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Study on the impact of ESG performance on corporate value: Based on a media attention perspective

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Abstract

The paper investigates the impact of ESG performance on corporate value from a media attention perspective. The Chinese government attaches importance to green development, and society is increasingly concerned about enterprises' ESG performance. However, the overall ESG performance of Chinese companies from 2011 to 2021 is poor. Media attention scrutinizes corporate behavior, prompting companies to improve. Limited research exists on corporate ESG performance and corporate value, particularly regarding the mediating role of media attention. On a theoretical basis, this study empirically examines corporate ESG, media attention, and firm value. The study reveals: i) strong ESG positively impacts corporate value; ii) strong ESG attracts media attention; and iii) good corporate ESG boosts corporate value according to gaining more media attention. The paper proposes actionable recommendations to enhance China's corporate ESG performance at the corporate, government, and societal levels. This conclusion of this paper can prompt enterprises to enhance their awareness of social responsibility and provide support for enhancing ESG. This is in line with the country's green finance strategy and will help corporations increase value, achieving a win-win situation.

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1. Introduction

ESG stands for environmental, social, and governance, a concept guiding decisions based on corporate performance in these areas. It aligns well with the "five-in-one" and the development concept of "innovation, coordination, green, openness, and sharing." In order to encourage corporations to enhance ESG, governments have developed many policies. In a market economy, the implementation of policies and regulations is of the utmost significance. However, it is equally vital to foster innate motivation within organisations. This encourages them to achieve higher economic returns and a stronger capacity for sustainable development through improved ESG performance, creating a "win-win" situation for both social and market values. The question arises: Does good ESG performance contribute to an increase in corporate value? If so, how does ESG influence corporate value? Existing literature has primarily focused on investigating the influence of individual E, S, or G dimensions on corporate value. The consensus is that good corporate governance enhances firm value (Almaqtari, Elsheikh, Tawfik, & Youssef, 2022). However, about environmental and social responsibility and corporate value, differing opinions have emerged (Abdi, Li, & Càmara-Turull, 2020). Some scholars have begun studying the overall impact of ESG on corporate value, finding a positive association (Dang, Huynh, & Nguyen, 2021). While these works offer valuable insights into the ESG-corporate value relationship, many do not thoroughly explore the underlying mechanisms, leaving gaps in the logical chain (Quintiliani, 2022). This study examines ESG and corporate value using Bloomberg. The study focuses on 1321 A-share-listed companies in China between 2011-2021. This research makes notable contributions and features the following aspects: Firstly, it expands the existing literature about the value effect of ESG. This holds significant implications for investors actively participating in ESG investments. Secondly, the study delves into the mechanism by which ESG affects corporate value, identifying that ESG performance enhances media attention, which, in turn, boosts corporate value. These findings offer targeted suggestions to further enhance the value effect of ESG performance.

This paper begins by presenting the theoretical framework of the paper, analyzing ESG, media attention, and corporate value, and introducing the conceptual framework. Then it describes the sample selection and data sources, the variable selection and model design of this paper, and the descriptive statistical analysis and correlation analysis of the main variables. Then regression analysis is carried out, first ESG and corporate value and robustness tests, then media attention is introduced to analyze the mechanism of ESG affecting corporate value, and heterogeneity analysis is carried out according to the different nature of ownership and the different degree of marketization. Finally, there are the conclusions.

2. Theoretical Framework

2.1. Corporate ESG Performance and Corporate Value

Stakeholder theory and resource dependence theory suggest that active environmental management could increase corporate value. Corporate signals trustworthiness by reducing transaction costs and increasing stakeholder participation in value creation (Tang, 2022). Resource dependence theory emphasizes that corporate survival and growth require external resources (Mohamad, 2020), and ESG can help companies gain a resource advantage. In light of these theories, this paper proposes a research hypothesis.

H_1: Good ESG can increase corporate value.

2.2. Corporate ESG Performance and Media Attention

Good corporate ESG performance reflects the company's proactive commitment, garnering support from the government and recognition from society. Concurrently, when corporations undertake ESG activities, they acquire societal acclaim and receive media coverage. Media attention, in turn, exerts public opinion pressure on corporate managers, leading them to elevate corporate social responsibility (CSR) information disclosure to a strategic development level, aiming to maintain a positive corporate image in stakeholders' minds. Research indicates that media attention significantly and positively relates to CSR information disclosure, with higher media attention having a more pronounced effect on promoting CSR information disclosure (Chang, Cheng, Wang, Liu, & Hu, 2023). Consequently, good corporate ESG performance often attracts media attention, and the media's regulatory intervention and guiding effect of public opinion pressure influence corporate behavior, compelling companies to proactively respond. This process fosters a virtuous governance cycle, promoting good ESG.

In light of these theories, this paper proposes a research hypothesis:

H_2: Media attention is positively related to the good ESG performance of corporate.

2.3. Corporate ESG Performance, Media Attention and Corporate Value

The media is essential for directing and observing business and market development. Corporate fulfilment of environmental responsibility not only showcases their commitment to responsibility but also sets an industry example, attracting media attention, enhancing corporate image, and attracting potential investors. As a result, corporate performance and social image improve simultaneously (Benjamin & Biswas, 2022). Good corporate ESG performance reflects active fulfilment of environmental, social, and governance responsibilities, garnering more media attention, enhancing corporate image, instilling investor confidence, maintaining a competitive advantage, and ultimately boosting corporate value. In light of these theories, this paper proposes a research hypothesis:

H_3: Good ESG performance enhances corporate value through increased media attention.

2.4. Research Framework

A conceptual framework, depicted in Figure 1, was developed based on theoretical frameworks for research and evaluation.

2.5. Research Contribution

The research contribution of this paper is that linking ESG with corporate value can make corporation realise the importance of ESG to corporate development, prompting them to develop in the direction of green and sustainable development, and at the same time, it can also provide a reference to management as well as investors for decision-making. In addition, corporate emphasis on ESG is of great practical significance to the green development of the whole country.

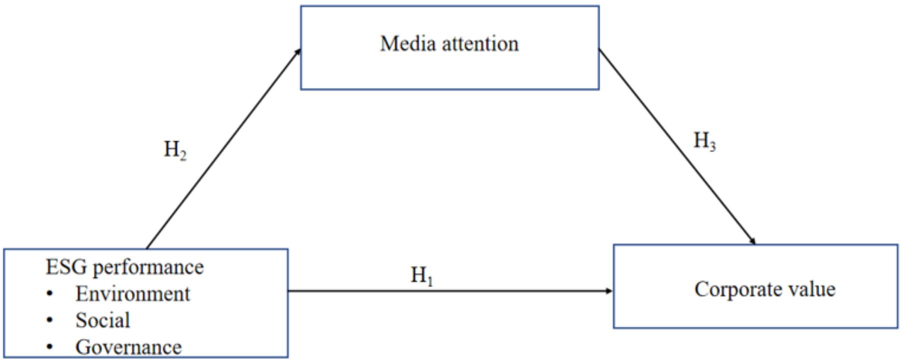

Figure 1. Conceptual framework.

3. Methodology

3.1. Sample Selection and Data Sources

We analyze 1321 Chinese-listed companies from 2011-2021. To achieve the study's objectives and maintain consistency with existing practices, we exclude observation samples with missing data and those from ST companies and the financial industry. Additionally, we summarize all continuous variables (excluding dummy variables). After these steps, we obtain a final sample of 10,613 observations. We source the financial data from the China Stock Market & Accounting Research Database (CSMAR), ESG data from Bloomberg ESG, and the media attention from the Chinese Research Data Services (CNRDS). The data in this paper are all from databases; no ethical considerations are involved, and no funding is required.

3.2. Variable Selection and Measurement

3.2.1. Dependent Variable: Corporate Value

TobinQ is utilized as a measure of corporate value. It is a widely used indicator in assessing enterprise value, calculated as the market value of total assets divided by the face value of total assets. Considering the lack of precise market pricing for non-floatable shares, this paper adopts net assets per share as the price of non-floatable shares in the calculation of the enterprise's market value.

3.2.2. Core explanatory Variable: ESG Performance (ESG)

Scholars commonly employ two methods, ratings and scores, to assess ESG performance. For this paper, following the approach of many scholars (Chang & Lee, 2022), we utilize the Bloomberg. Bloomberg has been collecting ESG information for listed companies since 2009, providing objective scores.

3.2.3. Mediating Variable: Media Attention

Scholars measure media attention through influential newspaper reports or online search platform search volumes. Baidu's advanced news search function is used to construct online media attention, drawing from over 500 authoritative websites. In order to accurately reflect current hot topics, new sources, and media select hot newseach day through “democratic voting” without using artificial editing (Del Giudice & Rigamonti, 2020). Given the Internet's increasing role in media activity and governance, this study follows Ellili (2022) and employs the Baidu news search engine to collect media attention data. Company names or stock names are used as keywords to search for each listed company annually. The number of positive media coverage entries obtained represents the annual positive media coverages for each company. To quantify corporate media attention, the number of positive media coverage is incremented by 1 and logarithmically transformed. A larger indicator denotes that the company has received more media attention.

3.2.4. Control Variables

We adopt variables from existing literature: firm size (Size), financial leverage (Lev), profitability (Return on Asset(ROA), growth (Growth), turnover rate (Turnover), firm's age at inception (Age), percentage of independent directors (Bind), and equity concentration (Top 1) (Abdul Rahman & Alsayegh, 2021). Definitions for these variables are provided in Table 1.

3.3. Descriptive Statistics of Variables

Table 2 shows the descriptive statistics. TobinQ has a mean of 1.997 and a standard deviation of 1.454, showing variations in firm values. ESG has a mean of 0.285 (overall rating of 1), indicating that Chinese listed firms generally have a relatively low ESG level, with a standard deviation of 0.117, showing differences in ESG across companies.

Table 1. Definition of variables.

Variable type	Variable name	Variable symbol	Variable definition
Dependent variable	Corporate value	TobinQ	Market capitalization/(Total assets)
Independent variable	ESG	ESG	Bloomberg ESG score/100
	Environment	E	Bloomberg environment score/100
	Social	S	Bloomberg society score/100
	Governance	G	Bloomberg governance score / 100
Mediating variables	Media attention	Media	Natural logarithm of the number of times a corporate has been featured in the media
Control variables	Company size	Size	Logarithm of total assets
	Financial leverage	Lev	Total liabilities/Total assets
	Profitability	ROA	Net profit/total assets
	Growth	Growth	(Operating revenue for the year - operating revenue for the previous year)/Operating revenue for the previous year
	Change of hands rate	Turnover	Turnover / Total number of shares outstanding
	Number of years of corporate existence	Age	Current year - year of establishment
	Percentage of independent directors	Bind	Number of independent directors / Number of board of directors
	Concentration of shareholding	Top1	Number of shares held by the largest shareholder / Total number of shares

Table 2. Descriptive statistics.

Variables	N	Mean	Median	Std. dev.	Minimum	Maximum
TobinQ	10613	1.997	1.487	1.454	0.856	9.283
ESG	10613	0.285	0.275	0.088	0.117	0.558
E	10613	0.091	0.021	0.122	0	0.519
S	10613	0.124	0.103	0.069	0	0.363
G	10613	0.643	0.693	0.137	0.32	0.899
Size	10613	23.232	23.118	1.332	19.708	27.25
Lev	10613	0.48	0.492	0.2	0.051	0.943
ROA	10613	0.045	0.039	0.062	-0.317	0.198
Growth	10613	0.179	0.113	0.415	-0.602	2.91
Turnover	10613	4.24	3.197	3.502	0.444	28.133
Age	10613	18.715	19	5.685	5	33
Bind	10613	0.376	0.364	0.055	0.333	0.571
Top1	10613	0.373	0.36	0.16	0.084	0.743

3.4. Correlation Analysis

Table 3 is correlation analysis. ESG and TonbinQ's correlation coefficient is 0.085, suggesting that corporate ESG enhances corporate value. The correlation coefficient between E and TobinQ is also 0.085, suggesting corporate environmental responsibility positively influences corporate value. However, the correlation coefficient between S and TobinQ is not statistically significant. On the other hand, the correlation coefficient between G and TobinQ is 0.084, suggesting the corporate governance responsibility positively affects corporate value.

3.5. Model Setup

On the basis of previous scholars' research to construct the model of this paper, before scholars in the study of ESG performance and company value, most scholars were from the ESG performance of a dimension that is environmental performance, social performance, and corporate governance performance to carry out the study, seldom ESG as a whole to carry out the study. The ESG as a whole and the study's execution will be covered in this paper. On the other hand, some scholars have studied ESG performance and corporate value, but few scholars have further explored how ESG affects corporate value. This paper introduces the mediating variable of media attention to delve deeper into how ESG performance affects corporate value through media attention.

Table 3. Correlation analysis.

Variables	TobinQ	ESG	E	S	G	Size	Lev	ROA	Growth	Turnover	Age	Board	Top1
TobinQ	1												
ESG	0.085***	1											
E	0.056***	0.837***	1										
S	0.022	0.668***	0.650***	1									
G	0.084***	0.798***	0.384***	0.253***	1								
Size	-0.365***	0.443***	0.364***	0.309***	0.330***	1							
Lev	-0.364***	0.060***	0.045***	0.026***	0.033***	0.502***	1						
ROA	0.302***	0.030***	0.059***	0.051***	-0.017*	-0.074***	-0.442***	1					
Growth	0.084***	0.016*	0.019**	-0.0130	0.0160	0.0120	0.00700	0.215***	1				
Turnover	0.155***	-0.082***	-0.067***	-0.056***	-0.046***	-0.307***	-0.105***	-0.038***	0.086***	1			
Age	-0.069***	0.312***	0.178***	0.093***	0.354***	0.161***	0.138***	-0.100***	-0.053***	-0.065***	1		
Bind	0.034***	0.074***	0.043***	0.050***	0.074***	0.084***	0.019**	0.0100	-0.00100	-0.00500	-0.048***	1	
Top1	-0.117***	0.0110***	0.040***	0.039***	-0.034***	0.226***	0.083***	0.081***	-0.0120	-0.217***	-0.147***	0.076***	1

Note: The values in square brackets under the regression coefficients are t-values, and *, **, and *** indicate significant at the 10%, 5%, and 1% significance levels, respectively.

3.5.1. Corporate ESG Performance and Corporate Value

To examine the association between firm ESG performance and corporate value, this paper formulates Equation 1.

$$\mathrm{TobinQ}_{\mathrm{it}} = \alpha_0 + \alpha_1 \times \mathrm{ESG}_{\mathrm{it}} + \alpha_2 \times \mathrm{Size}_{\mathrm{it}} + \alpha_3 \times \mathrm{Lev}_{\mathrm{it}} + \alpha_4 \times \mathrm{ROA}_{\mathrm{it}} + \alpha_5 \times \mathrm{Growth}_{\mathrm{it}} + \alpha_6 \times \mathrm{Turnover}_{\mathrm{it}} + \alpha_7 \times \mathrm{Age}_{\mathrm{it}} + \alpha_8 \times \mathrm{Bind}_{\mathrm{it}} + \alpha_9 \times \mathrm{Top1}_{\mathrm{it}} + \mathrm{ind} + \mathrm{year} + \varepsilon_{\mathrm{it}} \quad (1)$$

3.5.2. Corporate ESG Performance and Media Attention

To examine ESG and media attention, this paper formulates Equation 2.

$$Media_{\mathrm{it}} = \epsilon_0 + \epsilon_1 \times \mathrm{ESG}_{\mathrm{it}} + \epsilon_2 \times \mathrm{Size}_{\mathrm{it}} + \epsilon_3 \times \mathrm{Lev}_{\mathrm{it}} + \epsilon_4 \times \mathrm{ROA}_{\mathrm{it}} + \epsilon_5 \times \mathrm{Growth}_{\mathrm{it}} + \epsilon_6 \times \mathrm{Turnover}_{\mathrm{it}} + \epsilon_7 \times \mathrm{Age}_{\mathrm{it}} + \epsilon_8 \times \mathrm{Bind}_{\mathrm{it}} + \epsilon_9 \times \mathrm{Top1}_{\mathrm{it}} + \mathrm{ind} + \mathrm{year} + \varepsilon_{\mathrm{it}} \quad (2)$$

3.5.3. Corporate ESG Performance, Media Attention, and Corporate Value

Building on Equation 2, Equation 3 is formulated to investigate the mediating role of media attention.

$$TobinQ_{\mathrm{it}} = \rho_0 + \rho_1 \times ESG_{it} + \rho_2 \times Media_{\mathrm{it}} + \rho_3 \times \mathrm{Size}_{\mathrm{it}} + \rho_4 \times \mathrm{Lev}_{\mathrm{it}} + \rho_5 \times \mathrm{ROA}_{\mathrm{it}} + \rho_6 \times \mathrm{Growth}_{\mathrm{it}} + \rho_7 \times \mathrm{Turnover}_{\mathrm{it}} + \rho_8 \times \mathrm{Age}_{\mathrm{it}} + \rho_9 \times \mathrm{Bind}_{\mathrm{it}} + \rho_{10} \times \mathrm{Top1}_{\mathrm{it}} + \mathrm{ind} + \mathrm{year} + \varepsilon_{\mathrm{it}} \quad (3)$$

4. Results and Discussion

4.1. Impact of corporate ESG Performance on Corporate Value

Using stepwise regression (Bai & Meng, 2022), we empirically investigated the relationship between ESG and corporate value; see Table 4 for details.

In Column (1), we controlled for financial indicators like size, financial leverage, profitability, and growth. The coefficient of ESG is 1.154, which suggests ESG can increase corporate value. In Column (2), we further controlled for non-financial indicators such as turnover rate, years of establishment, percentage of independent directors, and equity structure. The coefficient of ESG is 1.174, also affirming the significant enhancement of corporate value through corporate ESG. In conclusion, the results strongly support the notion that corporate ESG significantly enhances corporate value, confirming Hypothesis 1.

Table 4. Regression analysis of ESG impact on corporate value.

Variables	(1)	(2)
ESG	1.154*** (6.01)	1.174*** (6.13)
Size	-0.396*** (-33.13)	-0.411*** (-32.93)
Lev	-0.522*** (-6.43)	-0.444*** (-5.45)
ROA	6.072*** (27.76)	6.102*** (27.88)
Growth	0.128*** (4.52)	0.134*** (4.70)
Turnover		-0.020*** (-5.24)
Age		-0.016*** (-6.56)
Bind		0.930*** (4.49)
Top1		-0.330*** (-4.28)
Cons	10.615*** (41.26)	11.024*** (39.01)
Year	Yes	Yes
Ind.	Yes	Yes
N	10613	10613
Adj-R2	0.366	0.371

Note: The values in square brackets under the regression coefficients are t-values, and *** indicate significant at the 10% significance levels, respectively.

4.2. Robustness Tests

4.2.1. Lagged Period Regression

To address the endogeneity problem arising from the mutual causality between corporate value and ESG performance, we employ a lagged period regression. Specifically, we discuss the influence of ESG in the current period on corporate value in the subsequent period (Feng & Wu, 2021) see Table 5.

In (2), we find the coefficient of ESG is 0.943. These findings exhibit consistency. This approach strengthens the validity of our conclusions.

Table 5. Lag period regressions.

Variables	(1)	(2)
	TobinQit+1	
ESG	0.929*** (4.33)	0.943*** (4.40)
Size	-0.383*** (-29.48)	-0.397*** (-29.15)
Lev	-0.689*** (-7.79)	-0.618*** (-6.97)
ROA	5.387*** (22.42)	5.384*** (22.38)
Growth	0.098*** (3.21)	0.097*** (3.18)
Turnover		-0.012*** (-2.85)
Age		-0.016*** (-6.21)
Bind		1.116*** (4.94)
Top1		-0.145* (-1.74)
Cons	10.364*** (37.27)	10.580*** (34.48)
Year	Yes	Yes
Ind.	Yes	Yes
N	9157	9157
Adj-R2	0.351	0.356

Note: The values in square brackets under the regression coefficients are t-values, and *and *** indicate significant at the 10% and 1% significance levels, respectively.

4.2.2. Excluding the Impact of the New Crown Epidemic

To account for potential significant impacts on related industries during the period of the new crown pneumonia, which may affect normal production and business decisions, we conducted a robustness test by excluding the sample data from 2020-2021 (Gerard, 2019).The results, as presented in Table 6, show that in (2), the coefficient of ESG is 0.649. These findings are in concordance with the previous regression, suggesting our results remain robust after excluding the data from 2020-2021. This exclusion helps to address the potential influence of the pandemic on our findings and reinforces the credibility of our study.

4.3. Mechanism of the Effect of ESG on Corporate Value

This paper adopts a widely accepted step-by-step research approach commonly used by scholars to investigate the effect of media attention and its effectiveness in reducing information asymmetry in the capital market and enhancing operational efficiency (Dang et al., 2021). The main objective is to verify whether good corporate ESG performance can attract more media attention and, consequently, enhance corporate value.

4.3.1. Regression of ESG on Media Attention

We measure the media attention of each listed company using the natural logarithm of the number of times it is reported in the media. To collect data, utilize the "Baidu News Search Engine". We conduct a search for documents with the company's abbreviation in the title, based on the year. It automatically provides the corresponding number, which is defined as the degree of media attention. We refer to this as media attention. A higher value of media reports indicates a higher level of media attention for the company.

Table 6. Excluding the impact of the new crown outbreak.

Variables	(1)	(2)
ESG	0.649*** (3.21)	0.649*** (3.22)
Size	-0.373*** (-31.58)	-0.396*** (-31.90)
Lev	-0.580*** (-7.21)	-0.520*** (-6.43)
ROA	4.609*** (20.87)	4.625*** (20.91)
Growth	0.0240 (0.88)	0.0340 (1.25)
Turnover		-0.026*** (-6.47)
Age		-0.007*** (-2.83)
Bind		0.944*** (4.56)
Top1		-0.202*** (-2.66)
Cons	10.329*** (40.97)	10.741*** (38.65)
Year	Yes	Yes
Ind.	Yes	Yes
N	8243	8243
Adj-R2	0.389	0.394

Note: The values in square brackets under the regression coefficients are t-values, and*** indicate significant at the 10%significance levels, respectively.

Table 7. Regression analysis of ESG performance influence on media attention.

Variables	Media
ESG	1.833*** (13.32)
Size	0.475*** (52.91)
Lev	-0.147** (-2.51)
ROA	1.844*** (11.73)
Growth	0 (-0.02)
Turnover	0.047*** (16.86)
Age	-0.013*** (-7.23)
Bind	0.642*** (4.32)
Top1	-0.507*** (-9.14)
Cons	-5.428*** (-26.73)
Year	Yes
Ind.	Yes
N	10593
Adj-R2	0.415

Note: The values in square brackets under the regression coefficients are t-values, and **, and *** indicate significant at the 10% and 1% significance levels, respectively.

Table 7 shows the impact of ESG on media attention. The coefficient of ESG is 1.833. This finding indicates that for each unit increase in ESG, media attention increases by an average of 1.833 units. It demonstrates that ESG factors play a crucial role in media coverage and have a positive impact on driving media attention.

Better ESG performance attracts more media attention, leading to increased corporate exposure in the public eye. This result confirms that ESG significantly enhances media attention for the company, providing support for Hypothesis 2.

4.3.2. Regression Results of ESG, Media Attention and Corporate Value

Summarizing the previous mediation effect test, we aim to verify whether ESG influences corporate value through media attention. Table 8 presents corporate value, ESG, and media attention. In Column (1), we examine whether ESG increases corporate value and find the coefficient of ESG is 1.175, suggesting ESG significantly enhances corporate value. In Column (2), we investigate whether ESG affects media attention and discover the coefficient of ESG is 1.833, demonstrating ESG significantly enhances media attention for the company. Moving to Column (3), we observe Media = 0.406, implying media attention enhances corporate value. Additionally, the coefficient of ESG remains significant but decreases compared to Column (1), suggesting that ESG enhances corporate value by positively influencing media attention, thus supporting Hypothesis 3.

Table 8. The mediate effect of media attention in ESG performance on corporate value.

Variables	(1)	(2)	(3)
	TobinQ	Media	TobinQ
ESG	1.175*** (6.13)	1.833*** (13.32)	0.431** (2.33)
Media			0.406*** (31.31)
Size	-0.411*** (-32.88)	0.475*** (52.91)	-0.604*** (-44.90)
Lev	-0.441*** (-5.41)	-0.147** (-2.51)	-0.381*** (-4.89)
ROA	6.101*** (27.86)	1.844*** (11.73)	5.352*** (25.38)
Growth	0.134*** (4.71)	0 (-0.02)	0.134*** (4.93)
Turnover	-0.020*** (-5.24)	0.047*** (16.86)	-0.039*** (-10.47)
Age	-0.016*** (-6.57)	-0.013*** (-7.23)	-0.011*** (-4.65)
Bind	0.935*** (4.51)	0.642*** (4.32)	0.674*** (3.40)
Top1	-0.333*** (-4.32)	-0.507*** (-9.14)	-0.127* (-1.72)
Cons	11.016*** (38.95)	-5.428*** (-26.73)	13.220*** (47.29)
Year	Yes	Yes	Yes
Ind.	Yes	Yes	Yes
N	10593	10593	10593
Adj-R2	0.371	0.415	0.425

Note: The values in square brackets under the regression coefficients are t-values, and *, **, and *** indicate significant at the 10%, 5%, and 1% significance levels, respectively.

4.4. Heterogeneity Analysis

4.4.1. Heterogeneity Analysis Based on the Nature of Property Rights

To analyze whether the influence of ESG on corporate value differs between government and non-government samples (Jiang & Kim, 2020), we can see in Table 9. In Column (1), the coefficient of ESG is 0.673. In Column (2), we further examine the regression results for the non-government corporate sample and discover that the ESG is 1.616. These results suggest ESG has a significant impact on corporate value in the non-government corporate sample compared to the government corporate sample.

Table 9. Analysis based on the nature of different property rights.

Variables	(1)	(2)
	Government corporate	Non-governmental corporate
ESG	0.673*** (3.26)	1.616*** (4.59)
Size	-0.309*** (-23.37)	-0.586*** (-23.09)
Lev	-0.610*** (-6.78)	-0.176 (-1.18)
ROA	4.635*** (16.48)	6.940*** (19.78)
Growth	0.0230 (0.67)	0.196*** (4.35)
Turnover	0.007 (1.46)	-0.053*** (-8.85)
Age	-0.015*** (-5.09)	-0.008* (-1.86)
Bind	0.619*** (2.77)	1.037*** (2.71)
Top1	-0.186** (-2.07)	-0.224 (-1.62)
Cons	8.867*** (28.64)	14.400*** (25.82)
Year	Yes	Yes
Ind.	Yes	Yes
N	5481	4609
Adj-R2	0.356	0.368

Note: The values in square brackets under the regression coefficients are t-values, and *, **, and *** indicate significant at the 10%, 5%, and 1% significance levels, respectively.

4.4.2. Heterogeneity Analysis Based on the Level of Marketisation

This study looks at whether the effects of ESG on corporate value changes in areas with different levels of marketization. To do this, we use the marketization level found in Kouaib (2022) China sub-provincial Marketization index as a standard.

In the specific analysis, we categorize regions based on whether their marketization level is above or below the median. Regions with marketization levels greater than the median are defined as samples with higher marketization levels, while regions with marketization levels below the median are defined as samples with lower marketization levels.

In Table 10 in Column (1), with a higher level of marketization, the coefficient of ESG is 1.493. In Column (2), for the sample with a lower level of marketization, ESG is 0.897.

These results indicate ESG has a significant effect on corporate value in regions with higher levels of marketization.

Table 10. Analysis based on different levels of marketability.

Variables	(1)	(2)
	High level of marketability	Low level of marketability
ESG	1.493*** (5.48)	0.897*** (3.29)
Size	-0.412*** (-20.95)	-0.402*** (-25.13)
Lev	-0.328*** (-2.60)	-0.631*** (-5.97)
ROA	7.224*** (21.83)	4.849*** (16.63)
Growth	0.179*** (4.05)	0.094*** (2.58)
Turnover	-0.022*** (-4.03)	-0.018*** (-3.42)

Variables	(1)	(2)
	High level of marketability	Low level of marketability
Age	-0.023*** (-6.79)	-0.00500 (-1.52)
Bind	0.513 (1.60)	1.156*** (4.33)
Top1	-0.401*** (-3.48)	-0.237** (-2.29)
Cons	11.017*** (23.46)	10.818*** (30.45)
Year	Yes	Yes
Ind	Yes	Yes
N	5256	5355
Adj-R2	0.370	0.384

Note: The values in square brackets under the regression coefficients are t-values, and **, and *** indicate significant at the 10% and 1% significance levels, respectively.

5. Conclusion

5.1. Findings

Now more research focuses on sustainable and green development, with greater concern for the ESG. In this research, we analyze ESG and corporate value. The research findings are: (i) Good corporate ESG increase corporate value. ESG performance does enhance corporate value due to the fact that, firstly, by adopting sustainable business strategies and practices, companies are better able to adapt and respond to changing market demands and stakeholder expectations. This long-term sustainability can lead to stable growth and profitability and increase the value of the business. Secondly, ESG can take into consideration the various risks faced by an organization and adopt appropriate action to administer and alleviate these risks. It enables companies to reduce potential litigation, representational damage, and economic loss, thereby reducing risk and increasing enterprise value. Third, good ESG performance helps corporation build a positive reputation and trust. By focusing on ESG, companies can earn the respect and trust of their stakeholders. A company's market share, attractiveness, and brand value can all rise as a result of this solid reputation and trust. Fourth, more and more investors are incorporating ESG factors into their investment decisions. They are becoming increasingly aware of long-term corporate sustainability and CSR and are prepared to deploy their capital to invest in companies that perform well in ESG. Therefore, good ESG attracts more resources and capital, enhances the investor attractiveness of corporation, and thus increases their value. Fifth, ESG performance has become part of regulatory and supervisory requirements in many countries and regions. By actively focusing on ESG performance and complying with relevant regulations and standards, corporations can reduce legal risks, improve compliance, and maintain good relationships with regulators. This helps to enhance a corporate reputation and credibility, which in turn increases the value of the organization. In summary, good ESG performance by a corporation can increase corporate value because it enables long-term sustainability, effective risk management, building a good reputation and trust, attracting investors, and adapting to regulatory and supervisory requirements. Together, these factors give corporations an edge in the competitive marketplace, delivering better performance and growth, which in turn increases the value of the company. (ii) Good ESG is associated with increased media attention. ESG performance can indeed attract media attention due to, firstly, increased social attention. ESG factors cover all corporate areas of performance, which are all current topics of high social concern. Good ESG performance attracts public interest and attention. The media, as an important channel for information dissemination, will tend to report on these companies that are in the spotlight of society in order to meet the public's demand for transparency and sustainability. Second, newsworthiness, and uniqueness. Good ESG performance can provide the media with newsworthy and unique reporting material. Innovative practices, success stories, or challenges faced by companies in ESG can attract media interest and thus get more coverage and attention. This attention increases visibility and reputation. Third, risk management and sustainable development: ESG factors are closely related to the risk management and sustainable development of enterprises. The media usually pays attention to and reports on the ESG risks faced. Good ESG performance helps companies effectively manage these risks and demonstrate their sustainability efforts and achievements. Such risk management and sustainable development coverage can attract media attention. Fourth, public opinion guidance: ESG factors are becoming more and more important in the public consciousness, and public opinion has high expectations of companies' ESG performance. The media, as an important source of public opinion guidance, will pay attention to and report on the performance of enterprises in ESG. When enterprises actively focus on ESG and achieve good results, the media will report these enterprises as role models to guide other enterprises to follow. In summary, the ESG effect on media attention mainly stems from the increase in social attention, news value and uniqueness, risk management and sustainable development, and public opinion guidance. Good

ESG performance can bring more media attention to companies, increase exposure and reputation, and then have a positive influence on corporate image and business development. (iii) Good ESG can increase corporate value through gaining more media attention. There are basically no scholars who have previously explored ESG and corporate value from the perspective of media attention. Through empirical analyses, this paper finds that ESG can enhance corporate value by attracting media attention. There are several reasons why media attention plays a mediating role in the process of ESG affecting corporate value: first, information transmission and consciousness shaping. The media, as an important channel of information transmission, passes relevant information to a wide audience, including investors, consumers, employees, and stakeholders, by reporting and analysing a company's ESG performance. Media reports can draw public attention, increase awareness of corporate ESG performance, and form certain public opinion pressure and social influence on the corporate, thus shaping the corporate social responsibility image and brand value. Second public opinion, guidance, and influence. The media maintains an important effect on public sentiment, with its news and commentary playing a guiding role in shaping the decisions made by the general public as well as investors. Media attention and coverage can trigger public discussion and evaluation of ESG, driving society to focus more on ESG issues. The media's public opinion can prompt companies to take more positive ESG actions and strengthen ESG management and improvement, thus enhancing the value of the company. Third, trust and reputation building. The fairness, objectivity, and credibility of media coverage are critical to building trust and reputation for corporations. Corporates in the media spotlight tend to be perceived as more transparent, responsible, and trustworthy organisations. By actively fulfilling their ESG responsibilities and receiving positive media attention, corporations can build a good reputation and trust, attract more investors and partners, and increase the value of their business. Fourth, market reactions and investment decisions. Media coverage and attention have an important impact on investors' decisions and market reactions. Investors tend to pay attention to corporate media reports, especially those involving ESG issues. Media attention can draw investors' attention and interest, prompting them to assess the ESG performance of corporations, which in turn influences their investment decisions and market assessments. This further contributes to the formation and growth of corporate value. In summary, the reasons why media attention plays an intermediary role in the process of ESG influencing corporate value mainly include information transmission and awareness shaping, public opinion guidance and influence, trust and reputation building, and market reaction and investment decisions. Corporate should pay attention to the role of media attention and actively manage media attention to create a good corporate image and enhance corporate value and competitiveness through active PR strategies and cooperation.

5.2. Policy Recommendations

5.2.1. Corporate Should Prioritize Improving their ESG Performance

This can be achieved by: a. incorporating ESG into top-level planning, company culture, and institutional design. b. Integrating ESG concepts into all aspects of business operations. c. including ESG factors in the business system and developing relevant policies. d. Proactively strengthening ESG information disclosure to reduce information asymmetry. Utilizing media and analysts to disseminate ESG information can help establish a positive reputation and image for the company. These policy insights aim to promote sustainable and responsible business practices, aligning corporate objectives with the principles of environmental protection, social responsibility, and sound governance. By adopting and implementing these measures, companies can enhance their ESG performance, positively impact their corporate value, and contribute to a more sustainable and socially responsible business landscape.

5.2.2. Investors Should Integrate ESG into their Investment Decision Framework

This involves considering not only macroeconomic factors and financial information but also non-financial information. By incorporating ESG into their investment strategy, investors can develop financial forecasting models that include ESG. This approach can enhance investment returns and reduce risks. Furthermore, investors' attention to ESG can positively influence the development of corporations. By prioritizing ESG considerations, investors can incentivize companies to improve their ESG practices and contribute to a more sustainable and responsible business environment. In this way, investors can lead to a more sustainable and socially responsible market.

5.2.3. The Government and Regulators Should Establish a Supportive Institutional Environment for Corporate ESG Initiatives

It can be achieved through the following measures: Reducing market and economic agent intervention: The government should minimize unnecessary intervention and allow market forces to drive corporate ESG decision-making. Stakeholders' awareness and sensitivity to corporate ESG performance should also be enhanced. Enhancing the legal environment: Legislation related to corporate ESG should be improved to increase the cost of poor or deceptive ESG performance. This will create incentives for companies to prioritize and improve their ESG practices. Issuing unified ESG disclosure guidelines: The government should introduce comprehensive and standardized ESG disclosure guidelines for listed companies. These guidelines should include relevant indicators and guide and strengthen the disclosure of ESG information by listed firms.

By creating a supportive institutional environment, the government and regulators can foster a culture of responsible and sustainable business practices, motivating companies to prioritize ESG considerations and contribute to the overall development of a more sustainable and socially responsible economy.

5.3. Research Limitations

5.3.1. There Are Limitations in Using the ESG Performance Scores from the Bloomberg Database to Evaluate the ESG Performance Status of Firms

Limitation of data coverage. The ESG scores in the Bloomberg database may not be able to cover the ESG performance of all our companies. The data collection in the database may be limited by the availability of information disclosure and the scope of reporting, so there may be cases where enterprises are not included in the scope of scoring.

Subjectivity of scoring criteria. The subjectivity of the assessment criteria and weightings may have an impact on the results of scoring, and ESG scoring criteria may vary across databases and organizations. Different scoring methods and indicator weights may lead to different interpretations and evaluations of ESG.

5.3.2. There are Limitations in Using Media Attention as a Mediating Variable to Explain the Impact of ESG Performance on Corporate Value

Selection of mediating variables. This paper chooses media attention as the mediating variable, but the link between ESG performance and corporate value might be affected by other mediating variables. For example, factors such as financing constraints, corporate efficiency, investor response, consumer preference, and employee satisfaction may also affect ESG and corporate value through mediation. Using media attention as the only mediating variable may ignore other important mediating mechanisms, leading to an incomplete explanation of ESG and corporate value.

5.4. Future Research

5.4.1. To Address the Limitations of Using ESG Performance Scores from the Bloomberg to Evaluate ESG Status of Companies

Combined use of multiple data sources: in addition to relying on a single database, it is possible to use a combination of multiple data sources and assessment methods. This includes utilizing other ESG databases, sustainability reports, industry studies, and questionnaires to obtain more comprehensive and multi-perspective ESG data. Future research could explore and introduce emerging technologies and data science methods to address the limitations of ESG assessment. For example, technologies can be used to analyse large-scale text data to obtain more multi-dimensional ESG information and insights.

Developing a localised ESG evaluation system: Consideration can be given to developing a localised ESG evaluation system applicable to domestic companies based on China's local environmental, social, and governance characteristics. This will help to more accurately reflect the ESG performance status of Chinese companies and provide assessment indicators and methods that are more adapted to local needs.

5.4.2. Address the Limitations of Using Media Attention as a Mediating Variable to Explain the Impact of ESG on Corporate Value

Considering multiple mediating variables: in addition to media attention, future research could consider introducing other potential mediating variables to explain the influence of ESG on corporate value. Factors such as financing constraints, corporate efficiency, investor response, consumer preference, and employee satisfaction can be considered as potential mediating variables. By considering multiple mediating variables, a more comprehensive and accurate explanation of ESG and corporate value can be obtained.

Quantifying the dimensions and impact of media attention: in order to more accurately measure and analyse media attention, future research could consider refining the dimensions and impact of media attention. In addition to the number of reports, factors such as the content of the report, the quality of the report, the source of the report, and the media channel could be considered. This can be achieved by analyzing text data, sentiment analysis, network analysis, and other methods to obtain more dimensions and depth of media attention data.

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