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Negative Media Coverage, Financing Constraints and Corporate ESG Performance

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Abstract: As investors place increasing emphasis on non-financial information of listed companies, information on corporate environmental, social responsibility and corporate governance (ESG) is increasingly becoming the basis for investors' investment decisions, and the media plays an irreplaceable role in providing information on corporate ESG. This study investigates the relationship between negative media coverage and corporate ESG performance using a two-way fixed effects model with a sample of Chinese a-share listed companies from 2011 to 2020. The findings indicate that negative media coverage can effectively enhance corporate ESG performance. Further research through mediating mechanism analysis shows that negative media coverage increases the financing constraints of companies and motivates them to improve their ESG governance, thus contributing to the positive enhancement of their ESG performance. This study contributes to an in-depth understanding of the impact of negative media coverage on corporate ESG performance, highlights the monitoring role of the media in promoting corporate ESG performance, and provides an empirical basis for the improvement and implementation of ESG-related policies.

Keywords: negative media coverage, corporate ESG performance, financing constraints

1. Introduction

Since UN-PRI first introduced the concept and assessment system of ESG (Environment, Social and Governance) in 2006, ESG has rapidly become a focal point for global sustainable development as an investment strategy for corporations. Data from the Global Sustainable Investment Alliance (GSIA) also indicate that ESG investments have become a hotspot for global sustainable investment. When making investment decisions, investors are no longer solely driven by short-term capital returns but prioritize environmental, social, and sustainable development. They also consider the risks and opportunities associated with a company's ESG performance, which has become an essential basis for investment decision-making and a focus for national construction. In China, the CSRC issued the revised Guidelines on Corporate Governance of Listed Companies in 2018, emphasizing the need to actively draw on international experience and establish a basic framework for ESG information disclosure. At the national strategic level, the 14th Five-Year Plan proposes to adhere to the priority

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of ecology and green development, and to coordinate the promotion of high-quality and efficient economic development and high-standard of environmental protection.

In the era of rapid information network development, the media plays a crucial role in supervising and guiding corporate social governance by revealing corporate performance and issues in social governance through extensive information channels and public influence. This promotes transparency and social responsibility among corporations. For the public, media coverage helps them better understand corporate behavior and performance, raising awareness and discussion about corporate actions, and further promoting improvements in corporate social governance and social responsibility [1]. For corporations, the supervision and guidance of the media can help them better understand public expectations and feedback, thus enhancing their awareness of social responsibility and public relations, and promoting the progress and improvement of corporate social governance [2]. Media coverage and public opinion supervision also have a significant impact on corporate image and reputation, which helps to promote corporate social responsibility and sustainable development [3]. Negative media coverage, in particular, often attracts public attention and concern, leading to damage to corporate reputation and image, affecting market value and investor trust. Furthermore, negative media coverage may also attract regulatory attention and investigation, increasing legal and economic risks faced by corporations, and indirectly promoting improvements in their governance.

Given this, whether and how negative media coverage affects corporate ESG performance are worth in-depth and comprehensive exploration. Based on the above research questions, this paper analyzes the impact of negative media coverage on corporate ESG performance and conducts an analysis of the impact mechanism, using Chinese A-share listed companies from 2011 to 2020 as the research sample. The study found that, first, negative media coverage can effectively promote corporate ESG performance. Second, this effect is achieved by increasing the company's financing constraints, which in turn prompt the company to improve its ESG governance level.

The marginal contributions and innovations of this paper, in comparison with existing studies, are primarily in the following areas: First, the purpose of this study is to examine the impact of negative media coverage on firm ESG performance, thereby extending research on the field of negative media coverage of corporate governance. Existing literature has primarily focused on the effects of negative media coverage on audits, executives, overinvestment, firm performance, and movements in stock prices [4-6]. In addition, scholars have examined the relationship between negative media coverage and tax avoidance, corporate acquisitions, and mergers [7,8]. The relationship between negative media coverage and firm ESG performance, however, has not been tested in research studies. The second contribution of this paper is to extend the study of external influences on firm ESG performance. Most of the literature on the factors influencing firm ESG performance at this stage has focused on internal factors, such as CEO tenure, firm investment efficiency, and foreign executives [9-12], and there is a lack of research on the external influencing factors. To address this gap in the research, this paper explores the relationship between negative media coverage as an external factor and firm ESG performance.

2. Theoretical Basis and Research Hypotheses

Nowadays, the importance of ESG indicators in investment and corporate decision-making has become increasingly evident. More and more investors and stakeholders regard ESG indicators as central elements for assessing corporate sustainability and long-term value creation [13]. Additionally, Garcia et al. found a positive correlation between the level of corporate ESG governance and corporate performance [14]. Therefore, these makes many companies pay great attention to the advantages and disadvantages of their ESG performance.

As an important medium for information dissemination, the media can provide an objective evaluation of corporate ESG performance. Brooks et al. contend that corporations with stronger media

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coverage can lessen information asymmetry among stakeholders regarding ESG investments [15]. Wang et al. found that negative coverage can prompt companies to enhance ESG disclosure, improve governance practices, and pay attention to environmental and social responsibility [16].

The coupling mechanism of media supervision and corporate governance analyzes the role of media supervision in investor protection in corporate governance, pointing out that the media's information production function helps to alleviate information asymmetry in corporate governance, thereby forcing corporate executives to change their behavior and guide investor decision-making through the reputation mechanism [17]. The reputation mechanism of the media is an important supervision and management method that can influence corporate governance and promote compliance and social responsibility fulfillment by disclosing information, establishing a fair evaluation mechanism, and providing professional consultation, thus ensuring sustainable development for enterprises. Media supervision is considered an effective institutional arrangement to replace the limitations of judicial protection in capital markets. The media can play a part in the dissemination of information in the capital markets, and businesses that are covered by them are more likely to catch the interest of stakeholders. This is particularly significant with negative media coverage, which can quickly draw attention from the general public and even regulatory bodies [18]. Therefore, negative media coverage of a company's ESG aspects can strengthen external supervision and promote the improvement of the company's ESG rating. Based on the above discussion, this paper proposes the hypothesis 1:

H1: Negative media coverage can effectively promote corporate ESG performance.

According to the discussion above, negative media coverage may help drive the company's ESG performance. Thus, the question that needs further exploration is: through what channels does negative media coverage affect a company's ESG performance? In today's capital market, global ESG investment has experienced significant growth, and investors are becoming increasingly sensitive to negative ESG news about companies, which can trigger strong reactions in the stock market [19]. Moreover, the quantity of negative media coverage is negatively related to the stock returns of listed companies, which leads to investors reducing or abandoning their investments in companies with more negative ESG news [20]. As equity financing is an important external financing channel for companies, its reduction undoubtedly exacerbates the financing constraints of companies, affecting their long-term development. To regain consumer confidence and continue to attract investment while reducing financing constraints, companies will be incentivized to increase their investment in ESG system construction, thereby enhancing their ESG performance. On the basis of the discussion above, this study proposes the hypothesis 2:

H2: Negative media coverage can exacerbate corporate financing constraints, thereby forcing companies to improve their ESG performance.

3. Research Design

3.1. Sample and Procedure

This paper used the initial sample of Chinese A-share listed companies from 2011-2020 to examine the impact of negative news coverage on the ESG performance of companies. And the sample was then processed as follows: (1) non-normal trading companies such as ST and PT were removed; (2) financial and insurance companies were removed; (3) companies with missing ESG scores, negative media coverage, and financial data were removed; (4) companies with a year span $\leqslant$ 2 years was excluded, resulting in 7539 sample observations. To reduce the effect of extreme values, the paper Winsorized all continuous variables at the 1% and 99% percentile. In addition, for regression analysis, the study conducted clustering adjustments at the individual company level and used clustering-robust standard errors. ESG rating data was obtained from Bloomberg database; negative media coverage

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data was obtained from Datago database; and other financial data of the companies were obtained from CSMAR.

3.2. Models

From a temporal perspective, third-party ESG rating agencies need some time to interpret media coverage of corporate ESG performance. Thus, current media coverage may not directly affect a company's ESG rating for the current period. Additionally, there may exist endogeneity issues between the explanatory variables and the dependent variable. To address these concerns, this paper uses a two-way fixed effect model with lagged independent and control variables for regression analysis. The specific model is shown in equation (1):

$$ESGscore_{i,t}=\propto_0+\propto_1 Negmedia_{i,t-1}+\Sigma Controls_{i,t-1}+Dum\_Year+Dum\_Industry+\varepsilon_{i,t} \quad (1)$$

In equation (1), i and t respectively represent the corporate and year; the dependent variable ESGscore_(i,t) represents the ESG performance of corporate i in year t; Independent variable Negmedia_(i,t-1)refers to the negative media coverage of enterprise i in the t-1st year; ΣControls_(i,t-1) is the control variable; ε_(i,t) are random interference terms; Dum_Year is the year dummy variable; $Dum\_Industry$ is the industry dummy variable.

The mediating effect test draws on the research of Wen et al. (2004) to build a mediation model as follows:

$$Financing_{i,t}=\mu_0+\mu_1 Negmedia_{i,t-1}+\Sigma Controls_{i,t-1}+\varepsilon_{i,t} \quad (2)$$

$$ESGscore_{i,t}=\mu_0+\mu_1 Negmedia_{i,t-1}+\mu_2 Financing_{i,t-1}+\Sigma Controls_{i,t-1}+\varepsilon_{i,t} \quad (3)$$

Where financing is a mediating variable for corporate finance. Other variables are defined as above.

3.3. Variable Definitions

3.3.1. Dependent Variable - Corporate ESG Performance

This paper uses the ESG performance data of Chinese A-share listed companies published in Bloomberg database as the dependent variable. The database evaluates companies' ESG information disclosure based on multiple indicators, including climate change, air quality, water and energy management, human capital and diversity, employee health and safety, board compensation and structure, and others. The ESG rating ranges from 0 to 100, reflecting the specific disclosure of a company's ESG performance.

3.3.2. Independent Variable - Negative Media Coverage

This paper uses negative news coverage data from Datago's ESG quantified public sentiment database as the explanatory variable. The Datago database uses natural language processing (NLP) models to classify ESG-related news for all Chinese A-share (or B-share) listed companies. The news reports selected by the database all contain ESG-related information about the companies, making them highly relevant to the research subject in this paper. The negative news coverage in this paper is the sum of the number of negative news reports related to ESG issues for each company in the database, with a value of 1 added to it and then a natural logarithm is taken.

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3.3.3. Control Variables

This paper selects company size, leverage, return on assets, expense ratio, and growth as control variables to represent corporate characteristics, and concentration of shareholders, CEO duality, the board size, and board independence to represent corporate governance (see Table 1 for specific variable definitions). In addition, to control for the effects of economic cycles and industry environments in different years and industries on regression results, the model includes year dummies and industry dummies.

3.3.4. Mediating Variable

In this paper, we choose corporate financing constraints as a mediating variable and use the SA index of financing constraints from the CSMAR database as a measure of corporate financing constraints, which is calculated as SA = -0.737 × Size + 0.043 × Size2 - 0.04 × Age. Among them, Size is the natural logarithm of the total assets of the enterprise, Age is the number of years of listing, with a larger SA value representing a larger financing constraint for the firm.

Table 1: Definition of variables.

Variable Type	Variable Name	Variable Symbols	Variable Description
Dependent Variable	Corporate ESG performance	ESGscore	Bloomberg ESG score
Independent Variable	Negative media coverage	Negmedia	Ln (1+ Negative corporate ESG coverage)
Mediating Variables	Financing constraints	Financing	SA Index
Control Variables	Corporate size	Size	Natural logarithm of the total assets of the enterprise
	Gearing ratio	Lev	Total liabilities/Total assets
	Return on total assets	Roa	Total profits/Total assets
	Management expense ratio	Expense	Administrative expenses/Main operating income
	Growth capacity	Growth	Operating income growth rate
	Concentration of shareholders	TOP	The proportion of shares held by the largest shareholder
	The board size	Board	The natural logarithm of the number of board of directors
	Board independence	Inr	The proportion of independent directors serving on the board
	Two offices in one	Dual	If the chairman and the general manager are combined, take 1, otherwise take 0
	Year	Year	Dummy Variables
	Industry	Industry	Dummy Variables

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4. Results

4.1. Descriptive Statistics

Table 2 shows descriptive statistics for key variables. The mean ESG score of the companies (ESGscore) was 20.483 with a standard deviation of 6.537, indicating that the overall ESG performance of Chinese companies is poor and there are significant differences between companies. In addition, the mean value of negative media coverage (Negmedia) was 4.529 with a standard deviation of 1.130, indicating that negative media coverage is biased towards specific companies, such as heavily polluting companies, but the overall bias is within a reasonable range. The results of the descriptive analysis of the control variables do not have abnormal extreme values, indicating that the selection of control variables in this paper is reasonable.

Table 2: Descriptive statistics.

Variable	N	Mean	SD	p25	p50	p75
ESGscore	7539	20.483	6.537	16.529	19.835	23.141
Negmedia	7539	4.529	1.130	3.784	4.466	5.193
Size	7539	23.054	1.314	22.100	22.930	23.830
Lev	7539	0.471	0.199	0.317	0.481	0.625
Roa	7539	0.046	0.056	0.017	0.039	0.074
Expense	7539	0.080	0.060	0.038	0.066	0.066
Growth	7539	0.172	0.382	-0.004	0.109	0.255
Top	7539	0.381	0.160	0.253	0.368	0.500
Board	7539	9.034	1.842	8	9	9
Inr	7539	0.375	0.055	0.333	0.364	0.364
Dual	7539	0.196	0.397	0	0	0

4.2. Correlation Analysis

To test the correlation between the main variables, Pearson and Spearman correlation tests were conducted. As shown in Exhibit 1, both Pearson and Spearman tests indicate a significant positive correlation between negative media coverage (Negmedia) and corporate ESG performance (ESGscore), providing preliminary evidence to support the previously proposed H1 that negative media coverage can promote corporate ESG performance. The correlation coefficients for all other variables were not significantly high. In addition, the mean value of the variance inflation factor (VIF) for the main variables in this paper is 2.94, which is well below the critical value of 10, indicating that the variables are not multicollinearity.

4.3. Main Regression Results

Table 3 presents the results of the empirical analysis of H1. Column (1) shows the regression results for the uncontrolled control variables and industry effects. Columns (2) and (3) show the regression results after controlling for the control variables and industry effects respectively. As shown in Table 4, regardless of whether the effects of industry are controlled for and whether control variables are included, the correlation coefficient between negative media coverage (Negmedia) and corporate ESG performance (ESGscore) is significantly positive (correlation coefficient=0.255, 0.215, 0.220;

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p<0.01, p<0.05, p<0.05), indicating that negative media coverage can effectively promote corporate ESG performance and the H1 is well supported by the empirical evidence.

Table 3: Main regression results.

	(1) $ESGscore_{i,t+1}$	(2) $ESGscore_{i,t+1}$	(3) $ESGscore_{i,t+1}$
Negmedia	0.255***	0.215**	0.220**
	(0.092)	(0.090)	(0.090)
Size		0.808***	1.078***
		(0.225)	(0.230)
Lev		0.709	0.540
		(0.818)	(0.822)
Roa		3.404**	4.174***
		(1.475)	(1.477)
Expense		-2.527	-1.400
		(2.014)	(1.981)
Growth		-0.300**	-0.258**
		(0.127)	(0.129)
Top		2.358**	2.656**
		(1.131)	(1.105)
Board		-0.008	-0.016
		(0.082)	(0.084)
Inr		1.414	0.855
		(1.825)	(1.847)
Dual		-0.059	-0.017
		(0.221)	(0.222)
Constant	17.369***	-2.325	-10.569**
	(0.447)	(5.061)	(5.269)
N	7539	7539	7539
R^2	0.240	0.251	0.264
Industry	no	no	yes
Year	yes	yes	yes

4.4. Robustness Test

4.4.1. Substitution of Independent Variables.

This study uses the following two approaches to replace independent variables: First, we constructed the variable of "Excess Negative Media Coverage.” Media attention and coverage of a company are influenced by many factors, such as company size, profitability, fluctuations in cash flow from operating activities, and fluctuations in cash flow from financing activities. To control for the impact of these factors on negative media coverage, this study constructs model (2) to estimate the variable of excess negative media coverage and then conducts regression tests. The model for estimating excess negative media coverage is as follows:

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$$Negmedia1_{i,t} = \gamma_0 + \gamma_1 Size_{i,t} + \gamma_2 Lev_{i,t} + \gamma_3 Roa_{i,t} + \gamma_4 Grouth_{i,t} + \gamma_5 Tobin'\ Q_{i,t} + Dum\_Year + Dum\_Industry + \varepsilon_{i,t} \quad (4)$$

Where Tobin'Q is Tobin'Q value of firm value and the rest of the variables are as above, the residual of model (4) is the "Excess Negative Media Coverage (Negmedia1).”

Second, as the influence of originality and unoriginality of media coverage in the online media era is somewhat different, if both can have a significant positive impact on corporate ESG performance, then the findings of this study are more robust and generalizable. Therefore, this study divides the available data into original negative media coverage (Negmedia2) and unoriginal negative media coverage (Negmedia3) as alternative independent variables for negative media coverage. The data are treated in the same way as above by adding one to them and taking the natural logarithm value.

Table 4 shows the results of the regression analysis performed using the replacement variables above (Negmedia1, Negmedia2 and Negmedia3). As can be seen from the regression results, Negmedia1 is significantly positively correlated at the 5% level (correlation coefficient = 0.194, $p<0.05$), Negmedia2 is significantly positively correlated at the 10% level (correlation coefficient = 0.222, $p<0.1$) and the variable Negmedia3 is also found to have a significant positive correlation at the 1% level (correlation coefficient = 0.176, $p<0.01$). Indicating that the replacement variables were able to contribute significantly and positively to a firm's ESG performance regardless of whether the replacement variable was excessive negative media coverage or whether the negative media coverage was original, the above robustness tests support the main findings of this study.

Table 4: Replacement of independent variables.

	(1) ESGscorei $_{t+1}$	(2) ESGscorei $_{t+1}$	(3) ESGscorei $_{t+1}$
Negmedia1	0.194**		
	(0.093)		
Negmedia2		0.222*	
		(0.122)	
Negmedia3			0.176***
			(0.065)
Controls	yes	yes	yes
Constant	-10.309*	-9.820*	-10.254*
	(5.487)	(5.463)	(5.485)
N	7539	7539	7539
R2	0.264	0.264	0.265
Industry	yes	yes	yes
Year	yes	yes	yes

4.4.2. Endogenous Problem Test

In the previous sections, the fixed effects model and lagged variable regression were employed to effectively address the endogeneity issues arising from omitted variables and bidirectional causality in constructing the main regression model. However, there may still exist endogeneity problems caused by sample selection bias. To address this issue, this paper employs the Heckman two-stage regression model to test the sample selection endogeneity problem.

Following the approach of Liang, a first-stage regression model is constructed. The selected first-stage regression model has a dummy variable (Negmedia High) as the dependent variable,

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representing whether negative media coverage exceeds the annual-industry median in the main regression model. Set to 1 if negative media coverage exceeds the median, otherwise set to 0. The specific model is as follows:

$$Negmedia\ High_{i,t} = \theta_0 + \theta_1 Size_{i,t} + \theta_2 Soe_{i,t} + \theta_3 Age_{i,t} + \theta_4 Tobin'Q_{i,t} + Dum\_Year + Dum\_Industry + \varepsilon_{i,t} \quad (5)$$

The variables in the above model include the size of the enterprise (Size), that is, the natural logarithm of the total assets of the enterprise. The ownership (SOE), the state-owned enterprise is 1, otherwise it is 0. The date of establishment (Age) is equal to the year of incorporation. Tobin'Q is the ratio of market value to total assets. In addition to the above variables, this model also controls for year and industry dummy variables.

Table 5: Heckman two-stage regression.

	(1) ESGscore $_{i, t+1}$	(2) Negmedia High $_{i, t}$	(3) ESGscore $_{i, t+1}$
Negmedia	0.324***		0.364***
	(0.079)		(0.106)
Soe		-0.185***	
		(0.034)	
Age		-0.007**	
		(0.002)	
Tobin'Q		0.158***	
		(0.013)	
Imr			-0.066
			(0.117)
Controls	yes	yes	yes
Constant	-31.533***	-11.763***	-31.626***
	(1.832)	(0.353)	(1.840)
N	7539	8792	7539
R2	0.290		0.290
Industry	yes		yes
Year	yes		yes

The two-stage Heckman regression results are presented in Table 5, in which column (1) presents the regression results of the main regression model, Column (2) shows the regression results for the inverse Mills ratio (IMR) calculated using equation (5) (Heckman first-stage), and column (3) presents the regression results of the main regression model after adding the IMR (Heckman second-stage). The regression results show that negative media coverage is consistently and significantly positively correlated with corporate ESG performance regardless of whether IMR is controlled for (correlation coefficients=0.324, 0.363; $p<0.01$, $p<0.01$), which is consistent with the main findings of this study and indicates that there is no sample selection bias in the sample selected for this study. In addition, the VIF value of the two-stage regression model was 2.84, which was well below the critical value of 10, indicating that there was no problem of multicollinearity.

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4.5. Mediating Variable Regression Results

Table 6 shows the results of tests of the mediation mechanism. According to column (1), there is a significant positive correlation between negative media coverage and financing constraints (correlation coefficient=0.004, p<0.01). In column (2), we examine the impact of negative media coverage on corporate ESG performance after controlling for financing constraints. Negative media coverage and corporate financing constraints are significantly positively correlated with ESG performance (correlation coefficient=0.171, 12.812; p<0.1, p<0.01), with the Sobel test p-value for the mediation effect being less than 0.05. These findings suggest that a higher volume of negative media coverage conveys adverse signals to investors, leading to a decrease in investor confidence and withdrawal from the market. This, in turn, results in increased financing constraints for the corporation. To alleviate their financing constraints, companies improve their ESG governance, consequently enhancing their ESG performance, and H2 is well supported by empirical evidence.

Finally, this study uses the Bootstrap approach to test the robustness of the mediation mechanism. After conducting 1000 random samples, the adjusted bias-corrected indirect effect interval ranges from 0.002 to 0.019, not including 0, which further validates the significance of financing constraints as a mediating variable.

Table 6: Mediating variable regression results.

	(1) $Financing_{i, t+1}$	(2) $ESGscore_{i, t+1}$
Negmedia	0.004***	0.171*
	(0.001)	(0.088)
Financing		12.812***
		(1.884)
Controls	yes	yes
Constant	-4.666***	47.997***
	(0.133)	(9.416)
N	7539	7539
R^2	0.792	0.288
Industry	yes	yes
year	yes	yes
Sobel Tests		2.109**
Indirect effect		0.009**(z=2.01)
Direct effect		0.202***(z=2.71)
Total effect		0.210***(z=2.82)

5. Conclusion

This study selected Chinese A-share listed companies from 2011 to 2020 as the research sample to empirically examine the relationship and mechanism between negative media coverage and corporate ESG performance. The study found that, first, negative media coverage can effectively promote corporate ESG performance. Second, this effect is achieved by increasing the company's financing constraints, which in turn prompt the company to improve its ESG governance level.

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The theoretical contribution of this study is to enrich the research related to the impact of negative media coverage on firms. First, the relationship between negative media coverage and corporate ESG performance has not been explored in the previous literature, and this study fills this gap. Second, this paper expands the research on the mechanism of media influence on corporate ESG performance and fills the gap in the existing literature on the related mediating mechanism.

The practical contributions of this study are: first, the findings of this paper provide a feasible way to improve corporate ESG performance. That is, by enhancing the monitoring role of media reports to guide firms to improve ESG governance. Second, the findings provide an important empirical basis for the improvement and implementation of ESG-related policies. Policy makers can refer to the findings of this study to strengthen media regulation, improve corporate ESG performance monitoring and promote the improvement and implementation of ESG-related policies.

The limitations of this study include, firstly, the subjective factors involved in the selection of control variables, which may lead to the omission of some control variables; secondly, due to the length of the article, only one mediating variable was selected for the mediating mechanism analysis. Therefore, further research is needed to explore the impact of the mediating mechanism.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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Appendix

Exhibit 1: Correlation coefficient matrix.

	ESGscore	Negmedia	Size	Lev	Roa	Expense	Growth	Top	Board	Inr	Dual
ESGscore	1	0.09***	0.36***	0.17***	-0.07***	-0.18***	-0.07***	0.10***	0.11***	0.02	-0.11***
Negmedia	0.16***	1	0.35***	0.18***	0.03**	-0.06***	-0.01	0.09***	0.09***	0.09***	-0.01
Size	0.44***	0.40***	1	0.54***	-0.17***	-0.44***	-0.01	0.24***	0.19***	0.07***	-0.15***
Lev	0.17***	0.17***	0.53***	1	-0.51***	-0.39***	-0.04***	0.09***	0.11***	0.01	-0.10***
Roa	-0.04***	0.05***	-0.11***	-0.47***	1	0.07***	0.32***	0.05***	-0.06***	-0.01	0.10***
Expense	-0.19***	-0.04***	-0.38***	-0.35***	-0.03**	1	-0.07***	-0.16***	-0.08***	0.00	0.10***
Growth	-0.07***	-0.00	-0.00	0.01	0.22***	-0.08***	1	-0.04***	-0.05***	-0.00	0.09***
Top	0.10***	0.10***	0.25***	0.08***	0.06***	-0.16***	-0.01	1	0.01	0.07***	-0.11***
Board	0.11***	0.12***	0.23***	0.12***	-0.05***	-0.08***	-0.06***	0.03***	1	-0.42***	-0.19***
Inr	0.04***	0.09***	0.10***	0.03**	0.01	0.03**	0.00	0.09***	-0.39***	1	0.08***
Dual	-0.11***	-0.01	-0.14***	-0.10***	0.08***	0.09***	0.07***	-0.11***	-0.17***	0.09***	1