

## THE INFLUENCE OF EARNINGS AGGRESSIVENESS AND SMOOTHING ON THE COST OF EQUITY

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### ABSTRACT

*This study wants to investigate the influence of earnings aggressiveness and smoothing on the cost of equity by earnings persistence as a moderating variable. Also, to control the moderating effect, we use the previous book to market value ratio. The population is the manufacturing companies in the capital market of Indonesia from 2015 to 2017, having profits and paying dividends. By this sampling framework, we employ 23 companies. To acquire the total samples of 19, we use the Slovin formula with a 10% margin of error. After that, we take the 19 companies as the samples by a simple random sampling method. Likewise, this research adopts the regression model to analyze the pooling data. To conclude, this research shows that earnings aggressiveness influences the cost of equity positively. However, earnings smoothing affects it negatively; earnings persistence does not have an impact on the equity cost and cannot be a moderating variable. As the implication of this research, the information containing quality will decrease the equity cost and help the investors to transact the stocks.*

Keywords: equity cost, earnings aggressiveness, earnings smoothing, and earnings persistence

### INTRODUCTION

A statement in Financial Accounting Concepts Number 1 requires financial reporting providing information on company performance during the specific period. Moreover, the earnings quality becomes the reflection of this performance; therefore, this information is beneficial for decision-makers to evaluate the company (Dechow, Ge, & Schrand, 2010). The function of earnings quality shows the company's performance and the report of prediction, stability, persistence, and variability of earnings (Bellovary, Giacomino, & Akers, 2005). To measure this quality, furthermore, the superior accrual, the earnings persistence, *predictability*, and *smoothness*, the *relevance of value*, time accuracy, as well as conservatism become the choices of measurement for researchers (Francis, LaFond, Olsson, & Schipper, 2004; Dechow et al., 2010). According to Ma & Ma (2017), the time-series or cross-sectional regression using the standard to compute earnings variation based on the industry can also be a method to estimate the earnings superiority.

The earnings of the company can be opaque due to the complex interactions among managerial motivation, accounting standards, and audit quality. The profits opacity happens because of the manipulation of earnings done by managers, the loosen and bad accounting standard, and the weak implementation of the benchmark (Bhattacharya, Daouk, & Welker, 2003). Bhattacharya et al. (2003), additionally, explain three types of earnings opacity. Firstly, earnings aggressiveness. When it exists, the managers tend to report a higher amount of earnings than it should be. Secondly, the avoidance of loss reporting. Thirdly, profit smoothing. This circumstance happens when the managers make the profits the same at some reporting periods.

Several previous researchers display the effort to test the earnings aggressiveness (EA) influence on the cost of equity (COE) (Bhattacharya, Daouk, & Welker, 2003; Sunarto, 2010; Sunarto, Murwaningsari, & Mayangsari, 2016a; Andriani & Afriyenti, 2019; Malau, Murwaningsari, & Mayangsari, 2020) and earnings smoothing (ES) on COE (Bhattacharya et al., 2003; McInnis, 2010; Chen, 2013; Sebai et al., 2015; Sunarto et al., 2016a; Sunarto et al., 2016b; Andriyani & Afriyenti, 2019; Bekheet, Faramawi, & Ezat, 2019), and earnings persistence (EP) on COE (Eliwa, Haslam, & Abraham, 2006; Sunarto, 2010; Sebai, Messai, & Jouini, 2015; Bekheet, Faramawi, & Ezat, 2019). Unluckily, the results are dissimilar

- In the influence of EA on the COE, the research of Bhattacharya et al. (2003), Sunarto (2010), Sunarto et al. (2016a), Andriani & Afriyenti (2019), and Malau, Murwaningsari & Mayangsari (2020) confirm a positive. On the other hand, the investigation of Sunarto et al. (2016b) and Delita & Mulyani (2018) affirms a negative.
- In consequence of ES on the COE, McInnis (2013), Sebai et al. (2015), and Sunarto et al. (2016a) find a positive. However, the investigation of McInnis (2010), Chen (2013), Sunarto et al. (2016b) locate a negative. Meanwhile, Bhattacharya et al. (2003), Andriani & Afriyenti (2019), and Bekheet et al. (2019) exhibit no influence.
- In the impact of EP on COE, Eliwa et al. (2006) efficaciously find that a negative. Conversely, Sunarto (2010) and Bekheet et al. (2019) show a positive; and Sebai et al. (2015) display no effect.

Also, the number of research indicating that earnings persistence moderates the effect of EA on COE is still few, only two, as displayed by Sunarto (2010) and Delita & Mulyani (2018). Meanwhile, the research concern to prove EP moderates the influence of ES on COE is infrequent. Two conditions motivate this study to examine EP\*EA and EP\*ES besides testing the partial impact of EA, ES, and EP on COE because of the conflicting evidence shown in advance. Therefore, the goal of this study is to prove the EA and ES influence on the COE moderated by earnings persistence belongs to the manufacturing companies listed on the capital market of Indonesia.

**CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT**

**Cost of Equity**

As mentioned by Bhattacharya et al. (2003), the cost of equity (COE) is the return desired by investors when they invest money in the share ownership in a company. In their study, they adopt a dividend yield model-based formula in the first equation to calculate it.

$$COE = \text{current dividend yield} \times (1 + \text{current growth rate of dividends}) + \text{current growth rate of dividend} \dots\dots\dots \text{(Equation 1)}$$

The dividend yield model of Bhattacharya et al. (2003) gets adopted by the researchers in Indonesia, like Andriani & Afriyenti (2019), to calculate the equity cost. By following them, we decide to utilize the dividend yield model because the elements are easily observable, and their value tends to be steady.

Besides this dividend yield model, some scholars in Indonesia employ the capital asset pricing model [see Ardiansyah & Siregar (2013), Muhammad & Siregar (2014), Barvidi (2015) (2015), Nurjanati & Rodoni (2015), Nasih, Komalasari, & Madyan (2016), Pramita (2016), Kiswanto & Fitriani (2019), Malau et al. (2020)]. Some of them utilize the dividend growth model [see Sunarto (2010), Sunarto et al. (2016b), Delita & Mulyani (2018)], the price-earnings growth model [see Sunarto et al. (2016a)], the discounted future cash flow model (Lahaya, 2017; Yolanda & Mulyani, 2019).

Practically, according to the survey in 2017, the equity cost weight owned by the companies listed on the capital market of Indonesia is 0.7, and another is from the debt cost. To cover the equity cost, they have to pay for 0.7 from the weighted average cost of capital of 11.6%, i.e., 8.12% (Become A Better Investor, 2017).

**Earnings aggressiveness**

Aggressiveness is one of the opaque earnings (Bhattacharya et al., 2003). To measure the EA, some components of total accruals in the current period are essential as the numerator and total assets in the previous period (TA<sub>t-1</sub>) as the denominator. Furthermore, the components of total accruals intended are the increase or decrease in the current assets (ΔCA), current liabilities (ΔCL), cash (ΔCASH), the long term liabilities near the maturity time (ΔSTD), depreciation and amortization (DEPAM) and the change in tax payable (ΔTP). Moreover, the formula of the EA is obtainable in the second equation.

$$EA = \frac{\text{Total accruals}_t}{TA_{t-1}} = \frac{\Delta CA_t - \Delta CL_t - \Delta CASH_t - \Delta STD_t - DEPAM_t + \Delta TP_t}{TA_{t-1}} \dots\dots\dots \text{(Equation 2)}$$

**Earnings smoothing**

Smoothing is another kind of opaque earnings (Bhattacharya et al., 2003). To measure earnings smoothing (ES), moreover, we use the variance (σ)-based formula utilized by Francis et al. (2004) in the third equation.

$$ES = \frac{\sigma\left(\frac{NPBE_t}{TA_{t-1}}\right)}{\sigma\left(\frac{CFO_t}{TA_{t-1}}\right)} \dots\dots\dots \text{(Equation 3)}$$

This formula in that equation involves net profits before extraordinary items (NPBE) and cash flow from operating activities (CFO) in the current period (t), as well as total assets in the previous period (t-1).

**Earnings persistence**

Earnings persistence explains that sustainable profits are the reflection of earnings quality so that they are predictable in the future (Francis et al., 2004). The more insistent, the more informative the earnings are (Tucker & Zarowin, 2006). By mentioning to Francis et al. (2004), we use the slope of the regression coefficient (θ<sub>1</sub>) from the autoregressive net earnings (NE) model in the fourth equation to measure earnings persistence.

$$NE_t = \theta_0 + \theta_1 NE_{t-1} + \epsilon_{1t} \dots\dots\dots \text{(Equation 4)}$$

**Earnings aggressiveness and smoothing, and the cost of equity**

The earnings aggressiveness (EA) and earnings smoothing (ES) will uplift the asymmetric information. This position will make the asymmetric information bigger, and the current transaction costs are higher than the previous ones. Hence, this situation motivates the shareholders to request a higher return as compensation, leading to a higher cost of equity (COE) borne by the company (Bhattacharya et al., 2003). The explanation of Bhattacharya et al. (2003) obtains the confirmation from Sunarto (2010), Sunarto et al. (2016a), Andriani & Afriyenti (2019), and Malau, Murwaningsari & Mayangsari (2020) declaring a positive effect of EA on COE, as well as McInnis (2013), Sebai et al. (2015), and Sunarto et al. (2016a) announcing that a similar effect of ES on COE. Based on this information, we declare hypotheses one and two as follows.

- H<sub>1</sub>: The earnings aggressiveness influences the cost of equity positively
- H<sub>2</sub>: The earnings smoothing influences the cost of equity positively.

**Earning persistence and cost of equity**

The high sustainable profit can signal investors that the company is stable. This situation can make the company easy to get the fund with a low cost of equity (Francis, Nanda, & Olsson, 2008). The study of Eliwa, Haslam, & Abraham (2006) supports this explanation by finding a negative association between earnings persistence and the equity cost. Based on this information, we declare hypothesis three as follows.

H3: Earnings persistence influences the cost of equity negatively.

**Moderating impact of earning persistence, earnings aggressiveness, and smoothing, the cost of equity**

If the company profits are persisting, they will cut the effect of EA and ES on COE. In a statistical context, the interaction between EP and EA yields a negative impact on COE, as the study of Sunarto (2010) and Delita & Mulyani (2018) shows. Unfortunately, the research proving the interaction between EP and ES is still rare until this study gets conducted. Hence, we try to make it available by proposing that the interaction between EP and ES decreases COE.

H4a: The interaction effect between EP and EA negatively affects the cost of equity.

H4b: The interaction effect between EP and ES negatively affects the cost of equity.

**RESEARCH METHOD**

**Research Variable**

This research employs five variables classified into two types: the dependent and independent variables. The cost of equity has a position as the dependent one. However, earnings aggressiveness, smoothing, and persistence have a role as the key independent one and the book to market value, BVMR, as the control variable.

Also, to measure the cost of equity, earnings aggressiveness, smoothing, and persistence, we use the formulation in equations one, two, three, and four. Meanwhile, to measure the control variable, BVMR, this study trails Francis et al. (2004) by dividing the earlier book value of equity by the market value of equity.

**Population and Sample**

The population used is the manufacturing companies listed on the capital market of Indonesia, covering the years 2015, 2016, and 2017. In this duration, not all these companies are profitable and able to pay dividends; therefore, we remove them so that the relevant population (N) is only 23 companies. To acquire the total samples (n), furthermore, the Slovin formula by a 10% margin of error (e) gets used [see the fifth equation cited from Suliyanto (2009)].

$$n = \frac{N}{1+Ne^2} \dots\dots\dots \text{(Equation 5)}$$

By using this formula, the total samples acquired (n) are  $\frac{23}{1+23(10\%)(10\%)} = \frac{23}{1.23} = 18.699 \approx 19$  companies. After that, 19 companies are taken by a simple random sampling method from the population. After randomly selecting them, we get the name of companies to be the sample as follows.

1. Astra International Tbk. (ASII)
2. Astra Otoparts Tbk. (AUTO)
3. Chitose Internasional Tbk. (CINT)
4. Charoen Pokphand Indonesia Tbk. (CPIN)
5. Indofood CBP Sukses Makmur Tbk. (ICBP)
6. Indofood Sukses Makmur Tbk. (INDF)
7. Indah Kiat Pulp and Paper Tbk. (INKP)
8. Indocement Tunggal Prakarsa Tbk. (INTP)
9. Kalbe Farma Tbk. (KLBF)
10. Multi Bintang Indonesia Tbk. (MLBI)
11. Industri Jamu dan Farmasi Sido Muncul Tbk. (SIDO)
12. Semen Baturaja (Persero) Tbk. (SMBR)
13. Selamat Sempurna Tbk. (SMSM)
14. Sri Rejeki Isman Tbk. (SRIL)
15. Pabrik Kertas Tjiwi Kimia Tbk. (TKIM)
16. Surya Toto Indonesia Tbk. (TOTO)
17. Trisula International Tbk. (TRIS)
18. Unilever Indonesia Tbk. (UNVR)
19. Wijaya Karya Beton Tbk. (WTON)

**The method of analyzing the data**

We apply the regression model with cross-sectional and time-series data to analyze the data. To prove a moderating effect of earning persistence, we form the two equations based on Hartono (2012). The first equation consists of the model without the interaction of EP\*EA and EP\*ES (see equation six).

$$COE = \beta_{01} + \beta_{1}.EA_{it} + \beta_{2}.ES_{it} + \beta_{3}.EP_{it} + \beta_{4}.BMV_{it-1} + \epsilon_{1it} \dots\dots\dots \text{(Equation 6)}$$

Moreover, to test statistical hypotheses one, two, and three, we use the probability of the t-statistic of the regression coefficient  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and compare it with the significance level of 5% and 10%.

Meanwhile, the second equation contains the model with the interaction effect of EP\*EA and EP\*ES (see equation seven).

$$COE = \beta_{02} + \beta_{5}.EA_{it} + \beta_{6}.ES_{it} + \beta_{7}.EP_{it} + \beta_{8}.BMV_{it-1} + \beta_{9}.(EP*EA)_{it} + \beta_{10}.(EP*ES)_{it} + \epsilon_{2it} \dots\dots\dots \text{(Equation 7)}$$

Furthermore, to examine statistical hypotheses 4a and 4b, we utilize the probability of the t-statistic of the regression coefficient  $\beta_9$  and  $\beta_{10}$  and compare it with the significance level of 5% and 10%.

## RESULT AND DISCUSSION

### The test result of the first, the second, and the third hypotheses

Table 1 illustrates the estimation result of the regression model to test the effect of EA, ES, EP on COE.

**Table 1: The Estimation Result To Test The Effect of EA, ES, EP on COE**

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	2.579044	0.746353	3.455526	0.0011
EA	3.548458	1.762806	2.012960	0.0493*
ES	-2.199899	1.093253	-2.012251	0.0494*
EP	0.001006	0.000690	1.457784	0.1509 <sup>ns</sup>
BMV(-1)	0.785314	0.461069	1.703245	0.0945**

Notes:

\*) EA and ES are significant at a level of 5%.

\*\*) BMV is significant at a level of 10%

Source: Modified Output of E-Views 6.

Furthermore, the probability of the t-statistic of:

- EA is 0.0493, significant at a 5% level, and the coefficient displays a positive sign. Therefore, we receive the first hypothesis in this study. It means that the higher EA, the higher COE, and vice versa.
- ES is 0.0494, significant at a 5% level, and the coefficient shows a negative sign. Therefore, we refuse the second hypothesis in this study. It means that the higher ES, the lower COE.
- EP is 0.1509, insignificant at either a 5% or 10% level. Therefore, we reject the third hypothesis in this study. It means the EP does not affect COE, although it exhibits a positive sign.
- BMV(-1) is 0.0945, significant at a 10% level. It means that the higher of previous BMV, the higher of the current COE.

### The test result of the fourth hypothesis: the moderating effect of earnings persistence

Table 2 demonstrates the test result of the moderating effect of earning persistence (EP). The interaction effect of EP with EA (EP\*EA) and EP with ES (EP\*ES) shows the probability value of t-statistic of 0.2670 and 0.8400, respectively, that are not significant at either a 5% or 10% level. It means EP cannot perform as the moderating variable. Therefore, we decline H4a and H4b.

**Table 2: The Estimation Result To Prove The Moderating Effect of Earnings Persistence on The Influence of EA and ES on COE**

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	2.688855	0.864049	3.111924	0.0031
EA	-1.479805	4.820222	-0.306999	0.7601 <sup>ns</sup>
ES	-2.167830	1.136367	-1.907685	0.0622*
EP	0.000858	0.001494	0.574140	0.5684 <sup>ns</sup>
BMV(-1)	0.861007	0.496965	1.732530	0.0893 <sup>ns</sup>
EP*EA	0.003747	0.003338	1.122526	0.2670 <sup>ns</sup>
EP*ES	-0.000301	0.001483	-0.202927	0.8400 <sup>ns</sup>

Notes: Only ES is significant at a 10% level. Meanwhile, the rest, including EP\*EA and EP\*ES, are insignificant.

Source: Modified Output of E-Views 6.

## Discussion

In this study, the hypothesis testing results show some points. Firstly and secondly, EA possesses a positive influence on the cost of equity, but ES has a negative one.

- By proving a positive effect of EA on COE, it shows that when the firms deliver lousy information, it leads to the high asymmetric information enhancing the cost of equity. Therefore, this study supports the research evidence of Bhattacharya et al. (2003), Sunarto (2010), Sunarto et al. (2016a), Andriani & Afriyenti (2019), and Malau et al. (2020).
- By proving the opposite impact of ES on COE, it means the earnings smoothing tends to increase certain information or reduce the asymmetric information and makes the cost of equity low. Therefore, this study confirms the research evidence of McInnis (2010), Chen (2013), and Sunarto et al. (2016b).

Finally, earnings persistence does not influence the cost of equity (COE) and cannot moderate earnings aggressiveness and smoothing effect on COE. This situation, according to Delita & Mulyani (2018), occurs because the total companies with a negative value of EP are higher than those with a positive, and this study verifies it. Based on the observation of data summarized in Table 3, from 19 companies becoming the samples, ten companies have a negative value.

**Table 3: Total firms with positive and negative earnings persistence**

The condition	The number of companies	The code name of the company
The companies with negative earnings persistence	10	ASII, AUTO, CINT, CPIN, ICBP, INDF, SMBR, TKIM, TOTO, WTON
The companies with positive earnings persistence	9	INKP, INTP, KLBF, MBLI, SIDO, SMSM, SRIL, TRIS, UNVR

### Managerial Implication

Based on these results, this study recommends that companies should yield superior information to improve their value by minimizing the cost of equity. Therefore, the investors will be ready to receive the low return resulted from the low COE as the compensation of receiving it.

### CONCLUSION AND RECOMMENDATION

This study has the goal to examine the impact of earnings aggressiveness (EA) and smoothing (ES) on the cost of equity (COE) by earnings persistence as a moderating variable. After the statistical hypothesis test and the discussion get done, we infer that:

- COE gets influenced by EA positively and ES negatively.
- Earnings persistence does not affect and moderate the effect of EA and ES on COE.

The limitations of this research are the short period of observation, i.e., three years, and the total variables used, i.e., four, and the proxy to quantify COE.

- By mentioning this first limitation, the next researchers can extend the number of periods to be five years, for example.
- By denoting this second limitation, the next researchers can use the other determinants of the cost of equity, like corporate governance, earning transparency.
- By referring to this third limitation, the next researchers can use the capital asset pricing model or the price-earnings approach to measure the COE.

### REFERENCES

- Andriani, L., & Afriyenti, M. (2019). Kualitas akrual memoderasi earnings opacity terhadap biaya ekuitas (Studi empiris pada perusahaan manufaktur yang terdaftar di BEI tahun 2015-2017). *Jurnal Eksplorasi Akuntansi*, 1(3), 1363-1375.
- Ardiansyah, A., & Siregar, S. V. (2013). The effect of voluntary disclosure and earnings quality on cost of equity. *Manajemen & Bisnis*, 12(2), 143-157.
- Barvidi, D. N. S. (2015). Pengungkapan sukarela dan manajemen laba terhadap biaya modal ekuitas dengan informasi asimetri sebagai variabel intervening. *Akrual: Jurnal Akuntansi*, 7(1), 41-59.
- Become A Better Investor. (2017, April 4). *The Indonesia-Listed Companies Pay 12% for the Funds Used to Run Their Business*. Retrieved September 2020, 14, from <https://becomeabetterinvestor.net/indonesia-listed-companies-pay-12-for-the-funds-used-to-run-their-business>
- Bekheet, M. N., Faramawi, F. A. A., & Ezat, A. N. M. (2019). The Impact of Earnings Quality on Cost of Equity to improve Investment Decisions: An applied study on the Saudi Stock Market. *International Journal of Applied Engineering Research*, 14(2), 4192-4202.
- Bellovary, J. L., Giacomino, D. E., & Akers, M. D. (2005). Earnings quality: It's time to measure and report. *CPA Journal*, 75(11), 32-37.
- Bhattacharya, U., Daouk, H., & Welker, M. (2003). The world price of earnings opacity. *Accounting Review*, 78(3), 641-678.
- Chen, L. H. (2013). Income smoothing, information uncertainty, stock returns, and cost of equity. *Review of Pacific Basin Financial Markets and Policies*, 16(3), 1350020.1-1350020.34.
- 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.
- Delita, I., & Mulyani, E. (2018). Pengaruh earnings aggressiveness terhadap Cost of Equity dengan persistensi laba sebagai variabel moderating (Studi empiris pada perusahaan manufaktur yang terdaftar di BEI tahun 2014-2016). *Jurnal Wahana Riset Akuntansi*, 6(1), 1193-1204.
- Eliwa, Y., Haslam, J., & Abraham, S. (2006). The association between earnings quality and the cost of equity capital: Evidence from the UK. *International Review of Financial Analysis*, 48, 125-139.
- Francis, J., LaFond, R., Olsson, P. M., & Schipper, K. (2004). Costs of equity and earnings attributes. *The Accounting Review*, 79(4), 967-1010.

- Francis, J., Nanda, D., & Olsson, P. (2008). Voluntary disclosure, earnings quality, and cost of capital. *Journal of Accounting Research*, 46(1), 53-99.
- Hartono, J. (2012). *Metodologi Penelitian Bisnis: Salah Kaprah & Pengalaman-Pengalaman* (5 ed.). Yogyakarta: Badan Penerbit Fakultas Ekonomi Universitas Gadjah Mada.
- Kiswanto, K., & Fitriani, N. (2019). The influence of earnings management and asymmetry information on the cost of equity capital moderated by disclosure level. *Jurnal Keuangan & Perbankan*, 23(1), 123-137.
- Lahaya, I. A. (2017). Kualitas laba dan pengungkapan sukarela: Dampaknya terhadap biaya modal ekuitas melalui asimetri informasi. *Jurnal Keuangan & Perbankan*, 21(2), 188-199.
- Ma, S., & Ma, L. (2017). The Association of Earnings Quality with Corporate Performance: Evidence from the Emerging Market of China. *Pacific Accounting Review*, 29(3), 397-422.
- Malau, M., Murwaningsari, E., & Mayangsari, S. (2020). Prudence measurement is moderating earning opacity, information asymmetry, and earning informativeness on cost of capital three factors model. *International Journal of Business, Economics, and Law*, 21(5), 37-46.
- McInnis, J. (2010). Earnings smoothness, average returns, and implied cost of equity capital. *The Accounting Review*, 85(1), 315-341.
- Muhammad, F., & Siregar, S. V. (2014). Analisis tingkat pengungkapan segmen: Faktor-faktor yang mempengaruhi dan dampaknya terhadap biaya ekuitas. *Ekuitas: Jurnal Ekonomi dan Keuangan*, 18(3), 330-349.
- Nasih, M., Komalasari, P. T., & Madyan, M. (2016). Hubungan antara kualitas laba, asimetri informasi, dan biaya modal ekuitas: Pengujian menggunakan analisis jalur. *Jurnal Akuntansi dan Keuangan Indonesia*, 13(2), 221-242.
- Nurjanati, R., & Rodini, A. (2015). Pengaruh asimetri informasi dan tingkat disclosure terhadap biaya ekuitas dengan kepemilikan manajerial sebagai variabel moderating (Studi empiris pada perusahaan manufaktur di Bursa Efek Indonesia). *Jurnal Bisnis dan Manajemen*, 5(2), 173-190.
- Pramita, Y. D. (2016). Earnings quality and beta on cost of equity capital. *Jurnal Bisnis & Ekonomi*, 14(2), 123-131.
- Sebai, S., Messai, M., & Jouini, F. (2015). Earnings attributes and the cost of equity capital: the case of Tunisian companies. *Afro-Asian Journal of Finance and Accounting*, 5(3), 216-230.
- Suliyanto. (2009). *Metode Riset Bisnis*. Yogyakarta: Penerbit ANDI.
- Sunarto, H., Murwaningsari, E., & Mayangsari, S. (2016a). The effect of earnings aggressiveness, income smoothing, earnings transparency on cost of equity with earnings informativeness as moderating for companies listed on Indonesia Stock Exchange during the period 2011-2013. *GSTF Journal on Business Review*, 4(4), 17-28.
- Sunarto, S. (2010). Peran persistensi laba terhadap hubungan antara keagresifan laba dan biaya ekuitas. *Kajian Akuntansi*, 2(1), 13-28.
- Sunarto, S., Oktaviani, R. M., & Hardiningsih, P. (2016b). Kualitas Akrua Memoderasi Earnings Opacity Terhadap Biaya Ekuitas. *Simpodium Nasional Akuntansi XIX* (pp. 1-22). Lampung: Ikatan Akuntan Indonesia.
- Tucker, J. W., & Zarowin, P. A. (2006). Does Income Smoothing Improve Earnings Informativeness? *The Accounting Review*, 81(1), 251-270.
- Yolanda, N., & Mulyani, E. (2019). Pengaruh kualitas laba dan pengungkapan sukarela terhadap cost of equity capital (Studi empiris perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia Tahun 2015-2017). *Jurnal Eksplorasi Akuntansi*, 1(3A), 883-905.

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