Empirical Study on the Impact of ESG Performance and R&D Capability on Corporate Financial Performance

Abstract: *Based on the background of achieving the "dual carbon" goals of "carbon neutrality" and "carbon peak" by 2024, this article attempts to explore the impact of ESG on corporate performance and whether it has a driving effect on the "dual carbon" goals. This study uses the unbalanced panel data of Chinese A-share listed companies from 2017 to 2022 as the research object. By employing research methods such as regression analysis and using SPSS software to analyze the data, the study aims to explore the intrinsic relationship between ESG performance and corporate financial performance through empirical research using a multiple linear regression model. Furthermore, it delves into the moderating effect of research and development capabilities on the impact of ESG on corporate financial performance.*

Keywords: *ESG performance, financial performance, R&D, innovation capability*

1. Introduction

In the context of sustainable development, the Chinese economy has entered a stage of high-quality development. Many issues such as the “dual carbon” target, energy conservation and environmental protection, technological advancement, and common prosperity are closely related to sustainable development. ESG (the acronym for Environment, Social, and Governance), has not only become a key criterion for evaluating the comprehensive level of enterprises but also an important lever for implementing the “dual carbon” strategy and promoting green finance, receiving high attention and extensive concern from the whole society.

Through a series of analysis and tests on the regression model, based on the data verification results and the current development of ESG in China, this paper draws the following conclusions. It also provides some recommendations on how to implement ESG concepts effectively and tell a compelling ESG story in China.

This research endeavor contributes to a better understanding and response to ESG-related issues, enhancing the sustainable development capabilities of enterprises, promoting the development of green finance, and achieving high-quality economic development and shared prosperity in society. It is hoped that these efforts will receive attention and support from the entire society, working together to achieve the goals of sustainable development.

2. Research Status

Kim et al.(2010)[1] believe that companies can have better human capital by improving their ESG level. According to the efficiency wage theory, improving employee benefits and enhancing the

working environment can reduce employee laziness and turnover behavior, and stimulate employees' work enthusiasm.

Erdogan and Yamalddinova (2019)[2] used ROE and ROA as financial performance evaluation indicators and found that R&D investment in Istanbul enterprises has a positive effect on financial performance. But there are also some skeptics who believe that there is no linear relationship between research and development capabilities and financial performance.

Bae et al.(2019)[3] believe that by improving ESG performance, companies can establish a good public image, attract potential customers, especially environmentally friendly supply chain upstream and downstream companies, enhance bargaining power, increase market share, reduce uncertainty in the connection of the supply chain, bring stable sales revenue and profits, and improve financial performance.

Borghi et al.(2021)[4] pointed out that the future trends and developments in ESG ratings include more comprehensive and accurate evaluation indicators and methods, better data collection and information disclosure, more international standards and certifications, and better integration of ESG ratings and financial performance.

Khan et al.(2021)[5] used the global enterprise dataset from 2008 to 2018 to explore the relationship between ESG ratings and financial performance, and the results showed that companies with high ESG ratings had better financial performance.

Luo Jinghua and Zhao Boya (2022)[6] found that a higher overall ESG score of a company can significantly improve its financial performance in both the current and future periods.

Peng Manru (2023) [7]found that corporate innovation capability mediates the relationship between ESG and corporate performance. Good ESG performance can effectively enhance a company's financial performance.

3. Research Design

3.1 Variable Definition

Explanatory Variable: In order to study the impact of ESG on corporate financial performance, the financial performance of the company is defined as the dependent variable. The Return on Assets (ROA) of the company is used as the indicator to measure corporate financial performance.

Explained Variable: Drawing on Wang Linlin et al. (2022)[8], the C-AAA nine-level rating is assigned values from 1 to 9 to create the ESG variable.

Moderating Variable: This study investigates whether a company’s research and development investment will influence the relationship between ESG and financial performance. Therefore, the ratio of research and development expenses to operating income is used as the moderating variable.

Control Variables: Factors such as company size, executive incentive mechanisms, and current company growth can all have an impact on corporate performance. This study uses Ownership Concentration (LAR), Company Growth Capability (GRO), Cash Flow to Total Assets Ratio (CF), Executive Incentives (INC), Independent Director Proportion (IND), and Company Size (SIZE) as control variables to prevent these variables from influencing the final results.

3.2 Data Selection

This study uses the A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2017 to 2022 as the research sample. The original data is selected based on the following criteria:

Exclude samples of ST companies: ST companies in the Chinese market are labeled as such when they face the risk of delisting, indicating that these companies have been in a loss-making state for the past three years. Therefore, researching their corporate performance is not meaningful.

Delete samples with missing values for relevant variables, especially companies without research and development expenses or with omitted research and development expenses.

The final sample consists of 2,265 A-share listed companies, with 122,310 annual observations. The ESG performance data in this study is sourced from the Huazheng ESG Rating data, which incorporates more indicators relevant to the current domestic development stage compared to overseas markets and forms a C-AAA nine-level rating. The data source for this study is the Wind database. To prevent the influence of outliers in continuous variables on the research results, all continuous variables are winsorized at the 1% level (trimmed by replacing extreme values with values at the 1st and 99th percentiles). The data processing software used in this study is SPSS, and the table data in the paper is presented with two decimal places.

3.3 Research Hypothesis

H1: ESG performance has a positive driving effect on corporate financial performance.

H2: R&D capability has a positive moderating effect on the impact of ESG on corporate performance.

3.4 Model Design

In order to study the impact of ESG on corporate performance, this article constructs the following econometric model 1:

$$ROA_{i,t} = c_i + \beta_1 ESG_{i,t-1} + \sum_{i,t-1}^{n} \beta_i Control_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

In order to study the moderating effect of a company's R&D capability on ESG and corporate performance, this paper constructs the following econometric model2:

$$ROA_{i,t} = c_i + \beta_1 ESG_{i,t-1} + \beta_2 RD_{i,t-1} + \beta_3 ESG_{i,t-1} \times RD_{i,t-1} + \sum_{i,t-1}^{n} \beta_i Control_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

Among them, i represents the individual enterprise, t represents the year, unobservable random variable ci represents individual heterogeneity, and εi.t is the disturbance term that changes with individuals and time.

4. Empirical Result Analysis

Based on the selected sample of A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2017 to 2022, this study conducted empirical research using a multiple linear regression model and conducted robustness tests on the regression model. Furthermore, the sample companies were divided into two groups: non-state-owned enterprises and state-owned enterprises, as well as heavy polluting industries and non-heavy polluting industries, for group regression analysis, with Heterogeneity test conducted on the model.

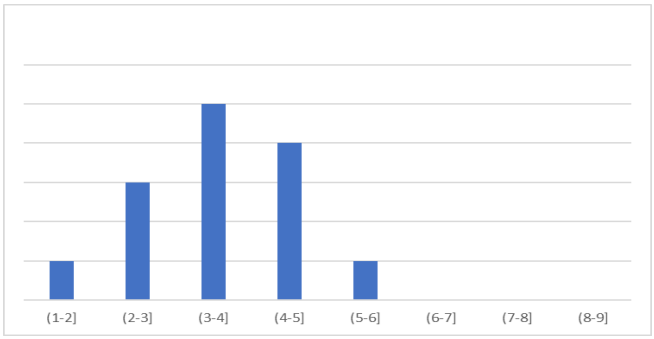

Figure 1 ESG Rating

4.1 Descriptive Statistics

Firstly, an analysis of ESG ratings of the selected listed companies was conducted. The analysis revealed that among companies listed on the Shanghai Stock Exchange, Shenzhen Stock Exchange, and Beijing Stock Exchange, ESG ratings over the six-year period from 2017 to 2022 were concentrated around 4-5 points. It was observed that the majority of companies have ESG composite ratings at the B or BB level. There were almost no companies with ESG ratings above 6 points, indicating that overall, ESG ratings of listed companies in China are not very high and are at a relatively low level. The average ESG rating was 4.08 with a standard deviation of 0.90, confirming that there is not a significant difference in ESG levels among A-share listed companies, suggesting room for improvement. Notably, no company in the sample had an ESG rating of AAA, emphasizing the need for strengthening ESG-related initiatives alongside innovation efforts.

Table 1 Results of Descriptive Statistics

	Variable	Index	sample	mean	SD	min	max
Explained Variable	Return on Total Assets	ROA	13590	62.85	47.73	0.34	1134.48
Explanatory Variable	ESG rating	ESG	13590	4.08	0.90	1.00	8.00
Moderating Variable	R&D investment	RD	13590	4.66	5.45	0.00	307.71
Control Variables	Executive incentive	INC	13590	5.49	0.68	2.35	9.37
	Growth ability	GRO	13590	0.22	2.28	-0.99	168.42
	Cash ratio	CF	13590	0.14	0.10	0.01	0.81
	Concentration of equity	LAR	13590	31.54	14.20	1.84	89.09
	Proportion of	IND	13590	0.37	0.05	0.14	0.80
	Enterprise scale	SIZE	13590	22.45	1.29	17.87	28.60

Subsequently, an analysis was conducted on the moderating variable. The ratio of research and development expenses to operating income was used as the moderating variable. It was found that, on average, research and development expenses accounted for 4.66% of operating income among listed A-share companies, with a standard deviation of 5.45. This suggests that there is not a significant disparity in research and development investment and capabilities among A-share listed companies. However, it was noted that the maximum value was 307.71, indicating significant variations in innovation investment among individual companies, highlighting disparities in innovation and research and development efforts among Chinese listed companies over the past six years.

Further analysis was conducted on other variables. Firstly, an analysis of corporate financial performance revealed that the mean Return on Assets (ROA) among the sample companies was 62.85, with a standard deviation of 47.43, indicating significant differences in financial performance among companies that prioritize innovation in the A-share market. An analysis of control variables showed that the mean value of Executive Incentives (INC) was 5.49, with a standard deviation of 0.68, suggesting relatively minor differences. Regarding company growth capability, the mean was 0.22 with a standard deviation of 2.28, but notably, the minimum value was -0.99, indicating cases of negative growth in main business income that need to be controlled to avoid influencing final statistical results. Looking at the cash ratio of listed companies, the mean was 0.14 with a standard deviation of 0.1, indicating that A-share listed companies generally maintain low levels of retained cash with minimal differences. Analysis of the proportion of shares held by the largest shareholder showed that on average, 31.54% of equity is held by the largest shareholder, with a minimum of 1.84% and a maximum of 89.09%. This indicates a relatively high level of equity concentration among A-share listed companies. Examining the proportion of independent directors on the board, it was found that less than 40% of directors are independent in A-share listed companies, with a standard deviation of 0.05. While some companies have independent director proportions reaching 80%, overall, the proportion of independent directors is relatively low. Analysis of the company size of A-share listed companies revealed a variance of 1.29, with a minimum of 17.87, a maximum of 28.60, and a mean of 22.45, indicating that the differences in company size among A-share listed companies are not very significant.

4.2 Correlation Analysis and Multicollinearity Test

To investigate the correlation between ESG performance and corporate financial performance, this study used SPSS to conduct Person correlation coefficient tests on various variables in the research sample. The results are shown in table 2.

Table- 2 Correlation Analysis of Indicator Variables

Index	ROA	ESG	RD	INC	GRO	CF	LAR	IND	SIZE
ROA	1.0000								
ESG	0.1339*	1.0000							
RD	-0.2086**	-0.5790***	1.0000						
INC	0.3209***	-0.5237***	0.4111***	1.0000					
GRO	0.4229***	0.0381	0.0217	0.4181***	1.0000				
CF	-0.2973***	0.5200***	-0.4507***	0.0715	0.1016*	1.0000			
LAR	0.4581***	-0.3750***	0.1027*	0.0820	0.1436*	-0.2092**	1.0000		
IND	0.1765*	0.2039**	0.0931	0.1947*	0.0723	0.1319*	0.0107	1.0000	
SIZE	0.1049*	0.1754*	0.2485**	0.3841***	0.0412	0.2437**	0.2467**	0.1689*	1.0000

The results of the correlation analysis of the indicator variables shown in table 2 allow us to gain a deeper understanding of the relationship between ESG scores and corporate financial performance. Although the correlation coefficient of 0.1339 may seem small, it has been confirmed as significant at the 10% level of significance, which is actually an important finding. It indicates that there is a positive and statistically significant relationship between good performance in environmental, social, and governance aspects and financial performance. In other words, companies that strive to improve ESG standards often see positive feedback in financial returns, providing strong evidence for managers to demonstrate the long-term value of investing in non-financial areas.

Further exploring the relationships among other indicator variables, we found that the majority of them also exhibit significant correlations. This implies that various aspects of company operations, including but not limited to financial, environmental, social interactions, and internal governance structures, are interconnected and influence each other. This complex interaction pattern suggests that when analyzing corporate performance, it is necessary to consider multidimensional factors comprehensively, rather than isolating specific areas.

Table-3 the Variance Inflation Factor Test

Index	SG	RD	INC	GRO	CF	LAR	IND	SIZE	Mean VIF
VIF	1.0541	1.0428	2.3988	3.0424	1.0454	2.1936	1.8978	2.2144	1.6112
1/VIF	0.9486	0.9589	0.4169	0.3287	0.9566	0.4559	0.5269	0.4516	

To ensure the rigor of the analysis and avoid interpretation biases caused by high correlation between variables, namely the issue of multicollinearity, the study employed VIF (Variance Inflation Factor) tests. In this study, the VIF test results (table 3)showed a maximum value of 3.0424, significantly below the commonly recognized threshold of 10. This result gives us confidence that in the model considered, although there is some correlation between the indicator variables, it does not lead to serious multicollinearity issues, thus validating the reliability of the earlier correlation analysis.

In summary, the above analysis not only confirms the positive correlation between ESG and corporate financial performance but also alleviates major concerns about multicollinearity through VIF testing, providing a solid empirical basis for ESG-based investment decisions and corporate strategic planning. These findings encourage companies to more actively implement ESG strategies and provide investors, regulatory bodies, and the public with a more comprehensive perspective to evaluate the overall value and sustainable development potential of companies.

4.3 Regression Result Analysis

4.3.1. The Impact of ESG on Corporate Performance

According to the Model 1, OLS regression was performed, and the regression results are as follows:

Table 4 Regression coefficient of Model 1

	Variable	Index	OLS
Explanatory Variable	ESG rating	ESG	1.0927**
Control Variables	Executive incentive level	INC	9.9933***
	Growth ability	GRO	0.6887***
	Cash ratio	CF	-10.1607***
	Concentration of equity	LAR	0.2358***
	Proportion of independent directors	IND	-12.0374*
	Enterprise scale	SIZE	0.9284**

According to the regression results in table 4, the regression coefficient for ESG is 1.0927, with a P-value of 0.0192, which is significant at the 5% level. This indicates that ESG has a significant positive impact on a company's financial performance. For every unit increase in ESG rating, the Return on Assets (ROA) will increase by approximately 1.0927 units. Hypothesis H1 is supported.

The regression coefficient for INC is 9.9932, with a P-value of 0.0000, significant at the 1% level. This suggests that INC has a significant positive impact on a company's financial performance. For

every unit increase in INC, the ROA will increase by approximately 9.9932 units. The regression coefficient for GRO is 0.6887, with a P-value of 0.00001, significant at the 1% level. This indicates that GRO has a significant positive impact on a company's financial performance. For every unit increase in GRO, the ROA will increase by approximately 0.6887 units. On the other hand, the regression coefficient for CF is -10.1607, with a P-value of 0.0096, significant at the 1% level. This suggests that CF has a significant negative impact on a company's financial performance. For every unit increase in CF, the ROA will decrease by approximately 10.1607 units. Similarly, the regression coefficient for LAR is 0.2358, with a P-value of 0.0000, significant at the 1% level, indicating a significant positive impact on financial performance. For every unit increase in LAR, the ROA will increase by approximately 0.2358 units. Lastly, the regression coefficient for IND is -12.0374, with a P-value of 0.0971, significant at the 10% level, suggesting a significant negative impact on financial performance. For every unit increase in IND, the ROA will decrease by approximately 12.0374 units. The regression coefficient for SIZE is 0.9284, with a P-value of 0.0121, significant at the 5% level, indicating a significant positive impact on financial performance. For every unit increase in SIZE, the ROA will increase by approximately 0.9284 units.

4.3.2 The Moderating Effect of R&D Capability on ESG and Corporate Financial Performance

According to Model 2, the regression results are as follows:

Table -5 Regression coefficient of Model 2

	Variable	Index	OLS
Explanatory Variable	ESG rating	ESG	1.2779**
Moderating Variable	R&D investment	RD	1.0428***
interaction term		ESG*RD	0.2708***
Control Variables	Executive incentive level	INC	12.4900***
	Growth ability	GRO	0.6391***
	Cash ratio	CF	1.1466
	Concentration of equity	LAR	0.1405***
	Proportion of independent directors	IND	-2.8197
	Enterprise scale	SIZE	-1.5411***

The regression coefficient for ESG is 1.2779, with a P-value of 0.0250, significant at the 5% level. This indicates that ESG has a significant positive impact on a company's financial performance. For every unit increase in ESG rating, the ROA will increase by approximately 1.2779 units. The regression coefficient for RD is 1.0428, significant at the 1% level. This suggests that RD has a significant positive impact on a company's financial performance. The regression coefficient for the interaction term between ESG and RD is 0.2708, with a P-value of 0.0003, significant at the 1% level. This indicates that the interaction between ESG and RD has a significant positive impact on a company's financial performance. For every unit increase in the interaction term between ESG and RD, the ROA will increase by approximately 0.2708 units. Therefore, the research finds that the research and development capabilities of a company can positively moderate the relationship between ESG and financial performance. In other words, as a company increases its investment in research and development innovation, the positive impact of ESG on financial performance becomes more pronounced. Hypothesis H2 is supported.

4.4 Robustness Test

The study revalues the ESG of companies, categorizing ESG ratings into three levels: CCC-C assigned as 1, BBB-B assigned as 2, and AAA-A assigned as 3. The models are then regressed accordingly. The regression results are as follows:

Table 6 Results of robustness test

	Variable	Index	OLS_1	OLS_2
Explanatory Variable	ESG rating	ESG1	0.4629**	6.7561***
Moderating Variable	R&D investment	RD		0.0066***
interaction term		ESG1*RD		1.3136***
Control Variables	Executive incentive level	INC	9.8518***	12.5607***
	Growth ability	GRO	0.7000***	0.6338***
	Cash ratio	CF	-11.4239***	1.9244
	Concentration of equity	LAR	0.2346***	0.1295***
	Proportion of independent directors	IND	-13.0876*	-2.3901
	Enterprise scale	SIZE	0.8198*	-1.7169***

The regression coefficient for ESG1 is 0.4629, with a P-value of 0.0367, significant at the 5% level. This indicates that ESG1 has a significant positive impact on a company's financial performance. Comparing the regression coefficients of ESG and ESG1, it is evident that both have a significant positive impact on financial performance. Whether analyzed using ESG or ESG1, both variables show a significant positive influence on financial performance, verifying hypothesis H1.

The regression coefficient for ESG1 is 6.7561, with a P-value of 0.0000, significant at the 1% level. This indicates that ESG1 has a significant positive impact on a company's financial performance. The regression coefficient for the interaction term between ESG1 and RD is 1.3136, with a P-value of 0.0000, significant at the 1% level. This indicates that the interaction between ESG1 and RD has a significant positive impact on a company's financial performance. For every unit increase in the interaction term between ESG1 and RD, the ROA will increase by approximately 1.3136 units.

Comparing the regression coefficients of ESG and ESG1, as well as the interaction terms with RD, it is evident that both show a significant positive impact. This suggests that whether analyzed using ESG or ESG1, the research and development capabilities of a company can positively moderate the relationship between them and financial performance, indicating that as a company increases its investment in research and development innovation, the positive impact of ESG on financial performance becomes more pronounced. Hypothesis H2 is supported.

In conclusion, the model passed the robustness test.

4.5 Heterogeneity Test

The text describes the results of a heterogeneity test conducted by dividing sample companies into two groups: non-state-owned enterprises and state-owned enterprises, as well as into two categories: heavy-polluting industries and non-heavy-polluting industries, for separate group regression to test the heterogeneity of the model. The regression results are shown in table 7 and 8.

Table 7 Heterogeneity Analysis of Ownership Nature

	Index	Non state-owned enterprises		state-owned enterprises	
		OLS_1	OLS_2	OLS_1	OLS_2
Explanatory Variable	ESG	4.0413**	7.0813***	0.3579*	6.7260***
Moderating Variable	RD		-0.7483***		-0.1583***
interaction term	ESG_1*RD		2.6839***		1.9413***
Control Variables	INC	12.6212***	10.8492***	9.7277***	13.6540***
	GRO	-0.6499**	0.5316**	2.1897***	1.7431***
	CF	-8.3890**	1.683	-10.0149**	1.0607
	LAR	0.9600***	0.4487***	1.618***	0.2069***
	IND	-13.1507*	-2.0772	-13.3910*	-3.6042
	SIZE	1.5345***	-2.5818***	1.1137***	-2.8304***

Looking at the regression results in Table 8, for both non-state-owned enterprises and state-owned enterprises, the regression coefficients for ESG are significant and the former is greater than the latter, indicating a significant positive impact of ESG on corporate financial performance. And the former is stronger than the latter. According to the comparison of ESG and RD interaction coefficients, non-state-owned enterprises are stronger. State-owned enterprises tend to rely more on government incentives, often lowering their ESG performance to enhance financial performance, while non-state-owned enterprises focus more on the quality and sustainability of their own development, emphasizing the economic consequences of their ESG performance. By strengthening ESG disclosure, attracting external investments, and enhancing financial performance. Furthermore, the proactive nature, efficiency, and emphasis on RD activities are generally superior in non-state-owned enterprises compared to state-owned enterprises. Therefore, non-state-owned enterprises may attract more investments and improve operational efficiency, showing higher enthusiasm considering cost-benefit analysis.

Table 8 Heterogeneity Analysis of Industry

	Index	Heavy polluting industries		Non heavy polluting industries	
		OLS_1	OLS_2	OLS_1	OLS_2
Explanatory Variable	ESG	0.3244*	6.7493***	1.1801***	7.8567***
Moderating Variable	RD		1.5392***		1.5508***
interaction term	ESG_1*RD		0.5439		1.3995***
Control Variables	INC	11.4820***	12.9321***	10.7402***	11.0691***
	GRO	1.1889***	0.4082**	-0.4471**	-0.1085
	CF	-10.3892***	3.0418*	-12.4928***	0.8628
	LAR	0.9615***	-0.9596***	-0.5749***	2.4800***
	IND	-13.3910*	-2.3575	-16.0319*	-3.0057
	SIZE	1.1137***	-1.1644*	2.2582***	-0.9688**

Looking at the regression results in Table 8, for both non-heavy-polluting industries and heavy-polluting industries, the regression coefficients for ESG are significant and greater than 0, and the former is greater than the latter, indicating a significant positive impact of ESG on corporate financial performance,and the former is stronger. Further observation of the regression coefficients in non-heavy-polluting industries for the interaction term between ESG and RD, is significantly greater than 0 . Which indicates that under the moderating effect of corporate RD activities, the positive impact

of ESG on financial performance in non-heavy-polluting industries shows a significant enhancement, while the impact of ESG on financial performance in heavy-polluting industries is not as pronounced. Given the pressure and greater environmental protection investment responsibilities faced by heavy-polluting industries under the requirements of "peak carbon" and "carbon neutrality," non-heavy-polluting industries demonstrate higher enthusiasm for ESG responsibility investments and have a stronger appeal to stakeholders, making the positive impact of ESG on financial performance more evident in these industries. Additionally, the higher investment costs and greater uncertainties associated with RD activities in heavy-polluting industries lead to less clear effects on the relationship between ESG and economic performance.

5. Conclusion and Recommendations

5.1 Conclusion

This study utilized data from A-share listed companies from 2017 to 2022 to explore the impact of corporate ESG performance on financial performance and the moderating effect of corporate research and development capabilities on the impact of ESG on performance. Based on the results of Model 1 and Model 2, the following conclusions are drawn: First, corporate ESG performance has a positive driving effect on financial performance. Improvements in ESG performance initially enhance resource efficiency and reduce environmental costs, gradually evolving to enhance the company's social image, increase consumers' favorability towards the brand, and further increase its market share. As ESG performance improves gradually, the positive effects of ESG governance also begin to manifest, leading to an improvement in financial performance as corporate ESG performance increases. Second, research and development capabilities have a positive moderating effect on the impact of ESG on corporate performance. By increasing investment in research and development, enhancing innovation capabilities, companies can better fulfill their ESG responsibilities and enjoy the positive effects of ESG earlier.

5.2 Recommendations

5.2.1 Improve the ESG Disclosure System and Enhance the Quality of Information Disclosure.

Currently, the overall situation of ESG information disclosure in China has considerable laxity, allowing companies to decide to what extent they disclose information, leading to potential risks of reporting inaccurate or market-driven information. With regulatory bodies such as the CSRC and stock exchanges imposing more standardized requirements on ESG information disclosure by listed companies, the government should gradually introduce a series of laws and regulations to ensure their proper operation, eliminate the practice of "greenwashing" by companies, and maintain a healthy investment market environment. Simultaneously, the government should take the lead in establishing a standard system that aligns with international standards while reflecting China's unique characteristics to guide national market development.

5.2.2 Emphasize Research and Development Innovation Capabilities to Enhance Internal Drive.

The motivation for companies to invest in ESG-related initiatives often comes from external factors such as policies, investment environment, and the investment market, with companies having limited understanding of the role and significance of ESG in their operations, resulting in a lack of internal drive. In the context of the prevalence of "dual carbon" and ESG concepts, companies should

continuously enhance their self-innovation awareness, learn advanced innovation concepts from domestic and foreign sources, improve their innovation capabilities, develop environmentally friendly products and services that meet ESG requirements, and create unique advantages for their brands. Additionally, companies should shift their business philosophy and be willing to assume social responsibility. Companies need to objectively assess the insignificant short-term impact of ESG investments on economic benefits, consciously undertake social responsibility, understand the long-term effects of ESG investments, and promote the active and healthy development of ESG in China.

5.2.3 Strengthen the Promotion of ESG Concepts to Enhance Public Understanding of ESG.

The overall level of understanding of ESG among Chinese companies, investors, institutions, and the general public is relatively low. Many people have only a superficial understanding of ESG, mistakenly equating it with green and low-carbon concepts, thereby overlooking its deeper implications. ESG is not just about environmental protection but a comprehensive concept covering environmental, social, and corporate governance dimensions. Therefore, the government should promote the development and popularization of ESG concepts through the formulation of relevant supportive policies and the promotion of related courses to strengthen the value guidance of ESG. Furthermore, social media platforms should actively engage in disseminating ESG values to the public through various online channels to enhance a comprehensive understanding of ESG.

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