# THE INFLUENCE OF GREEN INTELLECTUAL CAPITAL, DIVIDEND POLICY, PROFITABILITY RATIO AND ACTIVITY RATIO ON COMPANY VALUE

Tri Astuti<sup>1\*</sup> Sri Ambarwati<sup>2</sup> Frides Dyah Wibowo<sup>3</sup>

<sup>1,2,3</sup>Accounting, Pancasila University, Jakarta, Indonesia

\*Corresponding Author: triastuti@univpancasila.ac.id

**Abstract:** This study aims to determine the effect of green intellectual capital, dividend policy, profitability ratios and activity ratios on firm value. This study takes a sample of companies listed on the Indonesia Stock Exchange which are included in the Sri-KEHATI Index list for the 2016-2020 period. The sample in this study a sample of 9 companies with a total of 45 observations of observation data for 5 years. A total of 5 outlier data have been removed from the analysis so that the total observations are 40 observational data. The data analysis method used is panel data regression with the help of the Eviews 9 program. The results show that partially green intellectual capital, dividend payout ratio and return on equity have no effect on firm value.

**Keywords:** dividend policy, profitability ratios, activity ratios, firm value, green intellectual capital

**Abstrak:** Penelitian ini bertujuan untuk mengetahui pengaruh green intellectual capital, kebijakan dividen, rasio profitabilitas dan rasio aktivitas terhadap nilai perusahaan. Penelitian ini mengambil sampel perusahaan yang terdaftar di Bursa Efek Indonesia yang masuk dalam daftar Indeks Sri-KEHATI periode 2016-2020. Sampel dalam penelitian ini sampel sebanyak 9 perusahaan dengan jumlah observasi sebanyak 45 data observasi selama 5 tahun. Sebanyak 5 data outlier telah dikeluarkan dari analisis sehingga total observasi adalah 40 data observasi. Metode analisis data yang digunakan adalah regresi data panel dengan bantuan program Eviews 9. Hasil penelitian menunjukkan bahwa secara parsial green intellectual capital, dividend payout ratio dan return on equity tidak berpengaruh terhadap nilai perusahaan.

*Kata Kunci: kebijakan dividen, rasio profitabilitas, rasio aktivitas, nilai perusahaan,* green intellectual capital

#### **INTRODUCTION**

In the midst of increasingly fierce global competition, companies in various sectors are trying to improve competitiveness, this can attract investors to invest. Therefore, the value of the company isvery important because it reflects the company's performance which can affect investors' perceptions of the company(Wijaya and Sedana 2015). Generally a company will always try to achieve both long-term and short-term goals. The long-term goal of a company is usually to increase the value of the company and prosper the shareholders. Meanwhile, the short-term goal is to maximize the company's profit with the available resources(Sintyana and Artini 2018).

The company is one of the drivers of the economy that plays a strategic role even though on the other hand it has a negative impact on environmental quality. In the last decade, ecological issues have become a concern for many people, for example related to the need to reduce pollution and reduce carbon dioxide (CO2). The company implements environmental management systems and green activities to control environmental pollution so that employee and human behavior can be used to reduce pollution. Companies are required to be more proactive in responding to environmental issues and make voluntary disclosures for environmental protection in sustainability reports. With the company paying attention to environmental performance it will have a positive impact on the value of the company.

The policy that needs to be considered in optimizing the value of the company is the dividend policy. Dividend policy can have a positive effect on firm value. Because investors prefer a definite dividend at this time by considering the risk that investors will receive is smaller. This can attract investors so that it can also increase the value of the company(Sintyana and Artini 2018). Dividend policy can also have a negative effect on firm value if the company's dividend policy chooses to reinvest the earnings received into retained earnings.

The value of the company can also be influenced by the size of the profitability obtained by the company. Imam Rahmantio et al. (2018) suggests that ROE increases along with the company's ability generate profits from its own capital. Investors before deciding to invest in the company will certainly see the extent to which the company can generate profits. Profitability has no effect on firm value because this means that profitability is not the main focus of investors to see the value of a company, stated by the research of Delariani et al. (2020).

Company activity or activity ratio is a ratio used to measure a company's ability to manage its assets effectively and efficiently. The higher the asset turnover means that the company has been able to make sales using all of its assets. This gives a positive signal to investors to trust the company morebecause it will get the expected profit.

#### LITERATURE REVIEW

According to (Rachman, Rahayu, and Topowijono 2015) in (Mutmainnah, Puspitaningtyas, and Puspita 2019) argues that the value of the company can describe the good and bad management of a company carried out by management which will later affect the formation of the company's share price. If the company can manage its resources well, then

the company can generate profits optimally. The higher the amount of profit generated will affect the high retained earnings of the company.

# **Green Intellectual Capital**

The definition of Green Intellectual Capital (GIC) proposed by Chen (2008) is the incorporation of environmental concepts into Intellectual Capital (IC) to compensate for the previous inadequacy of environmental problems. Chen (2008) describes green intellectual capital as the total wealth stored in the company which includes intangible assets, knowledge, abilities and other matters related to environmental protection and green innovation at the individual level and organizational level within the company. According to Chen (2008) green intellectual capital has three components, namely greenhuman capital, green structural capital, and green relationship capital

# **Dividend Policy**

Dividend is a distribution to shareholders of a company proportionally according to the number of shares held by each owner(Stice, Stice, and Skousen 2009). According to Sutrisno (2012) dividend policy is one of the policies that must be taken by management whether the profits earned by the company during one period will be divided all or partially divided into dividends and someare not divided in the form of retained earnings.

# **Profitability Ratio**

Profitability ratio is a ratio to assess the company's ability to seek profit. According to (Harahap2010) ROE is used to measure the return on investment of shareholders. The level of ROE has a positive relationship with firm value, so the higher the ROE, the higher the interest of investors because the higher the profit for shareholders and the impact on firm value (Hariyanto and Lestari 2015)

# **Activity Ratio**

The activity ratio according to Home, James, & Machowucz (2007) is a ratio that measures how effectively a company manages its assets. Total Assets Turnoveris a ratio used to measure the effectiveness of the company's total assets in generating sales, or to measure how many sales will be generated from each rupiah of funds embedded in total assets.

#### Framework



Figure 1. Thinking Framework

- H1 : Green Intellectual Capital has a positive effect on Firm Value
- H2: Dividend Policy has a positive effect on Firm Value
- H3 : Profitability Ratio has a positive effect on Firm Value
- H4 : Activity Ratio has a positive effect on Company Value

# **RESEARCH METHODOLOGY**

This study aims to determine the effect of green intellectual capital, dividend policy, profitability ratios and activity ratios on firm value. This study takes samples from companies listed on the Indonesia Stock Exchange which are listed on the Sri-KEHATI Index for the 2016-2020 period. The source of data used in this study is secondary data obtained from the official website of the Indonesia Stock Exchange. In processing the data, this study uses the help of the Eviews 9 application by using a regression equation in the form of a logarithm. Ghozali (in Widiyanto, 2018) mentions that there are differences in the units and quantities of independent variables, then the regression equation can be made a natural logarithm model to avoid heteroscedasticity, knowing the coefficients that show elasticity, and closer to the scale of the data. The sampling technique used in this research is purposive sampling. The following are the sample criteria from this study:

- 1. Companies listed on the Indonesia Stock Exchange that are listed on the KEHATI index (SRI) on the Indonesia Stock Exchange during the 2016-2020 period
- Companies that are not consistently listed on the Sri-KEHATI Index during the 2016-2020 period
- 3. Companies with the SRI-KEHATI index that do not present complete financial statements during the 2016-2020 period
- 4. SRI-KEHATI indexed companies that do not use Rupiah in their financial statements
- 5. Companies with SRI-KEHATI index that do not present complete sustainability reports during the2016-2020 period
- 6. SRI-KEHATI indexed companies that did not distribute dividends consecutively during the 2016-2020 period

No.	Variable	Indicator	Scale
1	The value of the company	$Q = \frac{MVE + Debt}{Total Asset}$	Ratio
2	Green Intellectual Capital	$\operatorname{GIC} = \frac{n}{k}$	Ratio
3	Dividend Policy	Dividend Per Share (DPS) DPR = Earning Per Share (EPS)	Ratio
4	Profitability Ratio	$ROE = \frac{EARNING AFTER TAX}{TOTAL EQUITY} X 100\%$	Ratio
5	Activity Ratio	$TATTOO = \frac{Sales}{Total \ Asset}$	Ratio

Table 1. Table of Operational Variables

# **RESULTS AND DISCUSSION**

The population in this study are companies that are included in the Jakarta Islamic Index (JII)index and listed on the Indonesia Stock Exchange (IDX) in the 2017-2019 period. Based on the calculation of purposive sampling, the number of samples obtained is as follows:

1. Companies listed on the Indonesia Stock Exchange that are listed on the KEHATI index	25
(SRI) on the Indonesia Stock Exchange during the 2016-2020 period	
2. Companies that are not consistently listed on the Sri-KEHATI Index during the 2016-	(10)
2020 period	
3. Companies with the SRI-KEHATI index that do not present complete financial	(0)
statements during the 2016-2020 period	
4. SRI-KEHATI indexed companies that do not use Rupiah in their financial statements	(1)
5. Companies with SRI-KEHATI index that do not present complete sustainability reports	(3)
during the 2016-2020 period	
6. SRI-KEHATI indexed companies that did not distribute dividends consecutively during	(2)
the 2016-2020 period	
7. Outlier data	(1)
8. Number of companies that are still samples	8
9. Number of years of observation 2016-2020	5
10. Amount of data during the research period	40

Table 2. Sample selection process

## **Descriptive Statistics Test**

# Table 3. Descriptive Statistical Test Results

	Y	X1	X2	X3	X4
mean	1.309005	0.878250	0.413350	0.129641	0.379384
median	1.236866	0.890000	0.40256	0.133473	0.282340
Maximum	2.027312	0.940000	0.655629	0.1201547	0.806043
Minimum	0.883581	0.720000	0.099256	0.029427	0.080336
Std. Dev.	0.263228	0.059995	0.111934	0.038970	0.296394
Observations	40	40	40	40	40
<b>n n i n</b> ()	2022) I .	1.			

Source: Eviews 9 (2022) data processing results

#### **Chow test**

Tuble II Chow I	est results		
Redundant Fixed Effects Tests			
Equation: MODEL_FEM			
Test cross-section fixed effects			
Effects Test	Statistics	df	Prob.
Cross-section F	10.840438	(7.28)	0.0000
Cross-section Chi-square	52.442456	7	0.0000

Table 4 Chow Test Results

Source: Eviews 9 Data Processing Results.

The results of the Chow test show that the probability value is 0.0000 < 0.05. This shows that H0 is rejected and H1 is accepted which means a better approach to use is the Fixed Effect Model (FEM).

## Haussman test

Table 5. Haussman	Uji test results
-------------------	------------------

Correlated Random Effects - Hausman Test								
Equation: MODEL_REM	Equation: MODEL_REM							
Test cross-section random	Fest cross-section random effects							
Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.					
Cross-section random	9.128808	4	0.0580					

Source: Eviews 9 Data Processing Results.

The results of the Hausman test show that the probability value is 0.0580 > 0.05. That is, this indicates that H0 is accepted. Thus the method used in this study is the Random Effect Model (REM), because the REM model is better than the FEM model.

## Langrage Multiplier Test

**Table 6.** Langrage Multiplier Test Results

Lagrange Multiplier Tests for Random Effects Null hypotheses: No effects Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives тт ai a T .1

	Hypothe	esis Test		
	Cross-section	Time	Both	
Breusch-Pagan	13.54896	0.168248	13.71721	
	(0.0002)	(0.6817)	(0.0002)	

The results of the Hausman test in this study indicate that the right model is the Random Effect Model (REM) so it is necessary to do a Lagrange Multiplier test. the results of the Lagrange Multiplier test, the value of Both Breusch-Pagan is 0.0002 < 0.05 so that H0 is rejected and theappropriate model for this study is the Random Effect Model (REM).

#### Normality test

According toChristiandi and Colline (2021)normality test is a test that aims to see whether the distribution of data obtained from a group has been normally distributed. The results of the normality test in this study are as follows:



The results of the normality test show that the Jarque-Bera Probability value is 0.594013 > 0.05 so it can be stated that the data is normally distributed. Thus, that the regression model satisfies the assumption of normality

#### **Multicollinearity Test**

The multicollinearity test was carried out with the aim of knowing whether there was a correlation between the independent variables in this study.

	X1	X2	X3	X4
X1	1.0000000	0.061050	-0.370029	0.455033
X2	0.061050	1.0000000	0.030313	0.044851
X3	-0.370029	0.030313	1.0000000	-0.118796
X4	0.455033	0.044851	-0.118796	1.0000000

 Table 7. Multicollinearity Test Results

Source: Eviews 9 Data Processing Results.

Multicollinearity test results show that there is no value of the independent variable which is worth more than 0.90. Thus, the independent variables in this study did not occur multicollinearity or no correlation between independent variables.

#### **Heteroscedasticity Test**

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variancefrom the residual of one observation to another observation

Dependent Variabl	e: RESABS									
Method: Panel EGLS (Cross-section random effects)										
Date: 04/12/22 Tin	ne: 00:05									
Samples: 2016 2020										
Periods included: 5	i									
Cross-sections incl	uded: 8									
Total panel (balance	ced) observations: 40									
Swamy and Arora	estimator of compone	nt variances								
Variable	Coefficient	Std. Error	t-Statistic	Prob.						
С	-0.538150	0.395469	-1.360792	0.1823						
X1 0.678197 0.427982 1.584637 0.1										
X2 0.136219 0.188762 0.721643 (										
X3	0.314194	0.571709	0.549570	0.5861						
X4	0.076147	0.088490	0.860518	0.3954						

#### Table 8. Heteroscedasticity test results

Source: Eviews 9 Data Processing Results.

Based on table 8, it shows that the probability of each variable > 0.05 so that it can be stated that the regression model in this study does not occur heteroscedasticity.

#### F Uji test

The F test was conducted with the aim of knowing whether the regression model used in this study was feasible to use so that it could be used to predict the dependent variable. The results of the F test in this study are as follows:

	1 usic >	••••••••					
Weighted Statistics							
R-squared	0.246341	Mean dependent var	0.378029				
Adjusted R-squared	0.160208	SD dependent var	0.162371				
SE of regression	0.148797	Sum squared resid	0.774915				
F-statistics	2.860022	Durbin-Watson stat	1.303348				
Prob (F-statistic)	0.037647						
Sources Erviews 0 Date Droace	aina Dagulta						

Table 9. F. test

Source: Eviews 9 Data Processing Results.

Based on the results of the F test above, it shows that the Prob value (F-Statistic) is 0.037647 < 0.05. Then H0 is rejected and H1 is accepted, so it can be indicated that the independent variables (green intellectual capital, dividend policy, profitability ratios and activity ratios) simultaneously or jointly affect the dependent variable, namely firm value.

## **Coefficient of Determination**

The coefficient of determination test is carried out with the aim of measuring how effective the regression model is in explaining the dependent variable in a study. The results of the coefficient of determination in this study are as follows:

Weighted Statistics						
R-squared	0.246341	Mean dependent var	0.378029			
Adjusted R-squared	0.160208	SD dependent var	0.162371			
SE of regression	0.148797	Sum squared resid	0.774915			
F-statistics	2.860022	Durbin-Watson stat	1.303348			
Prob(F-statistic)	0.037647					
~ ~ ~ ~ ~						

Table 10.	Results	of	the	C	oefficient	of D	eterm	nination
		** 7		. 1				

Source: Eviews 9 Data Processing Results.

Based on the results of the coefficient of determination test above, it shows that the adjusted R-squared value is 0.160208 which indicates the ability of the independent variables (green intellectual capital, dividend policy, profitability ratios and activity ratios in explaining the dependent variable (firm value is 16%. Thus, 84% of firm value variables are explained by other variables not examined in this study.

#### T Uji test

The T test was conducted with the aim of knowing whether the independent variable had a partial effecton the dependent variable in a study. The results of the t-test in this study are as follows

Table 11. T. Test Results					
_	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	С	0.952882	0.583159	1.633999	0.1112
	X1	-0.142199	0.644262	-0.220715	0.8266
	X2	0.500848	0.278755	1.796731	0.0810
	X3	0.359481	0.786415	0.457113	0.6504
	X4	0.599339	0.226158	2.650092	0.0120

Source: Results of Eviews 9

Based on test results The above shows that X1 has a t-statistic value of -0.220715 with a probability value of 0.8266 which means it is greater than a significance level of 0.05. This means that the Green Intellectual Capital variable partially has no effect on Firm Value. X2 has a t-statistic value of 1.796731 with a probability value of 0.0810 which means it is greater than a significance level of 0.05.

This means that the Dividend Policy variable partially has no effect on Firm Value. X3 has a t- statistic value of 0.457113 with a probability value of 0.6504 which means it is greater than a significance level of 0.05, it states that the Profitability Ratio variable partially has no effect on Firm Value.

## CONCLUSIONS

Based on the results of a study entitled The Effect of Green Intellectual Capital, Dividend Policy, Profitability Ratios, Activity Ratios to Firm Value (Empirical Study on Sri-Kehati Stock Index CompaniesListed on the Indonesia Stock Exchange 2016-2020) with a research sample of 40 companies, then can be concluded as follows:

1. Green Intellectual Capital partially has no effect on Company Value on the SRI-KEHATI

stock index in the 2016-2020 period. This is because not all investors see green intellectual capital as a criterion for investing.

- 2. Dividend policy partially has no effect on Company Value on the SRI-KEHATI stock index in the 2016-2020 period. These results indicate that high dividends distributed to shareholdersdo not guarantee an increase in firm value
- 3. Profitability Ratio partially has no effect on Company Value on the SRI-KEHATI stock index in the 2016-2020 period. This is because the return on equity only describes the amount of return on investment made by ordinary shareholders but does not describe the prospects and development of the company
- 4. The Activity Ratio partially affects the Company Value on the SRI-KEHATI stock index in the 2016-2020 period. This is because when investors see a company is able to increase its sales by managing its assets properly, this will attract investors' attention.

Suggestions that can be given for further research on stock prices include adding other independent variables that are not explained in the study. In addition, researchers can examine by comparing companies that are members of the SRI-Kehati index with non-SRI-Kehati index companies. Academics can include green intellectual capital as lecture material in accounting theory courses, financial accounting or capita selecta seminars. For the company, it is better to give rewards to employees when they successfully carry out the task of protecting the environment so that later it can foster enthusiasm for employees to protect the environment

## REFERENCES

- Agustia, Dian, Tjiptohadi Sawarjuwono, and Wiwiek Dianawati. 2019. "The Mediating Effect of Environmental Management Accounting on Green Innovation Firm Value Relationship." International Journal of Energy Economics and Policy 9(2): 299–306.
- Anwar, Rusliansyah. 2014. "Things Underlying the Implementation of the 2013 Curriculum." Humanities 5(1): 97.
- Avagyan, Vardan, Fabrizio Cesaroni, and Gokhan Yildirim. 2011. "HOW FIRM VALUE REFLECTS GREEN INTELLECTUAL The Impact of Green Technological Innovations and Green Marketing Actions on Firm Performance." University of Madrid, Faculty of Economics: 1–22.
- Ayu Yuniastri, Ni Putu, I Dewa Made Endiana, and Putu Diah Kumalasari. 2021. "The Influence of Profitability, Dividend Policy, Investment Decisions, Capital Structure and Company Size on Company Value in Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2017-2019 Period." KARMA: Research Work of Accounting Students 1(1): 69–79.
- Baltagi, Badi H. 2005. Econometric Analysis of Panel Data, Third Edition. John Wiley & Sons. John wiley & sons.
- Bombiak, Edyta. 2021. "Assessment of the Level of Green Intellectual Capital Development Polish Enterprises Case Study." XXIV(1): 1139–56.
- Brigham, Eugene F, and Houston JF 2010. "Fundamentals of Financial Management." In Jakarta: Salemba Empat.
- Chang, Ching Hsun, and Yu Shan Chen. 2012. "The Determinants of Green Intellectual Capital." Management Decision 50(1): 74–94.
- Christiandi, Sendi, and Fredella Colline. 2021. "The Effect of Inflation, Size, and Age on the Performance of Equity Mutual Funds in Indonesia." Journal of Business Administration 17(2): 194–205.
- Ghozali, Imam. 2013. Application of Multivariate Analysis With IBM SPSS 21 Update PLS Regression

Program. Semarang: Diponegoro University Publishing Agency.

- Gujarati, Damodar N, and Dawn C Porter. 2010. Basics of Econometrics, Edition 5 Book 2. Jakarta: Salemba Empat.
- Huang, Cheng-Li, and Fan-Hua Kung. 2011. "Environmental Consciousness and Intellectual Capital Management Evidence from Taiwan's Manufacturing Industry." Management Decisions 49.(Iqbal 2015)Christiandi, Sendi, and Fredella Colline. 2021. "The Effect of Inflation, Size, and Age on the Performance of Equity Mutual Funds in Indonesia." Journal of Business Administration 17(2): 194–205.

Iqbal, Muhammad. 2015. "Panel Data Regression (2) "Analysis Phase"."

- cashmere. 2015. "Financial Statement Analysis." In Jakarta: PT Rajagrafindo Persada. Nachrowi, Nachrowi Djalal, and Hardius Usman. 2006. Popular And Practical Econometric
- Approaches To Economic And Financial Analysis. Jakarta: LPFE University of Indonesia.
- Sintyana, I Putu Hendra, and Luh Gede Sri Artini. 2018. "The Effect of Profitability, CapitalStructure, Company Size and Dividend Policy on Firm Value." Udayana University Management E-Journal 8(2): 7717–45.
- Stice, Earl K, James D Stice, and Fred Skousen. 2009. Middle Financial Accounting, Edition 16,Book 2. Jakarta: Salemba Empat.
- Suffah, Roviqotus, and Akhmad Riduwan. 2016. "The Effect of Profitability, Leverage, Firm Size and Dividend Policy on Firm Value." Journal of Accounting Science and Research 5(2).
- Wijaya, Bayu Irfandi, and IB Panji Sedana. 2015. "The Effect of Profitability on Firm Value (Dividend Policy And Investment Opportunities As Mediation Variables)." Udayana University Management E-Journal 4.