothing on the cost of equity. For the unstandardized coefficients in the third equation, the influence of the mediator variable of cost of equity on stock returns with a control variable of earnings smoothing were 0.6173 (sig 0.0000). Finally, the unstandardized coefficients in the four equations indicate a direct influence of earnings smoothing on stock returns by controlling the mediator variable of cost of equity of -2.0622 (sig 0.0000). The indirect effect and significance of the value of -0.3352 (0.0761) imply that the cost of equity is not mediating the earnings smoothing on stock returns. According to the signaling motivation, the management uses its private information in doing policy smoothing through net income before extraordinary items (NIBE) to affect dividend growth. Meanwhile, based on the agency theory, the management is obliged to increase the wealth of the shareholders, including through dividend growth.

From the below results of unstandardized coefficients on earnings persistence in the first equation on stock returns of 0.256 (sig 0.0000), it indicates a positive influence of earnings persistence on stock returns. In the second equation, the unstandardized coefficients of earnings persistence on the cost of equity is -0.1337 (sig 0.000) which indicates a significant, positive effect of earnings persistence on the cost of equity. Meanwhile, the unstandardized coefficients in the third equation, the influence of the mediator variable of cost of equity on stock returns with a control variable of earnings persistence is 0.457 (sig 0.0006). Finally, the unstandardized coefficients in the four equations indicate a direct influence of earnings persistence on stock returns by controlling the mediator variable of cost of equity of 0.1951 (sig 0.0000). The indirect effect and significance of the value of 0.0611 (0.0000) imply that the cost of equity is mediating the earnings persistence on stock returns. These results are supported by previous investigators. For example, Francis et al. (2004) have shown that the persistence of earnings

leaves a significant and positive effect on the cost of equity. At the same time, Tucker and Zarowin (2006) state that the persistence of earnings (proxied by earnings per share) has a positive effect on dividend yield. Penman and Zhang (2002) also posit that the persistence of earnings positively related to dividend stock return.

6. Cost of Equity (COE) mediating the persistence of earnings on stock returns.

Table 14: Cost of Equity (COE) mediating the persistence of earnings on stock returns

DIRECT And TOTAL EFFECTS					
	Coeff	s.e.	t	Sig(two)	
b(YX)	.2561	.0378	6.7700	.0000	
b(MX)	.1337	.0253	5.2897	.0000	
b(YM.X)	.4566	.1290	3.5392	.0006	
b(YX.M)	.1951	.0401	4.8669	.0000	
INDIRECT EFFECT And SIGNIFICANCE USING NORMAL DISTRIBUTION					
	Value	s.e.	LL 95 CI	UL 95 CI	Z Sig(two)
Effect	.0611	.0210	.0199	.1023	2.9059 .0037
VARIABLES In SIMPLE MEDIATION MODEL					
Y	RS				
X	PL				
M	COE				

Source: Data output SPSS

5. Conclusion and Recommendation

Based on the tests' results, this study has come to its conclusion, which is summed up in the following points:

- The earnings aggressiveness and earnings smoothing can simultaneously and significantly affect the trading volume activity. The earnings smoothing has negative effect and the earnings aggressiveness has positive and significant effect (sig 0.000) on trading volume activity. Meanwhile, the trading volume activity has a significant and positive influence on the return of stock
- The earnings persistence serves as a moderating variable of earnings aggressiveness, while earnings smoothing on the trading volume activity.
- The earnings aggressiveness, earnings persistence and earnings smoothing have an effect on stock returns through the trading volume activity.
- The earnings aggressiveness and earnings smoothing affect partially and simultanously on the cost of equity. Meanwhile, the cost of equity is significant and can positively affect the return of stock.
- The earnings persistence moderates the relationship between earnings aggressiveness, also earnings smoothing and the cost of equity. By contrast, the earnings aggressiveness, earnings smoothing and earnings persistence have an effect on return of stock through the trading volume activity.

This study suggests that further research needs to add other dependent variables and not the earnings aggressiveness or earnings smoothing alone. Also, future researchers need to consider adding the intervening and moderating variables on stock returns. Moreover, the object of the study shall be widened to using other additional measurements, not limited to the banking companies per se.

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