When the Media Focuses on Environmental, Social, and Governance: Does Media Mood Affect Its Quality?

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Abstract. This study examines the impact of media mood on corporate ESG disclosure by analyzing a sample of A-share listed companies from 2021 to 2023. The research findings demonstrate that the quality of corporate ESG disclosure varies in response to changes in media mood and further reveal that media mood positively influences the quality of corporate ESG disclosure. Additionally, this paper confirms that the characteristics of media mood are independent regardless of whether they belong to the new media industry. The objective is to investigate how emotional characteristics portrayed in media affect the quality of ESG disclosure and provide a theoretical framework as well as practical guidance for establishing an effective ESG disclosure framework in China.

Keywords: ESG, ESG Disclosure, Media Mood, New Media

1   Introduction

As an emerging paradigm for value conception and evaluation management, ESG has become an indispensable prerequisite for facilitating the high-quality development of Chinese enterprises [1-2]. According to a report from Shanghai Securities Journal on April 30, 2024, driven by national policies and regulatory bodies, there has been a consistent upward trend in ESG reporting disclosure within the A-share market. Currently, a total of 1847 listed companies on the Shanghai, Shenzhen, and North exchanges have publicly disclosed their ESG reports for the year 2023. The media also plays an increasingly pivotal role in the dissemination of information and monitoring of public opinion, thus emerging as a crucial external regulatory mechanism for enterprises. The examination of the influence of media sentiment on ESG disclosure can contribute to the development of novel perspectives for China's ESG framework.

2   Literature Review and Research Hypothesis

In recent years, ESG indicators have emerged as a pivotal benchmark for evaluating the sustainable development of enterprises [3-4]. These indicators comprehensively assess

companies' internal and external environments, corporate governance, and significantly contribute to enhancing enterprise value. Moreover, ESG presents an innovative approach to holistically evaluate the internal operations, organizational structure, and corporate performance of an entity, thereby fostering the pursuit of sustainable development [5]. The influence of media mood on corporate reputation intricately intertwines with corporate performance and subsequently drives internal debt financing for corporations [6-7].

This paper argues that media mood plays a pivotal role in both internal and external governance of enterprises, enabling the utilization of its reputational impact to influence the disclosure of environmental, social, and governance (ESG) information. Simultaneously, it attracts the attention of external regulatory bodies. Consequently, this facilitates relevant governance measures to curb non-compliant behavior and standardize ESG disclosure. The present paper hereby presents the following hypothesis:

Media mood has a driving effect on the quality of corporate ESG disclosures.

3   Research Design

3.1   Data Description

The initial sample for this study consisted of listed enterprises on the A-share market from 2021 to 2023. The following data processing steps were conducted: (1) Exclusion of ST, PT, and other non-normal trading enterprises; (2) Elimination of enterprises with missing important variable indicator data; (3) Exclusion of financial and insurance enterprises; (4) Trimming continuous data variables by 1% at both ends to mitigate the impact of outliers. After preprocessing, a total of 3633 valid datasets were retained.

3.2   Variable Definitions and Model Design

3.2.1 Explained Variables.
In this study, we employ the ESG disclosure score (Esgds) derived from Hua Zheng ESG Information Evaluation Method as a proxy to evaluate enterprises' practices in disclosing environmental, social, and governance (ESG) information [8-9]. The ESG disclosure score represents the standard deviation within the [0,100] range. A higher ESG disclosure score indicates superior performance in terms of disclosure by the subject company and reflects its exceptional quality [10].

3.2.2 Explanatory Variables.
The media mood data utilized in this study is obtained from the CSMAR database. The quantitative representation of media mood data is based on emotional feature values, with each value fluctuating within the standard deviation range of [-1, 1]. The range of standardized scores is defined with 0 as the boundary value, where a score of 0 represents a neutral media mood feature. A positive media mood feature is indicated by a score in the interval (0,1], while a negative media mood feature is indicated by a score in the interval [-1,0).

3.2.3 Control Variables.

The study controls for relevant financial data and enterprise size while considering the principal-agent theory, in order to analyze corporate profitability. Additionally, it takes into account board independence, board size, shareholder concentration, and whether the chairman and CEO positions are combined when examining corporate governance. The key variables are delineated in Table 1.

Table 1. The key variables

Type	Variable	Symbol	Variable definition
Explained variables	ESG Disclosure Score	Esgds	The Hua Zheng ESG Information Evaluation Method
Explanatory variables	Media Mood	Mood	The data was acquired from the CSMAR database.
Control variables	Profitability	Roa	Net Profit/Total Assets
	Liquidity Level	Liq	Liquid Assets/Total Assets
	Leverage	Lev	Total Liabilities/Total Assets
	Business Size	Size	The natural logarithm of the company's ultimate consolidated assets.
	Concentration of Shareholding	Top	The percentage of ownership held by the largest shareholder.
	Board Independence	Inr	The proportion of non-executive directors on the board.
	Board Size	Board	The logarithm of the number of board members using the natural base.
	Dual Roles Combined	Dual	If both roles are combined, it is "1", otherwise it is "0".
	Years	Dun_Year	"1" if the company sample belongs to a particular year, otherwise "0"

The paper presents a benchmark regression model, as shown in Equation 1.

$$Esdge_{i,t} = \alpha_0 + \alpha_1 Mood_i + \sum Controls_{i,t} + Dum\_Year + \varepsilon_{i,t} \tag{1}$$

4   Empirical Results

4.1   Descriptive Statistics

The study variables are presented in Table 2, showing the descriptive statistics. The results in Table 2 reveal significant heterogeneity in ESG disclosure quality among companies, with Esdgs ranging from 1.25 to 7.25 and an average of 4.064. The Mood variable demonstrates notable volatility in media mood towards ESG disclosure for individual companies, ranging from -0.248 to +0.421, with an average score of +0.053. Additionally, no exceptional outliers are observed for other variables, indicating the rational selection of data for this study.

Table 2. Descriptive statistics of the key variables. (N=3633)

	Mean	Sd	Min	p25	p50	p75	Max
Esgds	4.064	0.833	1.250	3.750	4.000	4.750	7.250
Mood	0.053	0.069	-0.248	0.000	0.039	0.094	0.421
Roa	0.040	0.088	-0.316	0.006	0.038	0.071	0.469
Liq	0.567	0.195	0.006	0.440	0.579	0.713	0.992
Lev	0.506	0.225	0.074	0.334	0.525	0.662	1.064
Size	0.453	0.106	0.001	0.382	0.433	0.511	1.000
Top	0.274	0.133	0.021	0.175	0.251	0.343	0.877
Inr	0.384	0.058	0.154	0.333	0.333	0.333	0.714
Board	2.076	0.205	1.386	1.946	2.197	2.197	2.770

4.2   Regression Analysis

The study conducted an analysis of the regression coefficients between the ESG disclosure quality of companies listed in Table 3 and their media sentiment characteristics. The first column presents the regression results without controlling for control variables and year, while the second column shows the results of regression considering year but not control variables. Additionally, the third column displays the results of regression without controlling for any variables or year, whereas the fourth column presents the results of regression considering both control variables, year, and a one-period lag effect. The regression coefficients for the four scenarios indicate that, regardless of the inclusion of control variables or consideration of time lags, there is a significantly positive association at the 1% level between media mood and ESG information disclosure quality. The empirical evidence suggests that media exerts a positive influence on corporate ESG disclosures, thereby providing support for the hypotheses posited in this article.

Table 3. The regression coefficients of corporate Esgds and Mood.

	(1) Esgds	(2) Esgds	(3) Esgds	(4) Esgds
Mood	1.907*** (8.75)	0.520*** (2.23)	1.866*** (8.63)	0.459*** (1.95)
Roa			-0.519 (-0.08)	-0.231 (-0.34)
Liq			0.364*** (5.19)	0.236*** (3.02)
Lev			1.043*** (10.07)	-0.189* (-1.65)
Size			-0.347** (-2.54)	-0.478*** (-3.12)
Top			0.235** (2.28)	-0.048 (-0.42)
Inr			0.472* (1.66)	0.192 (0.61)

Board			0.026 (0.33)	0.044 (0.50)
Dual			0.109*** (3.40)	0.064* (1.87)
Constant	3.962*** (220.24)	4.043*** (211.66)	3.554*** (14.10)	3.973*** (14.24)
Year	No	Yes	Yes	Yes
N	3633	3633	3633	3633
R^2	0.390	0.833	0.505	0.910

The symbols ****, **, * denote significance at the 1%, 5%, and 10% levels, respectively. t-statistics in parentheses.

4.3 Further Analysis

After excluding listed enterprises associated with the media industry, we selected a remaining sample size of 2376 data points for resampling regression analysis. Following an analysis that excluded media enterprises, Table 4 presents compelling evidence showcasing a robust positive correlation between media mood and enterprise's ESG disclosure quality (all estimated coefficients are statistically significant at the 1% level). These findings suggest that our research hypothesis holds true without any notable discrepancies within the media industry.

Table 4. The regression coefficients of corporate Esgds and Mood.

	Mood	Roa	Liq	Lev	Size
Esgds	0.480*** (1.75)	0.083 (0.10)	0.182** (2.04)	-0.099 (-0.82)	-0.097 (-0.56)
	Top	Inr	Board	Dual	Const.
Esgds	-0.200 (-1.51)	0.242 (0.07)	0.060 (0.60)	0.029 (0.71)	3.807*** (12.04)
Year			Yes		
N			2376		
R^2			0.866		

The symbols ****, **, * denote significance at the 1%, 5%, and 10% levels, respectively. t-statistics in parentheses.

5 Conclusions

The objective of this study is to empirically examine the correlation between media mood and the quality of ESG information disclosure by selecting data from A-share listed companies as the research sample during the period 2021-2023. The regression analysis reveals a significant positive correlation between media mood and the quality of ESG disclosure, which remains statistically significant at a confidence level of 1%, even after controlling for other variables or considering time lags. Finally, this study also confirms that the industry characteristics of media enterprises have no significant impact on the relationship between media mood and ESG information disclosure, even when excluding the new media industry.

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