Research.

Green intellectual capital conservatism earning management, to future stock return as moderating stock return (study of mining companies in Indonesia listed on IDX for the period of 2014-2019)

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Received: November 30, 2020; Accepted: December 20, 2020; Published: December 31, 2020


Abstract. This study aims to analyze The Moderating Stock Return of Green Intellectual Capital, Conservatism, and Real Earning Management on Future Stock Returns on mining companies listed on the Indonesia Stock Exchange Period 2014 - 2019. This type of research is quantitative research in which this research is done by explaining the results of data from the calculation of numbers that are calculated and analyzed. The analysis used in this research is regression analysis, where regression analysis estimates the magnitude of the coefficients resulting from a linear equation involving one independent variable to be used as a predictor of the value of the dependent variable. The results of this study indicate that Intellectual capital has a significant effect on future stock returns, Conservatism has a significant effect on future stock returns, Earning management has a significant effect on future stock returns, Simultaneous results Green Intellectual capital, conservatism, earning management simultaneously have an effect on future stock returns, the moderating future stock return on stock returns. These findings indicate that in sample companies, future stock returns on stock returns have no implications.

Keywords: Green Intellectual Capital, Conservatism, Earning Management, Future Stock Return, Stock Return,

INTRODUCTION

The era of the industrial revolution 4.0 to 5.0 and digitalization now have made the mining industry in the capital market an important factor that supports the economy in the country. The capital market facilitates the meeting of two interested parties, namely those who have funds (investors) and those who need funds (issuers) (Sugiyanto, 2019).

Investors need information to assess the ability and performance of a company before making an investment decision (Sugiyanto et al, 2020. Company performance can be measured in terms of financial and non-financial. In this study, the measure of company performance used is future stock returns. stock return that shareholders have
the motivation to invest their capital in the hope of getting a return (return) in accordance with the invested capital. According to Beylin (2016) an effort to maximize stock return is the main goal of a company. This is because a high return in a company reflects the ability of the company to generate profits.

The intended benefit is the profit that the company can use to develop the company's performance in the future. In addition, this profit can determine the size of the dividend paid to investors. Therefore, the return is considered to attract investors to invest (Beylin, 2016). Future stock returns can be interpreted as an expectation of stock returns according to the investment made. High returns will have an impact on investors, which in turn will make investors interested in investing their funds in the capital market. If seen from the high rate of return that the company will give to investors, it will show that the company's performance. That can be said to be good, besides that with high rates of return can have a positive effect on the shares that investors have invested in the capital market. There were several cases of accounting scandals that occurred in the country, cases of violations by several auditors, and the lack of disclosure of intellectual capital. Sugiyanto and Indra (2019) technological innovation now brings up a new view in the business world that the prosperity of a company will depend on creating transformation and capitalization of knowledge, called intellectual capital. The quality of financial statements must also be checked by external parties or public accounting firms that are independent third parties. Outside parties must have an attitude of independence will produce good audit quality, but if the opposite thing that might happen is a case of manipulation.

Information about company performance can be influenced by factors such as conservatism (Kazemi, 2017). Conservatism makes earnings more predictable so that earnings become more quality, and will further increase stock returns. This contradicts (Salehi and Zarejiam, 2017) which shows that there is no relationship between conservatism and stock returns. Scott (2015) states that earnings management is a management arrangement with the presentation of earnings which aims to maximize market value through the selection of accounting policies. Mulford and Comiskey (2010) stated that in order to avoid being wrongly guessed by the market, earning management steps were taken to fit the expected trend. The point is earnings management is done to convey what should be information in the company about long-term profit trends. Stock return is able to predict the company's performance in the future with high returns that can produce profits, where profits are able to develop the company's performance in the future. It is also able to determine the size of the distribution of dividends paid to investors. Based on the background, in the study taking the theme of conservatism, intellectual capital and earnings management on future stock returns has implications for stock returns.

**LIBRARY REVIEW**

Agency Theory Jensen and Meckling (1976) in Sugiyanto and Etty (2018) mentioned that agency theory explains agency problems that arise when the company owner (principal) gives authority to the management (agent). The owner and company are tasked with managing the resources owned by the owner, carrying out operational activities, and making strategic decisions in an effort to develop the company. Delegation of this task occurs due to limited resources. the owner is increasingly difficult to control all operational activities. the manager is responsible for all his efforts in managing the company and informing the owner or shareholders. (Sugiyanto 2018). Signaling theory Ross (1977) in Sugiyanto and Khomsyah (2017).

**Future Stock Return**, Sugiyanto, et al 2019 stated that the greater the risk management entrepreneur, so it was said that future return has a positive relationship...
with risk. But high returns do not always have to be accompanied by risky investments. This can happen in a rational market. Shares (stocks) is an ownership in a company, shareholders who are entitled to the company's income and are responsible for the risk of the portion of the company that represents each share there are two types of shares namely ordinary shares and preferred shares. Ordinary shareholders have the right to choose in making decisions, such as whether or not to join another company, and receive dividends determined by management. Preferred shareholders usually do not have the rights, but receive minimum dividends. So, it can be concluded that future stock return is the expected stock return through time as current market in formation.

Green Intellectual Capital, According to Stewart (1997) Ulum (2018) is a concept of capital that refers to intangible capital associated with human knowledge and experience as well as the technology used. However, according to Bontis et al (2000) in Ulum (2018) stated that researchers generally divide intellectual capital into three components, namely: Green Human Capital (GHC), Green Structural Capital (GSC), and Green Capital Employed (GCE). (1) Green Human Capital is the company's collective ability to produce the best solutions based on the mastery of knowledge and technology from its human resources. Green Human capital is a combination of genetic inheritance, education, experience, and attitude about life and business. This human capital will later support structural capital and employed capital (Ulum, 2018). (2) Green Structural Capital Structural capital is the ability of a company to meet the company's routine processes and structures related to employee efforts to produce performance. According to Bontis, et.al., (2000), structural capital encompasses all non-human storehouses of knowledge in the organization. This includes databases, organizational charts, process manuals, strategies, routines and everything that makes a company's value greater than its material value in (Ulum, 2018). (3) Green Capital Employed This element is a component of intellectual capital that provides real value to the company. Relational capital can arise from various parts outside the corporate environment in enhancing business cooperation that can provide benefits for both parties, so as to improve the performance and value of the company.

Conservatism, Traditionally, accounting conservatism has been defined as "anticipate no profit, but anticipate all losses". (Bliss, 1924 in Watt, 2015: 208). Anticipating no profit means not recognizing profits before there is a valid claim verification of income that generates profits. This means conservatism in the extreme form because it is not allowed to recognize profit, but to admit any loss even though it has not been realized. So the profit will only be recognized when it has been realized and until there is a valid claim against the profit. Watts (2015) states, conservatism as asymmetry in the needs of verification of profits and losses. This means that there is a difference in the need to recognize the advantages and disadvantages. The greater the difference in the degree of verification needed to recognize profit compared to loss, the greater the conservatism. According to Mc Connell (2017), member of the IASB Board, in 2018 the International Accounting Standards Board (IASB) revised the conceptual framework and rejected the concepts of conservatism and prudence on the grounds that these concepts were not in accordance with neutrality, one aspect from faithful representation.

Caution (prudence). Earning Management, Sugiyanto and Etty 2018 Earning management is every action taken by management to understand earning management, including: First Understanding earnings management as the opportunistic behavior of managers to maximize their utility in dealing with compensation, debt, and political cost contracts. Second, Looking at earning management from the perspective of efficient contracting, meaning that earning management gives managers a flexibility to protect themselves and the company in anticipating unexpected events for the benefit of those involved in the contract. The concept of accruals consists of discretionary accruals and non-discretionary accruals. Discretionary accrual is the recognition of accrual earnings or expenses that are free, unregulated, and is a choice of management policy, while non
discretionary accruals are recognition of accrual earnings that are reasonable, unaffected by management policies, and subject to a standard or accounting principle generally accepted, and if the standard the violation will affect the quality of financial statements (Sugiyanto, et al., 2018).

**Return Saham,** The importance of measuring company performance can be explained by agency theory. According to agency theory, the principal as the owner of the company and the agent as the management of the company are very dependent on the performance of the company. Jensen and Meckling, 1976 (Sugiyanto and Etty 2018). Management as an agent aims to provide wealth to the principal or owner of the company. In this connection the principal demands the return of investments entrusted to be managed by management. Acheampong et al (2017) states that returns show financial rewards obtained as a result of investing. The nature of the return depends on the form of investment. For example, companies that invest in fixed assets and business operations expect returns in the form of profits before interest and taxes and in the form of increases in cash flow. Investors who buy common stocks expect returns in the form of dividend payments and capital gains (if the stock price increases), while investors who buy corporate bonds expect interest payments. Then, returns are associated with shares owned by investors.

![Figure 1. Research Design](image)

**Research Hypothesis**

Based on the description, the alternative hypothesis is as follows:

- H0: Intellectual capital has no effect on future stock returns.
- H1: Intellectual capital affects the future stock return.
- H0: Conservatism has no effect on Future Stock Return.
- H3: Management earnings affect future stock returns.
- H0: Intellectual Capital, Conservatism, and Earning management have no effect simultaneously on future stock returns
- H4: Intellectual Capital, Conservatism, and Earning management simultaneously influence the future stock return
- H0: Stock returns have no effect on future stock returns.
- H5: Stock returns affect future stock returns.
RESEARCH METHODOLOGY

The population used in this study is a mining company that is listed and publishes its annual report on the Indonesia Stock Exchange (IDX) for the period 2014-2019. While the sampling in this study uses a purposive sampling method, namely sampling is limited to certain criteria or considerations that can provide the desired information in accordance with selected criteria. Operationalization of Research Variables This study uses 5 variables, namely 1 dependent variable and 4 independent variables. 1. Dependent Variable Future Stock Return This study calculates future stock returns using Nurrohman and Zulaikha's research (2016). calculate the total return by calculating in calculating return t + 1 (one year in the future). Future stock returns are calculated using the formula (1):

\[ FS_{R_{t+1}} = P_{t+1} - P_t + D_{t+1} \]  

(1)

Independent variable:

a. Green Intellectual Capital

Formulation and calculation phases VAIC™ is to calculate the value added or value added (VA) is the difference between sales (OUT) and input (IN). The formula for calculating VA is (Pulic, 1998 in Wanto, 2016) as follows: This formulation is the number of coefficients mentioned earlier. The result is a new and unique indicator, the VAIC™, which is as follows:

\[ VAIC™ = VACA + VAHU + STVA \]  

(2)

Description: VAIC™ : Value Added Green Intellectual Coefficient, VACA : Green Capital employed efficiency VAHU : Green Human Capital Coefficient STVA : Green Structural Capital Coefficient

b. Conservatism

Accrual-based Conservatism (CONACC). Conservatism based on accruals is calculated by adding up net income before the company's extraordinary items in year t with depreciation expense and subtracting operating cash flow and divided by average total assets (Ahmed and Duellman, 2017). as follows:

\[ \text{Accruals} = \text{net profit} + \text{debt} - \text{cash operation to average total asset} \]

Conservatisme = \[ \frac{\text{conservatism accrual entity}}{\text{3 years}} \times (-1) \]  

(3)

\[ \text{CONACC} = \frac{\text{Accruals}}{(it)} \times (-1) \]

c. Earning Management

Earning management is an action taken intentionally the financial reporting process aimed at the external company with the aim of generating personal benefits for some parties, in this case the company. Earning management is proxied by discretionary accruals (discretionary accruals). Earning management measurements using Sugiyanto and Etty's research (2018) discretionary accruals (discretionary accruals) formula produced by the Kaznik model (1999) regression model as follows:

\[ TAC = \beta_0 + \beta_1 (\Delta REV_it - \Delta RECI_t) + \beta_2 PPE_it + \beta_3 ^*CFO_it + \epsilon \]  

(4)

d. Return Saham

Return is the overall return of an investment in a certain period, consisting of capital gain (loss) and yield. Capital gain (loss) is the difference from the current investment price relative to the price of the previous period. calculate stock returns using total The Analysis and Hypothesis Test Design is formulated as follows

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + Z + e \]  

(6)

Y= Future Stock Return \( \alpha = \) Konstanta \( \beta_1, \beta_2, \beta_3 = \) Koeisien regresi, \( X_1 = \) Green
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RESULT AND DISCUSSION

Discussion and Research Results 1. Overview of Research Objects Researchers took samples, namely, mining companies listed on the Indonesia IDX in 2014-2019. Of the 39 companies representing mining companies, there were 14 companies that conducted IPOs in the 2014-2019 period so that the data needed in the study was incomplete, and there were companies that reported negative earnings that did not match the sample criteria. So that the research sample of 14 mining companies totaling 84 samples. 2. Description of Research Samples In this study, the sample was selected using the purposive sampling method using predetermined criteria. Samples were selected for mining and property companies listed on the Indonesia Stock Exchange. The sample selection is based on the following criteria: Analysis of Research Results Descriptive Data Statistics the following is a general description of the data in Descriptive Statistics using Eviews 10 in table 1:

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Future Stock Return</th>
<th>Green Intellectual Capital</th>
<th>Conservatism</th>
<th>Earning Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.020013</td>
<td>6.338549</td>
<td>-0.201914</td>
<td>0.112118</td>
</tr>
<tr>
<td>Median</td>
<td>0.009800</td>
<td>6.186600</td>
<td>-0.117800</td>
<td>0.084700</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.192200</td>
<td>11.68520</td>
<td>0.058700</td>
<td>0.638200</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.001100</td>
<td>1.198600</td>
<td>-0.976200</td>
<td>-0.029000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.032504</td>
<td>2.588138</td>
<td>0.223034</td>
<td>0.109226</td>
</tr>
<tr>
<td>Skewness</td>
<td>3.664928</td>
<td>0.038703</td>
<td>-1.634637</td>
<td>2.262963</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>17.41646</td>
<td>2.352435</td>
<td>4.993251</td>
<td>10.79782</td>
</tr>
</tbody>
</table>
From the descriptive statistics table in Table 1, it can be explained that the sample companies are using the pooled data method in which 14 companies during the observation period (6 years) so that the samples used are 84 showing the mean, median, maximum value, minimum value, and standard deviation. The standard deviation of each variable looks smaller than the mean, so the data deviation can be said to be good. It can be explained that from the sample companies using the pooled data method in which 14 companies were multiplied by the study period. The factors that influence future stock returns on Intelectual Capital, Conservatism and Earning management at the Indonesia Effect Exchange during the research observation period.

Table 2 Model Panel Data Classic Assumptions Test

<table>
<thead>
<tr>
<th>No</th>
<th>Model</th>
<th>Test model</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chow-Test</td>
<td>Common effect vs Fixed Effect</td>
<td>Common Effect</td>
</tr>
<tr>
<td>2</td>
<td>Langrange Multiplier (LM-Test)</td>
<td>Common Effect vs Random Effect</td>
<td>Common Effect</td>
</tr>
<tr>
<td>3</td>
<td>Husman Test</td>
<td>Fixed Effect vs Random Effect</td>
<td>Random Effect</td>
</tr>
</tbody>
</table>

A regression model will provide reliable results if the model used passes the classic assumption test. Jarque-Bera values are not significant (smaller than 2), hence the data are normally distributed. Probability is greater than 5%, then the data is normally distributed. (Wing Wahyu Winarno, 2016: 5.43). The output of the panel data normality regression test in Figure 4.1 of this study, is shown by the following histogram:

![Figure 4.1 Histrogram Normality Test](image)

The results of the Histogram in Figure 4.1 above show a Jarque-Bera value of 0.745411 <2, and a probability of 0.688868 > 0.05 so that it can be concluded that the residuals are normally distributed which means the classical assumptions about normalcy have been fulfilled.

Multicollinearity Test

Multicollinearity Test aims to test whether there is a correlation between the independent variables (independent) in the regression model.
**Table 3**

Multicollinearity Test

<table>
<thead>
<tr>
<th></th>
<th>Green Intellectual _C</th>
<th>Conservatism</th>
<th>Earning_M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Intellectual _C</td>
<td>1.000000</td>
<td>0.105377</td>
<td>0.075093</td>
</tr>
<tr>
<td>Conservatism</td>
<td>0.105377</td>
<td>1.000000</td>
<td>-0.032963</td>
</tr>
<tr>
<td>Earning_M</td>
<td>0.075093</td>
<td>-0.032963</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: Output data processed Eviews 10.0 (2019)

**Autocorrelation Test** This autocorrelation test was performed by comparing the Durbin Watson values. If the Watson Durbin Test value is between 1.54 and 2.46 then there is no autocorrelation (Wing Wahyu Winarno, 2016: 5.28). The results of the Durbin Watson Test in the regression analysis with the fixed effect model (table 4.11) are 1.972307, between 1.54 and 2.46 so that this regression model does not occur in autocorrelation. This heterokedasticity test aims to test whether in the regression model there is an unequal variance from the residuals of one observation to another.

**Table 4**

Heteroskedasticity Test: Glejser

<table>
<thead>
<tr>
<th></th>
<th>Prob. F(3,80)</th>
<th>0.0616</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>2.548751</td>
<td></td>
</tr>
<tr>
<td>Obs*R-squared</td>
<td>7.328153</td>
<td>0.0621</td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>12.98317</td>
<td>0.0047</td>
</tr>
</tbody>
</table>

Test Equation: Dependent Variable: ARESID

From table 4 above it can be seen that there are changes, where there are independent variables experiencing statistical significance. The changes that occur result from the consistency of error variance which shows that in the initial model there was heterokedasticity. The significance value of 0.061605 > 0.05, which means that the variation of the bound model in the Future Stock Return model can be explained by the independent variables Intellectual capital, Conservatism, Earning Management, so that heterocedasticity problems are not expected. a. Equation Regression Model This research with panel data regression was used to see the effect of the independent variables Intellectual capital, conservatism, earnings management on future stock returns implying the stock returns, using Evie ws 10.0 software, the following output model is used.

**Table 5**

Model Fixed Effect

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Intellectual _C</td>
<td>-0.085883</td>
<td>0.042270</td>
<td>-2.031752</td>
<td>0.0045</td>
</tr>
<tr>
<td>Conservatism</td>
<td>1.816193</td>
<td>0.489396</td>
<td>3.711091</td>
<td>0.0004</td>
</tr>
<tr>
<td>Earning_M</td>
<td>-3.118954</td>
<td>0.996575</td>
<td>-3.129673</td>
<td>0.0024</td>
</tr>
<tr>
<td>C</td>
<td>-3.343320</td>
<td>0.325186</td>
<td>-10.28126</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared 0.260255 Mean dependent var -4.604099
Adjusted R-squared 0.232514 S.D. dependent var 1.127824
S.E. of regression 0.988044 Akaile info criterion 2.860269
Sum squared resid 78.09849 Schwarz criterion 2.976022
Log likelihood -116.1313 Hannan-Quinn criter. 2.906801
F-statistic 9.381787 Durbin-Watson stat 1.428485
Prob(F-statistic) 0.000022

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Based on the regression results in Table 5, we obtain the following linear regression equation:

\[ Y = -3.343320 + 0.085883 \text{IC} + 1.816193 \text{Conservatism} - 3.118954 \text{Earning Management} \]

From the above equation can be explained as follows:

**Discussion of Research Results**

1. Intellectual capital has a significant effect on future stock returns, after getting a result of 0.0045 smaller than the required level of 05%, then in the regression equation that intellectual capital has a significant effect on future stock returns. This shows that intellectual capital has a strong contribution to increase the company’s future stock return. The results of this regression are the same as the results of the 2018 Bontis hypothesis testing with Panel Data Regression Analysis

2. Conservatism has a significant effect on future stock returns, the statistical result is 0,0004 smaller with the required 05%. The results of the study are reinforced by the theory of information asymmetry which states that the company's productive future stock returns will affect future stock returns. The regression results are in line with the results of Sugiyanto and Etty 2018 research that conservatism influences future stock returns.

3. Earning management has a significant effect on future stock returns to get 0.0024 results smaller than 0.5%, the results of the regression equation that earning management is very burdensome Agent or management in managing corporate profits that provide added value to obtain earnings management. The results of the study were strengthened by the theory agency Jensen and Makling 1976 in Sugiyanto 2017. capital, conservatism, earnings management simultaneously affect future stock returns. These findings indicate that in the sample companies, intellectual with the results of Sugiyanto and Etty 2018 research that conservatism influences future stock returns.

**CONCLUSION**

1. Intellectual capital has a significant effect on future stock returns, after getting the results of the regression equation it turns out that intellectual capital has no significant effect on future stock returns.

2. Conservatism has a significant effect on future stock returns. These results are consistent with the theory of information asymmetry which states that future stock returns are productive companies. The regression results are in line with the results of Sugiyanto and Etty (2018) research that conservatism influences future stock returns.
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