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THE EFFECT OF CARBON EMISSION DISCLOSURE ON FIRM VALUE WITH ENVIROMENTAL PERFORMANCE AS A MODERATION VARIABLE

(Empirical Study on Sector Companies Energy Listed on the Indonesian Stock Exchange 2019 – 2021)

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ABSTRACT

In 17 goals Sustainable Development Goals, change climate be one starting goal intense socialized. Emission carbon is one of the factor change climate. In Indonesia, carbon emission disclosure Still nature volunteer. However, disclosure the can become signal and interesting investor interest in invest capital. Not only that, reputation and image Good company will the more good in society so that will increase value to the company.

The purpose of study This is For know influence carbon emission disclosure to firm value and moderated by environmental performance. Study This including study descriptive with approach quantitative and samples used is company sector energy listed on the IDX 2019 – 2021. Retrieval technique sample is purposive sampling and data processing using SPSS 20 with technique multiple linear regression MRA (Moderated Regression Analysis). Based on results testing can concluded that carbon emission disclosure influential positive significant to firm value, as well environmental performance can moderate influence carbon emission disclosure to firm value.

Keywords : Carbon emission disclosure, Firm value, Environmental performance.

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INTRODUCTION

The United Nation Development Program (UNDP) has an agenda as: form global development viz Sustainable Development Goals (SDGs). Handling about change climate be one of 17 destinations general SDGs (Ishatono and Raharjo, 2016). As one of the action in prevent the more increase the bad condition climate on earth, a commitment political international formed with draft Sustainable Development Goals (SDGs) contained in the UNFCCC or abbreviation from United Nations Framework Convention on Climate Change.

Form application from the UNFCCC to the Paris Agreement resulted agreement For guard global average temperature to increase close Possible by 1.5 degrees Celsius. Paris Agreement and the 2030 Agenda for Sustainable Development became base in operate development sustainable, low carbon, and durability to climate. Countries that ratify agreement the will bound For operate resulting agreement. Developed countries responsible help provision of funds, improvement capacity, and recognition technology to developing countries as form anticipation change climate in a way mitigation nor adaptation (Paris Agreement, 2015).

Ratification The Paris Agreement is included in Law No. 16 of 2016 issued by the Indonesian Government which owns commitment in lower emission carbon and durability to change climate. One of seriousness government in push emission carbon that is with preparation of the Net Zero Emission roadmap and realization in 2060.

International Transferred Mitigation Outcomes (ITMO) as effort meet reduction targets emission carbon. The Kyoto Protocol and the Joint Credit Mechanism (JCM) govern about trading carbon before exists Paris Agreement. Implementation and variety policy about trading carbon the impact on development accountancy. Accountancy carbon is recording, measurement, recognition, presentation and disclosure aspects related carbon as well as development regarding the reduction program carbon (Taurisianti and Kurniawati, 2014) .

Bond Indonesian Accountants (IAI) regulates about accountability on environment and contained in PSAK 01 (2014 revision) paragraph 14. According to Kusumaningtias (2013), role accountancy in accountability environment in report finance through disclosure volunteer related with cost environment. Companies can serve report accountability on environment with emit annual report and sustainability report. The State Ministry of the Environment is also making efforts in give encouragement via PROPER to company aspect management regulated environment in PERMENLHK No. 1 of 2021. Choi et al argue in their research 2013 that type industry, size company, quality good corporate governance, and level emission become factor company disclose emission carbon .

Carbon emission disclosure Still become nature activities volunteering in Indonesia. However carbon emission disclosure considered important as a transparent medium to stakeholders regarding business company in handle reason global warming. Standard United Nations Environment Programs and World Business Council for Sustainable Development / World Resources Institute become basis used in reporting emission carbon .

There is research that reveals that there is influence negative and significant on carbon emission disclosure to firm value with environmental performance as variable control (Fani, 2014). Another result came in research conducted by Olayinka and Oluwamayowa (2014) where Tobin's Q became proxy from firm value get influence positive from disclosure environment. Anggraeni (2015) in his research state that there is influence positive to firm value in carbon emission disclosure. Study The previous one shows results different make researcher the more interested with issue carbon emission disclosure.

Researcher own presumption that good carbon emission disclosure will influence the name Good companies in society specifically stakeholders. Good image will increase trust to company. The more Good Name company, then public the more believe. Researcher want to test and acquire proof that carbon emission disclosure carried out company will influential to firm value with PROPER level as proxy from environmental performance that strengthens or weaken influence. Researcher take object company sector energy listed on the Indonesian Stock Exchange (BEI). Year study namely 2019 – 2021. Researcher choose company sector energy with reason that sector the become contributor the most emission carbon (Pusparisa , 2021).

This research aims to find out whether carbon emission disclosure has an influence on firm value. And whether environmental performance can moderate the influence of carbon emission disclosure on firm value. Benefits that can be taken from this research include:

1. Researcher hope that in the future more Lots the company that does disclosure related emission carbon
2. Investors can obtain information more Lots about disclosure related emission carbon For made consideration in invest capital.
3. Study This expected can used as material consideration by the government in determine policy about subtraction impact emission carbon.

THEORY AND HYPOTHESIS DEVELOPMENT

Legitimacy Theory

Legitimacy theory focuses on the relationship between companies and society which states that companies continue to strive so that the activities carried out are in accordance with the boundaries and norms of the applicable society (Deegan et al, 2002). According to Asyifa and Burhany (2022), companies can gain legitimacy from society if the company is able to realize society's expectations. Thus, the company's actions are to fulfill society's expectations through social responsibility activities that are not profit-oriented, but focus on environmental and social aspects that are closely related to the company's sustainability. Researchers use legitimacy theory with the aim of finding out that carbon emission disclosure related to

environmental responsibility is a sign that a company is accepted by society (Hadjoh and Sukartha, 2013).

Signal Theory

Signal theory was first introduced by Spence (1973). Signal theory can be interpreted as clarifying asymmetric information (Rahmanita, 2019). The uncertainty of this information makes companies try to provide information to stakeholders through reports. The information obtained by investors can be a signal in determining investment, one of this information is the annual report and sustainability report. Not only that, the company's reputation and good image will improve in society, thereby increasing the value of the company (Ruhnke and Gabriel, 2013) (Kurniawan et al, 2018). The essence of signal theory in this research is that signals in the form of information from the company will be received by investors so that this information can be used in determining investment.

Triple Bottom Line Theory

John Elkington (1998) first formulated the concept of the triple bottom line theory which contains the concept of sustainability where companies have business sustainability goals by considering profit (Profit), the environment (Planet), and social society (People) as elements of sustainable development (Latifah, 2017). Disclosure of these aspects by the company is one way of fulfilling the rights of stakeholders in obtaining information so that they will increasingly believe that the company has the possibility of sustainable development and will influence on firm value (Laksmitaningrum and Purwanto, 2013) (Kurniawan et al , 2018).

Carbon Emissions

In the atmosphere there is gas composition of at least 30 types of gas (Akhadi, 2014). However , the constituent gases main including Nitrogen, Carbon dioxide, Oxygen, Neon, Ozone, Helium, Hydrogen, Argon, Krypton, Xenon Methane, and other noble gases. Activity industry and use material burn fossil cause emission carbon in the air the more bad. Emission carbon is gas release from activity burning material burn fossil to atmosphere (EPA, 2022).

Carbon Emission Disclosure

Carbon emission disclosure is explanation effort company in reduce emission carbon, like calculation energy expended, costs environment, as well regulation company related use energy. (Pujiati and Lestari, 2018). Disclosure about emission carbon Still become nature activities volunteering in Indonesia. Although Still nature voluntary, company tend choose For express it in report accountability as form transparency to stakeholders. Apart from that, investors are interested with the company disclosed information environment (Wardhani & Kawedar, 2019).

Firm Value

Firm value or the value of the company defined in a way simple that is as price available companies For paid by the candidate buyer if for sale (Franita, 2016). For know mark from A company seen through price shares circulating on the market. High firm value impact on height well-being holder shares (Tjahjono, 2013).

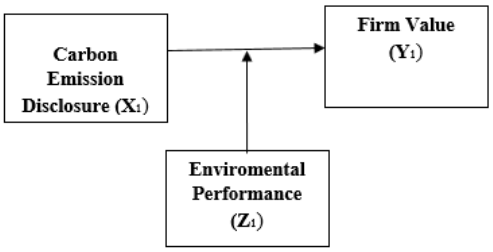
Apart from being seen from price shares outstanding, firm value can be measured with Price Book Value (PBV) which is comparison market price per share share with mark book per sheet shares in the company (Sembiring and Trisnawati, 2019). The more tall the company's PBV value, then will the more also high firm value in the eyes of investors (Khairiyani et al, 2019). Another alternative in measure firm value that is with use Tobin's Q. Study use Tobin's Q has carried out by Kim et al (2015), Rusmana and Purnaman (2020), Asyifa and Burhany (2022). Tobin's Q assessed more Good Because load elements of debt, capital, and all assets (Kim, 2015). The more tall mark Tobin's Q , then company assessed own growth and good brand image (Khairiyani et al, 2019).

Environmental Performance

Activity increasingly industrial develop will influence the situation environment around. Utilization source Power nature and release emission carbon to air make circumstances environment the more bad. In accordance with theory triple bottom line company, No only focused For look for profit (Profit), but also responsible on well-being public around (People), and sustainability environment (Planet). Every effort carried out by the company with hope get legitimacy from society and activities company can Keep going on going (Asyifa and Burhany, 2022).

For push company for more orderly in carry out his responsibility The Ministry of Environment issued an Assessment Program Company Performance Rating (PROPPER). Through PROPER, the community general can know to what extent the company operate environmental its performance so that can influence on image company (Rahmanita , 2019).

Framework Thinking



Picture 1

Framework Thinking

Hypothesis Study

Influence Carbon Emission Disclosure To Firm Value

Disclosure not quite enough answer environment through sustainability report carried out the will make stakeholders believe (Sejati and Prastiwi, 2015). Signal resulting positive make investors interested For invest and influence improvement firm value (Asyifa and Burhany, 2022).

Research by Anggraeni (2015) and research by Rusmana and Purnama (2020) stated that carbon emission disclosure influential positive to firm value. Based on description above, then researcher formulate hypothesis First that is :

H_1 : Carbon emission disclosure influential positive to firm value.

Influence Carbon Emission Disclosure To Firm Value with Environmental Performance as Variable Moderation.

Potential investors and stakeholders interested with carbon emission disclosure remember condition the earth is getting bigger deteriorate and source limited power (Guenther et al, 2016). Through annual report and sustainability report, company will information environmental its performance to stakeholders and the public as form responsibility as well as For influence level trust public so that firm value the more increased (Kurniawan et al, 2018).

The Ministry of Environment issued an Assessment Program Company Performance Rating (PROPPER) as the company's efforts more orderly in carry out his responsibility. Gabrielle and Arianto Toly (2019) as well as research Rahmanita (2019) stated the same thing Where carbon emission disclosure influence on firm value and variables environmental performance as variable moderation can effect on variables independent and dependent.

From the description above, researcher wish For do testing return about influence carbon emission disclosure to firm value with environmental performance as variable moderation, then formulated hypothesis second as following :

H_2 : Environmental performance can moderate influence Carbon emission disclosure influential positive to firm value.

RESEARCH METHODS (Century Gothic, 12 pt, Bold)

Research methods quantitative used in study This. Data processing is carried out start from determine and collect random sample. Next the data will be processed use tool data analysis , namely SPSS Statistics 20.

Research conducted use population form company sector energy listed on the Indonesian Stock Exchange (BEI) in 2019 – 2021. Researcher limit sample based on criteria as following :

Table 1

Criterion Sample

No.	Criteria	Results
1	Energy company listed on the Indonesian Stock Exchange (BEI) in 2019-2021 .	75
2	Energy companies that don't publish sustainability report or annual report for 2019-2021 consecutively .	(14)
5	Companies that don't disclose emission carbon and received PROPER for 2019-2021 consecutively .	(49)
Based on criteria sample so samples obtained		12

Data obtained For made as sample study during three year 2019-2021 respectively is 12 companies x 3 = 36.

Variable X – Carbon emission disclosure

Variable Independent (X) defined as variable free to do influential to other variables in research studied (Sugiyono, 2017). On research here , the variable X is carbon emission disclosure (CED). CED measurement uses scoring for each disclosure item in accordance with research conducted by Choi et al . Each item will given value 1 if expressed in annual report and sustainability report , and 0 if No expressed. If company disclose in a way whole so will get score 18. Carbon emission disclosure (CED) checklist as following :

Table 2

Carbon Emission Disclosure (CED) Checklist

Category	Items	**SCORE**
Change Climate: Opportunities and Risks	Description or evaluation about risk (rules special or general) related change climate and activities will be or Already chosen in manage risk (CC1)	
	Description or evaluation about finance now and in the future come related with change climate (CC2)	
Greenhouse Gas Emissions	Description methodology about calculation GHG emissions (eg : GHG protocol or ISO). (GHG1)	
	There is verification external about amount GHG emissions If yes , p the done by whom and with reason what (GHG2)	
	Total GHG emissions produced (in metric CO_2-e) (GHG3)	
	Disclosure direct GHG emissions in scope 1,2, or 3 (GHG4)	

	Disclosure GHG emissions by source energy used (eg : electricity , coal , and so on) (GHG5)	
	Segment level or facilities (eg : electricity , coal , and so on) underlying disclosure GHG emissions (GHG6)	
	Comparison GHG emissions produced with year previous (GHG7)	
Energy consumed _	The amount of energy used (for example : MAP- joule or tera- joules) (EC1)	
	Quantification energy consumed from source power that can be updated . (EC2)	
	Disclosures made based on facilities , types , facilities nor segment . (EC3)	
GHG and Cost Reduction	Strategy details or plan in action subtraction GHG emissions (RC1)	
	Specifications at the target reduction rate GHG emissions and target year . (RC2)	
	Costs and reductions in emissions or action thrifty that has been achieved until Now as results of the reduction strategy GHG emissions . (RC3)	
	Cost calculated future emissions in planning capital expenditure (RC4)	
Accountability Carbon Emissions	Indication board committee (or executive body others) is responsible whole on action related change climate (AEC1)	
	Description board mechanism (or executive body others) review progress company related change climate (AEC2)	

Source : Choi *et al*, 2013.

Once obtained score on each item, then done weighting with formula as following :

$$\text{CED} = \frac{Total\ Score}{Total\ Score\ Maximum}\ x\ 100\%$$

Information :

CED = Carbon emission disclosure

Total score = Score obtained in the annual/sustainability report

Total maximum number of scores = Maximum number of scores on the checklist

Variable Y – Firm value

Variable Y or dependent defined as variable not free or bound (Sugiyono , 2017). In research here , variable Y is firm value will proxied with Tobin's Q with NP notation and formula as following :

$$\text{Tobin's Q} = \frac{\text{Equity Market Value} + \text{Total Liability}}{\text{Total Assets}}$$

Information :

Tobin's Q = Firm value

Equity Market Value = Shares circulating in the market

Total Liability = Total company liabilities

Total Assets = Total company assets

Variable Z – Environmental performance

Researcher use variable moderation that is environmental performance and measured use PROPER rating . Evaluation done with give interval scale , and environmental performance notated as PROPER. Indicator in PROPER assessment includes as following.

Table 3
PROPER Assessment

No	Indicator	Color	SCORE
1	Companies that are consistent and sustainable do business or demonstrating activities superiority in production and/ or services , as well carry out responsible and ethical business to public . (Very very good)	Gold	5
2	Companies that have carry out management environment exceed indicator condition as well as carry out responsible and ethical business to public . (Very good)	Green	4
3	Companies that have carry out management environment in accordance applicable rules. (Good)	Blue	3
4	Companies that have carry out management environment However Not yet in accordance applicable rules.(Bad)	Red	2
5	Running company business with on purpose do the resulting action pollution consequence negligence and violation applicable rules as well as No carry out administrative sanctions. (Very bad)	Black	1

Source: Data processed by researchers (Menlhk, 2022)

Control Variables

Variable control is variable plural is used researchers and consistent results influential so that variable independent and variable dependent No get influence from factor outside field research (Sugiyono, 2017). Leverage and size companies on research This chosen For used as variable control.

Leverage defined as ability A company utilise asset company or capital that owns cost fixed (stock or debt) with objective maximizing firm value. Measurement leverage used by researchers is Debt to Equity Ratio (DER) with formula as following :

$$DER = \frac{Total\ Liability}{Total\ Equity}$$

Information :
Total Liability = Total liabilities owned company
Total Equity = Total equity owned company

Size company is scale from big or small a companies that can is known through total sales, total assets owned, profit companies, and others (Ayu and Gerianta, 2018). Indicator in count size company in study This is as following :

$$SIZE = L_n \text{ (Total Assets)}$$

Information :
SIZE = Company Size
L_n = Natural log (simplification mark without change proportion)
Total Assets = Total assets owned company

Analysis Method

This research uses analytical methods including the descriptive analysis method, classic assumption tests (normality test, heteroscedasticity test, and multicollinearity test), multiple linear regression test (MRA), R square determination test, and hypothesis test (t test) .

RESEARCH RESULTS AND DISCUSSION
Descriptive Analysis Results
Table 4
Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
CED	36	5.56	66.67	44,6000	21.30885
SIZE	36	3.36	3.48	3.4260	.03190
DER	36	9.65	2484.89	221.0611	417.33799
VAL	36	.68	2.49	1.1914	.38238
PROPER	36	3.00	5.00	3.9167	.80623
Valid N (listwise)	36				

Source: Data processed by researchers, SPSS20

In table 4 you can see the minimum, maximum, average and standard deviation values of each variable.

Classic assumption test

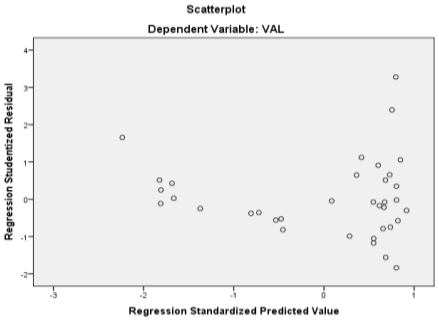
Normality test
Table 5
Normality test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
N		36
Normal Parameters a, b	Mean	0E-7
	Std. Deviation	.33833411
Most Extreme Differences	Absolute	,147
	Positive	,147
	Negative	-.085
Kolmogorov-Smirnov Z		,880
Asymp . Sig. (2-tailed)		,421
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Data processed by researchers, SPSS20

From table 5 the asymp results can be obtained. Sig. (2-tailed) is 0.421 and is greater than 0.05, which means that the data distributed is normal.

Heteroscedasticity Test



Picture 2

Heterocedasticity Test

Figure 2 shows the results of the test which states that there is no heteroscedasticity in the data tested because the pattern formed is irregular (does not form a certain pattern).

Multicollinearity Test

Table 6

Multicollinearity Test

Coefficients a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	,467	1,280		,365	,718		
CED	,030	,003	,808	9,415	,000	,395	2,532
SIZE	,876	,387	,094	2,261	.031	,362	2,760
DER	,007	,002	,097	2,915	,007	,946	1,057
PROPER	,396	.132	,246	2,992	,005	,610	1,640

Source: Data processed by researchers, SPSS20

From the overall variable test results in table 6, it can be concluded that there is no multicollinearity because all variables show tolerance values > 0.1 and VIF < 10.

Multiple Linear Regression Test

Table 7

Multiple Linear Regression Test - H_1

Coefficients a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	,467	1,280		,365	,718
CED	,030	,003	,808	9,415	,000

	SIZE	,876	,387	,094	2,261	.031
	DER	,007	,002	,097	2,915	,007
	PROPER	,396	.132	,246	2,992	,005

Source: Data processed by researchers, SPSS20

The equations that can be formulated based on table 7 are:
VAL = 0.467 + 0.030CED + 0.876SIZE + 0.007DER + 0.396PROPER + e
From this equation, it can be explained that:

1. Carbon emission disclosure (CED) with a regression coefficient of 0.030 and a positive value, meaning that for every increase that occurs, firm value increases by 0.030.
2. The company size variable (SIZE) has a regression coefficient of 0.876 and is positive, meaning that for every increase that occurs, firm value increases by 0.876.
3. leverage variable (DER) has a regression coefficient value of 0.007 and is positive, meaning that for every increase that occurs, firm value increases by 0.007.
4. environmental performance variable (PROPER) has a regression coefficient value of 0.396 and is positive, meaning that for every increase that occurs, firm value increases by 0.396.

Table 8

Multiple Linear Regression Test - H_2

Coefficients a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2,637	1,276		2,067	,047
CED	,074	.013	2,011	5,567	,000
SIZE	,721	,338	,077	2,137	.041
DER	,007	,002	,089	3,087	,004
PROPER	1,149	,249	,712	4,614	,000
CEDXPROPER	,022	,007	1,654	3,403	,002

Source: Data processed by researchers, SPSS20

The equation in hypothesis two based on table 9 below is:
VAL = 2.637 + 0.074CED + 0.721SIZE + 0.007DER + 1.149PROPER + 0.022 CEDxPROPER + e
This equation can be interpreted as:

1. Carbon emissions disclosure (CED) has a regression coefficient of 0.074 and is positive, meaning that for every increase that occurs, firm value increases by 0.074.
2. The company size variable (SIZE) has a regression coefficient of 0.721 and is positive, meaning that for every increase that occurs, firm value increases by 0.721.
3. leverage variable (DER), with a regression coefficient of 0.007 and a positive value, means that for every increase that occurs, firm value increases by 0.007.
4. environmental performance variable (PROPER) has a regression coefficient of 1.149 and is positive, meaning that for every increase that occurs, firm value increases by 1.149.

5. The carbon emission disclosure x environmental performance (CEDxPROPER) variable has a regression coefficient of 0.022 and is positive, which means that for every increase that occurs, firm value increases by 0.022.

R Square - R² Determination Test Results

Table 9

Square Determination Test - H_1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.466 [a]	,217	.116	.35950

Source: Data processed by researchers, SPSS20

value is 0.217 which means that 21.7% of the variables in firm value are influenced by the variables carbon emission disclosure (CED), company size (SIZE), leverage (DER), and environmental performance (PROPER), and 78, 3% is influenced by variables that are not explained in the research This .

Table 10

Square Determination Test - H_2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.482 [a]	,232	.104	.36198

Source: Data processed by researchers, SPSS20

The R-Square value is 0.232 which means that 23.2% of the variables in firm value are influenced by the carbon emission disclosure (CED), company size (SIZE), leverage (DER), environmental performance (PROPER) and carbon emission disclosure variables . moderated environmental performance (CED x PROPER).

Hypothesis Test Results – t Test

Table 11

T test - H_1

Coefficients a					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	,467	1,280		,365	,718
CED	,030	,003	,808	9,415	,000
SIZE	,876	,387	,094	2,261	.031
DER	,007	,002	,097	2,915	,007
PROPER	,396	.132	,246	2,992	,005

Source: Data processed by researchers, SPSS20

Table 12

T test - H_2

Coefficients a					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	2,637	1,276		2,067	,047

CED	,074	.013	2,011	5,567	,000
SIZE	,721	,338	,077	2,137	.041
DER	,007	,002	,089	3,087	,004
PROPER	1,149	,249	,712	4,614	,000
CEDXPROPER	,022	,007	1,654	3,403	,002
Source: Data processed by researchers, SPSS20					

From the two tables above, the following results can be obtained:

1. Carbon emission disclosure (CED) has a significance value of 0.000 and the calculated t value is greater than the t table 5.567 > 2.03951. From these results it can be concluded that hypothesis 1 " Carbon emission disclosure has a positive effect on Firm value (VAL)" can be accepted.
2. For the control variables and moderating variables, namely company size (SIZE), leverage (DER), and environmental performance (PROPER) respectively have a significance value in equation one, namely 0.031; 0.007; 0.005; and in the second equation it is 0.041; 0.004; 0,000. These results mean that this variable has significance at the 1% and 5% levels.
3. carbon emission disclosure x environmental performance (CEDxPROPER) variable is 0.002 which is at the 1% level with the calculated t greater than the t table 3.403 > 2.45282. From these results, the answer can be obtained that hypothesis 2 " Enviromental performance can moderate the influence of carbon emission disclosure on firm value " can be accepted because there is pure moderation (Pure Moderator) where environmental performance can strengthen the influence of carbon emission disclosure on firm value as proven by the regression coefficient, namely 0.022.

Discussion

The effect of carbon emission disclosure on firm value.

This research proves that containing carbon emissions has an influence on firm value. This is in line with previous research conducted by Anggraeni (2015) in his research stating that there is a positive influence on firm value in carbon emission disclosure. Rahmanita (2019) revealed that carbon emission disclosure has an effect on firm value and environmental performance can moderate both.

This research is in line with legitimacy theory where companies can gain legitimacy from society if the company is able to realize society's expectations. This realization is through environmental disclosure which is carried out as a company responsibility. Another theory that is in line is the signal theory where carbon emission disclosure in the sustainability report or annual report will be a signal and attract investors' interest in investing capital (Wardhani & Kawedar, 2019). Not only that, the company's reputation and good image will improve in society, thereby increasing the value of the company (Ruhnke and Gabriel, 2013) (Kurniawan et al, 2018). From this description, it can be said that hypothesis one can be accepted.

Environmental performance can moderate the effect of carbon emission disclosure on firm value.

This research proves that environmental performance can moderate the influence of carbon emission disclosure on firm value. These results are in line with previous research conducted by Rahmanita (2019) and research by Gabrielle and Toly (2019) where the environmental performance variable (PROPER) can moderate the effect of carbon emission disclosure on firm value. Apart from that, the triple bottom line (TBL) theory supports the results obtained, where the theory states that disclosure of economic aspects, environmental aspects and social aspects by companies is one way to fulfill stakeholders' rights in obtaining information so that they will increasingly believe that the company has the possibility of sustainable development (Laksmitaningrum and Purwanto, 2013) and will influence firm value (Kurniawan et al, 2018). From this description, it can be said that hypothesis two can be accepted.

CONCLUSION

1. Carbon emission disclosure influential to firm value , in line with theory legitimacy And theory signal Where disclosure environment like emission carbon inside sustainability report nor annual report will gain legitimacy to become signal and interesting investor interest in invest capital.
2. Environmental performance can moderate influence carbon emission disclosure to firm value in line with theory triple bottom line (TBL) be supporter the results obtained Where disclosure aspect economic, aspect environment, and aspects social by the company become method fulfil right stakeholders in obtain information so that they will the more believe that company own possibility development sustainable .

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