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Research on the Mechanism of ESG Performance on Corporate Financial Performance: The Moderating Role of Analyst Attention

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Abstract: *In the context of global sustainable development, with increasing participation in ESG (Environmental, Social, and Governance) activities and the implementation of the "dual carbon" policy, incorporating the concept of green and sustainable development into business operations has become a core driving force for long-term corporate growth. This not only enhances corporate reputation but also contributes to sustainable development. This paper focuses on listed companies in China's CSI 300 Index, exploring the impact of ESG performance on corporate financial performance and the moderating effect of analyst attention in this relationship. The study finds that ESG performance significantly promotes financial performance, and analyst attention positively moderates this relationship.*

Keywords: *ESG Performance, Financial Performance, Analyst Attention*

1. Introduction

In the context of deepening global sustainable development concepts, ESG (Environmental, Social, and Governance) performance has become an important indicator for measuring a company's sustainable development capacity. Environmental concerns such as climate change and resource scarcity, along with issues like social inequality and governance failure, have elevated the importance of ESG in investment decisions and corporate strategy. The importance of ESG principles in investment decisions and corporate strategies has increased significantly. As of 2022, 114 stock exchanges worldwide require listed companies to disclose ESG information, covering over 56,000 companies. This trend indicates that ESG factors are gradually becoming a crucial dimension for evaluating corporate value in capital markets. As the world's second-largest economy, China's ESG development is accelerating in the context of achieving "dual carbon" goals and establishing a new development paradigm.

Against this backdrop, this study empirically analyzes the mechanism through which ESG performance impacts corporate financial performance, focusing on the moderating effect of analyst attention. The study addresses two key questions: (1) Does ESG performance significantly promote corporate financial performance? (2) Does analyst attention positively moderate the relationship between ESG performance and financial performance? By investigating the impact mechanism of ESG performance on financial performance, this study aims to provide theoretical support and practical guidance for promoting the sustainable development of Chinese companies and the high-quality development of capital markets.

2. Literature Review

ESG (Environmental, Social, and Governance) has become a critical framework for evaluating a company's sustainable development capacity, with its connotation deepening over time. The three ESG elements form a mutually supportive organic whole. Sound corporate governance provides institutional support for environmental and social responsibility practices, while excellent environmental and social performance further enhances governance effectiveness [1]. In capital market practices, ESG performance has become a crucial value evaluation dimension. Financial performance, as the core reflection of a company's business results, presents a diversified measurement system. Traditional profitability indicators reflect short-term operational efficiency, while market indicators reflect long-

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term value creation. Cash flow indicators effectively identify a company's sustainable operation risks.

Analyst attention, as an important intermediary in capital market information, has been shown to influence the value transmission of ESG performance through dual channels: serving as an information bridge to reduce information asymmetry between companies and investors, and providing a reputation supervision mechanism to constrain management opportunism. Existing research has shown that the relationship between environmental responsibility and financial performance exhibits significant industry heterogeneity. Social responsibility practices affect financial performance through reputation capital accumulation [2] and stakeholder recognition. The positive relationship between corporate governance quality and financial performance has been validated in most studies [3], although the mechanisms remain debated. These explorations not only help bridge academic differences but also provide differentiated ESG implementation path references for companies at different stages of development.

Sustainable development theory provides a meta-theoretical foundation for ESG research, redefining corporate value from the paradigm shift from 'shareholder primacy' to 'stakeholder win-win.' Resource dependence theory, from an organizational ecology perspective, reveals how ESG practices help companies acquire critical resources and enhance environmental adaptability. The information asymmetry theory, through the 'lemon market' model, explains the role of ESG information disclosure in improving capital market efficiency. The stakeholder theory further systematizes the boundary of corporate responsibility, providing a conceptual framework for ESG performance evaluation. These theories together form a multi-dimensional lens for understanding the relationship between ESG and financial performance, providing a solid logical basis for subsequent empirical research.

3. Theoretical Analysis and Research Hypotheses

ESG performance influences corporate financial performance through multiple paths. Positive environmental practices, active social responsibility fulfillment, and optimized decision-making mechanisms work together to form a company's sustainable competitive advantage [4]. In the short term, ESG investments may increase operating costs; however, in the long run, mechanisms such as reputation accumulation, risk avoidance, and resource optimization can significantly enhance company value [5]. Based on this analysis, we propose the following hypothesis:

H1: ESG performance has a significant positive impact on corporate financial performance.

Analysts, as professional information intermediaries, enhance the transmission of ESG value through the following pathways: First, they interpret ESG information deeply, lowering the cognitive barrier for investors (Degeorge, 2013); second, they play an external supervision role, constraining management's opportunistic behavior (Pan et al., 2022); third, through earnings forecasts and market ratings, analysts amplify the market signal of ESG performance. Information asymmetry theory and signaling theory provide theoretical explanations for the moderating role of analyst attention. The moderating role of analyst attention is particularly significant due to the imperfect ESG disclosure system, and analysts' professional interpretation can effectively fill this 'institutional gap,' helping the market to accurately identify companies with superior ESG performance[6]. This bridging role is especially crucial in emerging markets. Based on this, we propose the following hypothesis:

H2: Analyst attention positively moderates the relationship between ESG performance and corporate financial performance.

4. Research Design

4.1 Sample Selection and Data Sources

This study selects companies listed in the Shanghai-Shenzhen 300 Index (CSI 300) from 2012 to 2021 as the research sample. In order to eliminate the impact of outliers on the empirical results, the data is cleaned and preprocessed to ensure the reliability of the sample data. The following steps were taken to screen and process the data: Observations with missing data were removed. Extreme values and samples with significant anomalies were excluded, ST (Special Treatment) and *ST (Special Treatment with warning) stocks were removed.

The data used in this study is primarily sourced from the WIND database. After the data cleaning and screening process, 199 companies with 1,381 sample observations were selected. The sample

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companies were selected from the Shanghai A-share market. The data analysis and empirical testing were performed using Stata 17 software.

4.2 Dependent Variable: Financial Performance

Financial performance refers to the economic benefits and financial results achieved by a company through resource allocation and business activities during a specific operational period. This study uses Return on Assets (ROA) as the core indicator, which reflects the relationship between net profit and total assets, providing a comprehensive measure of a company's asset utilization and overall profitability.

4.3 Independent Variable: ESG Performance

The independent variable in this study is ESG performance, which is measured using the Huazheng ESG rating system. This rating system is based on mainstream international ESG evaluation frameworks while integrating Chinese local characteristics (e.g., poverty alleviation and regulatory penalties), making it highly adaptable. The Huazheng rating uses a nine-point scale (1–9), providing a comprehensive assessment of the ESG performance of listed companies [7]. The system's extensive coverage and large sample size ensure the reliability and representativeness of the data for this study.

4.4 Moderating Variable: Analyst Attention

Analyst attention is a key variable used to measure the level of attention and tracking paid by analysts to a particular company. Factors that influence analyst attention may include company size, financial condition, industry position, performance, and market outlook. Typically, companies with higher growth prospects attract more analyst attention. In this study, analyst attention (ANA) is measured by the number of analysts tracking a company annually, plus one, using the natural logarithm. This variable reflects the market's expectations for the company's future development. A higher value indicates greater analyst attention.

4.5 Control Variables

This study also considers other variables that may interfere with the results. Drawing from previous literature, this study includes the following control variables: Firm Size (SIZE), Revenue Growth Rate (GROWTH), Proportion of Independent Directors (DEPEND).Shareholding Ratio of the Largest Shareholder (TOP1): The percentage of shares held by the largest shareholder is included to reflect the level of ownership concentration.

5. Model Construction

To test Hypothesis H1, the following model is constructed:

$$ROA_{it} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 DEPEND_{i,t} + \beta_5 Top1_{i,t} + \varepsilon \quad (1)$$

In this model, ROA and ESG represent corporate financial performance and ESG performance, respectively. The control variables include company size, revenue growth rate, proportion of independent directors, and shareholding ratio of the largest shareholder. The constant term is α, and the regression coefficients for the explanatory variables are denoted by β. The coefficients for the control variables (i.e., i = 2, 3 …) represent the regression coefficients for each control variable. i represents individual listed companies, and t represents the year. ε denotes the residual term. A significantly positive correlation would indicate that ESG performance has a significant positive effect on corporate financial performance, thus supporting Hypothesis H1.

To test Hypothesis H2, the following model is constructed, which includes the interaction term between analyst attention and ESG performance:

$$ROA_{it} = \alpha_0 + \alpha_1 ESG_{i,t} + \alpha_2 ANA_{i,t} + \alpha_3 ESG_{i,t} * ANA_{i,t} + \alpha_4 SIZE_{i,t} + \alpha_5 \mathrm{GROWTH}_{i,t} + \alpha_6 \mathrm{DEPEND}_{i,t} + \alpha_7 Top1_{i,t} + \varepsilon \quad (2)$$

In this model, the interaction term ESG, ANA is used to test the moderating effect of analyst attention on the relationship between ESG performance and financial performance. If the interaction term shows a significant positive effect, it will support Hypothesis H2, indicating that analyst attention positively moderates the relationship between ESG performance and corporate financial performance.

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6. Empirical Results Analysis

6.1 Descriptive Statistics Analysis

In-depth descriptive analysis of the sample is conducted from six key aspects: the number of observations, mean, maximum, minimum, median, and standard deviation. The detailed results of the descriptive statistics are shown in Table 1.

For the dependent variable, ROA, the maximum value is 0.517, and the minimum value is -0.208, indicating significant variation in asset returns across the sample companies, with some firms experiencing losses. For the independent variable, ESG, the maximum value is 8, and the minimum value is 1, reflecting variation in the ESG performance among the sample firms. Regarding the moderating variable, ANA, the maximum value is 4.331, the minimum value is 0.693, with an average of 2.990, indicating that some companies receive higher analyst attention.

Table 1: Descriptive Statistics of Variables.

Variable	*N*	*Mean*	*Max*	*Min*	*p50*	*SD*
ROA	1381	0.0632	0.517	-0.208	0.0453	0.0654
ESG	1381	4.783	8	1	5	1.166
ANA	1338	2.990	4.331	0.693	3.135	0.715
SIZE	1381	24.99	31.19	19.86	24.77	2.132
DEPEND	1381	0.389	0.800	0.222	0.364	0.0677
TOP1	1381	0.389	0.877	0.0471	0.371	0.165
GROWTH	1381	0.205	17.74	-0.876	0.134	0.605

6.2 Correlation Analysis

Table 2 shows the correlation results between the variables. There is a significant positive correlation between ESG performance and ROA at the 1% level. This finding strongly supports Hypothesis H1, which posits that ESG performance is positively correlated with corporate financial performance. This indicates that as the ESG performance improves, corporate financial performance also increases.

Table 2: Correlation Analysis of Variables.

	ROA	ESG	ANA	IC	SIZE	DEPEND	TOP1	GROWTH
ROA	1							
ESG	0.0270***	1						
ANA	0.300***	0.257***	1					
SIZE	-0.375***	0.295***	0.151***	0.105***	1			
DEPEND	0.0320	0.065**	0.061**	0.062**	0.076***	1		
TOP1	0.0160	-0.050*	-0.127***	0.108***	0.092***	0.129***	1	
GROWTH	0.117***	-0.072***	0.00600	0.060**	-0.104***	-0.048*	-0.103***	1

6.3 Regression Analysis

6.3.1 Baseline Test

Table 3: Regression Analysis of ESG Performance and Corporate Financial Performance

Variable	(1) ROA
ESG	0.0055***
	(3.79)
SIZE	-0.0124***
	(-15.49)
DEPEND	0.0508**
	(2.10)
TOP1	0.0239**
	(2.39)
GROWTH	0.0098***
	(3.63)
_cons	0.3154***
	(15.16)
N	1381
R_a^2	0.1592
F	53.2417
p	0.0000

The regression results in Table 3 show that the coefficient for ESG is 0.0055 and is significantly positive at the 1% level, which is consistent with Hypothesis H1, confirming the positive relationship between ESG performance and corporate financial performance.

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6.3.2 Moderating Effect Test

Table 4 shows that with higher analyst attention, the moderating effect of ESG on corporate financial performance becomes more significant. The interaction term between ESG and ANA is positively significant, strongly supporting Hypothesis H2. This indicates that analyst attention strengthens the positive impact of ESG performance on financial performance.

Table 4: Moderating Effect of Analyst Attention on ESG Performance and Corporate Financial Performance

Variable	(1) ROA
ESG	0.0003
	(0.20)
ANA_ESG	0.0039**
	(2.37)
ANA	0.0359***
	(16.75)
SIZE	-0.0153***
	(-21.10)
DEPEND	0.0236
	(1.10)
TOP1	0.0455***
	(5.07)
GROWTH	0.0070***
	(2.89)
_cons	0.4166***
	(21.69)
N	1318
R_a^2	0.3400
F	99.3902
p	0.0000

7. Conclusion and Policy Implications

This study, based on an empirical analysis of A-share companies in the CSI 300 Index from 2012 to 2021, systematically examines the impact of ESG performance on corporate financial performance and the moderating effect of analyst attention. The results reveal: Frist.Significant Positive Effect of ESG Performance on Financial Performance ESG performance has a significant positive impact on corporate financial performance. This finding confirms that ESG practices can create financial value through various mechanisms, such as reducing environmental risks, enhancing brand value, and optimizing governance structures. Analyst attention significantly amplifies the positive impact of ESG performance on financial performance. As an important external governance mechanism, analyst attention enhances the market's recognition of ESG practices and improves the efficiency of value realization. Based on these findings, this paper offers the following policy recommendations:

1) Policy Level

Regulatory authorities should expedite the development of an ESG evaluation system tailored to China’s context, enhancing the professionalism and credibility of ESG rating agencies. Furthermore, they should implement incentive mechanisms, such as tax rebates and green financing policies, to direct capital flow toward companies with superior ESG performance. Additionally, it is essential to strengthen ESG disclosure regulation, establish differentiated supervision measures, and create a transparent market environment with clear rewards and penalties.

2) Corporate Practice Level

Companies should integrate ESG principles into their strategic development plans and establish mechanisms for collaboration between ESG and business development. Specifically, companies should establish regular communication channels with analysts to improve the transparency and professionalism of ESG disclosures. A robust governance structure should be put in place to ensure the effective implementation and continuous improvement of ESG strategies.

3) Investment Decision-Making Level

Both institutional and individual investors should deepen their understanding of ESG investment principles and systematically incorporate them into investment analysis and decision-making frameworks. In practice, investors should focus on evaluating the quality and substance of a company’s ESG practices and actively encourage investee companies to enhance their ESG performance, thus fostering a virtuous cycle of value-based investment.

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References

[1] Fatemi, A., Glaum, M., &Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. Global finance journal, 38 (1), 45-64.
[2] Guan, X., & Yan, H. F. (2016). Research on the correlation between corporate social responsibility and financial performance in energy enterprises. Journal of Nanjing University of Finance and Economics, 1(3), 66–71.
[3] Babar, M.,&Habib, A. (2021). Product market competition in accounting, finance, and corporate governance: A review of the literature. International Review of Financial Analysis, 73, 101-107.
[4] Hao, Yuting, & Zhang, Yonghong (2023). ESG Performance, Financing Constraints, and High-Quality Innovation of Coal Enterprises under China's "Dual-Carbon" Goals. Mining Research and Development, (2), 23-36.
[5] Xia, Y.,Zhang, M., & Lin, Z. A. (2023). Can government subsidies promote corporate ESG performance? The mediating effect of financing constraints and the moderating role of media attention. Modernization of Management, 43(1), 54–63.
[6] Degeorge, F.,Ding, Y.Jeanjean, T.,&Stolowy, H. (2013). P Analyst coverage, earnings management and financial development: An international study. Journal of Accounting & Public Policy, 32 (1), 1-25.
[7] Khalil, R. G.,Damrah, S.,Bajaher, M.,&Shawtari, F.A. (2023). Unveiling the relationship of ESG, fintech, green finance, innovation and sustainability: case of Gulf countries. Environmental Science and Pollution Research, (1), 1-14.