IJAMESC, Vol. 2 No. 5, October 2024
DOI: https://doi.org/10.61990/ijamesc.v2i5.284 e-ISSN 2986-8645

THE EFFECT OF DISCLOSURE OF CARBON EMISSIONS AND ECO EFFICENCY ON COMPANY VALUE

Maharani Juniar Mulyadi Salim[1]*, Murtanto[2]
[1.2]Trisakti University, Indonesia
*Corresponding Author:
maharanimulyadi@gmail.com, murtanto@trisakti.ac.id

Abstract
There are many threats to climate change accompanied by environmental damage. This is able to create a paradigm for assessing environmental performance in companies that are directly related to the environment. Regarding the impact of a business's business activities on the environment, it is a challenge for companies to find ways to reduce their environmental impact and make disclosures as a form of responsibility every year. The sample in this research uses energy sector companies for the period 2020 to 2023. The method used in this research is a panel data regression model with the results of research on carbon emissions disclosure and eco-efficiency having no effect on company value.

Keywords: Carbon Emissions Disclosure, Eco-Efficiency, Company Value

1. Introduction

In the era of globalization which is growing more rapidly and the increasing number of companies operating in the same field, it is a challenge for companies to improve their performance to be able to compete in the public market. One way a company can improve its competitive ability is by changing the way the market views its company. This perspective is of course related to the company's value in the eyes of consumers/society. This company value is very useful for internal and external parties, one of which is that many parties use company value as a benchmark for a company's ability to repay loans given by creditors.

Company value is a situation and condition created by a company that can reach the level of consumer or public trust in the company after being able to go through the process of business activities for several years since the company was founded until now (Rusmana & Purnaman, 2020). This company value is considered a reflection regarding the company's performance that will be eyed by prospective shareholders/the wider community and able to change the perspective of prospective shareholders towards the company. A company with good values will certainly be attractive in the eyes of potential shareholders, this is the company's goal of increasing the value of its company. Increasing the value of the company is done in various ways, one of which is by looking at the history of the share prices owned by the company. Public companies or companies that buy and sell their shares on the Indonesian Stock Exchange will of course have a history of their share prices and can be analyzed by all stakeholders who need company data (Rusmana & Purnaman, 2020).

One of the energy sector companies listed on the stock exchange experienced a decline in share prices, namely shares of PT Adaro Energy Indonesia, Tbk. The following is the history of the share price of PT Adaro Energy Indonesia, Tbk from 2019-2023 which shows fluctuating increases and decreases.

DOI: https://doi.org/10.61990/ijamesc.v2i5.284 e-ISSN 2986-8645

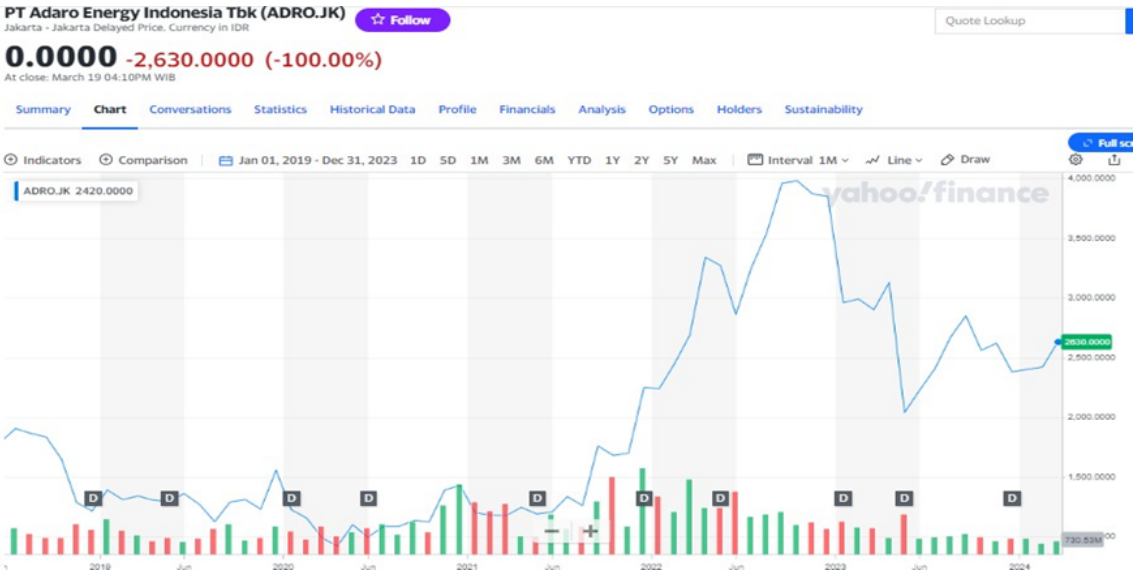

Figure 1. History of PT Adaro Energy Indonesia, Tbk. Share Prices

Based on Figure 1, the share price of PT Adaro Energy Indonesia, Tbk in 2019-2023 shows that there has been a fluctuating increase and decrease. This is one of the assessments from the public or consumers regarding the company's performance in its business. Companies must be able to make stakeholders have more confidence in the company's performance. Apart from reporting the company's finances in full, one way is to carry out the recommendations of PSAK 1, which is related to corporate sustainability reporting, reporting on social responsibility and governance carried out by the company so that it will be better in the future (Rangga & Kristanto, 2023). Based on the explanation above, it can be concluded that the value of a company in the eyes of stakeholders can be influenced by several aspects, namely environmental performance, environmental costs and disclosure of carbon emissions.

Disclosure of carbon emissions has become a hot topic of conversation because it provides transparency to stakeholders regarding the company's efforts to overcome the impacts of climate change and global warming (carbon disclosure project, 2009). The law relating to Limited Liability Companies (PT) no. 40 of 2007 requires companies to submit reports on social and environmental responsibility activities in the company's annual report. Apart from the law, this is also regulated by the Financial Services Authority (OJK) through Circular Letter no. 30/SEOJK.04/2016 requires public companies to include financial reports along with social and environmental responsibility reports. Research conducted (Rangga & Kristanto, 2023) explains that disclosure of carbon emissions has a significant effect on company value. However, the opposite is true of what was researched by (Rangga & Kristanto, 2023) who explained that carbon emissions disclosure has no effect on a company's assessment. The researcher explains that carbon emission disclosure has no effect on company value because according to signaling theory, the thing that can influence company value is a company's capital gains.

Eco-efficiency is an environmental management system concept whose function is management control over the resulting environmental impacts (Yuliandhari et al., 2023). The eco-efficiency indicator used in this research is the company's ownership of ISO 14001 certification. Companies that have ISO 14001 certification will be given a value of one and those that do not will be given a value of zero. ISO 14001 certification is an international standard regarding environmental management systems whose implementation is carried out voluntarily by companies. Companies can overcome

various environmental risks that have been identified if they implement this standard. A company will be considered eco-efficient and more sustainable if it has an ISO 14001 certificate (Damas et al., 2021). Based on the results of previous research, there are inconsistent results regarding the influence of eco-efficiency on company value. According to Yuliandhari et al., (2023) and Mursyidin et al., (2023) eco-efficiency has a positive and significant influence on company value. Companies that have ISO 14001 certification will have a higher company value. Meanwhile, according to (Damas et al., 2021) eco-efficiency has a significant negative influence on company value.

This research uses a modified technique from previous research, namely Dimas et al's research, by combining data disclosed in annual reports and company efforts to prevent the greenhouse effect. In this research, modifications are made to the eco-efficiency measurement, namely by calculating the total clauses of the ISO 14001 certificate contained in the annual report and sustainability report, which is then called content analysis so that the calculation of the resulting data will be more relevant and accurate through disclosure in the annual report and sustainability report.

2. Theoretical Background

2.1 Legitimacy Theory

Legitimacy Theory is a theory that has a main view on the interactions between companies, society and the environment. Legitimacy Theory was originally a theory that had an orientation towards an organizational system or an entity that would be seen as part of the social and environmental environment if the organization's activities and performance were able to be accepted by the wider community (Prena, 2021).

According to Prena (2021), legitimacy theory is an idea that explains that there is a "Social Contract" between an organization and the environment and explains how the organization operates. The concept of "Social Contract" is used to describe the expectations of society towards an organization in its operational activities. These community expectations may be in legal form (in a statement) or may also be expressed in a way that is not stated in the company's legal documents. If the company continues to make disclosures related to the expectations given by the public, the company will gain a positive view, receive recognition from the public and increase the company's value in the eyes of investors.

2.2 Stakeholder Theory

Stakeholder theory is a theory which states that all stakeholders have the right to obtain information regarding all company activities that will influence stakeholder decision making. This theory explains that companies are obliged to maintain relationships with their stakeholders by accommodating the desires and needs of their stakeholders, especially for stakeholders who have power over the availability of resources used for the company's operational activities (Damas et al., 2021).

Stakeholder theory explains that a company is not an entity that only operates for its own interests but must provide benefits to its stakeholders (Dita & Ervina, 2021). Thus, the existence of a company is greatly influenced by the support provided by stakeholders to the company. Stakeholders feel that their support is really needed for the company's future sustainability.

2.3 Carbon Emission Disclosure

Carbon emissions are the release of carbon into the atmosphere related to greenhouse gas emissions, which is one of the main factors in climate change. One of the main causes

of carbon emissions is company operational activities. Currently, companies are expected to be more transparent in providing information regarding the environmental impacts of their operational activities. Companies demonstrate transparency and accountability by conveying information through their annual reports. One example of environmental disclosure is carbon emissions disclosure, which is part of additional reports required by statutory regulations (Rusmana & Purnaman, 2020). According to research conducted by Bahriansyah & Ginting, (2022) which states that carbon emissions disclosure has a significant effect on company value, it can be concluded that the more a company discloses carbon emissions, the more company value will increase. This is in line with research (Rangga & Kristanto, 2023) which explains that carbon emissions disclosure has a positive effect on company value.

H1: Carbon Emission Disclosure has a positive effect on Company Value.

2.4 Eco-Efficiency

Eco-Efficiency is an effort made by company management to encourage its business activities to be able to produce economic benefits and improve the environmental impact of the company's business activities. Companies that are able to produce benefits for the environment will be better and become added value for investors. By having a company become an eco efficient company, it will receive support and trust from the public so that a positive response will already exist in the company so that this trust can lead to an increase in share prices and company value in the future period (Yuliandhari et al., 2023). Ownership of an ISO 14001 certificate by a company will make the company considered to have a more positive image and a better future. This will be an added value for investors. Based on signaling theory, ownership of ISO 14001 certification will be a positive signal for stakeholders (Hardiyansah et al., 2021). An eco-efficient company will get support and trust from the community, a positive response from the market, an increase in share prices and an increase in company value in the future (Aviyanti & Isbanah, 2019).

H2: Eco-Efficiency has a positive effect on Company Value.

2.5 Company Value

Company value is the price that prospective buyers are willing to pay if the company is sold. Company value can be reflected in the company's share price, a high share price indicates that the company value is high. Company value can provide maximum shareholder prosperity if the company's share price continues to increase (Rusmana & Purnaman, 2020). According to (Rusmana & Purnaman, 2020) from an investor's perspective, stock market prices reflect the value of the company and all the complexity of the company's real world risks which reflect investment, funding and dividend decisions. The higher the share price, the higher the company value. Company value is the market value of the company's debt and equity securities in circulation.

3. Methods

This research analyzes the relationship between the two independent variables, namely disclosure of carbon emissions and eco-efficiency, on company value. This research uses a population of energy sector companies listed on the Indonesia Stock Exchange for the time period 2020 to 2023. By using and analyzing secondary data in the form of annual reports.

3.1 Population and Sample

In this research, the population used is all companies in the mining sector listed on the Indonesia Stock Exchange 2020-2023. In this case, researchers realize that there are environmental issues that have occurred recently, such as extreme weather changes and one of the causes is the company's operational activities that are directly related to the environment. One of the company sectors that carries out many operational activities in the environment is the mining sector. In this research, the sample was determined using the purposive sampling method. In this research, researchers have several criteria that must be met in order to be selected by researchers.

a. Mining companies listed on the Indonesian Stock Exchange in 2020-2023.
b. Mining companies that carry out annual reports and sustainability reports for 2020-2023.

3.2 Data Analysis Method

Data analysis used in the research used EViews 12 software to test the relationship between the independent variable and the dependent variable.

3.2.1 Estimation of Panel Data Regression Models

In this research, a regression model estimation is used, according to Mansuri (2016), there are 3 approach models, namely the Fix Effect Model (FEM), Random Effect Model (REM) and Common Effect Model (CEM).

3.2.2 Regression Model Selection Techniques

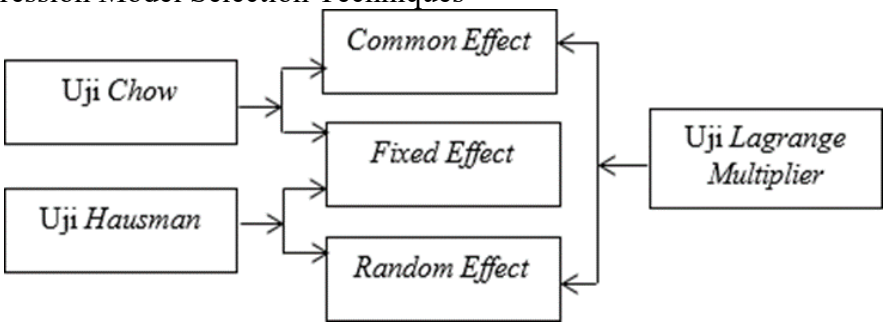

Figure 2. Panel Data Regression Model Selection Scheme

Based on the 3 regression models explained in Figure 2, the researcher selected the regression model to be used in accordance with the objectives of the research.

a. Chow Test (Likelihood Test)
   The Chow test is a test carried out to determine the best model in a study. These models include the Fixed Effect model and the Common Effect Model. This test can be seen from the probability (Prob), Cross-Section and Cross-Section Square values.
b. Hausman Test
   The Hausman test is a test carried out to determine a good model for research, whether a fixed effect model or a random effect model is the most appropriate for estimating all panel data. The Hausman test can be seen in the random cross-section probability (Prob) value.
c. Lagrange Multiplier Test
   The Lagrange Multiplier test is a test used to be able to choose the model to use, whether it is better to use the Random Effect Model (REM) or the Common Effect Model (CEM). This test can be seen from the Breush-pagan probability value.

3.3 Descriptive Statistical Analysis

Descriptive analysis is analysis carried out to fulfill the existence of independent variables, either only on one or more variables (stand-alone variables or independent variables) without making comparisons of the variables themselves and looking for relationships with other variables (Sugiyono, 2017).

3.4 Classic Assumption Test

According to Eksandy (2018) explains that the classical assumption test is one of the statistical requirements that must be met in regression analysis if using the Ordinary Least Aquared (OLS) approach in making estimates.

3.4.1 Multicollinearity Test

Multicollinearity test is a situation where there is a relationship between independent variables and each other. The regression model used is said to be good if there is no correlation between the independent variables.

A model that can be said to be good if there is no correlation between independent variables, to be able to determine the presence of multicollinearity in a study can be seen by using the correlation coefficient value between independent variables with a value of <0.8. It will be concluded that the model used does not contain multicollinearity or is free from multicollinearity. However, on the other hand, if the value that appears is >0.8 then the model experiences problems with multicollinearity.

3.4.2 Heteroscedasticity Test

Heteroscedasticity test is a test used to see whether the regression model has differences in the residuals from one observation to another (Eksandy, 2018).

3.5 Hypothesis Test

Hypothesis testing will be carried out to be able to answer all problem formulations and research hypotheses that have been expressed. Hypothesis testing in this research has 3 stages, namely Simultaneous Significance Test (F Test), Determination Coefficient Test and Individual Parameter Significance Test (t Test) as follows:

3.6 Simultaneous Significance Test (F Test)

The simultaneous significance test F or what is usually called the feasibility test is a test used to explain whether all the independent variables together have an influence on the dependent variable or whether the model used is fit or not.

a. Based on a comparison of F-Statistics with F table:
   H0: If the F-Statistic value < F Table
   Ha: If the F-Statistic value > F Table
b. Based on Probability
   H0: if the Prob (F-Statistic) value > F Table
   Ha: If the Prob (F-Statistic) value < F Table

3.6 Coefficient of Determination Test (R-Square)

The Coefficient of Determination Test (R-Square) is a measurement carried out to determine the extent of the model's ability to explain variations in the dependent variable. The R-squared value is between 0 and 1 with the following explanation:

a. The R-square value must be in the range of 0 to 1. If the R-square value is equal to 1, it means that the increase or decrease in the dependent variable is 100% influenced by the independent variable.
b. If the R-square value is equal to 0, it means there is no relationship at all between the independent variable and the dependent variable.

3.7 Individual Parameter Significance Test (t Test)

According to (Eksandy, 2018) The t test is a test used to show how much influence an independent variable individually has in explaining the dependent variable. The hypothesis in the t test is as follows:

a. Based on a comparison of t-statistics with t Table
H0: If t-statistic < t Table
Ha: If t-statistic > t Table
b. Based on Probability
H0: If the Prob value > α 0.05
Ha: If the Prob value < α 0.05

3.8 Panel Data Regression Analysis

According to Eksandy (2018) panel data regression analysis is a combination of cross-section data and time series data, the same cross-section unit will be measured at different times.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \varepsilon_{it}$$

Information:
Y = Dependent Variable
β = Constant
β1,2,3 = Independent Variable Regression Coefficient
X1,2,3 = Independent Variables
i = Company
t = Time
ε = Residual / Error.

4. Results and Discussion

4.1 Data Description

This research uses secondary data, consisting of annual reports and sustainability reports of energy sector companies listed on the Indonesian Stock Exchange collected through the company's official website and the Indonesian Stock Exchange (www.idx.co.id). Samples were taken using a purposive sampling method with the following criteria determined:

Table 1. Results of Purposive Sampling Research

No	Information	Number of Companies
1	Mining Sector Companies (Energy Sub-sector) Listed on the Indonesia Stock Exchange for the 2020-2023 Period	64
2	Energy sector companies that have not published consecutive annual reports during the 2020-2023 period	-20
3	Companies that match the sample criteria	44
4	Observed year	4
5	The amount of data to be observed is 44 x 4 = 176	176

4.2 Descriptive Statistical Analysis

Table 2. Results of Descriptive Statistical Analysis

	NP	CED	EE
Mean	2.122102	0.841705	0.594318
Median	1.175	0.88	0.6
Maximum	49.21	1	1
Minimum	0.09	0.38	0
Std. Dev.	4.32926	0.151433	0.229712

4.3 Panel Data Regression Model

Table 3. Common Effect Model (CEM) results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.282276	1.971281	1.157763	0.2486
CED	0.571033	2.181405	0.261773	0.7938
EE	-1.078235	1.438048	-0.749791	0.4544

Source: EViews Data Processing (2024)

Table 4. Results of the Fixed Effect Model (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.089362	2.961768	-1.718353	0.0881
CED	3.917217	2.552757	1.534505	0.1273
EE	6.586246	3.658411	1.800302	0.0741

Source: EViews Data Processing (2024)

Table 5. Results of the Random Effect Model (REM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.305824	2.094219	0.146033	0.8841
CED	2.149331	2.186812	0.982861	0.3270
EE	0.012075	1.801389	0.006703	0.9947

Source: EViews Data Processing (2024)

4.4 Model Selection Test

The aim of selecting a panel data regression model is to determine the model that will be used in a study. The following is a model selection test in this research:

Table 6. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.741344	(43,130)	0.0000
Cross-section Chi-square	113.590642	43	0.0000

Source: EViews Data Processing (2024)

DOI: https://doi.org/10.61990/ijamesc.v2i5.284 e-ISSN 2986-8645

Table 6 displays findings which show that from the Chow test it is known that the probability value is <0.05. This is able to describe that H0 is rejected so that the better model used in this research is the fixed effect model (FEM).

Table 7. Hausman Test Results

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.493838	2	0.0389

Source: EViews Data Processing (2024)

Table 7 shows an explanation that the probability value is <0.05 so it can be concluded that H0 is rejected, meaning that the model chosen in this research is the fixed effect model (FEM).

4.5 Classic Assumption Test

In this research, the classical assumption tests that will be carried out are the multicollinearity test and the heteroscedasticity test. As follows:

4.5.1 Multicollinearity Test

Table 8. Multicollinearity Test Results

	CED	**EE**
CED	1.000000	0.102949
EE	0.102949	1.000000

Source: EViews Data Processing (2024)

Based on table 2, it is known that none of the independent variables has a multicollinearity value exceeding 0.8, so it can be concluded that there is no multicollinearity in the regression model of this research.

4.6 Heteroscedasticity Test

Table 9. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4.987429	2.949373	-1.691014	0.0932
CED	4.258328	2.542073	1.675140	0.0963
EE	5.196814	3.643100	1.426481	0.1561

Source: EViews Data Processing (2024)

Based on Figure 8, it is known that the panel data regression model has an overall probability value exceeding the significance value of 0.05 so it can be concluded that in the panel data regression model there is no heteroscedasticity.

4.7 Hypothesis Test

In this stage the hypothesis will be tested by conducting a determination test (R-Square), simultaneous influence testing (F test), and partial influence testing (t test).

Table 9. Hypothesis Test Results

Sample: 2020 2023
Periods included: 4
Cross-sections included: 44
Total panel (balanced) observations: 176

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.464603	1.416791	-1.739566	0.0843
CED	1.918789	1.221137	1.571314	0.1185
EE	3.257214	1.750038	1.861225	0.0650

Cross-section fixed (dummy variables)

Root MSE	1.492920	R-squared	0.739628
Mean dependent var	1.086272	Adjusted R-squared	0.649500
S.D. dependent var	2.934114	S.E. of regression	1.737085
Akaike info criterion	4.162072	Sum squared resid	392.2706
Schwarz criterion	4.990721	Log likelihood	-320.2624
Hannan-Quinn criter.	4.498168	F-statistic	8.206363
Durbin-Watson stat	1.758380	Prob(F-statistic)	0.000000

Source: EViews Data Processing (2024)

4.7.1 Determination Test (R-Square)

Table 9 shows the adjusted R-squared value with a total value of 0.6495, if it is put into percentage form, it is 64.95%. This shows that the independent variables in this research can contribute 64.95% of the influence of the company value variable. Meanwhile, 35.05% is influenced by other independent variables not discussed in this research.

4.7.2 Simultaneous F Test (F Test).

Based on Figure 9, it is known that the prob value (F-statistic) is 0.000000 <significance value 0.05. Figure 9 also explains the F-Statistic value (8.206363)> F table value (3.0482). This is able to illustrate that the Ha hypothesis is accepted, the independent variables in this research, namely disclosure of carbon emissions and eco-efficiency, simultaneously influence the dependent variable, namely company value.

4.7.3 Uji Partial t Test (t Test)

The t-Statistic value of Carbon Emission Disclosure (CED) is 1.571314, while the t table with a level of α = 0.05 or 5%, with a DF value (n-k) = 174, shows a t table value of 1.97369. Thus, t-Statistic KL (1.571314) < t Table (1.97369) and the value of Prob. 0.1185 > 0.05 means that the Carbon Emission Disclosure (CED) variable has no partial effect on the Company Value variable. These results are supported by the t-Statistic value which is smaller than the t table and the probability value which is greater than 0.05, causing Carbon Emission Disclosure (CED) to have no effect on Company Value.

The Eco-Efficiency (EE) t-statistic value is 1.861225, while the t table with a level of α = 0.05 or 5%, with a DF (n-k) = 174 value, shows a t table value of 1.97369. Thus t-Statistic EE (1.861225) < t Table (1.97369) and the value of Prob. 0.065 > 0.05 can illustrate that the Eco-Efficiency (EE) variable has no partial effect on the Company Value variable. These results are supported by the t-statistic value which is smaller than the t table and the probability value which is greater than 0.05, causing the Eco-Efficiency variable to have no effect on company value.

4.8 Panel Data Regression Model Analysis

This research uses a panel data regression model to see the influence between the independent variables (disclosure of carbon emissions and eco-efficiency) and the dependent variable (company value). The following is the panel data regression model equation in this research:

$$NP = C(1) + C(2)*CED + C(3)*EE + [CX=F]$$

$$NP = -2.46460251123 + 1.91878856921*CED + 3.25721432209*EE + [CX=F]$$

4.9 Interpretation of Results

Based on the results of hypothesis testing that has been carried out in this research, it has been analyzed statistically using panel data regression. The following is the interpretation of the results of each independent variable's influence on the dependent variable:

1) The effect of carbon emission disclosure on company value

Based on the results of the partial test (t test), it is known that the carbon emission disclosure variable has no effect on company value. This can happen because there is no consideration of disclosure of environmental emissions by stakeholders in decision making. It can be concluded that stakeholders still prioritize fundamental elements in determining a policy or decision because until now the local community has not been able to fully understand the creation of a recording system.

Carbon Emission Disclosure is an investment effort in the sustainability of a company, not just the costs incurred by the company to create environmental improvements. However, the company that is the object of this research has provided complete information in its annual report regarding the company's environmental responsibilities by displaying the costs included in the assessment indicators for carbon emission disclosure as a form of sustainable investment for a company.

These results are supported by (Rangga & Kristanto, 2023) research with the results that disclosing carbon emissions has no effect on company value, when a company discloses social and environmental aspects, in this case carbon emissions, the company is deemed to have implemented its social contract with stakeholders. Another thing that does not cause disclosure of carbon emissions to have no effect on company value is that investors currently still have a tendency to assess capital gains on companies so they have not thought much about the company's social responsibilities.

2) The effect of eco-efficiency on company value

Based on the results of the t test that was carried out, it was found that the eco-efficiency variable had no effect on company value. The results explain that eco-efficiency has no effect because ownership of ISO 14001 and implementation have not been the main factors prioritized by investors in assessing a company. Many investors judge companies based on their assets and profits, causing the company's value to increase. The mindset of investors who are able to think about sustainability seems to be still in the developing stage, so even though it doesn't have an impact, the company still has to be an eco-efficient company.

This is in line with the results of research (Yuliandhari et al., 2023) which explains that eco-efficiency has no effect on company value, among other factors, namely the absence of a public or investor mindset in assessing companies based on their social responsibility and how efficient the company is in its environment.

5. Conclusion

This research aims to determine the effect of disclosure of carbon emissions and eco-efficiency on company value. The objects used in this research are energy sector companies listed on the Indonesia Stock Exchange in 2020-2023 with a total sample of 44 companies over a 4 year period so that the total sample in this research is 176 observation data. The partial test results in this study show that disclosure of carbon emissions and eco-efficiency has no effect on company value.

References

Bahriansyah, R. I., & Ginting, Y. L. (2022). Pengungkapan Emisi Karbon Terhadap Nilai Perusahan dengan Media Exposure Sebagai Variabel Moderasi. JRAP (Jurnal Riset Akuntansi Dan Perpajakan), 9(02), 226–237.

Damas, D., Maghviroh, R. EL, & Meidiyah, M. (2021). Pengaruh Eco-Efficiency, Green Inovation Dan Carbon Emission Disclosure Terhadap Nilai Perusahaan Dengan Kinerja Lingkungan Sebagai Moderasi. Jurnal Magister Akuntansi Trisakti, 8(2), 85–108. https://doi.org/10.25105/jmat.v8i2.9742

Eksandy, A. (2018). Metode Penelitian Akuntansi dan Manajemen. FEB UMT.

Mursyidin, Hwihanus, Bayu, Darmono, & Ganie, D. (2023). The Influence of Liquidity, Solvency, and Eco-Efficiency with Profitability and Dividend Policy as a Moderator on Firm Value. International Journal of Economics, Business and Innovation Research, 02 (04), 437447. https://ejournal.citakonsultindo.or.id/index.php/IJEBIR/article/view/440%0Ahttps://ejournal.citakonsultindo.or.id/index.php/IJEBIR/article/download/440/344

Prena, G. Das. (2021). Pengaruh Penerapan Green Accounting dan Kinerja Lingkungan Terdahap Kinerja Keuangan Pada Perusahaan Manufaktur di Bursa Efek Indonesia. Jurnal Akun Nabelo: Jurnal Akuntansi Netral, Akuntabel, Objektiff, 3(2), 495–507.

Rangga, E. N. S., & Kristanto, S. B. (2023). Pengungkapan Emisi Karbon, Biaya Csr, Profitabilitas, Dan Kebijakan Hutang Terhadap Nilai Perusahaan. Jurnal Riset Akuntansi Dan Keuangan, 19(1), 67. https://doi.org/10.21460/jrak.2023.191.442

Rusmana, O., & Purnaman, S. M. N. (2020). Pengaruh Pengungkapan Emisi Karbon Dan Kinerja Lingkungan Terhadap Nilai Perusahaan. Jurnal Ekonomi, Bisnis Dan Akuntansi(JEBA),22(1),42–52. http://www.jp.feb.unsoed.ac.id/index.php/jeba/article/viewFile/1563/1577

Yuliandhari, W. S., Saraswati, R. S., Muhammad, Z., & Safari, R. (2023). Pengaruh Carbon Emission Disclosure, Eco- Efficiency dan Green Innovation Terhadap Nilai Perusahaan. Riset & Jurnal Akuntansi, 7(April), 1526–1539.