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The Effect Of Green Intellectual Capital, CEO Characteristic, Free Cash Flow On Prudence Moderated By Enviromental Performance

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Abstract: The rapid development of many industries in the world has resulted in environmental damage due to excessive use and exploitation of natural resources. As a result, there is a decline in environmental quality resulting in global warming, ozone depletion, pollution, and acid rain. The impact of environmental conventions in the world Montreal Convention, Kyoto Protocol, Ban on the Use of Certain Hazardous Materials and increasing consumer environmentalism can change the context of competition in industries around the world. This study aims to examine the effect of Green Intellectual Capital, CEO Characteristic, Free Cash Flow on Prudence moderated by Environmental Performance. This study took the research population in the energy sector companies listed on the Indonesia Stock Exchange for the period 2019-2023. The type of data used in this study is secondary data in the form of financial reports of companies that are used as samples. The research method used in this study is a quantitative research method. The sample was selected using the purposive sampling method. For hypothesis testing, this study uses multiple linear regression analysis. Based on the results of this study, it shows that Green Intellectual Capital, Busy Director, and Free Cash Flow have an effect on prudence but CEO Tenure has no effect on Prudence. Environmental Performance strengthens the influence of Green Intellectual Capital, Busy Director, and Free Cash Flow on prudence and Environmental Performance strengthens the influence of CEO Tenure on prudence

Keyword: Green Intellectual Capital, CEO Characreristics, Free Cash Flow, Prudence, Environmental Performance

INTRODUCTION

The rapid development of many industries in the world has resulted in environmental damage due to excessive use and exploitation of natural resources (Tan and Lau, 2010). As a result, there is a decline in environmental quality resulting in global warming, ozone depletion, pollution, and acid rain (Ramlogan, 1997). The impact of environmental conventions in the world Montreal Convention, Kyoto Protocol, Ban on the Use of Certain

Hazardous Materials and increasing consumer environmentalism can change the context of competition in industries around the world (Chen, 2011). However, along with the increasing complexity of the company's business activities, the need for company owners to employ competent and professional parties to carry out operational activities has emerged with the term conservatism. Conservatism is no longer used in the International Financial Reporting Standard (IFRS) and has been replaced with prudence since 2010. Prudence focuses more on caution in making assessments in uncertain conditions in a company. One of the factors that influences prudence is Green Intellectual Capital. The expected green environment is a company's economic resource that can be realized by creating green intellectual capital in describing the company's value (Imaningati & Vestari, 2019). Green intellectual capital is a field of science that is a strategy to preserve the environment in competing with competitors (Pratama & Achmad, 2015). The better the company's green intellectual capital, the more prudential the company is towards its competitors by relying on knowledge, being able to manage its human resources, and being able to manage its internal company well. Another factor that influences prudence is the characteristics of the CEO. CEO characteristics such as CEO experience and CEO tenure tend to prevent aggressive accounting practices and improve financial reporting by increasing conservative accounting practices. Furthermore, the board functions on the information provided by the CEO more importantly, according to Bamber et al. (2020), managers can have the flexibility to influence and change company decisions to meet their own interests. Agency theory (Jensen and Meckling 1976) expects that their personal interests can play a role when carrying out their responsibilities. One of the main triggers that causes a company to behave prudently is having substantial free cash flow (FCF) in the company. FCF is defined as excess cash flow after being used to finance all projects that have a positive NPV when discounted at the relevant cost of capital. The agency problem in the context of having excess FCF by the company arises because of differences in interests over the FCF, where the principal has an interest in enjoying the FCF in the form of dividends, while managers can tend to be opportunistic by withholding or using the FCF to take policies or projects that benefit them, and at the expense of the interests of the owners. Based on this, this study has two objectives, namely (1) Analyzing the influence of Green Intellectual Capital, CEO Characteristic, Cash Flow on Prudence and (2) Analyzing the role of environmental performance on the influence of Green Intellectual Capital, CEO Characteristic, Cash Flow on Prudence. The current study uses Environmental Performance as a moderating variable. This study chooses the Environmental Performance variable as a moderating variable because Environmental Performance is a fundamental aspect of the company. Good Environmental Performance will provide great attraction for investors who will invest their funds in the company as well as a measure of the effectiveness and efficiency of the use of all existing resources in the company's operational processes.

METHOD

The research method contains the type of research, sample and population or research subjects, time and place of research, instruments, procedures, and research techniques, as well as other matters relating to the method of research. This section can be divided into several sub-chapters, but no numbering is necessary.

Table 1. Research object

Variabel	Indikator	Rumus	Skala
Y	Prudence	$Prudence = \frac{(NI - CFO)}{TA} x(-1)$ Oktifia et.al (2017)	Ratio
X1	Green Intellectual Capital	$GIC = \frac{\sum Xyit}{nit} x\ 100\%$	Ratio

		Febrina et al., (2018)	
X2	CEO Characteristic	$CEO\ Tenure = Jumlah\ tahun\ CEO\ Menjabat$ Sumayyah (2020) Value 1: CEO holds concurrent positions. Value 0: CEO does not hold concurrent positions Agustin (2021)	Nominal Dummy
X3	Free Cash Flow	Free Cash Flow = Net Income + Depreciation/Amortization – Changes in Working Capital – Capital Expenditure Ross et.al (2015)	Ratio
X4 (Moderasi)	Environmental Performance	Company Financial Performance with PROPER measurement proxy, with scoring obtained from the PROPER Report published by the Ministry of Environment and Forestry of the Republic of Indonesia, namely: Value 5: Gold Rank. Value 4: Green Rank. Value 3: Blue Rank. Value 2: Red Rank. Value 1: Black Rank. (Ramlawati, 2022)	Likert

Source: Data processed by Researchers (2023)

Data Analysis Methods

Normality Test

According to Ghozali (2020), the normality test is used to determine whether the data used is normally distributed. One way to see normality is to use a histogram by comparing observations with a distribution that approaches a normal distribution. If the data distribution is normal, the line that describes the data will follow its diagonal line. Normality testing in research is carried out using the Kolmogorov-Smirnov statistical test.

Multicollinearity Test

The multicollinearity test is used to test whether the regression model finds a correlation between independent variables. The multicollinearity test is carried out using the tolerance value and Variance Inflation Factor (VIF) (Choiriyah and Damayanti 2020). A good regression model should not have a correlation between independent variables. The basis for making decisions based on multicollinearity is as follows:

If VIF <10 and tolerance> 0.1 then there is no multicollinearity

If VIF> 10 and tolerance <0.1 then there is multicollinearity

Multiple Linear Regression Analysis

The data analysis method used in this study is multiple linear regression. According to (Sugiyono, 2015) Multiple linear regression analysis is used by researchers, if researchers intend to predict how the condition (rise and fall) of the dependent variable (criterion), if two or more independent variables as predictor factors are manipulated. According to Imam Ghozali (2013:98) Regression analysis is used to measure the strength of the relationship between two or more variables, also shows the direction of the relationship between the dependent and independent variables. The accuracy of the sample regression function in estimating the actual value can be measured from its goodness of fit. Statistically, at least this can be measured from the coefficient of determination, F statistic value and t statistic value (Ghozali, 2013)

Hypothesis Testing

According to (Sugiyono, 2018) Hypothesis is a temporary answer to the formulation of research problems, usually arranged in the form of a question sentence. It is said to be temporary because the answers given are only based on relevant theories, not yet based on empirical facts obtained through data collection.

Data analysis in this study was carried out using the Structural Equation Modeling (SEM) method using Partial Least Square (PLS) assisted by smartPLS 3.0 software. The advantage of using PLS is that PLS is a powerful analysis method because it does not assume that data must be on a certain scale and the number of samples is small (Ghozali, 2011) This analysis is used to determine the effect of several independent variables (X) on the dependent variable (Y). Multiple linear analysis was conducted using determination coefficient test, t test, and F test. The regression model in this study is as follows:

$Y = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \varepsilon$ ……..……..……. (i)

$Y = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X1*X5 + \beta6X2*X5 + \beta7X3*X5 + \beta8X4*X5 + \varepsilon$ ….. (ii)

Description:

Y = Prudence

α = Constant

β1...β2 = Regression Coefficient

X1 = Green Intellectual Capital

X2 = CEO Tenure

X3 = CEO Duality

X4 = Free Cash Flow

X5 = Environmental Performance

ε = error term

Error tolerance (a) is set at 5% with a significance level of 95%

Partial Effect Test (t-Test)

According to (Ghozali, 2018) the t-test is used to determine whether two unrelated samples have different average values and the t-test basically shows how far the influence of one independent variable is individual in explaining the variation of the dependent variable. The t-test is done by comparing the difference with the standard error. The null hypothesis (H0) to be tested is whether a parameter (bi) is equal to zero, or H0: bi = 0, meaning whether an independent variable is not a significant explanation of the independent variable. The alternative hypothesis (Ha) of a variable parameter is not equal to zero or Ha: bi≠0.

The test is carried out using a significance level of 0.05 (α=5%). Acceptance or rejection of the hypothesis is carried out with the following criteria: Criteria for accepting the hypothesis:

1) If the significant value is <0.05 and tcount> ttable, then H1 is accepted

2) If the significant value is> 0.05 and tcount <ttable, then H1 is rejected

Simultaneous Influence Test (F Test)

According to (Ghozali, 2018) The f statistical test basically shows whether all independent variables included in the model have a joint influence on the dependent variable. To test these two hypotheses, the F statistical test is used:

Quick look: if the F value is greater than 4 then Ho can be rejected at a 5% confidence level, in other words we accept the alternative hypothesis, which states that all independent variables simultaneously and significantly affect the dependent variable.

RESULTS AND DISCUSSION

The following are descriptive statistics of each variable studied.

Table 2.
Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
GREE_INC	143	0.176	0.625	0.543	0.67088
CEO_TEN	143	1.00	10.00	7.4123	1.76516
BUS_DIR	143	0.00	1.00	0.7432	0.48875
FCF	143	24.00	35.00	33.0058	2.23211
PRUD	143	0.32	3.21	2.21	1.21233
ENV_PERF	143	1.00	5.00	4.32	0.22131
Valid N (listwise)	143				

Source: SPSS Processed Data (2023)

The following are the results of the normality test.

Table 3.
Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		143
Normal Parameters[a,b]	Mean	0000000
	Std. Deviation	.84524092
Most Extreme Differences	Absolute	.256
	Positive	.154
	Negative	-.256
Test Statistic		.256
Asymp. Sig. (2-tailed)		.967[a]
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Data processed by Researchers (2023)

Based on the research results, we can see that the significance value (Asymp. Sig. (2-tailed)) is 0.967 or greater than 0.05, which means that the data used for this study is normally distributed.

Heteroscedasticity test

The following are the results of the heteroscedasticity test

Table 4.
Heteroscedasticity test

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.404	.630		.483	.630
	GREE_INC	-.293	.059	-.746	-3.280	.761
	CEO_TEN	.568	.225	1.599	2.077	.383
	BUS_DIR	.671	.082	.812	3.312	.319
	FCF	-.289	.203	-1.694	-2.899	.533
	ENV_PERF	.324	.445	.432	3.3421	.354
a. Dependent Variable: Abs_RES						

From the table above, it can be seen that the significant value of the t-test of all independent variables with Absolute Residual (ABS_RES) is more than 0.05. So it can be concluded that in the regression model of this study there is no heteroscedasticity problem.

Multicollinearity Test

The following are the results of the multicollinearity test

Table 5.
Multicollinearity test

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
	(Constant)	5.291	1.063		4.980	.000		
	GREE_INC	.583	.320	.602	5.451	.000	.709	5.391
	CEO_TEN	.868	.380	1.838	4.918	.000	.793	5.521
	BUS_DIR	.540	.138	-.466	-3.913	.000	.719	5.906
	FCF	.374	.343	-1.138	-4.010	.000	.761	5.019
	ENV_PERF	.456	.323	-2.421	-3.321	.000	.654	5.245

Source: Data processed by Researchers (2023)

In the table above, we can see that there are no independent variables that have a Tolerance value of less than 0.1 and there are no independent variables that have a Variance Inflation Factor (VIF) value of more than 10. So it can be concluded that there is no multicollinearity between independent variables in the regression model.

Autocorrelation Test

The following are the results of the Autocorrelation test

Table 6
Autocorrelation Test

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.894[a]	.800	.795	.957	1.803
a. Predictors: (Constant), GREE_INC. CEO_TEN, BUS_DIR_FCF_ENV_PERF					
b. Dependent Variable: PRUD					

Source: Data processed by Researchers (2023)

The Durbin Watson value (d) in the data processing of this research result is 2.103, which means du < d < 4-du, namely: 1.6932 < 1.803 < 2.3068, this result shows that there is no autocorrelation in this research model.

Hypothesis Test

The following are the regression results.

Table 7
Regression Test

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.349	9.807		2.425	.016
	GREE_INC	.227	.099	.587	5.323	.000
	CEO_TEN	.454	1.279	.151	.120	.805
	BUS_DIR	.365	1.169	.487	2.483	.030
	FCF	1.127	.523	1.761	3.063	.000
	ENV_PERF	1.020	.001	.867	2.825	.000
	GREE_INC* ENV_PERF	1.066	.051	2.833	1.308	.003

	CEO_TEN* ENV_PERF	1.040	.050	1.397	.801	.205
	BUS_DIR* ENV_PERF	2.321	.321	1.231	4.323	.003
	FCF* ENV_PERF	3.321	.231	2.121	3.421	.023
a. Dependent Variable: PRUD						

Source: Data processed by Researchers (2023)

Based on the results above, the following equation can be made:

PRUD = 13.344 + .227 GREE_INC + .454 CEO_TEN + .365 BUS_DIR + 1.127 FCF + 1.020 GREE_INC*ENV_PERF + 1.040 CEO_TEN* ENV_PERF +2.321 BUS_DIR*ENV_PERF+ 3.321 FCF*ENV_PERF

Based on the results of this study, it shows that Green Intellectual Capital, Busy Director, and Free Cash Flow have an effect on prudence but CEO Tenure has no effect on Prudence. Environmental Performance strengthens the influence of Green Intellectual Capital, Busy Director, and Free Cash Flow on prudence and Environmental Performance strengthens the influence of CEO Tenure on prudence

CONCLUSION

Based on the results of this study, it shows that Green Intellectual Capital, Busy Director, and Free Cash Flow have an effect on prudence but CEO Tenure has no effect on Prudence. Environmental Performance strengthens the influence of Green Intellectual Capital, Busy Director, and Free Cash Flow on prudence and Environmental Performance strengthens the influence of CEO Tenure on prudence.

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