THE EFFECT OF THE APPLICATION OF GREEN ACCOUNTING ON THE FIRM VALUE WITH FOREIGN OWNERSHIP AS MODERATION

Sri Luayyi[1], Nila Oktavia[2]*, Prima Noermaning Attarie[3]
[1,2,3] Faculty of Economic, Universitas Islam Kadiri, Kediri, Indonesia
[2] nilaoktavia129@gmail.com

Abstract
Firm value is the main consideration when investors want to invest in a company. One of the factors that can increase the value of the company is green accounting. Green accounting is part of the development of the triple bottom line concept where green accounting discusses how accounting can be more friendly between economic and business system towards society and the environment which are a unified system. All decisions taken in increasing the value of the company cannot be separated from the role of shareholders who also provide input and decisions including foreign ownership in it. The purpose of this study of the study is to analyze the effect of implementing green accounting on firm value with foreign ownership as moderation. The population in this study are energy sector companies listed on the Indonesia Stock Exchange for the period 2019 to 2022. The sampling technique used purposive sampling. The analytical method used is descriptive statistical analysis, classical assumption test, and Moderating Regression Analysis. The results of this study found that green accounting proxied by disclosure of carbon emissions has an effect on firm value and foreign ownership can moderate the effect of green accounting on firm value.

Keywords: Green Accounting, Firm Value, and Foreign Ownership

INTRODUCTION

The energy sector industry is an industry engaged in the production, distribution, and sale of energy. The energy in question can be in the form of petroleum, natural gas, coal, electricity, geothermal, and others. Activities in the energy industry are related to mining activities which are activities related to exploration, exploitation, refining processing, and transportation of minerals or mining materials. Mining activities are very vulnerable to environmental destruction. Many mining activities invite public attention because of the environmental destruction they cause. Energy sector companies are one of many companies whose production activities are directly related to the environment, because the raw materials taken to carry out production are raw materials directly taken from nature. The existence of mining activities in a certain area, it will cause environmental impacts around the location.

Companies are no longer faced with a Single Bottom Line concept where the company's attention is only focused on economic aspects reflected in financial conditions, but now business management must apply a more supportive concept, namely Triple Bottom Line which means that companies must pay attention to three aspects, namely profit, people, and planet. The company not only focuses on achieving maximum profit but is also able to be directly involved in fulfilling community welfare and in environmental management activities (Hasanah &; Destalia, 2017: 297).

Green accounting means a concept where accounting does not only focus on financial objects and transactions as has been the case, but becomes part of the business system, economy, development, and life systems of citizens who are social and state, accounting must also be able to integrate using social and environmental phenomena found in the surrounding area. Green accounting discusses how accounting can be more friendly to the economic and business systems, to society and also the environment that becomes a unified system. So far, accounting has always been related to finance and economics only. Green accounting views these costs or sacrifices not as a burden, but as an investment for the future. Where it is necessary to consider what benefits will be obtained in the future (Almunawwaroh, 2022: 2).

Referring to signal theory, the quality and value of the company can be judged on the basis of published information. In line with the assumptions in signal theory, information related to the application of green accounting through annual reports and sustainability reports is positive information that indicates that the company has responsibility and concern for the surrounding environment. As global demands on the environment increase, companies will tend to improve the quality of reporting related to environmental costs. This can be a strong consideration for investors to invest in mining companies, especially foreign investors who are very concerned about environmental management (Soleha &; Isnalita, 2022: 144).

The limitations of the problem in this study are green accounting proxied on the disclosure of carbon emissions, company value as measured by Price to Book Value (PBV), and foreign ownership seen from the total shares owned by foreign investors listed in the financial statements. The data used are annual financial statements and sustainability reports for the period 2019 to 2022 on energy sector companies listed on the IDX. Based on this, research related to green accounting and its effect on company value becomes interesting to do. This research attempts to empirically prove how the application of green accounting supports global demands related to sustainability reporting through carbon emission disclosure. In particular, this study also looks at the role of foreign ownership in moderating the influence of green accounting on company value.

LITERATURE REVIEW

Green Accounting

According to Lako (2018: 106), green accounting or greening accounting is a process to encourage and make the accounting process and its output more environmentally friendly or more friendly to social and environmental transactions or events, in addition to financial transactions or events. The crucial aspects of accounting that need to be greened are the goals and objectives of accounting reporting, basic concepts, generally accepted accounting assumptions and principles, accounting standards and processes, and reporting and information disclosure. Green accounting is a new paradigm in the field of accounting that recommends that the focus of the accounting process is not only focused on financial transactions to produce financial statements in order to know the profit / loss (profit) of corporate entities, but also on transactions or social events (people) and the environment (planet) so that social and environmental accounting information is also known. In other words, the focus of the green accounting process is on financial, social, and environmental transactions or events so that the reporting output contains financial, social, and environmental information. Green accounting is proxied by the disclosure of carbon emissions and measured using the following formula:

$$CED = \left(\frac{\sum di}{M}\right) x\ 100\%$$

Sumber: Sandi et al., 2021

Firm Value

There are several opinions expressed in the book by Indrarini (2019: 15) regarding the definition of company value, namely:

1. According to Brealey et al, company value is an investor's collective assessment of a company's performance, both current performance and future projections.

2. According to Sudiyatno, company value is often associated with stock prices whose measurement can be done by looking at the development of stock prices on the stock exchange, if the stock price increases it means the company's value increases. The increase in stock prices shows that public confidence in the company is good, so people are willing to pay higher, this is in accordance with people's expectations to get high returns as well. Increased company value is an achievement that is in accordance with the wishes of the owner because with the increase in company value, the welfare of the owner will also increase and this is the duty of the manager as an agent who has been entrusted by the owner of the company to run his company.

The purpose of the establishment of the company is to improve the welfare of shareholders through increasing the value of the company. Maximizing company value is important for a company. To achieve this goal, there are still problems between the owner of the company and the provider of funds as creditors. If the company runs smoothly, then the company for its share value will increase (Luayyi et al., 2022). Measurement of company value using Price to Book Value (PBV) with the following formula:

$$\boxed{PBV = \frac{Harga\ saham\ per\ lembar}{Nilai\ buku\ saham\ per\ lembar}}$$

Sumber: Bilayudha & Kiswanto, 2015

While the formula for calculating the stock price per share is as follows:

$$\boxed{Harga\ saham\ per\ lembar = \frac{Nilai\ Ekuitas\ Perusahaan}{Jumlah\ Saham\ Beredar}}$$

Foreign Ownership

According to Fanani &; Hendrick (in Taduga &; Nofal, 2019: 301), foreign ownership is investment by foreign parties who invest their capital in a domestic company that has some shares and voting rights in the company, foreign ownership is ownership by individuals and groups from abroad (foreign) who invest their capital both in the form of shares and establishments into the country. With the presence of foreign investors in domestic companies, supervision of company performance will be better, and with experts who contract with foreign investors will increase firm value so that it can be glimpsed by other potential investors. Referring to agency theory, ownership by foreigners increases awareness of agency problems in the form of intense monitoring of management because they have enough knowledge in monitoring managers. The structure of foreign ownership can be measured according to the proportion of ordinary shares owned by foreigners, it can be formulated:

$$\boxed{\text{Kepemilikan Asing} = \frac{\text{Jumlah kepemilikan saham oleh pihak asing}}{\text{Jumlah saham yang beredar}} \text{ x } 100\%}$$

Sumber: Sissandhy, 2014

Theory of Relationships Between Variables

The Effect of Green Accounting Implementation on Firm Value

Based on signal theory, company quality can be assessed based on published information. In line with this theory, information about green accounting which is proxied by the disclosure of carbon emissions in sustainability reports and annual reports is very important because it shows that the company cares about the environment around it. The more information disclosed shows that the company is trying to present a good impression and increase the company's value. Increasing demands related to concern for the environment have made information related to green accounting very much needed by investors as a consideration in making investments. In line with signal theory, research conducted by Soleha & Isnalita (2022) shows that green accounting results are proxies for disclosure of carbon emissions and have a positive effect on firm value. Furthermore, research conducted by Permana & Tjahjadi (2020) also shows the result that disclosure of carbon emissions has a significant effect on company value in Indonesia.

The Effect of Green Accounting Implementation on Firm Value with Foreign Ownership as Moderation

Stakeholder theory is motivated by the desire of managers to build a framework that is responsive to the problems faced, namely environmental changes. Stakeholders in question are any group or individual who can be influenced or influence the achievement of a company's goals. The activities carried out by the company are not carried out for its own interests but also for the interests of the stakeholders, namely investors, society, government and parties related to the company's operations. Disclosure of social and environmental responsibility becomes part of the communication between stakeholders and the company. These stakeholders are taken into consideration by the company in disclosing information within the company. The main aim of stakeholder theory is to assist management in efforts to increase the value of the activities carried out by the company and minimize losses for stakeholders.

Stakeholder theory is intended so that companies can understand the environment around their stakeholders so that companies can carry out more effective management because they have received an overview of the company's environment (Abdullah, 2020: 5). The results of previous research conducted by Soleha & Isnalita (2022) showed that the moderation effect arising from the study was pseudo-moderation with foreign ownership as an individual moderation variable having a positive effect on company value as its dependent variable.

Hypothesis

Green Accounting Affects Firm Value

Previous research stated that disclosure of carbon emissions has a significant effect on company value in Indonesia and found that investors react positively to disclosure of carbon emissions because investors consider carbon emission information useful for evaluating risks and making investment decisions (Permana & Tjahjadi, 2020).

First Hypothesis Formula: There is an Influence between the Implementation of Green Accounting on Firm Value

H_0 : Application of Green Accounting has no effect on Company Value

H_1 : Application of Green Accounting has an effect on Firm Value

Green Accounting Affects Firm Value with Foreign Ownership as Moderation

The effect of disclosing carbon emissions is moderated by foreign ownership in line with previous research which stated that firm value is positively and significantly affected by foreign ownership and investors are more concerned about environmental aspects and applicable laws, so that it will tend to put greater pressure on companies in carrying out their responsibilities. environment, including regarding disclosure of carbon emissions (Soleha & Isnalita, 2022).

Second Hypothesis Formula: There is an Influence between Green Accounting on Firm Value with Foreign Ownership as Moderation

H_0 : Application of Green Accounting has no effect on the Value of Companies with Foreign Ownership as Moderation

H_2 : Application of Green Accounting affects the Value of Companies with Foreign Ownership as Moderation

RESEARCH METHODS

This type of research is a quantitative descriptive research. Data sources come from secondary data, namely annual reports and company sustainability reports taken from the Indonesia Stock Exchange. The population of this research is 36 companies in the energy sector listed on the IDX during the 2019-2022 period and 4 companies were obtained as research samples. Data collection is done by means of documentation and literature study. Data analysis used descriptive statistical analysis, classic assumption test, and Moderating Analysis Regression.

Results and Discussion

Results

Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
CED	16	28.00	89.00	68.9375	4.19868	16.79472
PBV	16	55.00	214.00	128.3125	11.40384	45.61538
KA	16	1.00	84.00	26.2500	8.38078	33.52313
Valid N (listwise)	16					

The table above shows the results of the descriptive statistics of the Green Accounting, Firm Value, and Foreign Ownership variables as follows:

1. Green Accounting independent variable proxied by Carbon Emission Disclosure (CED) has an average value of 68.9375. The company with the lowest carbon emission disclosure value is Petrosea Tbk in 2019 of 28.00 (minimum value) while the company with the highest carbon emission disclosure value is Bukit Asam Tbk in 2019 to 2022 of 89.00 (maximum value). The standard deviation value is 16.79472 which indicates that the data varies less because the standard deviation value is smaller than the average value.
2. The dependent variable company value as measured by Price to Book Value (PBV) has an average value of 128.3125. The company with the lowest company value is Petrosea Tbk in 2019 of 55.00 (minimum value) while the company with the highest company value is Akr Corporindo Tbk in 2022 of 214.00 (maximum value). The standard deviation value is 45.61538 which indicates the data is less varied because the standard deviation value is smaller than the average value.

3. The moderating variable of Foreign Ownership as measured by the number of shares owned by foreigners divided by the total outstanding shares in one period has an average of 26.2500. The company with the lowest foreign ownership is Petrosea Tbk in 2022 of 1.00 (minimum value) while the company with the highest foreign ownership is Indo Tambangraya Megah Tbk in 2019 of 84.00 (maximum value). The standard deviation value is 33.52313 which shows that the data varies because the standard deviation value is greater than the average value.

Classic Assumption Test

Normality test

The results of the Kolmogorov-Smirnov normality test obtained the Asymp value. Sig (2-tailed) of 0.200 > 0.05. These results indicate that the data is normally distributed.

Linearity Test

The results of the linearity test show the value of Sig. F on the green accounting variable and company value is 0.307 > 0.05, so it can be concluded that these variables have a linear relationship. Sig. Value F on the variable foreign ownership and company value is 0.075 > 0.05, so it can be concluded that these variables have a linear relationship.

Heteroscedasticity Test

The results of the heteroscedasticity test show an F value of 0.807 with Sig. 0.467 > 0.05, it can be concluded that heteroscedasticity does not occur.

Autocorrelation Test

The autocorrelation test using the run test shows the Asymp value. Sig. (2-tailed) is 0.796 > 0.05, so it can be concluded that there are no symptoms of autocorrelation.

Moderating Regression Analysis

Regression First Equation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.337	41.207		.396	.698
	CED	1.624	.582	.598	2.792	.014

Based on the table above, the following regression equation is obtained:

$PBV_{i,t} = 16.337 + 1.624\ CED_{i,t} + \varepsilon$

Based on the equation above, it can be concluded as follows:

1. The constant shows a value of 16.337, which means that if the green accounting variable is considered constant then the resulting company value is 16.337.
2. The green accounting regression coefficient (CED) is 1.624, meaning that if green accounting increases by 1 unit, the company value will increase by 1.624 units and vice versa.

Regression Second Equation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.677	23.348		2.470	.029
	CED	1.043	.345	.384	3.020	.011
	KA	-5.877	.969	-4.377	-6.065	.000
	CED*KA	.078	.013	4.334	5.902	.000

Based on the table above, the following regression equation is obtained:

$PBV_{i,t} = 57.677 + 1.043\ CED_{i,t} - 5.877\ KA_{i,t} + 0.078\ (CED \times KA)_{i,t} + \varepsilon$

Based on the equation above, it can be concluded as follows:

1. The constant shows a value of 57.677, which means that if the green accounting variable is considered constant then the resulting company value is 57.677.
2. The green accounting regression coefficient (CED) is 1.043, meaning that if green accounting increases by 1 unit, the company value will increase by 1.043 units and vice versa.
3. The foreign ownership regression coefficient (KA) is -5.877, meaning that if foreign ownership increases by 1 unit, the company value will decrease by -5.877 units and vice versa.

Hypothesis Testing

H1: The t result of green accounting (CED) is 3.020. Meanwhile, the significance value of t calculated for the green accounting variable (CED) is 0.011, which means <0.05. Based on these results, H_0 is rejected and H_1 is accepted, which means that green accounting has an effect on firm value.

H2: The t result of green accounting (CED) with moderation of foreign ownership (KA) is 5.902. Meanwhile, the t-calculated significance value of the green accounting (CED) variable with foreign ownership (KA) moderation is 0.000, meaning <0.05. Based on these results, H_0 is rejected and H_2 is accepted, which means that foreign ownership can moderate the effect of implementing green accounting on company value.

Coefficient of Determination Test (R Square)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.918[a]	.843	.803	20.22475

Based on the table above, it can be seen that the coefficient of determination (R Square) obtained is 0,843 or 84,3%. This shows that the green accounting and foreign ownership variables can explain the influence of these variables on company value by 84.3%, while the remaining 15.7% is caused by other variables which were not used as variables in this research.

Discussion

The Effect of Implementing Green Accounting on Firm Value

Based on the results of the partial influence test, it was found that the Green Accounting variable had a calculated t value of 3.020 and a significance value of 0.011 < 0.05, so it could be concluded that H_1 was accepted because the results of the hypothesis test showed that Green Accounting partially had a positive effect on Company Value. This means that the influence of Green Accounting which is proxied by Carbon Emission Disclosure has an effect on increasing Company Value. It is known that so far green accounting records have been considered as records that will have an impact on reporting related to sustainability reports and are able to have an influence on sustainability and increase the value of a company. It can be concluded that stakeholders do not only prioritize fundamental elements or economic elements in determining a policy or decision because currently the local community can understand thoroughly that creating a green accounting recording system is an investment in the sustainability of a company, not just costs incurred by the company to creating environmental improvements. Thus, the company that is the object of research has provided complete information in its annual report regarding the company's environmental responsibilities by displaying the costs included in the green accounting assessment indicators as a form of investment in a company's sustainability.

The Effect of Implementing Green Accounting on Firm Value with Foreign Ownership as Moderation

Based on the results of the partial influence test, the Green Accounting variable moderated by Foreign Ownership has a calculated t value of 5.902 and a significance value of 0.000 < 0.05, so with these results it can be concluded that H_2 is accepted. This means that foreign ownership is able to moderate or strengthen the influence of implementing Green Accounting on company value. Foreign ownership or share ownership by foreign investors in a company influences the disclosure and recording of green accounting carried out by a company in increasing its company value. This explanation means that the company makes disclosures and records related to green accounting as a sense of corporate responsibility towards the environment. The disclosure and recording of green accounting is approved and supported by foreign investors because foreign investors also have a role in company decision making.

CONCLUSION

Based on the purpose of this study, namely to be able to find out the effect of implementing green accounting on the value of companies with foreign ownership as a moderation in energy sector companies listed on the Indonesia Stock Exchange for the 2019-2022 period. It was noted that in this study there were 4 companies sampled that met the criteria. Based on the description and analysis that has been stated previously, the following conclusions are obtained:

1. Green accounting variables affect company value in energy sector companies listed on the Indonesia Stock Exchange for the 2019-2022 period.
2. The foreign ownership variable is able to moderate or strengthen the effect of implementing green accounting on company value in energy sector companies listed on the Indonesia Stock Exchange for the 2019-2022 period.

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