

EARNINGS MANAGEMENT IN INDONESIA: DETERMINANT OF COMPANY SIZE, STRUCTURE OF MANAGERIAL OWNERSHIP AND PROFITABILITY ON EARNINGS MANAGEMENT WITH ASYMMETRY INFORMATION AND GREEN INTELLECTUAL CAPITAL AS MODERATING VARIABLES

Dr Yvonne Augustine
Agustine Dwianika

ABSTRACT

Earnings are associated with the profits of a firm, and a firm with poor earnings will usually have lower share prices. Therefore, it is important for a firm to have the ability to generate profit in the future. The purpose of this paper is to investigate whether the firm's size, the managerial ownership's structure and firm's profitability (mediated through information asymmetry and green intellectual capital) effect on firm's earnings management. This study used 20 manufacturing firms listed on the Indonesia's Stock Exchange (2015-2016). The study among these 20 firms suggested that profitability has an effect on firm's earnings management while the firm's size and managerial ownership's structure have no effect on firm's earnings management. The result of the study showed that information asymmetry and green intellectual capital perfectly mediates the relationship between firm's size, managerial ownership's structure and profitability.

Keywords: Information Asymmetry, Green Intellectual Capital, Firm's Size, Structure of Managerial Ownership, Profitability and Earnings Management.

INTRODUCTION

Investors and creditors are often faced with complex and risky investment decision. This is because of the available information on investment products is abundant but it frequently incomprehensible and and unorganized. Hence, the firm must be able to provide accurate financial statements to the investors and creditors in order to help them make decisions of their funds investments. A firm's financial statements are used to communicate its financial information to other parties outside the firm, such as investors and creditors. However, managers of the firm also become the user of the financial statements. The financial statements help the managers in making decisions on managing the firm. In the preparation of financial statements, the accrual basis is usually chosen because it is more rational and fairer in reflecting the firm's real financial conditions. However, firm must note the accounting method chosen should not deviate from the applicable rules of Financial Accounting Standards (Ulya, 2015). The larger the firms, the stronger pressure for the firms to present accurate financial reports (Agustian, 2015).

According to Sulistyanto (2014: 55), the purpose of the earnings management is to deceive the users of financial statements. Viewed from the standpoint of accounting theory, earnings management is largely determined by the motivation of corporate managers. Different motivations will be resulting in different levels of earnings management, such as between managers who are also shareholders and managers who are not shareholders (Agustian, 2015). And Information asymmetry is a condition where firm's management has an access to more information on the firm's prospect than external parties. The existence of information asymmetry is considered to be the disposal of earnings management. Managerial ownership is the amount of share ownership owned by managers. These managers who are usually the director and commissioner are actively participated in corporate decision making (Yusrilandari *et al.*, 2016).

Profitability is one of the performance management's indicator in managing firm's wealth. Firm's wealth is indicated by profits generated. The profits generated during the year is an indicator of the occurrence of earnings management practices within the firm. Purnama *et al* (2015) stated that profitability is a firm's ability to earn profits through all capabilities, and existing sources. The profitability ratio reflects the final outcome of all financial policies and operational decisions (Agustian, 2015).

LITERATURE REVIEW AND HYPOTHESES

Agency Theory

Jensen and Meckling (1976) defined agency relationships as a contract between the owner (*Principal*) and the manager (*Agent*) to execute a task for the benefit of the owner (*Principal*) by delegating decision-making authority to the manager (*Agent*). Practically, the managers of the firm must certainly know more internal information and firm's future prospects than the owners of capital or shareholders. Managers have the obligation to provide information about the condition of the firm to the owner. But sometimes, the information submitted by the managers does not match the actual firm's conditions.

Stakeholder Theory

Donaldson and Preston (1995) argue that Stakeholder theory is a governance which recommends that attitudes, structures and practices when implemented together, can form a stakeholder management philosophy. Stakeholder theory states that a firm's is not an entity that only operates for its own benefit, but must provide benefits for its Stakeholders, such as. shareholders, creditors and so forth. And Deegan (2004) stated that Stakeholder theory is a theory which suggests that all stakeholders have the right to obtain information about the activities of the firm's that can affect their decision-making. Freeman (1983) developed

the Stakeholder theory and introduced the concept in two models, namely policy model and business planning and corporate social responsibility model and Stakeholder management.

Earnings Management

Earnings management is defined as an effort to intervene or influence information on financial statements in order to trick the stakeholders who want to know the performance and condition of the firm's (Sulistyanto, 2014: 6). In performing earnings management, the managers initially select the accounting method or policy to increase profits or lower profits. Managers can raise earnings by shifting profits in future periods to the current period. The managers thus can decrease earnings by shifting current period earnings into subsequent periods.

Stubben (2010) developed a model which uses the main component of income like accounts receivable to predict earnings management. The study provides evidence that the revenue model is usually lower, more specific, and stronger than the accrual model. The use of revenue model in detecting earnings management can also be applied to companies in Indonesia, but only a few research using this model. The reason is that it is a new model which can be used in detecting earnings management. According to Stubben (2010), there are some disadvantages to Modified Jones models, especially in the cross-sectional which estimates that the same industry will carry out the same actual process. In addition, the accrual model does not provide information on the performable components to regulate firm's profits since the accrual model does not differentiate discretionary increases in earnings through income or component loads. For that reason, this research used Revenue Discretionary Model (Stubben, 2010).

Firm's Size

The firm size can be divided into 3 categories. Such as large, medium, and small firms. The firm's size is an indicator to determine the size of sampling firms. It is also part of another reference which can be used to determine the total assets owned by the firm. Firms with large assets are assumably thought to have reached a positive level of business establishment.

Firm's size is also considered to be one of the factors affecting earnings management. Wijaya et al. (2017) found that the firm's size has a positive effect on the practice of earnings management. Aprina et al (2015) found that firm's size simultaneously affects earnings management since large firms have provided considerable incentives for earnings management. One of the main reasons for the provision of the incentive is that large firms must be able to meet expectations of the investors or shareholders. Firm's size constitutes a scale which categorizes companies as large and small in various ways, such as using total assets, log size, stock market value, and others as the measurement points. Large firms are more in demand by analysts and brokers, where the published financial statements are more transparent, thereby minimizing the emergence of information asymmetry which can encourage the emergence of earnings management (Putri, 2014).

Managerial Ownership's Structure

Managerial ownership refers to share ownership by the firm's management. Managerial share ownership can align the interests of shareholders with managers since the managers share the immediate benefits of decisions taken and bear the risk of losses arising as a consequence of wrong decision making. This demonstrates that the greater the proportion of management ownership in the firm's will be able to unify the interests of managers with shareholders, so that the firm's performance is better (Jensen, 1986).

Researchers such as Morck *et al* (1988), Mc Connell and Servaes (1990), Kole (1995), and Short and Keasey (1999) stated that there is a nonlinear relationship between managerial ownership and firm's performance. Furthermore, Mc Connel and Serveas (1990) stated that a positive relationship between managerial ownership and firm's performance occurred at the 40% to 50% ownership level and negative relationship occurred on ownership above 50%. In contrast, Morck *et al.* (1988) concludes that a positive relationship between managerial ownership and performance occurs at the level of 0% to 5% ownership and the negative one affects the 5% to 25% ownership level.

Profitability

According to Ulya (2015) profitability is an important measurement unit in assessing the firm's health which in turn influences the investors' decision making. The greater the level of profitability of the firm's, the greater the chance the firm's experienced a decline in profitability in the future. The larger the firm's experienced fluctuating revenue which leads to instability companies to obtain income, the greater the profitability of the firms, which results to a greater number of firm's managers performing earnings management practices to maintain the stability of the companies in a decision-making process.

Yusrilandari et al (2016) stated that profitability ratios are useful for demonstrating the firm's success in generating profits. Potential investors will thoroughly analyze the smoothness of a firm's business operation and its ability to gain profit (profitability) since they expect dividends and market prices from their shares. In addition, profitability can also be expressed as the ratio used to measure management effectiveness viewed from the profit generated on sales and investment.

Information Asymmetry

Information Asymmetry is a term used to describe the existence of two conditions of investors in a stock trading i.e. investors

who are more informed and investors are less informed. More information owned by managers can trigger actions which are in accordance with the wishes and interests to maximize its utility. As for investors, it will be difficult to effectively control the actions taken by management because it has little information available (Komalasari, 2014).

Green Intellectual Capital

Chen (2008) stated that intangible assets related to the environment are known as green intellectual capital. GIC is the sum of all intangible assets, knowledge, capacities, relationships and other aspects related to environmental protection or innovation at the individual level and organizational level in the firm's. Likewise, intellectual capital can help direct a firm's and encourage employees to achieve goals (Rothenberg, 2003; Boiral, 2002). Likewise, in terms of sustainability, green intellectual capital can play a key role in maintaining the firm's focus on sustainability through the mechanism of transferring knowledge about regulations, technology, best practices and initiatives in achieving the firm's sustainability goals. GIC plays a strong role in enhancing the firm's ability to develop and has sustainable competitive advantages.

The Effect of Firm's Size on Earnings management

Rahdal (2017) found that firm's size can be defined as an effort to assess (how much firm's effort have to put for knowing) the size of a firm's. There are various elements which can be used to assess it, which includes total assets, log size, and stock market value. In general, research in Indonesia uses total assets or total sales as a proxy of the firm's size. The size of the firm's will be very important for investors and creditors as it will be related to the investment risks. Large companies have a broader stakeholder base, so policies issued by large companies will have bigger impact on public good than small companies.

An association between firm's size and risk may also exist which accounts for this profitability-size relationship. Many argue that there is a risk-return trade-off; higher rates of return are obtained only by taking on bigger risk. Risk is often measured by the volatility in rates of return. For example, the capital asset pricing model (CAPM) (Sharpe, 1964; Lintner, 1965) is built on the notion that the riskier the stock, and the greater expected return. Thus, higher rates of return across size classes may just reflect less stable earnings and greater risk in smaller companies.

HYPOTHESES

The Effect of Firm's Size on Earnings management

Even though previous research on the impact of firm's size on earnings management has been widely studied, many of its findings are on the contrary, such as the study of Alviantini (2013), Nassirzadeh et al. (2012), Kouki et al. (2011), Halim et al. (2006) and Kim et al. (2003) which discovered that the firm size have positive impact on earnings management. The results of such statistic test provided findings in contrary with political cost hypothesis (size hypothesis) from Watts and Zimmerman (1986) which shows that the larger the size of the firm's, the larger the probability of such firm's to choose an accounting method that will decrease profits with the purpose to decrease political cost, hence avoiding government action which can decrease firm's income by implementing more regulation.

H1: The size of the Firm's size Affects Earnings management

The Effect of Managerial Ownership Structure on Earnings management

Based on the agency theory expressed by Jensen and Meckling (1976), the greater the proportion of management ownership in a firm's, the management will work harder to fulfill the interests of shareholder. With the ownership of shares owned by the manager, the manager will act in harmony with the interests of shareholders so as to minimize the opportunist behavior of the manager. In low stock ownership, the incentives for the possibility of opportunistic behavior of managers will increase (Shleifer and Vishny, 1986). The higher the managerial ownership, the lesser the desire to make earnings management because managers participate to bear the good and bad consequences of any decision taken. If managerial ownership increases, the manager's actions in earnings management will decrease, resulting in an increase in managerial ownership negatively affecting earnings management. If managerial ownership is higher, then earnings management is lower (Wijaya et al., 2017).

Earnings management occurs "when managers use judgment on financial-reporting, and in structuring transactions it is to alter financial reports to either mislead some stakeholders about the underlying economic performance of the firm or to influence contractual outcomes that depend on reported accounting numbers" (Healy and Wahlen, 1999). Earnings information can be used by the managers who are familiar with the firm's performance to convey superior and useful information to shareholders and debt holders. If this is the case, then, earnings management may not be harmful to the stockholders and the public. Nevertheless, the financial scandal at WorldCom and Enron changed the outlook of earnings management toward an opportunistic view. With regards to this view, managers manage earnings for their own private benefits rather than for the benefits of the stockholders (Watts and Zimmerman, 1986; Subramanyam, 1996; Holthausen, 1990; Healy and Palepu, 1993; Guay et al., 1996; Demski, 1998; Arya et al., 2003; Hao, 2010; Jiraporn et al., 2008).

H2: The Managerial Ownership Structure Affects Earnings management

The Effect of Profitability on Earnings management

According to Wildarman et al. (2014) sudden negative earnings are generally more detrimental than the additional negative forecast revisions. The market response to sudden earnings is more toward negative than positive. It should not be surprising that managers can take action to avoid such sudden negative earnings. Based on the above opinion, it is not surprising that managers prefer to conduct earnings management due to the huge interest of the investor's toward profit (profitability).

H3: Profitability Affects Earnings management

The Influence of Firm's Size, Managerial Ownership Structure and Profitability on Earnings management With Information Asymmetry as Moderating Variables

Richardson (1998) argues that there is a systematic relationship between information asymmetry and the level of earnings management. The existence of information asymmetry will encourage managers to present information that is not true, especially if the information is related to the measurement of manager's performance. The quality of financial statements will also reflect the level of earnings management. For that reason, the researcher wishes to find out more about The Influence of Firm's Size, Managerial Ownership Structure and Profitability to Earnings Management with Information Asymmetry as the Moderating Variables.

H4: Firm's Size, Managerial Ownership Structure and Profitability Influence on Earnings management with Information Asymmetry as Moderation Variables.

The Influence of Firm's Size, Managerial Ownership Structure and Profitability on Earnings management With Green Intellectual Capital as the Moderating Variables

As stated earlier, the firm's's focus on sustainability can be maintained through the mechanism of transferring knowledge about regulations, technology, best practices, and initiatives in achieving the firm's's sustainability goals and Green intellectual capital can play a key role on that. GIC plays a strong role in enhancing the firm's's ability to develop and have sustainable competitive advantages. This is because Green Human Capital includes environmental competencies and a commitment to engage in related activities (Huang & Kung, 2011). Therefore, the aim of this research is to find out the influence of Firm's Size, Managerial Ownership Structure and Profitability to Earnings management with Green Intellectual Capital as its Moderating Variables.

H5: Firm's Size, Ownership Managerial Structure and Profitability Influence on Earnings management with Green Intellectual Capital as its Moderating Variables.

The Influence of Firm's Size, Managerial Ownership Structure and Profitability on Earnings management With Green Human Capital as the Moderating Variables

Green Human Resource Management refers to using every employee's potential in promoting sustainable practices and raising employee awareness (Mandip, 2012). So that it is expected with the presence of green human capital in the firm's, employees realize that profit management practices are not necessary so that the firm's continues to exist.

H6: Firm's Size, Ownership Managerial Structure and Profitability Influence on Earnings management with Green Human Capital as its Moderating Variables.

The Influence of Firm's Size, Managerial Ownership Structure and Profitability on Earnings management With Green Innovation Capital as the Moderating Variables

Green innovation (GI) is one of the environmental strategies that can be done to develop the business without violating the government regulations (Özşahin et al., 2013). This competitive advantage will increase the value of the firm's in the future (Bech, 2013). This is supported by previous research that has proved that innovation has a positive effect on firm value (FV), the existence of new innovation is closely related to the increase in profit without increasing the risk of the firm's. (Salehi and Arbatani, 2013; Sorescu and Spanjol, 2008). This research purposes to extend previous literatures and explore about the mediating effect of green innovation on relations between firm's size, managerial ownership structure and profitability on earnings management.

H7: Firm's Size, Ownership Managerial Structure and Profitability Influence on Earnings management with Green Innovation Capital as its Moderating Variables.

The Influence of Firm's Size, Managerial Ownership Structure and Profitability on Earnings management With Green Organizational Capital as the Moderating Variables.

Organizations worldwide are facing increased pressure from their stakeholders to protect the environment, adopt pro-environmental practices, and to improve sustainability-based performance (Endrikat, Guenther, & Hoppe, 2014; Hong, Kwon, & Roh, 2009; Jones, 2014; Pandey, Rupp, & Thornton, 2013; Sarkis, Gonzalez-Torre, & Adenso-Diaz, 2010). Based on that, organizations should adopt environmental management strategies as well as change their mindsets with regard to green opportunities and innovations (Chang & Chen, 2013).

By focusing for the existence of sustainability based performance, earnings management practices can be reduced because firm's performance is not only seen based on profit, but also non-performance, one of which is the existence of green organizational capital.

H8: Firm's Size, Ownership Managerial Structure and Profitability Influence on Earnings management with Green Organizational Capital as its Moderating Variables.

The Influence of Firm's Size, Managerial Ownership Structure and Profitability on Earnings management With Green Social Capital as the Moderating Variables

Social capital is increasingly used in the field of community development and the social economy. Although social capital may be intangible, it illustrates an accepted way of working holistically together and this, arguably, is how people and communities have always functioned. In this sense social capital is no more than a modern academic tag put onto age-old processes that permit a healthy community to function (Kay, 2005). This study extends exploration of the role of green social capital which is expected to be able to reduce the practice of earnings management.

H9: Firm's Size, Ownership Managerial Structure and Profitability Influence on Earnings management with Green Social Capital as its Moderating Variables.

RESEARCH METHODOLOGY

Population and Sample

The population used in this study is manufacturing firms listed on the Indonesia Stock Exchange (BEI) in 2015-2016. The research sample was selected using purposive sampling method with the aim of getting the sample according to the criteria specified. The criteria used for sample selection are: a).Manufacturing companies listed on the Indonesia Stock Exchange from 2015 to 2016. b).Each firm's has statistical data and financial statements disclosed to the public from 2015 to 2016, to facilitate the process of calculating the data in this study. c).Companies which gain profits in the business period of 2015-2016. Based on these criteria, 40 manufacturing companies have been selected to become the sample in this study.

Firm Size, Managerial Ownership Structure and Profitability

Firm size is an indicator to determine the size of the sample firm's. One of the references used is to observe the total assets owned by the firm. Firms with large assets are thought to have reached a level of establishment in business. The firm's size instrument is measured by the total asset log (Rahdal, 2017), and it could be calculated as $SIZE_{it} = \text{Log } TA_{it}$. Managerial ownership is the ownership of shares by the firm management. Managerial share ownership may align with the interests of shareholders since the immediate benefits of decisions taken and the risk of a loss as a result of wrong decision making are shared with the managers (Agustin, 2015). Profitability is important in the assessment of firm's performance since it will affect the investors in making their decisions (Nasihah ulya and Khairunnisa, 2015). In this paper, the researcher is observing the possible effect of the above variables on Earning Management as the dependent variable.

Earning Management

Earnings management is defined as the corporate manager's attempt to intervene or influence information in financial statements with the purpose of providing false information to stakeholders regarding the performance and condition of the firm (Sulistiyanto, 2014). Earnings management is measured using conditional revenue model (Stubben 2010) as can be seen below:

$$\Delta AR_{it} = \alpha + \beta_1 \Delta R_{it} + \beta_2 \Delta R_{it} \times SIZE_{it} + \beta_3 \Delta R_{it} \times AGE_{it} + \beta_4 \Delta R_{it} \times AGE_SQ_{it} + \beta_5 \Delta R_{it} \times GRM_{it} + \beta_6 \Delta R_{it} \times GRM_SQ_{it} + e$$

Remarks:

- AR = Accrual Revenue
- R = Annual Revenue
- AGE = Year
- SQ = Square of variables
- GRM = Industry median adjusted gross margin at end of fiscal year
- Δ = Annual Changes

Asymmetry Information and Green Intellectual Capital as Moderating Variables

Information Asymmetry refers to a condition where the management has access to more information than external parties regarding the firm's potential in the future. The existence of information asymmetry is considered to be the disposal of earnings management (Agustian, 2015). The AI Ratio is measured by the following formula:

$$SPREAD = ((Ask_{it} - Bid_{it}) / \{(Ask_{it} + Bid_{it}) / 2\}) \times 100\%$$

Remarks:

- SPREAD= Asymmetry Information
- Ask= Offer Price
- Bid= Price That a Buyer is Willing to Pay

Green Intellectual Capital is the sum of all intangible assets, knowledge, capacities, relationships and other aspects related to environmental protection or innovation at the individual level and organizational level in the firm's (Chen, 2008). This study uses Ordinal Scale Questionnaire with Likert Scale 1 for poor and 5 for high level condition. Green Intellectual Capitals is measured refer to Chen (2008) as can be seen below:

$$GIC: \alpha + \beta_1GHC + \beta_2GINC + \beta_3GOC + \beta_4AGSC + e$$

Remarks:

- GIC = Green Intellectual Capital
- GHC = Green Human Capital
- GINC = Green Innovation Capital
- GOC = Green Organizational Capital
- GSC = Green Social Capital
- e = Error

Data Analysis Method

This research used quantitative research method. This method is called quantitative method because the research data is in the form of numbers and analysis using statistics (Sugiyono, 2015: 13). The data analysis methods used in this research are simple and multiple regression model.

Data Collection Technique

The data collection technique used in this study is the archive data collection techniques (*documents/copies*) which includes financial statements and audit reports published from the firm's website. This technique is used to reveal data about firm's size, managerial ownership's structure and profitability published in the firm's financial statements. Secondary data collection techniques include data gathered from international and national journals, as well as previous research to support primary data collection.

RESEARCH RESULT AND DISCUSSION

General Description

This research used financial report and firm annual report available online in database of Indonesia Stock Exchange at website www.idx.co.id as its secondary data. The population in this study are manufacturing firms listed on BEI (Indonesia Stock Exchange) in 2015-2016 period. Each firm's must have statistical data and financial statements disclosed to the public in that period to facilitate the process of calculating the data in this study. The data taken is in accordance to the pre-selected criteria and is collected using the purposive sampling method. Based on that, there are 20 firms selected as the source of primary data.

Results of Research Instruments

Descriptive statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------------------|----|----------|---------|-----------|----------------|
| SIZE | 40 | 26 | 33 | 27.98 | 1.847 |
| Managerial Ownership Structure | 40 | .00001 | 2.48962 | .2026792 | .54015547 |
| Profitability | 40 | .00585 | .25989 | .0701577 | .06280803 |
| Earnings management Spread | 40 | -1.41406 | .90281 | -.1282993 | .33735162 |
| Green Intellectual Capital | 40 | 0 | 2 | .38 | .540 |
| Valid N (listwise) | 40 | .40000 | .45000 | .43125 | .52356712 |

Descriptive statistics are analyzed through descriptions or descriptions of sample data to see the mean, minimum, maximum and standard deviation of the variables studied. Mean is the average data, minimum and maximum is the smallest value and the largest value of the data, standard deviation is the spread of data. Here are the results of the descriptive statistical tests.

Descriptive analysis result for the firms size with as many as 40 data from 20 firms shows that the minimum value of 26 is acquired by PT Pyridam Farma Tbk. and the maximum value of 33 belongs to PT Astra International Tbk. The obtained mean value is 27.98 with a standard deviation of 1.847. In terms of Managerial Ownership Structure a minimum value of 0.00001 is obtained by PT Astra International Tbk and a maximum value of 2.48962 is by PT Lion Metal Works Tbk. The obtained mean value for this criteria is 0.2026792 with a standard deviation of 0.54015547. In relation to profitability the minimum value of 0.00585 is that of PT Kedaung Setia Industrial Tbk. and the maximum value of 0.25989 goes to PT Mandom Indonesia Tbk. The obtained mean value is 0.0701577 with the value of standard deviation of 0,06280803. For earnings management the minimum

value of -1.41406 is from PT Mandom Indonesia Tbk and the maximum value of 0.90281 is from PT Pyridam Farma Tbk. The mean value for this category is -1.1282993 with a standard deviation of 0.33735162. As for information asymmetry, with as many as 40 data from 20 companies the minimum value of 0.03922 is acquired by PT.Indo Acidatama Tbk. and the maximum value of 1.71189 is from PT.Lion Metal Works Tbk. The obtained mean value is 0,4850925 with a standard deviation of 0.38202135. Finally, in relation to Green Intellectual Capital, it was shown that the minimum value of 4.0000 is from PT Lion Metal Works. Tbk and the maximum value of 4.5000 is from PT Alkindo Naratama Tbk.

Hypothesis Testing

Determination Coefficient Test (R2)

Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .588 ^a | .346 | .292 | .28390173 |

a. Predictors: (Constant), Profitability, Managerial Ownership Structure, SIZE

b. Dependent Variable: Earnings management

From the table it can be seen that the value of Adjusted R Square (R2) is 0.292 or 29.2%. This shows that 29, 2 % Earnings management is influenced by the variables of firm’s size, managerial ownership structure, and profitability. While the remaining 70,8 % (100% minus 29.2%) are influenced by factors outside this study.

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .607 ^a | .368 | .296 | .28309084 |

a. Predictors: (Constant), Spread, GIC, SIZE, Ownership Structure Managerial, Profitability

The table also shows another value of Adjusted R Square (R2) that is 0,296 or 29.2%. This shows that, with asymmetric information as its moderating variables, 29,6 % of Earnings management practice is influenced by firm’s size, managerial ownership structure, and profitability. While the remaining 70,4 % (100% -29.6 %) are influenced by factors outside of this study. Based on the results of the table it can be seen that information asymmetry as the moderating variable can enhance the connection between firm’s size variables, managerial ownership structure and profitability and earnings management.

Test F

The F statistic test shows whether all independent or independent variables included in the model have a mutual influence on the dependent variable. This test is performed using a significance level of 5%. If the significance value F is <0, 05, a significant difference between all independent variables on the dependent variable does exist. If the significant value of F is > 0, 05, there is no influence of the independent variables on the dependent variable. In addition, if F arithmetic is bigger than F table (F arithmetic > F table), it can be concluded that all independent variables simultaneously and significantly affect the dependent variable.

1. Test F with Asymmetry Information as Moderating Variable

ANOVA^a

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|-------|-------------------|
| 1 | Regression | 1.634 | 4 | .408 | 5,096 | .001 ^b |
| | Residual | 2,805 | 35 | .080 | | |
| | Total | 4.438 | 39 | | | |

a. Dependent Variable: Earnings management

b. Predictors: (Constant), Spread, SIZE, Managerial Ownership Structure, Profitability

2. Test F with Green Intellectual Capital as Moderating Variable

ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|-------|-------------------|
| 1 | Regression | 1.578 | 4 | .428 | 5.056 | .002 ^b |
| | Residual | 2.732 | 35 | .078 | | |
| | Total | 4.310 | 39 | | | |

a. Dependent Variable: Earnings Management

b. Predictors: (Constant) , GIC, SIZE, Manajerial Ownership Structure, Profitabilitas

Based on the above table, note that the Anova test results of F arithmetic of 5.096 and 5.056 with probability 0.002 is lower than 0.05. This means the H4 and H5 are accepted. In addition, based on F table of 2.86, the F arithmetic is bigger than F table (5.096 > 2.86); it can be concluded that, with information asymmetry and green intellectual capital as its moderating variables, the regression model of the firm's size, managerial ownership structure and profitability simultaneously affect the earnings management.

Test t

The t test is performed to determine whether the independent variables in the regression model have an individual effect on the dependent variable. Criteria for decision-making are viewed based on comparative significance values. If the significance value is < 0,05, the independent variable affects the dependent variable. If the value of significance is ≥ 0,05, the independent variable has no influence on the dependent variable. The results of the test are as follows.

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .533 | .720 | | .740 | .000 |
| SIZE | -.017 | .026 | -.091 | -.641 | .464 |
| 1 MOS | .061 | .086 | .098 | .717 | .526 |
| PROF | -2.947 | .755 | -.549 | -3.903 | .478 |

a. Dependent Variable: Earnings management

Firm's size has t count equal to -0.740 with a significance value 0.464 > 0, 05. This shows that firm's size has no significant effect on earnings management. Managerial ownership structure has t count equal to -0.641 with a significance value of 0.526 > 0.05. This suggests that the managerial ownership structure has no significant effect on net income. Profitability has t count of -3.903 with a significance value of 0.000 < 0.05. This shows that profitability negatively affects earnings management.

The size of the firm's has t count of -0.533 with a significance value of 0.597 > 0, 05. This shows that firm's size has no significant effect on earnings management. Managerial ownership structure has t count equal to -0.993 with a significance value 0.328 > 0, 05. This suggests that the managerial ownership structure has no significant effect on the net income. Profitability has t arithmetic of -4.057 with a significance value of 0.000 < 0.05. This shows that profitability has a negative effect on earnings management.

t Test Result with Moderating Variables on Earnings Management

Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .508 | .718 | | .707 | .484 |
| SIZE | -.014 | .026 | -.076 | -.533 | .597 |
| MOS | .088 | .089 | .141 | .993 | .328 |
| PROF | -3.238 | .798 | -.603 | -4.057 | .000 |
| Spread | -.101 | .092 | -.161 | -1.098 | .280 |
| GIC | -.122 | .087 | -.183 | -1.114 | .257 |

a. Dependent Variable: Earnings management

Information asymmetry has t count equal to -1.098 with a significance value $0.280 < 0.05$. This shows that information asymmetry has no effect on earnings management. Green Intellectual Capital shows a t calculate equal to -1.114 with a significance value $0.257 < 0,05$. This confirms that Green Intellectual Capital has no effect on earnings management.

The Unique Moderating Effects of Each Dimension of Green Intellectual Capital on Earnings Management

| Variables | β | Std. Error | Coef Std.Beta | t | Sig. |
|------------------------------|---------|------------|---------------|--------|------|
| Green Human Capital | -.101 | .325 | -.083 | -1.610 | .009 |
| Green Innovation Capital | -.060 | .322 | -.176 | -.942 | .348 |
| Green Organizational Capital | -.041 | .235 | -.055 | -.612 | .504 |
| Green Social Capital | -.023 | .345 | -.110 | -.322 | .657 |

This study also looked about moderating effect on each dimension of green intellectual capital, and based on the above table shows that p value of green social capital has no effect on earnings management while others influences.

Discussion of Research Results

The Effect of Firm's Size on Earnings management

The result of hypothesis testing on the effect of firm's size to earnings management shows the value of t arithmetic equal to -0,533 with significant value of $0,597 > 0,05$. This means that firm's size does not have significant effect to earnings management. Thus, the first hypothesis (H1) is rejected.

This is due to strict supervision from the government, analysts and investors who are supposed to be the parties which prevent the companies from continuously performing earnings management practice. For that reason, managers of large companies did not dare to conduct earnings management practice because it can damage the image and credibility of the firm's managers. In addition to these factors, the effect of firm size on earnings management is not due to the firm's sample used in this research since the companies used as sample are those already listed in the Indonesia Stock Exchange (IDX). In addition, manufacturing companies tend to have large total assets.

The results of this study are supported by previous research conducted by Takdir Rizki Agustian in 2015 entitled "The Influence of Information Asymmetry, Managerial Ownership Structure, Firm's Size And Profitability To Earnings management On Banking Companies Listed In IDX" That research states that the size of the firm's has no effect to earnings management. This is, however, not in line with Wijaya et al's research in 2017 entitled "The Influence of Information Asymmetry, Firm's Size And Managerial Ownership On Earnings management Practices At Manufacturing Companies In Indonesia Stock Exchange (IDX)" which states that firm's size actually has a positive effect on earnings management practice.

Effect of Managerial Ownership Structure on Earnings management

The result of hypothesis testing about managerial ownership structure toward earnings management shows the value of t count equal to 0,328 with significance value $0,328 > 0,05$. This means that managerial ownership structure has no significant effect on earnings management. Thus, Hypothesis 2 is rejected. This is because the percentage of management which has share in the firm's, only 2% in average, is a relatively small when compared with the overall capital owned by investors in general. So,

managers tend to not have the right to make decisions or intervene on the decisions within a firm's because the ownership percentage is less than 25%.

The result of this research is in line with Agustian's research in 2015 entitled "The Influence of Information Asymmetry, Managerial Ownership Structure, Firm's Size And Profitability To Earnings management At Banking Companies Listed In IDX" which states that the managerial ownership structure has no effect on earnings management, but is inconsistent with Mahariana and Ramantha's research in 2014 entitled "The Influence of Managerial Ownership and Institutional Ownership on Earnings management of Manufacturing Companies In Indonesia Stock Exchange" which states that managerial ownership structure negatively affects earnings management.

Profitability Affects Against Earnings management

The result of hypothesis testing about profitability to earnings management pointed t value equal to -4,057 with significance value $0.000 < 0.05$ which means that profitability have a negative effect on earnings management. This also means that the higher profitability the lower chance of earnings management to occur. Thus the third hypothesis (H3) is accepted.

Profitability affects earnings management because profitability is one of the indicators used by investors to take decisions to invest in a firm's. The results of this study are supported by the study of Ulya and Khairunnisa in 2015 entitled "The Influence of Firm's Size, Profitability, Financial Leverage and Audit Quality to Earnings management Practices (Case Study in Manufacturing Companies Listed in Indonesia Stock Exchange Year 2011-2013)" which states that profitability affects earnings management. This is, however, not in line with Astuti's research in 2017 entitled "The Influence of Profitability, Firm's Size, Leverage and Audit Quality to Earnings management (Empirical Study on Manufacturing Companies Listed in Indonesia Stock Exchange-2015 Period) in which states that profitability has no effect on earnings management.

The Effect of Firm's Size, Managerial Ownership Structure and Profitability on Earnings Management with Information Asymmetry and Green Intellectual Capital as its Moderating Variables.

The simultaneous test results show that, with information asymmetry and green intellectual capital as its moderating variables, firm's size, managerial ownership structure and profitability have an effect on earnings management. The result of the variable test produces the value of $0.002 < 0.01$ which means that H4 and H5 are accepted. So, in the case of manufacturing firm's listed in Indonesia Stock Exchange (BEI) Listed on 2014-2015, with variable asymmetry of information and green intellectual capital as its moderating variables, firm's size, managerial ownership structure and profitability have an effect on earnings management.

The Moderating Effect of Green Human Capital, Green Innovation Capital, Green Organizational Capital and Green Social Capital on the Relation of Firm's Size, Managerial Ownership Structure and Profitability on Earnings Management.

The result of hypothesis testing about moderating effect of each GIC dimension shown that all significant except of Green Social Capital on relation between Firm's Size, Managerial Ownership Structure and Profitability on Earning Management, thus H6, H7, H8 are accepted instead of H9. Green Human Capital strengthens the relationship, by the presence of employee awareness of the surrounding environment, it could be encourage management to provide sufficient budgets for preserve the environment, so that the performance of the company not only focuses on the financial sector but also non-financial, so that earnings management practices can be reduced.

Green Innovation Capital decreases earnings management practices because the demands of the global market are innovation in environmentally friendly products, this can increase profits, which in the end does not require more profit management practices. Green Organizational Capital is considered to be able to reduce earnings management practices, this is a unique thing because organizations that implement high environmental awareness have competitive advantages that can lead to consumer loyalty, and this can increase the value of the company, so that the practice of earnings management is no longer necessary.

The Green Social Capital does not affect the practice of earnings management, this is because social principles of environmental awareness are not something that is considered important in the preparation of financial statements. So that this does not affect the practice of earnings management.

CONCLUSIONS RECOMMENDATIONS

Conclusion

Profitability measured using the Return-on-Asset (ROA) formula showed that the profitability negatively affects the earnings management. This means that the earnings management is influenced by the level of profitability. In other words, managers are more motivated to conduct earnings management when the firm's sales are growing. However, the firm's profit appears to be lower than the actual profit earned (Sari, 2015).

Firm's size, managerial ownership's structure and profitability have been tested simultaneously and indeed showed relationship on the earnings management moderated by asymmetry information and green intellectual capital, especially green human capital, green organizational capital dan green innovation capital. Thus, it can be concluded that profitability and managerial ownership

environment awareness indicators are very important for investors, creditors and other stakeholders involved in making decisions.

Suggestion for Future Study

It would be better for future study, to include larger sample and different kind of firms (not only manufacturing firms but other firms as well), such as public firms or other firms listed on LQ45. Proxies or other measuring tools, larger area observation and compare with other industry are also interesting to be observed for future research. Different results might emerge. Studies on different independent variables such as whistleblower factors, leverage, audit quality are also potential areas of research.

BIBLIOGRAPHY

- Agustian, Takdir R. (2015). Pengaruh Asimetri Informasi, Struktur Kepemilikan Manajerial, Ukuran Perusahaan dan Profitabilitas Terhadap Manajemen Laba Pada Perusahaan Perbankan Yang Terdaftar Di BEI.
- Aprina, Desi N., and Khairunnisa. (2015). Pengaruh Ukuran Perusahaan, Profitabilitas Dan Kompensasi Bonus Terhadap Manajemen Laba (Studi Kasus Pada Perusahaan Perdagangan, Jasa Dan Investasi Sub Sektor Perdagangan Eceran Yang Terdaftar Di Bursa Efek Indonesia Tahun 2012-2014). e-Proceeding of Management : Vol.2, No.3 Desember 2015.
- Astuti, Pipit W. (2017). Pengaruh Profitabilitas, Ukuran Perusahaan, Leverage Dan Kualitas Audit Terhadap Manajemen Laba (Studi Empiris Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode 2012-2015).
- Boiral, O. (2002). Tacit Knowledge and Environmental Management, Long Range Planning, Vol. 35, No. 3, p. 291-317.
- Chang, C., & Chen, Y. S. (2013). The determinants of green intellectual capital. Management Decision, 50(1), 74-94.
- Chen, Y.-S. (2008a), "The positive effect of green intellectual capital on competitive advantages of firms", Journal of Business Ethics, Vol. 77 No. 3, pp. 271-86.
- Dechow, Patricia M., Sloan, Rrichard G., and Sweeney, Amy P. (1995). Detecting Earnings Management. The Accounting Review 70, pp. 193-225.
- Deegan, Craig. (2004). Financial Accounting Theory. Sydney: McGraw-Hill Book Company.
- Demski, J. 1998. Performance Measure Manipulation. Contemporary Accounting Research, Vol.15: pp. 261- 285.
- Donaldson, Thomas, Preston, Lee E. (1995). "The Stakeholder Theory of The Corporation: Concept, Evidences and Implication". Academy Management Review, Vol. 20 No. 1, 65-91.
- Freeman, R. Edward and David L. Reed. (1983). Stockholders and Stakeholders: A New Perspective on Corporate Governance. Californian Management Review, Vol. 25, No. 2, pp. 88-106.
- Ghozali, Imam. (2017). Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23. Universitas Diponegoro, Semarang.
- Ghozali, Imam and Chariri, Anis. (2015). Teori Akuntansi. Semarang: Badan Penerbit Universitas Diponegoro.
- Gunawan, K., Darmawan, N. A., and Purnamawati, G. A. (2015). Pengaruh Ukuran Perusahaan, Profitabilitas Dan Leverage Terhadap Manajemen Laba Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia (BEI). e-Journal S1 Ak Universitas Pendidikan Ganesha.
- Guay, W., Watts, R.L., and Kothari, S.P (1996). A Market-Based Evaluation of Discretionary Accrual Models. Journal of Accounting Research 34 · February 1996.
- Halim, J., Meiden, C., and Lumban Tobing, R. (2005). Pengaruh manajemen laba pada tingkat pengungkapan laporan keuangan pada perusahaan manufaktur yang termasuk dalam indeks LQ-45. Simposium Nasional Akuntansi 8.Solo.
- Healy, P., dan Wahlen J. 1999.A Review of The Earnings ManajementLiterature and Its Implications for Standard Setting. Accounting Horizon 12 (4).
- Healy, P. and K. Palepu. 1993. "The Effect of Company Financial Disclosure Strategies on Stock Prices". Accounting Horizons. Vol.7. No.1. March 1993. pp. 1-11.
- Holthausen, R.W. 1990. Accounting Method Choice: Opportunistic Behavior, Efficient Contracting, and Information Perspectives. Journal of Accounting and Economics, 1990, vol. 12, Issue 1-3, 207-218.
- Jensen, Michael C. (1986). Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers. American Economic Review, Vol. 76, No. 2, May 1986, pp. 323-329.
- Jensen, M., C., dan W. Meckling, 1976. "Theory of the firm:Managerial behavior, Agency Cost and ownership structure", Journal of Finance Economic 3:305-360 available on <http://www.nhh.no/for/courses/spring/eco420/jensen-meckling76.pdf>.
- Jones, Jennifer J. (1991). Earnings Management During Import Relief. Journal Of Accounting Research, Vol 29, No.2 1991, pp. 193-228.
- Jiraporn, P., Kim, Y. S., Davidson III, W. N., 2008. Multiple Directorships and Corporate Diversification. Journal of Empirical Finance, 15(3), 418-435.
- Keown, Arthur J. (2008). Dasar-Dasar Manajemen Keuangan. Jakarta: Salemba Empat.
- Kole, Stacey R., Managerial Ownership and Company Performance: Incentives or Rewards?. Working Paper No. FR 93-10. Available at SSRN: <https://ssrn.com/abstract=6238>.
- Komalasari, Puput T. 2014. "Asimetri Informasi dan Cost of Equity Capital". Jurnal Riset Akuntansi Indonesia. Vol. 4 (1).
- Lintner, J., 1965, The Valuation of Risk Assets and The Selestion of Risky Investments in Stock Portfolios and Capital Budgets, Review of Economics and Statistics, 47, 13-37.
- Mahariana, I. D., and Ramantha, I. W. (2014). Pengaruh Kepemilikan Manajerial Dan Kepemilikan Instiusional Pada Manajemen Laba Perusahaan Manufaktur Di Bursa Efek Indonesia. e-Jurnal Akuntansi Universitas Udayana 7.2 (2014), pp. 519-528.
- Maiyusti, Anisa. (2014). Pengaruh Asimetri Informasi, Kepemilikan Manajerial Dan Employee Stock Ownership Program Terhadap Praktik Manajemen Laba.

- McConnell, J. J., and H. S. (1990). Additional evidence on equity ownership and. *Journal of Financial Economics* 27(2), pp. 595-612.
- Miller, M. H., and Orr, D. (1966). A Model of the Demand for Money by Firms. *The Quarterly Journal of Economics* 80(3), pp. 413-435.
- Morck, R., A. Shleifer, and RW Vishny (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics* 20, pp. 293-315.
- Özşahin, D.M., Sezen, B., Çankaya, S.Y. (2013), Effects of green manufacturing and eco-innovation on sustainability performance. *Procedia-Social and Behavioral Sciences*, 99, 154-16
- Pradito, H Ibnu and Rahayu, Sri. 2015. Pengaruh dewan komisaris independen, ukuran perusahaan dan leverage terhadap manajemen laba. *E-Proceeding og Management: Vol.2, No.3*.
- Putri, Mauliridiyah S. (2014). Pengaruh Kepemilikan Manajerial, Leverage Dan Ukuran Perusahaan Terhadap Manajemen Laba Pada Perusahaan Food And Beverage (Studi Pada Perusahaan Food And Beverage Yang Terdaftar Di Bursa Efek Indonesia Tahun 2008-2013). *e-Proceeding of Management : Vol.1, No.3 Desember 2014*.
- Rahdal, Hafizh. (2017). Pengaruh Ukuran KAP, Ukuran Perusahaan, Arus Kas Bebas Dan Leverage Terhadap Manajemen Laba (Studi Empiris Pada Perusahaan Makanan Dan Minuman Yang Terdaftar Di Bursa Efek Indonesia Tahun 2012-2014). *JOM Fekon, Vol.4 No. 1 (Februari) 2017*.
- Richardson, V. J. 1998. Information Asymmetry and Earnings Management: Some Evidence. [http /www.ssrn.com](http://www.ssrn.com).
- Rothenberg, Sandra. 2003. Knowledge Content and Worker Participation in Environmental Management at NUMMI. *Jurnal of Management Studies*, Vol. 40, Issue 7. Published November 2003, Pages 1783-1802.
- Salehi, A., Arbatani, T.R. (2013), Is innovation always beneficial? A meta-analysis of the relationship between branding and performance in SMEs. *Advances in Environmental Biology*, 7(14), 4682-4688.
- Sari, Kartika. (2015). Faktor yang Mempengaruhi Manajemen Laba pada Sektor Perbankan Indonesia. *Jurnal of Business and Banking*. Vol 5 No. 1.
- Sari, Nieken H., and Ahmar, N. (2014). Revenue Discretionary Model Pengukuran Manajemen Laba: Berdasarkan Sektor Industri Manufaktur di Bursa Efek Indonesia.
- Scott, W. R. (2009). *Financial Accounting Theory*. Fifth Edition. Pearson Prentice Hall: Toronto.
- Sharpe, W.F. (1964). Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk. *The Journal of Finance*. The American Finance Association.
- Shleifer, Andrei, and Vishny, Robert W. (1986). Large Shareholders and Corporate Control. *Journal of Political Economy* 94 (3). pp. 461-488.
- Short, H., & Keasey, K. (1999). Managerial Ownership and the Performance of Firms: Evidence from the UK. *Journal of Corporate Finance* 5, pp. 79-101.
- Santoso, Singgih. (2012). *Statistik Nonparametrik*. Jakarta: PT Elex Media Komputindo.
- Sorescu, A., Spanjol, J. (2008), Innovation's effect on firm value and risk: Insights from consumer packaged goods. *Journal of Marketing*, 72, 114-132.
- Stubben, Stephen. R. (2010). Discretionary Revenues as a Measure of Earnings Management. *The Accounting Review* Vol. 85, (2), pp. 695-717.
- Subramanyam, K.R. (1996). The Pricing of Discretionary Accrual. *Journal of Accounting and Economics*, 22, 249-291.
- Sulistiyanto, H. S. (2014). *Manajemen Laba*. Jakarta: PT. Gramedia Widiasarana Indonesia.
- Ulya, Nasihah. (2015). Pengaruh Ukuran Perusahaan, Profitabilitas, Finance Leverage Dan Kualitas Audit Terhadap Praktik Manajemen Laba (Studi Kasus Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2011-2013). *e-Proceeding of Management : Vol.2, No.1 April 2015*.
- Ujiyantho, Pramuka. 2007. *Mekanisme Corporate Governance, Manajemen Laba dan Kinerja Keuangan*. Simposium Nasional Akuntansi X Makassar.
- Veronica, Sylvia., and Utama, Saddharta. (2005). Pengaruh Struktur Kepemilikan, Ukuran Perusahaan Dan Praktek Corporate Governance Terhadap Pengelolaan Laba (Earning Management). *SNA VIII Solo*, 15 – 16 September 2005, pp. 475-490.
- Watts, Ross and Zimmerman, Jerold, L. 1986. "Positive Accounting Theory," Prentice Hall, New Jersey. United States of America, 1986.
- Widyaningdyah, A. U. (2014). Analisis faktor-faktor yang berpengaruh terhadap Earning Management pada Perusahaan Go Public di Indonesia. *Jurnal Akuntansi dan Keuangan*. Vol. 3 (2), pp. 89-101.
- Wijaya, G. E., Wahyuni, M. A., and Yuniarta, G. A. (2017). Pengaruh Asimetri Informasi, Ukuran Perusahaan Dan Kepemilikan Manajerial Terhadap Praktek Manajemen Laba Pada Perusahaan Manufaktur Di Bursa Efek Indonesia (BEI) Tahun 2013-2015. *e-Journal S1 Ak Universitas Pendidikan Ganesha*.
- Wildarman, Herawati. R. (2014). Pengaruh Profitabilitas, Leverage Dan Asimetri Informasi Terhadap Manajemen Laba . e-*Jurnal.bunghatta.ac.id*.
- Yatulhusna, N. (2015). Pengaruh Profitabilitas, Leverage, Umur Dan Ukuran Perusahaan Terhadap Manajemen Laba.
- Yusrilandari, L. P., Hapsari, D. W., and Mahardika, D. P. (2016). Pengaruh Profitabilitas, Kepemilikan Manajerial dan Ukuran Perusahaan Terhadap Manajemen Laba e-Proceeding of Management : Vol.3, No.3 December 2016.

Dr Yvonne Augustine
Economic and Business Faculty
Trisakti University, West Jakarta, Indonesia
Email: yvonneags57@gmail.com

Agustine Dwianika
Economic and Humaniora Faculty
Universitas Pembangunan Jaya, Tangerang, Indonesia
Email: Agustine.dwianika@upj.ac.id