DIJEFA: Dinasti International Journal of Economics, Finance & Accounting
E-ISSN: 2721-303X
P-ISSN: 2721-3021
https://dinastipub.org/DIJEFA dinasti.info@gmail.com +62 811 7404 455
DOI: https://doi.org/10.38035/dijefa.v6i4

The Effect of ESG Risk Rating and Ownership Concentration on Firm Value: Leverage and Size as Moderation

Harold Kevin Alfredo[1*], Euis Mufahamah[2], Anita[3], Lestari Wuryanti[4]
[1]Universitas Malahayati, Bandar Lampung, Indonesia, kevinmnj@malahayati.ac.id
[2]Universitas Malahayati, Bandar Lampung, Indonesia
[3]Universitas Malahayati, Bandar Lampung, Indonesia
[4]Universitas Malahayati, Bandar Lampung, Indonesia

[*]Corresponding Author: kevinmnj@malahayati.ac.id[1]

Abstract: This study aims to analyze the effect of leverage and company size as moderating variables on the relationship between ESG Risk Rating and ownership concentration on firm value. This research is included in the type of quantitative research and uses companies listed on the Indonesia Stock Exchange and have an ESG Rating value by Morningstar Sustainalytics. This research method uses linear regression in calculating the effect of independent variables (ESG Risk Rating, and ownership concentration) moderated by Leverage, and Firm Size variables on the dependent variable (Tobin's Q). The results found that the impact of firm size and leverage on the moderation of ESG score with firm value and the moderation of ownership concentration with firm value is not uniform. Specifically, leverage exerts a more substantial effect as a moderator between ESG risk score and ownership concentration and firm value than firm size.

Keywords: Green Economics, Ownership Structure, Portfolio Choice, Shares, Value of Firm.

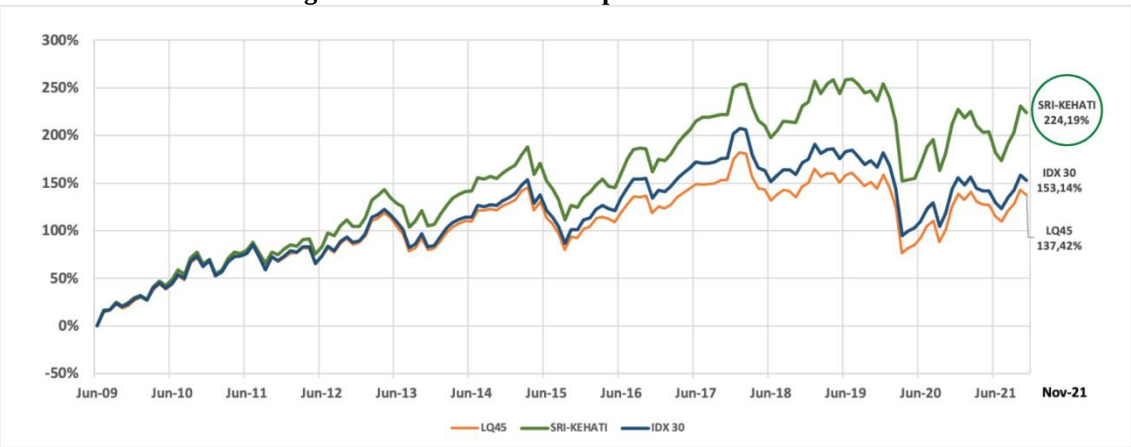
INTRODUCTION

The implementation of Environmental, Social, and Governance by companies around the world is increasing from year to year motivated by the encouragement of interested parties who see the positive impact of ESG implementation on company value. Although the concept of ESG has been known for decades, companies in the world have only implemented it since the 2010s (Popescu et al., 2023). Many stocks of ESG-implementing companies around the world are more expensive than stocks of companies that have not implemented ESG. However, the stock prices of ESG-implementing companies are so high that some researchers and capital market observers fear a bubble phenomenon, and the greenwashing of companies in China has been found to only have a positive effect in the short term (Cao et al., 2022; Kusuma, 2023; Lehnert, 2023). However, many other overseas studies in Turkey, China, and Japan found a positive relationship between ESG implementation and firm value (Aydoğmuş et al., 2022; Chen et al., 2023; Gao et al., 2023). Research in China and India supports the assertion that the

value of companies that implement ESG is higher than the value of companies that have not implemented ESG (Bhattacharya et al., 2013; Huang, 2021).

In Indonesia, the IDX began to support the implementation of ESG in listed companies by cooperating with the launch of the SRI-KEHATI Index with the KEHATI Foundation in 2009 consisting of 25 public companies. The performance of SRI-KEHATI since its launch from 2009 - now is superior by 224.19% compared to the performance of the LQ-45 Index, and IDX-30 (WIT, 2019). The chart below shows the performance of SRI-KEHATI with other Indices.

Figure 1. SRI-KEHATI Graph with Other Indices



Source: (WIT, 2019)

Research literature in Indonesia that studies the effect of ESG implementation on firm value tends to have mixed results (Lindawati et al., 2023; Prayogo et al., 2023; Widiyanti et al., 2019). Although, current research results still provide mixed results regarding the effect of ESG implementation on firm value in Indonesia, many companies are increasingly aggressive in implementing ESG due to encouragement from shareholders, and the government is campaigning for ESG programs among companies in Indonesia to support the government's SDG program until 2030 (BAPPENAS, 2023). One of the sectors in Indonesia that has started to implement ESG is the manufacturing sector companies. However, there are several challenges faced by manufacturing companies in implementing ESG, namely: lack of consistency in data mining, visualization of data that is difficult to understand, optimal resource allocation, lack of senior leadership support, and lack of preparation (Hariani, 2023). Research in Indonesia found that the implementation of GCG can improve company performance, especially financial performance and reduce the risk of financial distress and in general the implementation of GCG can increase investor confidence (Abrori et al., 2023). other studies using sustainability reports on enterprise risk management on firm value found that disclosure of sustainability reports can moderate the relationship between disclosure of Enterprise Risk Management (ERM) on company performance (Rahma Adissa & Septiani, 2022). Research conducted by (Minggu et al., 2023), found that Environmental, Social, and Governance variables affect the company's financial performance individually.

Research in the United States, Nigeria, and Brazil found that there is a positive relationship between ESG implementation and market value added (MVA), economic value added (EVA), and firm value (Tobin's Q) (Ikechukwu & Blessing, 2020; Lee & Kwon, 2019; MOUTINHO1 & DA SILVA, 2023; Yeye & Egbunike, 2023). Research on luxury clothing and applying the sustainable clothing industry model found that the application of the sustainable model is able to provide efficient costs to clothing companies that apply it (Olatubosun et al., 2021). (Buallay, 2019) found that ESG positively affects the market,

financial and operational performance of manufacturing companies. However, the opposite occurs in financial sector companies.

Research on the effect of ESG performance on firm value found that ESG performance has a positive relationship with firm performance, and ESG is positively related to firm value (Chen et al., 2023; Sadiq et al., 2020). Different research results conducted by (Horn & Oehler, 2024) found that no ESG rating provider offers ESG rating information that investors can use to build a consistently superior portfolio.

Based on the explanation of the literature in the previous paragraph, this research seeks to fill the research gap in Indonesia by examining the effect of leverage and company size as moderating variables on the relationship between ESG rating and ownership concentration on firm value. This research is expected to make a significant contribution to the theoretical and practical understanding of how company management can optimize firm value by managing leverage, company size, and ESG Rating, and how ownership concentration influences this relationship. By integrating these factors, this study not only enhances the scientific literature but also provides practical guidance for managers and other stakeholders to make informed decisions that align with sustainable development goals. Thus, it offers a comprehensive view that bridges the global insights with the local context, addressing specific challenges and opportunities faced by companies in Indonesia.

Theoretical Review

ESG Risk Rating and Company Value

Several studies have found that there is a difference in stock trading volume between ESG-ranked and non-ranked firms, and the effect of ESG ranking level is modest, with ESG laggards underperforming in terms of risk adjustment (Shanaev & Ghimire, 2022; Zumente & Lāce, 2021). A study of 727 financial sector companies operating in 22 countries over the period 2006-2017 found that the ESG scores of financial companies grew in a linear trend over time, and this trend was amplified by the size and profitability of the companies, as well as economic and social developments in the countries where they operate (Crespi & Migliavacca, 2020). Research in China that examined A-rated stocks divided into "good" companies, and "bad" companies for the period 2011 - 2022 found that there is a "U" shaped relationship between ESG ratings and green innovation. Companies with lower ESG ratings (referred to as "bad" companies) tend to focus on improving their corporate governance and operating conditions, often at the expense of green innovation. However, as companies improve their ESG ratings, they increasingly view green innovation as a key growth area. This relationship is particularly pronounced for firms with low profitability and high operational risk (Yang et al., 2024).

Research in Indonesia has not found conclusive results regarding the effect of ESG risk rating on firm value. There are studies that find that ESG risk rating has a significant effect on firm value, and there are studies that find that ESG risk rating does not have a significant effect on firm value (Istikomah et al., 2023; Utami & Sebrina, 2024; Yudhanto & Simamora, 2023).

Based on the research results described in the previous paragraph, it can be concluded that ESG risk Rating on firm value remain inconsistent. Some studies find a significant effect, while other find no meaningful relationship. Thus, the hypotheses in this study are:

H1: *ESG Risk Rating has an insignificant effect on firm value*

Ownership concentration and firm value

A number of studies conducted in India found that the interaction between promoter ownership concentration and R&D intensity has a positive influence on the performance of Indian technology SMEs, the positive interest alignment effect offsetting the effect of family entrenchment on firm performance at high levels of ownership concentration common in India, where most firms face high growth opportunities.D intensity has a positive influence on the

performance of Indian technology SMEs, the positive interest alignment effect offsets the effect of family entrenchment on firm performance at high levels of ownership concentration common in India, where most firms face high growth opportunities and less product market competition, and contrary to research results in developed countries, and concentrated ownership reduces agency costs as shareholders actively monitor firm management, resulting in better firm performance (Chatterjee & Bhattacharjee, 2021; Hegde et al., 2020; Nashier & Gupta, 2023). Research in Malaysia found that institutional ownership and managerial ownership play a major role as moderating variables that influence management motives towards voluntary disclosure practices and earnings quality, and ownership concentration statistically positively affects the performance of Islamic companies (Karajeh, 2019; Shahrier et al., 2020).

Research on listed companies in Vietnam found that (1) there is no relationship between ownership concentration and firm profitability, but there is a non-linear relationship between ownership concentration and firm valuation; and that ownership concentration increases accounting performance risk, but there is no evidence of a relationship between ownership concentration and market performance risk; and (2) that ownership concentration increases accounting performance risk; however, there is no evidence of a relationship between concentration and market performance risk. (Tran & Le, 2020). Research on manufacturing companies in Bangladesh found that there is a negative relationship between ownership concentration and firm performance in both accounting (ROE) and market (Tobin's Q) measures. Therefore, this study rejects the theoretical premise that stronger ownership will reduce principal-agent problems and help improve firm performance (*Ownership-Concentration-and-Corporate-Financial-Performance-A-Study-on-Listed-Manufacturing-Companies-in-Bangladesh*-,n.d.). Research on listed companies in Pakistan found that lower ownership concentration is a valuable approach to maximizing firm performance (Javeed et al., 2021). Research conducted on commercial banks in China found that ownership concentration in the hands of the government has a negative and significant effect on credit risk, while private ownership concentration has a positive effect on credit risk. Overall, these findings suggest that government ownership concentration reduces risk; however, private ownership concentration exacerbates credit risk. The results do not change for both measures of credit risk, both before and after the financial crisis (Liu et al., 2019).

Research in the United States that conducted research on the impact of ownership concentration on corporate social responsibility using family companies and companies controlled by company founders found that family and founder ownership was associated with fewer corporate social responsibility (CSR) issues, while the presence of family and founder CEOs was associated with greater CSR issues (Block & Wagner, 2014). Research conducted on the breakaway countries of the Soviet Union, Central European countries, and Eastern Europe found that there is a statistically significant and positive effect of ownership concentration on firm performance (Iwasaki & Mizobata, 2020). Research on the impact of ownership concentration on innovation in SME firms around the world finds that concentrated ownership has a detrimental impact on innovation for firms with higher levels of asymmetric information and firms led by less experienced managers. They also show that the negative relationship between ownership concentration and innovation exists only in financially constrained firms (i.e., younger firms and SMEs with high financing constraints) and firms with highly concentrated ownership structures. Finally, evidence suggests that institutional development mitigates the negative impact of ownership concentration on innovation (Nguyen et al., 2021). Research conducted by companies that have implemented *Integrated Reporting* around the world found that there is a positive effect of institutional ownership and a negative effect of ownership concentration, managerial ownership and state ownership on the quality of integrated reports (Raimo et al., 2020).

Based on the research results described in the previous paragraph, and Indonesia is still considered a developing country towards a developed country, similar to the status of India, and Malaysia. So, the hypothesis we developed for this research is:

H2: *Ownership concentration has a positive relationship with firm value*

Leverage as a moderator variable between ESG rating, and ownership concentration with firm value.

Leverage relates to the amount of funds borrowed by the company from external parties to fund the company's expansion. Research in Indonesia found that leverage can moderate the relationship between eco-efficiency and firm value. Meanwhile, other studies have found that leverage moderates the effect of managerial ownership and independent commissioners on accounting conservatism but does not moderate the effect of institutional ownership on accounting conservatism (Hajawiyah et al., 2020; Helmina et al., 2022). Corporate leverage has a partial mediating effect between ownership concentration and involvement in CER (Chen et al., 2021). Research in India that financial leverage has a negative relationship with ROA but has no relationship with ROE, and is unable to moderate the relationship between CSR and financial performance. Finally, financial leverage has no relationship with TPA (Third-Party Assurance) and is unable to moderate the relationship between CSR and TPA (Oware & Mallikarjunappa, 2019). Based on the results of the research discussed earlier, it can be hypothesized that

H3: *leverage has an insignificant moderating effect between ESG Risk Rating and firm value.*

H4: *leverage has an insignificant moderating effect between ownership concentration and firm value.*

Firm size as a moderator variable between ESG rating, and ownership concentration with firm value.

Company size is related to the total assets owned by the company as the company's resources to produce goods or services offered to consumers. Research using company size as one of the moderator variables between ESG and firm value and performance found that company size is a relevant moderator for the relationship between sustainability disclosure and firm value and FP in the air transportation industry (Abdi et al., 2022). stakeholder pressure on the company's proactive environmental strategy found that shareholder and employee pressure on PES is strongly moderated by company size (Seroka-Stolka & Fijorek, 2020). Another study found that the moderation of large firms affects the relationship between product market competition and firm performance. In contrast, the moderating role of small firms shows a substantial negative impact on the relationship between product market competition and firm performance (Mubeen et al., 2022). Research results in Indonesia found that company size is proven to strengthen the effect of managerial ownership and institutional ownership on earnings quality (Solikhah et al., 2022). Based on the results of previous research, the hypotheses used in this study are:

H5: *Company size as a moderating variable has a significant influence between ESG Risk Rating and firm value.*

H6: *Firm size as a moderating variable has an insignificant influence between ownership concentration and firm value.*

METHOD

Research Sample

The population in this study is all companies listed on the Indonesia Stock Exchange totaling 938. We chose the sample in this study is all stocks listed in the ESG Rating version of Morningstar Sustainalytics. We used stock price data and financial statements for 2023. The

table below presents a list of listed companies that are included in the ESG Rating version of Morningstar Sustainalytics, namely:

Table 1 Sample of Companies Listed in Morningstar Sustainalytics

No.	Issuer Code	No.	Issuer Code	No.	Issuer Code	No.	Issuer Code	No.	Issuer Code
1	ADRO	19	BRIS	37	ESSA	55	KLBF	73	PGAS
2	ADMR	20	BBTN	38	GJTL	56	MAPA	74	TOWR
3	ASSA	21	BRPT	39	BMTR	57	MYOR	75	SRTG
4	AKRA	22	BFIN	40	GOTO	58	FILM	76	SMGR
5	AMMN	23	BOGA	41	GTRA	59	MEDC	77	WIFI
6	ANTM	24	OPEN	42	GGRM	60	MNCN	78	AMRT
7	ACES	25	PTBA	43	HRUM	61	HEAL	79	SMRA
8	ASII	26	BRMS	44	HMSP	62	MBMA	80	SCMA
9	AUTO	27	BSDE	45	INKP	63	MDKA	81	TLKM
10	AVIA	28	TPIA	46	INDY	64	MAPI	82	TINS
11	BTPS	29	CPIN	47	ITMG	65	MIKA	83	TBIG
12	BBCA	30	CTRA	48	INTP	66	PTMP	84	NCKL
13	BNGA	31	MTEL	49	ICBP	67	MPMX	85	UNVR
14	ARTO	32	DSNG	50	INDF	68	TKIM	86	UNTR
15	BMRI	33	EMTK	51	ISAT	69	PWON	87	INCO
16	BBNI	34	ELSA	52	SIDO	70	PNLF	88	EXCL
17	NISP	35	ENRG	53	JPFA	71	PANI		
18	BBRI	36	ERAA	54	JSMR	72	PGEO		

Source: IDX.co.id (2024)

Data Retrieval

The research we conducted is quantitative research, which is research that uses statistical models in finding research results. The data used in this study is secondary data, which is data obtained from a second party who processes, and officially publishes data from the first party. We took Morningstar Sustainalytics data from the IDX.co.id website, financial reports were taken from the official website of each company, and research articles were taken from ScienceDirect.com, MDPI.com, and taylorandfrancis.com. Operational description of the variables used in this study, namely:

Table 2

No.	Variables	Operational Definition	Formula	Source
1	Tobin's Q	A ratio that measures the ratio between the market value of a company's assets and the replacement value of those assets.	*(Equity Market Value+ Liabilities Market Value)/(Equity Book Value+ Liabilities Book Value)*	(Aydoğmuş et al., 2022).
2	Ownership Concentration	The proportion of shares outstanding in the market owned by the first largest individual or institution with a limit of 20 percent or more (referring to Law No. 8 of 1995 on Capital Markets in Indonesia).	OC = % of shares owned by the largest shareholder (TOP 1)	(Faisal et al., 2020; Indri et al., 2024)

3	ESG Rating	an assessment that measures the extent to which a company manages financially relevant risks and opportunities from environmental, social and governance aspects. ESG Ratings provide a snapshot of a company's long-term commitment to socially and environmentally responsible investing.	$\text{Portfolio Sustainability} = \sum_{x=1}^{n} \text{ESGRisk X Weightsadj}$	(*SustainabilityRatingMethodology_2021*, n.d.)
4	Company Size	The scale of the company that can be measured by indicators that become the company's resources in producing products or services, such as total assets, number of employees, or number of shares outstanding.	Company size = log (Total Assets)	(Abdi et al., 2022)
5	Leverage	The percentage of debt costs owned by the company to support the company's operations in increasing profits.	Debt to Asset Ratio = Total Debt/Total Assets	(Abdi et al., 2022)

Research Model

The following regression model was developed to examine the relationship between the effect of ESG score, and ownership concentration on firm value with firm size and leverage as moderating variables, as follows:

$$Firm\,Value_{it} = \beta_0 + \beta_1 OC_{it} + \beta_2 ESG\ Rating_{it} + \beta_3 OC * Firm\,Size_{it} + \beta_4 OC * LEV_{it} + \beta_5 ESG\ Rating * Firm\,Size_{it} + \beta_6 ESG\ Rating * LEV_{it} + \epsilon_{it}$$

Notes: β0 to β4 are coefficients, OC is ownership concentration, Lev is leverage, Ɛ is error, i is firm, and t is time.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 3 displays the descriptive statistics of each variable used in the study. The explanation of the statistical value of each variable is: All 88 samples of variable data are valid. The median ESG score of 27.370 indicates that the middle value of the 88 research samples in the Morningstar Sustainalytics version category has medium ESG risk. The average value of 28.010 gives the same meaning in the Morningstar Sustainalytics version of the ESG Score category, which has medium ESG risk. The median value of 0.55 and mean of 0.57 respectively, shows that companies in Indonesia included in Morningstar Sustainalytics, most of the ownership is concentrated in shareholders with the largest shares in the company. The median and mean values of company size of 31.241 and 31.270 respectively indicate that the companies included in Morningstar Sustainalytics are large companies. The median and mean leverage values of 0.438 and 0.437 indicate that less than 50% of the companies included in Morningstar Sustainalytics rely on debt in funding the company's capital. Keep in mind, however, that the companies included in Morningstar Sustainalytics come from different

industries. The median and mean values of Tobin's Q values of 1.293 and 3.277 indicate that the stock value of companies included in Morningstar Sustainalytics tends to be overvalued.

Table 3

Descriptive Statistics

	ESG Score	Ownership Concentration	Company Size	Leverage	Tobin's Q
Valid	88	88	88	88	88
Missing	0	0	0	0	0
Mean	28.010	0.577	31.270	0.437	2.049
Std. Deviation	9.570	0.159	1.667	0.220	3.006
Shapiro-Wilk	0.969	0.986	0.964	0.972	0.439
P-value of Shapiro-Wilk	0.032	0.444	0.015	0.055	< .001
Minimum	9.260	0.175	26.273	0.030	0.336
Maximum	53.100	0.924	35.315	0.869	22.037

Correlation

Table 4 displays correlation data for all variables using Pearson's correlation. The Pearson correlation coefficient measures the strength of the linear relationship between two variables. If there is a strong linear relationship, the correlation coefficient is close to 1 or -1, and 0 means there is no linear relationship (Deprez & Robinson, 2024). The ESG score based on Pearson's correlation has a value of 0.019 against Tobin's Q. Based on this value, it can be assumed that ESG Score has a strong linear relationship. The same applies to ownership concentration which has a Pearson's Coefficient value of 0.007. Moderating variables, such as company size and leverage have a weak linear relationship to Tobin's Q with values of -0.370, and 0.145 respectively.

Table 4

Pearson's Correlations

Variable		ESG Score	Ownership Concentration	Company Size	Leverage	Tobin's Q
1. ESG Score	Pearson's r	—				
2. Ownership Concentration	Pearson's r	0.068	—			
3. Company Size	Pearson's r	-0.004	0.097	—		
4. Leverage	Pearson's r	-0.121	0.234	0.345	—	
5. Tobin's Q	Pearson's r	-0.032	-0.142	-0.432	-0.062	—

Regression Analysis

This study tests the suitability of the variable model used as shown in table 3 which contains the Skewness, Kurtosis, and Shapiro-Wilk values. Skewness is a measure of asymmetry and kurtosis is a measure of the 'slope' of the distribution (Kim, 2013). Data is said to be normal if the standard skewness is within ±1.96 and the standard kurtosis is ±2 (Rahman & Mohamed Ali, 2006). (Khatun, 2021) research, which conducted a comparison between statistical normality test models, found that as n increases, the overall power increases but the Shapiro Wilk (SW) test, Shapiro Francia (SF) test and Andeson Darling (AD) test are the most powerful among other tests. Cramer-Von-Mises (CVM) test performs better than Pearson chi-square, Lilliefors test has better power than Jarque Bera (JB) Test. Jarque Bera (JB) Test is the

less powerful test among the other tests. This study uses the Shapiro-Wilk model due to its reliability based on the research results described in the previous sentence.

Table 5 displays the values of R, R^2, and Adjusted R^2 which are 0.619, 0.383, and 0.321 respectively. This value means that the correlation between the independent variables, moderating variables and the dependent variable is strong (61.9%). both independent variables with moderating variables can explain 38.3% of the dependent variable. After adjusting the value of R^2, it was found that the independent variable, and the moderating variable were able to explain 32.1% of the dependent variable.

Table 5

Model Summary - Tobin's Q

Model	R	R^2	Adjusted R^2	RMSE
M_0	0.000	0.000	0.000	3.006
M_1	0.619	0.383	0.321	2.478

Note: M_1 includes ESG Score, Ownership Concentration, Firm Size, Leverage, ESG Score: Firm Size, ESG Score: Leverage, Ownership Concentration: Firm Size, Ownership Concentration: Leverage

Table 6 displays the ANOVA value where the F value of 6.133 is greater than the F table value of 2.058 with $\alpha = 0.05$ df1 = 8, and df = 79. The p value is <.001. The results of the F value and p value indicate that the independent variable, and the moderating variable have a significant effect on the dependent variable.

Table 6

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
M_1	Regression	301.253	8	37.657	6.133	< .001
	Residual	485.067	79	6.140		
	Total	786.320	87			

Note: M_1 includes ESG Score, Ownership Concentration, Firm Size, Leverage, ESG Score: Firm Size, ESG Score: Leverage, Ownership Concentration: Firm Size, Ownership Concentration: Leverage.
Note: The intercept model is omitted, as no meaningful information can be shown.

Table 7 displays the coefficient of each dependent variable, independent variable, and moderating variable. The t value is a value that shows the effect of the independent variable on the dependent variable. The regression calculation results in table 7 show that ownership concentration moderated by leverage has a t value = 3.117 which is higher than other variables, and means that hypothesis **H4** is rejected. This result rejects previous research which states that leverage has no influence as a moderating variable between ownership concentration and firm value (Anita et al., 2023). ESG risk score moderated by firm size has an insignificant influence on firm value characterized by a t value = -1.061. This value indicates that company size cannot be used as a moderating variable between ESG risk scores and company value. The results of this study state that **H5** is rejected and opposes previous research (Abdi et al., 2022).

ESG risk score moderated by leverage also has a high effect with a t value = 2.137. This value states that **H3** is rejected, and opposes previous research which states that leverage cannot be used as moderation between ESG scores and firm value (Behl et al., 2022). Ownership concentration moderated by firm size on firm value has a t value = 0.865. This value states that company size has a positive and not very significant effect in influencing ownership concentration with firm value, and this support the statement of hypothesis **H6**. The results of this study oppose previous research which states that company size is proven to strengthen the

influence of managerial ownership and institutional ownership on earnings quality (Solikhah et al., 2022). ESG risk score has an insignificant influence on firm value, and can be seen from the value of t = 0.880. This value accepted the statement of hypothesis **H1** which states that ESG risk Score has an insignificant influence. The results of this study support previous research (Utami, 2024). Ownership concentration has a t = -1.227 value on firm value. The negative and insignificant value rejected the **H2** hypothesis statement which states that ownership concentration has a positive relationship to firm value. The results of this study opposes previous research which states that there is a statistically significant and positive effect of ownership concentration on firm performance (Iwasaki & Mizobata, 2020).

Table 7

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
M_0	(Intercept)	2.049	0.320		6.393	< .001
M_1	(Intercept)	38.165	27.198		1.403	0.164
	ESG Score	0.578	0.657	1.841	0.880	0.382
	Ownership Concentration	-47.223	38.488	-2.499	-1.227	0.223
	Company Size	-0.848	0.899	-0.470	-0.943	0.348
	Leverage	-22.336	6.344	-1.636	-3.521	< .001
	ESG Score ✻ Company Size	-0.023	0.021	-2.247	-1.061	0.292
	ESG Score ✻ Leverage	0.349	0.163	0.749	2.137	0.036
	Ownership Concentration ✻ Company Size	1.116	1.290	1.901	0.865	0.390
	Ownership Concentration ✻ Leverage	25.358	8.135	1.353	3.117	0.003

CONCLUSION

The results of this study provide several conclusions, namely ESG Risk Score has an insignificant and positive influence on firm value. Ownership concentration has a positive influence, and insignificant in influencing firm value. Firm size has an insignificant and negative influence in influencing ESG Score with firm value, and leverage has a positive and significant influence in influencing ESG Score with firm value. Firm size has a positive relationship and insignificant effect in influencing ownership concentration with firm value. Leverage has a positive and significant relationship in influencing the relationship between ownership concentration and firm value. Another conclusion, the impact of firm size and leverage on the moderation of ESG score with firm value and the moderation of ownership concentration with firm value is not uniform. Specifically, leverage exerts a more substantial effect as a moderator between ESG risk score and ownership concentration and firm value than firm size. Limitations in this study, namely: the research time is only one year, namely 2023. The object of this research amounted to 88 companies listed on Morningstar Sustainalytics. This research focuses on the Indonesia Stock Exchange, not making comparisons with countries that have emerging market status like Indonesia as a comparison. Based on the weaknesses of the research described in the previous paragraph, future research is expected to use a minimum research period of 3 years, use all companies listed on the Indonesia Stock

Exchange using ESG ratings from institutions other than Morningstar Sustainalytics, and make comparisons with Stock Exchanges in countries that have the same emerging market status as Indonesia.

REFERENCES

Abdi, Y., Li, X., & Càmara-Turull, X. (2022). Exploring the impact of sustainability (ESG) disclosure on firm value and financial performance (FP) in airline industry: the moderating role of size and age. *Environment, Development and Sustainability*, *24*(4). https://doi.org/10.1007/s10668-021-01649-w

Abrori, S. R., Hendrawaty, E., & Hasnawati, S. (2023). Corporate Governance and Financial Distress: A Comprehensive Analysis of Indonesian Manufacturing Companies. *Asian Journal of Economics, Business and Accounting*, *23*(24). https://doi.org/10.9734/ajeba/2023/v23i241203

Anita, R., Abdillah, M. R., & Suseno, G. (2023). Leverage On Firm Value: The Role of Financial Performance Mechanisms. *Jurnal Aplikasi Bisnis Dan Manajemen*. https://doi.org/10.17358/jabm.9.3.751

Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. In *Borsa Istanbul Review* (Vol. 22). https://doi.org/10.1016/j.bir.2022.11.006

BAPPENAS. (2023). BERANDA. *SDGs Indonesia*.

Behl, A., Kumari, P. S. R., Makhija, H., & Sharma, D. (2022). Exploring the relationship of ESG score and firm value using cross-lagged panel analyses: case of the Indian energy sector. *Annals of Operations Research*, *313*(1). https://doi.org/10.1007/s10479-021-04189-8

Bhattacharya, R., Stock Performance, G., & Modeling, P. (2013). Effect of Going Green on Stock Prices: A Study on BSE-GREENEX General Terms. In *International conference on Green Computing and Technology*.

Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, *30*(1). https://doi.org/10.1108/MEQ-12-2017-0149

Cao, Q., Zhou, Y., Du, H., Ren, M., & Zhen, W. (2022). Carbon information disclosure quality, greenwashing behavior, and enterprise value. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.892415

Chen, S., Song, Y., & Gao, P. (2023). Environmental, social, and governance (ESG) performance and financial outcomes: Analyzing the impact of ESG on financial performance. *Journal of Environmental Management*, *345*. https://doi.org/10.1016/j.jenvman.2023.118829

Faisal, F., Majid, M. S. A., & Sakir, A. (2020). Agency conflicts, firm value, and monitoring mechanisms: An empirical evidence from Indonesia. *Cogent Economics and Finance*, *8*(1). https://doi.org/10.1080/23322039.2020.1822018

Gao, A., Xiong, T., Luo, Y., & Meng, D. (2023). Promote or Crowd Out? The Impact of Environmental Information Disclosure Methods on Enterprise Value. *Sustainability (Switzerland)*, *15*(4). https://doi.org/10.3390/su15043090

Hariani, A. (2023). *Lima Tantangan Penyusunan "ESG Report."* Pajak.Com. https://www.pajak.com/ekonomi/lima-tantangan-penyusunan-esg-report/

Horn, M., & Oehler, A. (2024). Constructing stock portfolios by sorting on ESG ratings: Does the rating provider matter? *International Review of Financial Analysis*, *96*, 103568.

Huang, D. Z. X. (2021). Environmental, social and governance (ESG) activity and firm performance: a review and consolidation. *Accounting and Finance*, *61*(1). https://doi.org/10.1111/acfi.12569

Ikechukwu, O. E., & Blessing, N. N. (2020). Effect of Sustainability Reporting on Economic Value Added of Manufacturing Firms Listed on Nigeria Stock Exchange. *Journal of Economics, Management and Trade*. https://doi.org/10.9734/jemt/2020/v26i1030295

Indri, I. S., Widowati, A. R., & Murni, S. (2024). Pengaruh Konsentrasi Kepemilikan terhadap Kinerja Perusahaan: Studi pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2016-2020. *Perspektif Akuntansi*, *7*(1). https://doi.org/10.24246/persi.v7i1.p1-16

Iwasaki, I., & Mizobata, S. (2020). Ownership Concentration and Firm Performance in European Emerging Economies: A Meta-Analysis. *Emerging Markets Finance and Trade*, *56*(1). https://doi.org/10.1080/1540496X.2018.1530107

Khatun, N. (2021). Applications of Normality Test in Statistical Analysis. *Open Journal of Statistics*, *11*(01). https://doi.org/10.4236/ojs.2021.111006

Kim, H.-Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, *38*(1). https://doi.org/10.5395/rde.2013.38.1.52

Kusuma, N. (2023, July 3). *Kenalan dengan Greenwashing dan Cara Menghindarinya*. Greennetwork.Id. https://greennetwork.id/unggulan/kenalan-dengan-greenwashing-dan-cara-menghindarinya/

Lee, J., & Kwon, H. B. (2019). The synergistic effect of environmental sustainability and corporate reputation on market value added (MVA) in manufacturing firms. *International Journal of Production Research*, *57*(22). https://doi.org/10.1080/00207543.2019.1578430

Lehnert, T. (2023). The Green Stock Market Bubble. *Circular Economy and Sustainability*, *3*(3). https://doi.org/10.1007/s43615-022-00223-4

Lindawati, A. S. L., Geraldine, T. G., Handoko, B. L., Widuri, R., & Mustapha, M. (2023). ANALYSIS OF SUSTAINABILITY PERFORMANCE, GREEN ACCOUNTING AND ESG DISCLOSURE ON FIRM VALUATION. *International Journal of Contemporary Accounting*, *5*(2). https://doi.org/10.25105/ijca.v5i2.17745

Minggu, A. M., Aboladaka, J., & Neonufa, G. F. (2023). Environmental, Social dan Governance (ESG) dan Kinerja Keuangan Perusahaan Publik di Indonesia. *Owner*, *7*(2). https://doi.org/10.33395/owner.v7i2.1371

MOUTINHO1, R., & DA SILVA, R. L. M. (2023). ESG INVESTMENTS IN THE COVID-19 PANDEMIC: WERE THERE SUPERIOR FINANCIAL AND SHAREHOLDER PERFORMANCES? *Paper Presented at the 23rd USP International Conference on Accounting*.

Olatubosun, P., Charles, E., & Omoyele, T. (2021). Rethinking luxury brands and sustainable fashion business models in a risk society. *Journal of Design, Business and Society*, *7*(1). https://doi.org/10.1386/dbs_00020_1

Popescu, C.-E., Pentescu, A., & Shivarov, A. (2023). Sustainability, ESG Ratings and Corporate Performance in the Manufacturing Sector: A Research Review. *European Journal of Interdisciplinary Studies*, *15*(2). https://doi.org/10.24818/ejis.2023.24

Prayogo, E., Handayani, R., & Meitiawati, T. (2023). ESG Disclosure dan Retention Ratio terhadap Nilai Perusahaan dengan Ukuran Perusahaan sebagai Pemoderasi. *Reviu Akuntansi Dan Bisnis Indonesia*, *7*(2), 368–379.

Rahma Adissa, A., & Septiani, A. (2022). PENGARUH PENGUNGKAPAN SUSTAINABILITY REPORT DALAM MEMODERASI HUBUNGAN PENGUNGKAPAN ENTERPRISE RISK MANAGEMENT (ERM) TERHADAP KINERJA PERUSAHAAN (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di BEI tahun 2016-2020). *Diponegoro Journal of Accounting*, *11*(3).

Rahman, R. A., & Mohamed Ali, F. H. (2006). Board, audit committee, culture and earnings management: Malaysian evidence. *Managerial Auditing Journal*, *21*(7). https://doi.org/10.1108/02686900610680549

Sadiq, M., Singh, J., Raza, M., & Mohamad, S. (2020). The impact of environmental, social and governance index on firm value: Evidence from Malaysia. *International Journal of Energy Economics and Policy*, *10*(5). https://doi.org/10.32479/ijeep.10217

Solikhah, B., Wahyudin, A., Al-Faryan, M. A. S., Iranda, N. N., Hajawiyah, A., & Sun, C. M. (2022). CORPORATE GOVERNANCE MECHANISMS AND EARNINGS QUALITY: IS FIRM SIZE A MODERATION VARIABLE? *Journal of Governance and Regulation*, *11*(1 special issue). https://doi.org/10.22495/jgrv11i1siart1

Utami, L. F. , & S. N. (2024). Pengaruh Rating Risiko ESG dan Pengungkapan Keanekaragaman Hayati terhadap Kinerja Keuangan Perusahaan. *Jurnal Eksplorasi Akuntansi*, *6*(3), 1241–1256.

Widiyanti, M., Sadalia, I., Zunaidah, Irawati, N., & Hendrawaty, E. (2019). Determining firm's performance: Moderating role of csr in renewable energy sector of Indonesia. *Polish Journal of Management Studies*, *19*(2). https://doi.org/10.17512/pjms.2019.19.2.37

Yeye, O., & Egbunike, C. F. (2023). Environmental, Social and Governance (ESG) disclosure and firm value of manufacturing firms: The moderating role of profitabilit. *International Journal of Financial, Accounting, and Management*, *5*(3). https://doi.org/10.35912/ijfam.v5i3.1466