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THE EFFECT OF IMPLEMENTING *GREEN ACCOUNTING* ON THE QUALITY OF FINANCIAL REPORTING WITH INSTITUTIONAL OWNERSHIP AS A MODERATION VARIABLE

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ABSTRACT

This research was designed with the aim of determining the effect of implementing green accounting and corporate social responsibility disclosure on the quality of financial reporting. The sample used is energy sector companies listed on the Indonesia Stock Exchange in 2019-2021. The data used is secondary data where the data is data obtained through the official website www.idx.co.id or the company website with purposive sampling method as a sample collection method, research testing using panel data regression analysis and moderating regression analysis. research results show that green accounting has a positive and significant effect on the quality of financial reporting, but institutional ownership cannot moderate the relationship between green accounting and the quality of financial reporting.

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INTRODUCTION

In the current era of free market development, Indonesian entrepreneurs no longer compete with domestic entrepreneurs but face even more diverse competition. The development of science and technology, which is characterized by increasingly advanced industry, has an impact on increasingly complex operational activities and corporate social responsibilities. Disclosure of accounting information has become an important topic in accounting research. Deep public concern about environmental protection awareness , that humans no longer only pay attention to the correctness of accounting information, but begin to pay attention to whether companies make appropriate contributions to environmental protection (Ma & Ma, 2019) .

Environmental laws and regulations emerged paying attention to industrial companies that carry out activities that pollute the environment. Environmental protection organizations have begun to demand the need to preserve the environment and preserve natural resources, so that they do not threaten life. Because the environment cannot be protected and developed without cost, the role of the accounting profession emerges in solving environmental problems and problems by providing financial information related to the environment that is useful for related parties in decision making (Bicer & Darewi , 2019)

quite severe environmental crisis that has occurred in recent years on planet Earth has been caused by increasing forest degradation and deforestation, water and soil pollution, the greenhouse effect, damage to natural resources and habitat destruction (Song et al., 2017) . The environmental crisis involves several responsible parties, and industry is one of them (Gonzalez & Mendoza, 2021) . Companies take various ways to gain profits , conducting research and development to find the best ways to increase sales and cost efficiency. However, sometimes companies ignore environmental aspects to gain cost efficiency so that environmental pollution cannot be avoided (Arum, 2019) .

Environmental damage is a serious problem in Indonesia. Based on Yale University's analysis of the environmental performance of countries in the world in 2022 , entitled The Environmental Performance Index (EPI), Indonesia is in 164th position out of 180 countries researched . Indonesia got a score of 28.20 points (Wolf et al., 2022) . In the Southeast Asia region, Indonesia's score is in the bottom three. Singapore and Brunei are the two best countries with scores of 50.90 and 45.70.

Poor environmental performance indicates that Indonesia is not an environmentally friendly country . A country is considered environmentally friendly when it can produce environmentally friendly products, processes and practices that do not harm the natural environment, help conserve resources such as water and energy, and do not contribute to air, water and land pollution (Wolf et al., 2022) .

Based on data from the Indonesian Forum for the Environment (WALHI), 39.4% of the environmental damage that occurred was caused by companies. Damage Natural causes such as forest burning that lasted several years not only disturbed Indonesia but also neighboring countries such as Singapore, Malaysia and Brunei Darussalam, so that companies have the greatest responsibility for environmental damage that occurs in Indonesia.

Government Regulation Number 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability Companies (PP 47/2012) regulates that every PT as a legal subject has social and environmental responsibilities. The obligation to implement CSR is aimed at PTs that carry out business activities in the field and/or related to natural resources (SDA) based on law. However, even though the obligation to spend on CSR has been regulated, there are no binding national regulations regarding the amount or percentage of CSR that companies must spend (E. Permatasari, 2020) .

In line with the *green accounting concept,* companies should include environmental costs in the company's operational costs (Rounaghi, 2019) . In the national context, Director of the Indonesian Forum for the Environment (Walhi) Aceh Ahmad Shalihin said that not all mining companies carry out their responsibilities according to the regulations. There are several companies that do not carry out reclamation after the permit period expires, for which the company should be sanctioned or the company should deposit its reclamation funds. However, the company did not do this and the company neglected its obligations (Zulkarnaini, 2023) . From the phenomenon described above, this shows the company's problems in implementing *green accounting* that is not appropriate in its place a.

Green accounting can play an important role in preventing environmental damage by promoting more sustainable and responsible economic activities , by taking into account the true costs and benefits of economic activities, organizations can make more informed decisions that balance economic growth with environmental sustainability (Sadiku et al. al., 2021) . The *green accounting* concept directs corporations to make business decisions based on benefits that not only lead to *profit orientation,* but also to the environment and society around the company. This means that every business decision taken must pay attention to and consider the impact that will occur on finances and the environment (Prahara & A'yuni, 2021) . The application of *green accounting* by companies still raises controversy among researchers because it involves several views on quantitative (environmental financial reports) and qualitative (environmental policies and documents), both national (gross domestic product and environmental regulations) and local data (Gonzalez & Mendoza, 2021) . However, what is clear is that if a company wants to improve its environmental performance, accounting must be involved in it to carry out the function of collecting, calculating, analyzing and reporting environmental costs and other transactions related to the environment so that management can manage environmental aspects (Arum, 2019) .

Companies make regular financial reports which include reports on the company's profit sustainability to establish relationships between these two parties with different interests (Nurdin & Hamzah, 2016) . Positive relationships between stakeholders *can* help business. Meanwhile, bad relationships increase the risk of business development . Therefore , building positive connections with stakeholders can help businesses operate better (Vitolla et al., 2019; Yu et al., 2017) .

Accounting information is needed by users to make economic decisions. To be useful in making economic decisions, the accounting information presented in financial reports must

meet the requirements (Arum, 2019) . In practice, implementing an integrated *green accounting process* allows increasing the usefulness of accounting information for stakeholders in assessing and making economic and non-economic decisions that are more environmentally and socially friendly , so that multiple economic crises can be prevented and corrected (Prahara & A'yuni, 2021) .

The quality of financial reporting is often associated with company performance which is reflected in sustainable profits and is measured by accounting attributes. Value relevance is one of the attributes of accounting quality (Azar et al., 2019) which shows the extent to which accounting information still has a role in assessing relevance as a basis for decision making for investors. In this research, the quality of financial reporting is measured based on the company's earnings sustainability, namely how the condition of profits continues continuously (*earnings sustainability*).

In this research, institutional ownership was chosen as an element of company *stakeholders* which was used as a moderating variable . The use of institutional ownership in the relationship between these variables has not been widely studied. However, institutional investors have been able to motivate companies to improve the quality of their financial reporting, including maintaining consistent profits, thereby increasing investor confidence and strengthening the company's position in the capital market. (Al-Duais et al., 2022) . So it is interesting to see the role of institutional ownership in moderating the relationship between the variables in this research.

Related research on *green accounting* on the quality of financial reporting has been carried out by several previous researchers. Research conducted by Arum (2019) found that the implementation of *green accounting* had an effect on profit sustainability, but had no effect on the value relevance of accounting information. Research conducted by Agbo & Olufemi, (2022) shows that *environmental accounting* has a positive influence on the quality of financial reporting . Meanwhile, research conducted by Bicer & Darewi (2019) found that there was a statistically significant relationship between environmental costs and improving the quality of financial reports .

THEORY AND DEVELOPMENT HYPOTHESIS

Legitimacy Theory

Legitimacy theory explains that disclosure of social responsibility is carried out by companies to gain legitimacy from the community where the company is located. This legitimacy causes the company to avoid undesirable things and can increase the value of the company. Companies are increasingly realizing that the survival of the company also depends on the company's relationship with the community and environment in which the company operates. This is in line with legitimacy theory which states that companies have a contract with society to carry out activities based on justice values, and how companies respond to various interest groups to legitimize company actions (Tenriwaru et al., 2021) .

Legitimacy theory is another theory used to explain social and environmental disclosures . Burgwal & Vieira (2014) and Mousa & Hassan (2015) argue that legitimacy theory are the most widely used to explain voluntary social and environmental disclosures in their studies of environmental determinants. Legitimacy theory originates from the concept of organizational legitimacy, a condition that exists when a company's value system conforms to the social value system and the larger system of which the company is a part. One of several tools for confirming corporate legitimacy is communication which is usually operationalized through the use of financial report disclosures to achieve a balance between corporate values on the one hand and social values on the other hand, to achieve social contract status. If not, the company will get a negative social impression that will be detrimental to the company's existence. An integral part of societal norms and value expectations is the disclosure of quality financial reports for use by society or various stakeholders, the latter being the result of the disintegration of the former, namely society, into smaller groups . These small groups that make up society are the focus of another similar and complementary theory known as stakeholder theory.

Stakeholder Theory

Stakeholder theory outlines that an organization will emphasize organizational accountability far beyond simple financial or economic performance (Chandra & Augustine, 2019) . This theory states that organizations will choose to voluntarily disclose information about their environmental, social and intellectual performance, over and above their mandatory requests to meet *stakeholder expectations* . *Stakeholder* theory assumes that a company is not an entity that only operates for its own interests but must be able to provide benefits to its *stakeholders* . Thus, the existence of a company is greatly influenced by the support provided by the company's *stakeholders* (Ghozali & Chariri, 2007) .

In this research, the *stakeholder element* that is the main research variable is the institutional owner of the company. Companies that have a high level of institutional ownership tend to have better quality financial reporting, including higher earnings persistence. Profit persistence is a company's ability to maintain a consistent level of profit from year to year (Bushee et al., 2019) .

In this context, institutional investors can motivate companies to improve the quality of their financial reporting, including maintaining consistent profits, thereby increasing investor confidence and strengthening the company's position in the capital market. (Al-Duais et al., 2022) . However, it is important to remember that this relationship is not causal, meaning that institutional ownership does not directly lead to better financial reporting quality or higher earnings persistence. There are other factors that can also influence this relationship, such as company size, debt levels, and company management characteristics.

Green Accounting

Green accounting is a type of environmental accounting that describes efforts to incorporate environmental benefits and costs into financial decision making or the financial performance of a company. Green accounting describes efforts to incorporate environmental benefits and costs into financial decisions (Angelina & Nursasi, 2021) . .

Green accounting aims to incorporate business management permanently. It is currently a new part of the accounting and education systems in most countries. *Green accounting* provides access to environmental information by measuring environmental aspects that influence the sustainability of a company. Green accounting also organizes data in accounting systems, develops and clarifies environmental assets (assets and investments made to protect the environment), environmental liabilities, environmental revenues (economic benefits to the company resulting from its environmental management) and environmental costs costs incurred by the company to minimize use of renewable resources (Gonzalez & Mendoza, 2021) . Based on the definition above, it can be concluded that *green accounting* is a process of reflection and reporting on environmental accounting that applies to various interest groups and can facilitate shareholder decision making.

Quality of Financial Reporting

The quality of financial reporting is the suitability of financial information produced by the accounting system and not limited to financial reports in meeting the needs of interested parties, especially external companies in making economic decisions. To be useful in making economic decisions, the accounting information presented in financial reports must meet the requirements (Arum, 2019) .

Financial reporting is part of the financial reporting process. Complete financial reporting generally contains profit and loss reporting, reporting on changes in financial position, namely those contained in cash flow reporting and funds flow reporting, balance sheets, notes to financial reporting and other reporting that contains explanatory material which is part of the financial reporting. Financial reporting provides accounting information that is useful for capital markets for making business decisions (Perotti & Wagenhofer, 2014) . High-quality financial reporting is essential to influence users in making investment decisions, and to increase market efficiency (Herath & Albarqi, 2017) .

Financial reports must have good quality information so that they can be used optimally by potential investors and other users. In assessing the quality of financial reports, there are two large groups of assessment attributes, namely accounting-based attributes and market-based

attributes (Francis et al., 2004) . The quality attributes of financial reports based on accounting are accrual quality, persistence, predictability and income smoothing. Then the quality attributes based on the market are value relevance, timeliness, and conservatism.

Institutional Ownership

Institutional ownership shows the composition of share ownership by institutions or organizations or cooperatives within a certain time period (Sutedja, 2020) . According to Istiantoro et al. (2017) is share ownership by the government, financial institutions, legal entities, foreign institutions, trust funds and other institutions at the end of the year. The existence of institutional ownership in a company will encourage increased supervision to optimize management performance. Dominant institutional ownership will have the power to influence the running of the company, an institution's need for useful information will increase the company's mandatory disclosure compliance (Alvionita & Taqwa, 2015) .

Chung & Zhang (2011) define institutional ownership as the portion of company shares held by institutional investors. Therefore, by definition, institutional ownership of a company is one minus the fraction of its shares held by non-institutionals (i.e., individual investors). If examining institutional investors' preferences for certain groups of companies, it is necessary to consider why institutional investors' preferences for these companies tend to be greater than individual investors. Institutional investors (e.g., banks, insurance companies, and pension funds) have strong fiduciary responsibilities.

Institutional ownership has an important meaning in monitoring management because institutional ownership will encourage increased supervision of more optimal company operations, this is because institutional investors are involved in strategic decisions so they do not easily believe in acts of profit manipulation. This monitoring will certainly guarantee prosperity for shareholders, the influence of institutional ownership as a supervisory agent is suppressed through their quite large investments in the capital market (Suardikha & Apriada, 2016) .

Hypothesis Writing

The Effect of *Green Accounting* on the Quality *of* Financial Reporting

Green accounting is a subfield of accounting that focuses on recording, analyzing and reporting the ecological and environmentally motivated financial impacts of certain economic systems, also emphasizing non-monetary and monetary aspects. The main purpose of financial statement disclosure is to provide useful or relevant information to company stakeholders for making decisions. It is an obligation at the core of corporate governance to disclose quality financial reports for this purpose (Agbo & Olufemi, 2022) .

The quality of financial reports is often associated with company performance which is reflected in sustainable profits and is measured by accounting attributes. Information resulting from quality financial reporting will help stakeholders make appropriate and accurate decisions. Financial reporting is not limited to financial reports but also other information that can be taken into consideration in making economic decisions, including information about the company's environmental activities.

After discussing green accounting in 1971 by Parker, there has been much progress made regarding *green accounting studies* with the scope of evaluating social financial performance, financial activities, and disclosure of social responsibility (Gonzalez & Mendoza, 2021) . Draft *Green accounting* involves assessing environmental costs and resource losses within a country. To assist companies in understanding and managing the trade-offs between environmental goals and traditional economic goals, green accounting was developed (Maama & Appiah, 2019) . Companies need to develop methods to promote green incentives for the present and future through *green accounting* (Bebbington et al., 2017) .

Results of research conducted by Bicer & Darewi (2019) shows that there are obstacles that limit the application of environmental cost measurement and disclosure, the environmental cost measurement model increases a company's commitment to environmental responsibility. The research results also show that there is a statistically significant relationship between environmental costs and improving the quality of financial reports. Research conducted by Handoko & Harti (2023) shows that *green accounting* has a positive effect on the quality of financial reports, companies that previously only disclosed financial information can now

become more contemporary by informing stakeholders about non-financial reports such as community and environmental factors through reports. sustainability, the availability of sustainability reports is expected to foster trust from the public and other stakeholders that companies are not only focused on profits but also care about the surrounding environment.

Furthermore, the results of research conducted by Arum (2019) shows that the application of *green accounting* has an effect on profit sustainability but has no effect on the value relevance of accounting information. Meanwhile, the nature and characteristics of investments in the environment require them to be capitalized rather than expensed. This research determines that the value relevance of service companies' financial reporting will be improved by the application of the developed model, thereby increasing the information decision-making capabilities of many users (Agbo & Olufemi, 2022) . The perception of investors and the public towards companies that implement green accounting is increasing and has an impact on company profits. Even though green accounting is considered to reduce profits due to voluntary actions, the existence of green accounting is believed to prevent negative public opinion on the company and demonstrate commitment to efforts to prevent environmental damage.

H 1 : Implementation of *Green Accounting* has a positive effect on the quality of financial reporting.

Effects of Implementation *Green Accounting* on the Quality of Financial Reporting with Institutional Ownership as a Moderating Variable

Institutional ownership refers to the percentage of a company's shares owned by institutional investors such as mutual funds, pension funds, and other large investors. These investors are believed to have significant influence on the behavior and performance of the companies in which they invest, including their environmental and social practices. Several studies have examined the relationship between *green accounting* and financial reporting quality, with varying results. Several studies have found a positive relationship between *green accounting* and financial reporting quality, indicating that companies with better *green accounting practices are more likely to produce higher quality financial reports.* (e.g., Cho et al., 2010 and Cho & Patten, 2007) . Another study did not find a significant relationship between the two (Brammer & Pavelin, 2006) .

Institutional investors have the ability to motivate companies to improve the quality of their financial reporting, including maintaining consistent profits, thereby increasing investor confidence and strengthening the company's position in the capital market (Al-Duais et al., 2022) . However, it is important to remember that this relationship is not causal, meaning that institutional ownership does not directly lead to better financial reporting quality or higher earnings persistence. There are other factors that can also influence this relationship, such as company size, debt levels, and company management characteristics.

However, the impact of institutional ownership as a moderating variable on this relationship has also been investigated. One study found that institutional ownership strengthens the positive relationship between *green accounting* and financial reporting quality (Dhaliwal et al., 2012) . This suggests that companies with high institutional ownership are more likely to produce high-quality financial reports when they also have strong environmental accounting practices.

However, research on how institutional ownership influences the relationship between *green accounting* and the quality of financial reporting has not been widely studied. So there are limited references to the moderating influence of institutional ownership. Institutional investors are thought to prioritize short-term financial performance over environmental and social considerations, leading companies to focus on financial reporting on *green accounting* .

H 2 : Implementation of *Green Accounting* has a positive effect on the quality of financial reporting with institutional ownership as a moderating variable.

METHOD STUDY

The research approach used in this research is a quantitative research approach, then uses descriptive methods . The subjects of this research are energy sector companies listed on the Indonesia Stock Exchange in 2019-2021. This research uses secondary data. Secondary

data used in this research is in the form of annual financial reports of energy sector companies listed on the Indonesia Stock Exchange (BEI) on the official website www.idx.co.id for the 2019-2021 period. Sampling was carried out using the *purposive sampling method* . As for The population in this study was 80 energy sector companies listed on the Indonesia Stock Exchange in 2019-2021 in accordance with the 2023 stock exchange clarification. So 44 companies were obtained as research samples, resulting in 132 research data. The regression analysis used is MRA panel data regression analysis

The green accounting measurement is used with a proper performance rating, if the company implements green accounting it is given a score according to the proper level and if it does not implement it it is given a score of 0 (Arum, 2019; Endiana et al., 2020) . The quality of financial reporting is measured by looking at the persistence of profits achieved by the company , earnings per share per current period compared to earnings per share in the previous period Arum (2019) and Mutmainnah & Wardhani (2013) . Institutional ownership is measured based on the number of shares owned by institutions per number of shares outstanding (Sukanto & Widaryanti, 2018) .

RESULTS STUDY AND DISCUSSION

Descriptive statistics

Descriptive statistics are used to analyze and present quantitative data with the aim of knowing the description of the companies used as research samples. By using descriptive statistics, the average *(mean)* , standard deviation, variance, maximum, minimum, *sum* , *range* , kurtosis and skewness values can be determined (Ghozali, 2018) . Descriptive statistics of the variables used in the research with the total data for all variables being 132 company data can be seen in the table. The average GA for all companies is 1.485 with a minimum value of 0 and a maximum value of 5, INST has an average value of 57.866 with a minimum value of 0 and a maximum value of 100, while FRQ shows an average value of 6.588, a minimum value of -23.286 and a maximum value of 43.668. .

Table 1
Descriptive statistics

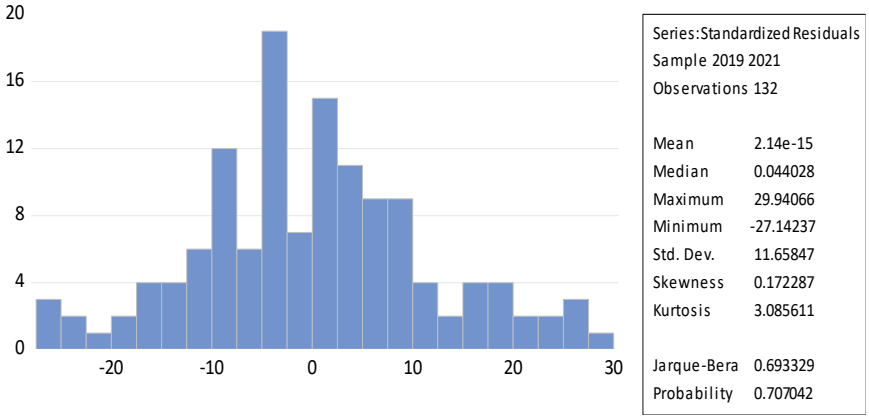
Variables	N	Minimum	Maximum	Mean	Std. Deviation
GA (X1)	132	0,000	5,000	1,485	1,916
INST (M)	132	0,000	100,000	57,866	25,989
FRQ (Y)	132	-23,286	43,668	6,588	12,572

Source: Eviews Processed Data, 12

Classic Assumption Test Results

1) Normality Test

The results of the normality test in this study use provisions for residuals using the Jarque-Bera (JB) test. In this research, the level of significance used $\alpha = 0{,}05$is . The probability value of the JB statistic is 0.6 93329 . Because the probability value p, namely 0.707042 is greater than the significance level, namely 0.05. This means that the normality assumption is met



Source: Eviews Processed Data, 12

Figure 1
Normality Test Results

2) Multicollinearity Test

The multicollinearity test aims to test whether the regression model finds any correlation between independent variables. A good regression model should not have correlation between independent variables (Ghozali , 2018) . In this research, symptoms of multicollinearity can be seen from the VIF value, stating that if the VIF value is > 10 then this is an indication of multicollinearity. From the results of the multicollinearity test, it can be concluded that there are no symptoms of multicollinearity between the independent variables. This is because the VIF value < 10 .

Table 2
Multicollinearity Test Results

Independent Variable	VIF
X1	6.444601
m	1, 692067

Source: Eviews Processed Data, 12

3) Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality *of variance* from the residuals of one observation to another in the regression model. A good regression model is one that is homoscedastic or does not have heteroscedasticity (Ghozali , 2018) . The results of the Breusch-Pagan test show the value of Prob. Chi-Square 0.6721 > 0.05 which means there is no heteroscedasticity .

Table 3
Heteroscedasticity Test Results

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.515212 _	Prob. F(2.129)	0.6725 _
Obs*R-squared	1. 574919	**Prob. Chi-Square(2)**	**0.6721 _**

Source: Processed Data Eviews 1 2

4) Autocorrelation Test

The autocorrelation test aims to test whether in the linear regression model there is a correlation between confounding errors in period t and confounding errors in period t-1 (previously). mark _ *Probability Obs*R-Squared* is 0.3134 > 0.05, it can be concluded that the autocorrelation test assumptions have been met or the data has passed the autocorrelation test.

Table 4
Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test

Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.127323 Prob. F(2 .12 6)	0.3271 _
Obs*R-squared	2.320487 **Prob. Chi-Square(2)**	**0.3134** _

Source: Eviews Processed Data, 12

Panel Data Regression Analysis

Panel Data Model Selection Test

To determine the regression model that will be used in the research, three data tests are used. The three data tests are the *Chow test,* test Hausman, and *Langrange multiplier tests.* Each of these tests will produce recommendations for the best method. The method that has the most recommendations will later be chosen as the method that will be used to carry out panel data regression.

1. Chow test

The Chow test is used to compare the best *common effect model* (CEM) or *fixed effect model (FEM). If the probability value is greater than >0.05, then the common effect model* (CEM) is chosen as the best, but if the probability value is small than < 0.05, then selecting the best *fixed effect model (FEM) (* Ghozali , 2018) .

Table 5

Chow Test Results

Redundant Fixed Effects Tests
Pool: DPANEL
Cross-section fixed effects test

Effects Test	Statistics	df	Prob.
Cross-section F	1. 334819	(43.8 5)	0.1 289
Chi-square cross-section	6 8.107949	43	**0.0 087**

Source: Processed Data Eviews 1 2

Based on the results of the Chow test it is known the probability value is 0.0087 . Because the probability value is 0.0087 < 0.05, the estimation model used is the *fixed effect model* (FEM).

2. Hausmant test

The Hausmant test is used to compare between *the fixed effect model* (FEM) or *random effect model* (REM) that will be selected, if the probability value is greater than >0.05, then *the random effect model* (REM) is chosen as the best, but if the probability value is small than < 0.0 5 , then select *the fixed effect model* (FEM) the best.

Table 6

Hausmant test

Correlated Random Effects - Hausman Test
Pool: DPANEL
Cross-section random effects test

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	2.821389	3	**0.4200** _

Source: Processed Data Eviews 1 2

The results of the Hausman test with *a random cross-section probability* value of *0.4200* are greater than the significance level (0.4200 > 0.05), so the appropriate model is to use *the random effect model* (R EM) .

3. Lagrange Multiplier test

Lagrange multiplier test is a test used to choose the best approach between the *common effect model* (CEM) and *the random effect model* (REM) in estimating panel data. The

Lagrange multiplier test is carried out if previously it was concluded that the *Chow test* and the *Hausman test* had different results, then a final test must be carried out to find the best model.

Table 7

***Lagrange Multiplier test* results**

Lagrange Multiplier Tests for Random Effects
Null hypothesis: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided
(all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.760176 (0.3833)	0.068196 (0.7940)	0.828372 (0.3627)
Honda	0.871881 (0.1916)	-0.261143 (0.6030)	0.431857 (0.3329)
King-Wu	0.871881 (0.1916)	-0.261143 (0.6030)	-0.071465 (0.5285)
Standardized Honda	1.216921 (0.1118)	0.155868 (0.4381)	-4.560287 (1.0000)
Standardized King-Wu	1.216921 (0.1118)	0.155868 (0.4381)	-2.474922 (0.9933)
Gourieroux, et al.	--	--	0.760176 (0.3626)

Source: Processed Data Eviews 1 2

The results of *the Lagrange multiplier* test are obtained *random cross-section* value with a probability of 0.3833, meaning that the test results have a large probability value of >0.05, so the appropriate model is to use *the common effect model* (CEM). Based on the results of the Chow Test, Hausmant Test, and LM Test, the best model in this research is the *common effect model* (CEM).

Panel Data Regression Equations and Moderated Regression Analysis

Statistical test results using *eviews 12* produces panel data regression equations and *moderated regression analysis* (MRA) as follows:

Table 9

Panel Data Regression Results and *Moderating Regression Analysis* (MRA) Analysis

Dependent Variable: FRQ (Y)
Method: Panel Least Squares
Sample: 2019 2021
Included observations: 3
Cross-sections included: 44
Total pool (balanced) observations: 132

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	- 2.318890	3. 173621	- 0.730676	0.4663 _
X1 _ GA	3.908970	1.365248	2. 863195	0.0 049

M_INST	0.099900 _	0.051577 _	1.936924	0.0 550
X1M	-0.029547	0.02 1080	-1.401619	0.1634 _

R-squared	0.140123 _	Mean dependent var	6.588724
Adjusted R-squared	0.1 19970	SD dependent var	12.5725 5
SE of regression	11.79430 _	Akaike info criterion	7. 802945
Sum squared resid	17 805.51	Schwarz criterion	7.8 90302
Log likelihood	-5 10.9943	Hannan-Quinn Criter.	7. 838443
F-statistic	12.06493	Durbin-Watson stat	1.5 34890
Prob(F-statistic)	0,000 226		

Source: Processed Data Eviews 1 2

Based on table 9 above, the regression equation can be formulated as follows:

FRQ **=** β_0 + β_1 GA+ β INST + β_3 (GA*INST)+ **ε**

FRQ = -2,318890 +3,908970 +0,099900 - 0,029547

Interpretation of results:

1. From the equation above, it is known that the constant value is - 2.318890 This means that if all the independent variables are equal to zero, then the quality of financial reporting will be - 2.318890 .
2. *Green accounting* regression coefficient (X_1) is 3.908970 meaning every increase *in Green accounting* in one period, it will increase the quality of financial reporting by 3.908970 .
3. The regression coefficient of multiplying *Green accounting* with institutional ownership (X_1M) is - 0.0 29547 meaning that every time *Green accounting is multiplied* by institutional ownership (X_1) in one period, it will increase The quality of financial reporting is -0.029547 .

Hypothesis test

t Test (Partial Test)

The t test basically shows how much influence an individual explanatory/independent variable has in explaining variations in the dependent variable (Creswell & Creswell, 2017) . The calculations used to accept and reject the formulated hypothesis are by looking at the significance (p-value) of each independent variable with a significance level of a = 0.05. If the significance is smaller than a = 0.05, then H_0 is rejected or H a accepted, meaning that partially the independent variable has a significant effect on the dependent variable. Regression results with panel data are as follows:

Table 10

t Test Results (Partial)

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	- 2.318890	3. 173621	- 0.730676	0.4663 _
X1 _ GA	3.908970	1.365248	2. 863195	0.0 049
M_INST	0.099900 _	0.051577 _	1.936924	0.0 550
X1M	-0.029547	0.02 1080	-1.401619	0.1634 _

Source: Processed Data Eviews 1 2

Based on the test results in table 4.10 it can be concluded as follows:

1) Variable *green accounting* (X_1) has a calculated t value of 2. 863195 with a probability of 0 , 0 049 or smaller than the a value = 0.05 (0.0 049 < 0.05) . This means that it can be

concluded that the variable *green accounting has* an effect on the quality of financial reporting (H1 is accepted) .

2) Interaction variable between *green accounting and* institutional ownership (X 1 M) has a calculated t value of -1.401619 with probability 0.1643 _ smaller than a = 0.05 (0, 1643 > 0.05) . It means can be concluded that Institutional ownership cannot moderate the relationship between *green accounting* and financial reporting quality (H 3 is rejected) .

Coefficient of Determination

The determination test is a test used to determine the magnitude in percent of the influence of the independent variable as a whole on the dependent variable Ghozali (2018) .

Table 11
Coefficient of Determination Test Results

R-squared	0.140123	_Mean dependent var	6.588724
Adjusted R-squared	0.1 19970	SD dependent var	12.5725 5
SE of regression	11.79430	_Akaike info criterion	7. 802945
Sum squared resid	17 805.51	Schwarz criterion	7.8 90302
Log likelihood	-5 10.9943	Hannan-Quinn Criter.	7. 838443
F-statistic	12.06493	Durbin-Watson stat	1.5 34890
Prob(F-statistic)	0,000 226		

Source: Processed Data Eviews 1 2

The value of the Adjusted R 2 determinant coefficient is 0.119970 or 11.99 %. From these calculations it can be seen that the influence of *green accounting* has on the quality of financial reporting amounted to 11.99 % and the remaining 88.01% was influenced by other variables not examined in this research.

Discussion

The Effect of Implementing Green Accounting on the Quality of Financial Reporting

In line with legitimacy theory which explains that companies are motivated to make ore proactive environmental management decisions through green innovation to respond to ublic pressure flowing from invisible social contracts with stakeholders (Tan & Zhu, 2022) . Draft *Green accounting* involves assessing environmental costs and resource losses within a country. To assist companies in understanding and managing the trade-offs between environmental goals and traditional economic goals, green accounting was developed (Maama & Appiah, 2019) . Companies need to develop methods to promote green incentives for the present and future through *green accounting* (Bebbington et al., 2017) .

The quality of financial reports is often associated with company performance which is reflected in sustainable profits and is measured by accounting attributes. Information resulting from quality financial reporting will help stakeholders make appropriate and accurate decisions. Financial reporting is not limited to financial reports but also other information that can be taken into consideration in making economic decisions, including information about the company's environmental activities.

The results obtained in this research are that *green accounting* has a significant effect on the quality of company financial reporting. In line with research conducted by Bicer & Darewi (2019) . Handoko & Harti (2023) state that green *accounting* has a positive effect on the quality of financial reports, companies that previously only disclosed financial information can now become more contemporary by informing stakeholders about non-financial reports such as community and environmental factors through sustainability reports, It is hoped that the availability of sustainability reports can foster trust from the public and other stakeholders that companies are not only focused on profits but also care about the surrounding environment. Even though green accounting is considered to reduce profits due to voluntary actions, the

existence of green accounting is believed to prevent negative public opinion on the company and demonstrate commitment to efforts to prevent environmental damage.

The Effect of Implementing Green Accounting on the Quality of Financial Reporting with Institutional Ownership as a Moderating Variable

ownership as a moderating variable in this relationship has also been investigated. One study found that institutional ownership strengthens the positive relationship between *green accounting* and financial reporting quality (Dhaliwal et al., 2012) . This suggests that companies with high institutional ownership are more likely to produce high-quality financial reports when they also have strong environmental accounting practices. However, research on how institutional ownership influences the relationship between *green accounting* and the quality of financial reporting has not been widely studied. So there are limited references to the moderating influence of institutional ownership. Institutional investors are thought to prioritize short-term financial performance over environmental and social considerations, leading companies to focus on financial reporting on *green accounting* .

Empirical studies show that there is a positive relationship between a company's institutional ownership and the quality of financial reporting related to earnings persistence. Institutional ownership indicates that the company has the backing of professional investors who hold large amounts of shares. Institutional investors usually have a long-term interest in the company and tend to pay attention to the quality of the company's financial reporting (Trinh et al., 2022) .

However, this is contrary to the results of this research, where institutional investors have not played an active role in supervising company operations so that institutional ownership has no effect on the quality of financial reporting. Institutional investors have the ability to motivate companies to improve the quality of their financial reporting, including maintaining consistent profits, thereby increasing investor confidence and strengthening the company's position in the capital market (Al-Duais et al., 2022) . However, it is important to remember that this relationship is not causal, meaning that institutional ownership does not directly lead to better financial reporting quality or higher earnings persistence.

CONCLUSION

Based on the results of the hypothesis test proposed in this research, several conclusions are drawn as follows: The implementation of *green accounting* has a positive and significant effect on the quality of financial reporting, and institutional ownership does not moderate the relationship between the implementation of *green accounting* and the quality of financial reporting.

Some limitations in this research are; 1) The use of samples is limited to energy sector companies so that the research results cannot be used as a reference for other sectors, 2) the research period is limited, only 3 years from 2019-2021, 3) the measurement of the quality of financial reporting is only persistent, 4) the results The tests in this research still show that the independent variable consisting of the implementation of *green accounting* is only able to explain the dependent variable, namely the quality of financial reporting, by 11%, which means the rest can be explained by variables that do not exist or are outside this research.

It is hoped that future research can add an observation period to get a broader picture of this research. In addition, future research is expected to use more precise measures to describe the quality of financial reporting more completely, such as: relevance, faithful representation, comparability, verification, timeline, and understanding. It is hoped that future research can develop research on factors that influence the quality of financial reporting, taking into account other factors that have not been examined in this research, such as *leverage* , company size (Amenaghawon et al , 2021) , profitability (Nugroho & Darsono , 2023) , green strategy (Handoko & Harti, 2023), so as to provide clarity regarding better quality financial reporting.

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