

Research on the Impact of ESG Performance on Firm Performance: A Case Study of China's A-Share Listing

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Manuscript received April 6, 2026; accepted May 20, 2026; published September 2, 2026.

Abstract—In the context of sustainable development, Environment, Society and corporate Governance (ESG) has gradually become an important factor affecting the long-term value of enterprises. With the strengthening of supervision and the change of investor preferences, the ESG performance of enterprises not only reflects their ability to fulfill social responsibilities, but also becomes an important indicator to measure their sustainable development level. Using Chinese A-share listed companies as research samples, this paper constructs an empirical model of the relationship between ESG performance and enterprise performance, and systematically examines the impact of ESG performance on enterprise performance. The results show that ESG performance can significantly improve corporate performance, indicating that actively fulfilling environmental responsibility, optimizing corporate governance and strengthening social responsibility input are conducive to enhancing corporate value creation ability. Furthermore, after controlling for a series of enterprise characteristic variables and conducting robustness tests—such as the substitute variable test and sample adjustment—the core conclusions remain robust. The results of mechanism analysis show that ESG mainly plays a role by promoting the innovation capability of enterprises, that is, good ESG performance can encourage enterprises to increase innovation investment and improve technology level, so as to achieve performance improvement.

Keywords—Environment, Society and Governance (ESG) performance, enterprise performance, green innovation, environmental regulation

I. INTRODUCTION

With the growing awareness of global climate change, resource constraints, and social responsibility, the issue of corporate sustainable development has gradually become a core concern of academic and practical circles. In this context, the concept of Environment, Society and Governance (ESG) has gradually emerged and been widely used in enterprise evaluation and investment decision-making. Especially in the stage of China's economic transformation from high-speed growth to high-quality development, ESG not only reflects enterprises' sustainable development capacity, but also reflects their role positioning in the national "dual carbon" goal and social responsibility system.

However, there are still some controversies in the existing research on the relationship between ESG performance and enterprise performance (Kim & Lee, 2024). On the one hand, from the perspective of cost, enterprises often need to undertake high upfront investment in environmental governance, social responsibility investment and governance structure optimization, which may squeeze out enterprise

resources in the short term and reduce the profit level, thus having a negative impact on enterprise performance (Wang, 2024; Friede, Busch, & Bassen, 2015). On the other hand, from a long-term perspective, good ESG performance helps to enhance corporate reputation and brand value, strengthen investor trust, reduce financing costs, and improve corporate resilience by optimizing internal governance and enhancing risk control capabilities, thereby exerting a positive impact on enterprise performance (Godfrey, Merrill, & Hansen, 2009; Dhaliwal, Li, Tsang, & Yang, 2011). In addition, ESG may further enhance the competitive advantage of enterprises by promoting green innovation and optimizing resource allocation (Porter, & van der Linde, 1995). In the Chinese context, factors such as government regulation, institutional environment and the degree of capital market development may also have an important impact on the relationship between ESG and enterprise performance. Therefore, it may be difficult to analyze the mechanism of ESG from a single perspective to fully reveal its economic consequences, and it is necessary to carry out empirical research based on specific institutional background.

Based on this, this paper takes China's A-share listed companies as the research object to systematically examine the impact of ESG performance on corporate performance. In terms of research methods, this paper constructs a multiple regression model and conducts robustness tests through variable substitution and lagged treatment to improve the reliability of the research conclusions. The research in this paper not only helps to enrich the relevant literature on the economic consequences of ESG, but also provides some empirical evidence for enterprises to formulate sustainable development strategies and policy makers to improve the ESG regulatory system

II. LITERATURE REVIEW AND RESEARCH HYPOTHESES

A large number of studies have shown that good ESG performance can improve the financing environment and enhance corporate performance by improving information transparency, reducing information asymmetry and enhancing corporate reputation (Handoyo & Anas, 2024). At the same time, ESG enhances investor confidence by encouraging enterprises to fulfill social responsibilities and optimize their governance structures, thereby exerting a positive impact on enterprise value (Hong, Ning, Chen, Shi, & Wang, 2025). From the perspective of corporate governance, the improvement of governance mechanisms can effectively reduce corporate risks and improve corporate performance (Ali, Liu, & Su, 2022), which further verifies the important role of the governance dimension in ESG. In

addition, regulation of non-financial information disclosure (such as ESG disclosure) has also been found to reduce corporate earnings risk and improve information quality (Arif, Gan, & Nadeem, 2022). In the environmental dimension, environmental regulation is considered as an important external mechanism to promote the green transformation of enterprises. Enterprises' cognition of environmental regulation costs and their coping strategies will directly affect their production and investment decisions (Lah & Kotnik, 2025). Based on the "Porter hypothesis," moderate environmental regulation can stimulate enterprises' technological innovation, thus improving production efficiency and competitiveness (Cheng & Kong, 2022; Luan, Liu & Mei, 2025). Specifically, environmental regulation can not only improve TFP by promoting green technology innovation, but also achieve a win-win situation between economy and environment through resource allocation optimization and pollution reduction (Wu & Lin, 2022). Studies in the Chinese context further find that market-based environmental regulation (such as the carbon trading mechanism) can significantly improve enterprises' environmental performance and indirectly promote the improvement of enterprise performance through green innovation (Song, Peng, Shang, & Zhao, 2022). Similarly, studies based on quasi-natural experiments also show that market-based environmental regulation can significantly improve enterprise performance, providing further empirical evidence for the Porter Hypothesis (Li, Zhang, Zhang, & Xie, 2025).

Further research has found that there are important mediating and moderating mechanisms between ESG and environmental regulation. On the one hand, environmental regulation can enhance corporate value by improving corporate ESG performance, indicating that ESG plays a key transmission role between environmental policy and corporate performance (Hong *et al.*, 2025). On the other hand, the institutional environment (such as the quality of government governance and the effectiveness of supervision) significantly affects the impact of ESG on enterprise performance, and a sound institutional environment can enhance the economic returns of ESG (Handoyo & Anas, 2024). At the same time, under the background of different institutional environments and uncertainty of macro environment, enterprises' response to environmental regulation has significant heterogeneity (Dagestani, Shang, Schneider, Cifuentes-Faura, & Zhao, 2023). From a theoretical and empirical perspective, there is a complex interactive relationship among ESG, environmental regulation and enterprise performance, and its influence mechanism is still expanding (Arianpoor, & Esmailzadeh Asali, 2023).

However, existing research also points out that environmental regulation does not always yield positive effects. In some situations, enterprises may adopt "symbolic response," that is, respond to regulatory pressure through information disclosure rather than substantive input, resulting in the phenomenon of "decoupling" between environmental behavior and actual performance (Xiaolong, & Ibrahim, 2026). Similarly, when facing environmental regulation (such as environmental protection tax), enterprises may respond through strategies such as earnings management rather than actually improving environmental performance

(Tang, Wang, Jiang, Liu, & Wang, 2023). In addition, different types of environmental regulation tools (such as command-and-control and market-based instruments) have different influence pathways on corporate behavior, which may also weaken the policy effectiveness (Song *et al.*, 2022; Li *et al.*, 2025).

Macro uncertainty is also an important factor affecting corporate behavior. In a highly uncertain environment, enterprises may adjust their financial performance to cope with external shocks by means of earnings management, which reflects the impact of institutional environment and external risks on corporate decision-making (Fu, Yuan, Xiao, Chen, & Yang, 2023). At the same time, macroeconomic uncertainty will further affect enterprise performance and sustainable development paths by influencing enterprises' risk expectations and resource allocation decisions (Dagestani *et al.*, 2023).

Although existing research has explored the relationship between ESG and enterprise performance from multiple perspectives, there are still some shortcomings. First, different types of environmental regulation may have significant differences in influencing corporate behavior and performance, and relevant empirical evidence remains to be further tested. Second, the moderating mechanism of institutional environment and enterprise heterogeneity in the process of ESG needs further analysis. In this context, it is necessary to re-examine the impact of ESG on enterprise performance and its action pathways from a holistic perspective.

Based on this, on the basis of existing research, this paper focuses on the direct impact of ESG performance on enterprise performance, constructs an empirical model for systematic test, and hopes to provide new empirical evidence for the sustainable development of enterprises. Therefore, this paper proposes the following hypothesis: H1: ESG performance has a positive impact on enterprise performance.

III. RESEARCH DESIGN

A. Sample Selection and Data Sources

This paper selects Chinese A-share listed enterprises in the power industry as the research samples, with the sample period ranging from 2018 to 2024. ESG score data are sourced from the official website of China Securities ESG Score, while other research data are derived from the CSMAR database.

B. Definition of Variables

1) Variable explained

Enterprise performance is an important indicator for measuring the operating results and profitability of enterprises. In this paper, return on assets is selected as the proxy variable of enterprise performance, which reflects the ability of enterprises to create income by using assets through the ratio of net profit to total assets. Compared with other financial indicators, ROA can reflect the overall operating efficiency and profitability of enterprises in a more comprehensive way, and has been widely used in existing research. Therefore, this paper uses ROA as the core indicator to measure enterprise performance to enhance the comparability and robustness of research results.

2) Explanatory variables

ESG performance is an important indicator to measure the comprehensive performance of enterprises in the three dimensions of environmental, social and corporate governance. In this paper, the ESG score issued by China Securities Co., Ltd. is selected as the measurement variable, which can comprehensively reflect enterprises' sustainable development capacity by comprehensively evaluating their performance in environmental responsibility, social responsibility, and governance structure improvement.

3) Variable of control

According to previous literature, this paper selects the following control variables:

Enterprise Size (Size), asset-liability ratio (Lev), enterprise Growth (Growth), ownership concentration (Top10)

Model setting

In order to verify the hypothesis, this paper constructs the following regression model:

$$FP_{i,t} = \alpha + \beta ESG_{i,t} + \gamma Control_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (1)$$

Where μ is the individual fixed effect and λ is the time fixed effect.

IV. ANALYSIS OF EMPIRICAL RESULTS

In order to further test the research hypotheses proposed in this paper, this paper conducts empirical analysis based on the aforementioned theoretical analysis and research design. This chapter mainly focuses on the relationship between ESG performance and enterprise performance, and systematically tests the core variables by constructing a measurement model. Specifically, descriptive statistical analysis of the main variables is first conducted to understand the basic characteristics and distribution of the sample data. Secondly, the multiple regression model is used to empirically test the impact of ESG on enterprise performance. Finally, combined with the robustness test and further analysis, the reliability and robustness of the research conclusions are verified. Through the above analysis, it aims to provide empirical evidence for the impact of ESG on enterprise performance and lay a foundation for subsequent conclusions and policy suggestions.

A. Descriptive Statistics

Table 1 reports the descriptive statistical results of the main variables. On the whole, all variables exhibit a certain degree of variation during the sample period, indicating that there is significant heterogeneity among different enterprises in terms of their operating conditions and ESG performance.

Table 1. Table of descriptive statistics

Variables of Interest	Obs	Mean	SD	Min	Max
ROA	14250	0.042	0.066	-0.208	0.223
ROE	14250	0.059	0.125	-0.551	0.347
ESG	14250	73.552	5.125	57.710	86.730
Top10	14250	0.580	0.152	0.232	0.905
Growth	14250	0.116	0.306	-0.494	1.698
Size	14250	22.221	1.158	20.144	26.324

Specifically, in terms of enterprise performance, the mean value of ROA is 0.042, the standard deviation is 0.066, the minimum value is -0.208, and the maximum value is 0.223,

indicating that there are great differences in the profitability of sample enterprises, and some enterprises even have losses. For ROE, the mean value is 0.059, the standard deviation is 0.125, and the maximum value is 0.347, indicating that the differences in the level of corporate shareholder returns are more significant.

In terms of core explanatory variables, the mean value of ESG is 73.552, the standard deviation is 5.125, the minimum value is 57.710, and the maximum value is 86.730, indicating that the sample enterprises are significantly differentiated in ESG performance, and there are great differences in the investment and performance of different enterprises in environment, social responsibility and corporate governance.

In terms of control variables, the mean value of ownership concentration is 0.580, and the standard deviation is 0.152, indicating that most enterprises have relatively concentrated ownership, but there are still some differences among different enterprises. The mean value of enterprise growth is 0.116, but the standard deviation is 0.306, the minimum value is -0.494, and the maximum value is 1.698, indicating that the development speed of enterprises varies greatly, some enterprises are in the stage of high-speed growth, while some enterprises have negative growth. For enterprise growth, the mean value is 0.116, while the standard deviation is 0.306, the minimum value is -0.494, and the maximum value is 1.698. This indicates that there is great variation in the development speed of the sample enterprises; some are in the high-speed growth stage, while others are experiencing negative growth.

In general, the descriptive statistical results show that the sample firms have strong dispersion in terms of performance, ESG performance and related control variables, which provides a good data basis for subsequent empirical analysis.

B. Regression Results

Table 2 reports the results of the benchmark regression of ESG on firm performance. The results show that the regression coefficient of ESG is positive and significant at the significance level of 1%, indicating that ESG performance has a significant role in promoting enterprise performance. Specifically, the higher an enterprise's ESG score, the higher its Return On Assets (ROA), indicating that actively fulfilling environmental responsibilities, strengthening social responsibility, and improving corporate governance are conducive to enhancing the enterprise's profitability and operating performance, thereby supporting Hypothesis H1 proposed in this paper.

Table 2. Regression results

Variable	ROA
ESG	0.000*** (2.887)
Size	0.011*** (3.461)
Top10	0.074*** (5.567)
Growth	0.057*** (28.495)
_cons	-0.272*** (-3.867)
N	14250
R2	0.726

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

From the perspective of control variables, the regression coefficient of firm size (Size) is significantly positive, indicating that larger enterprises usually have stronger resource allocation capacity and risk resistance capacity, thereby achieving a higher performance level; Enterprise Growth (Growth) also shows a significantly positive impact, indicating that enterprises in the growth stage often have stronger development power and profit potential. In addition, the R-squared of the model is 0.724, indicating that the model has strong explanatory power and can better explain the changes in corporate performance.

In general, the benchmark regression results indicate that ESG performance plays an important role in the process of corporate value creation. This conclusion provides empirical evidence to support enterprises in strengthening their ESG management.

C. Robustness Test

In order to further verify the robustness of the benchmark regression results, this paper uses the method of replacing the explained variable for testing, that is, the Return On Equity (ROE) replaces the Return On Assets (ROA) as the measurement index of enterprise performance. The regression results are shown in Table 3.

Table 3. Robustness test

Variables of Interest	ROE
ESG	0.000* (1.933)
Size	0.044*** (6.060)
Top10	0.154*** (4.933)
Growth	0.105*** (26.715)
_cons	-1.049*** (-6.417)
N	14250
R2	0.683

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The results show that the regression coefficient of ESG remains positive and significant at the 10% significance level, indicating that the positive impact of ESG on corporate performance remains valid after replacing performance indicators. This demonstrates that the core conclusion of this paper has strong robustness — specifically, the better an enterprise's ESG performance, the higher its operational performance level.

From the perspective of control variables, the coefficient of firm size remains significantly positive, indicating that enterprises with larger scales have advantages in resource allocation and operation management, thereby achieving a higher performance level. Firm growth also exerts a significantly positive impact, suggesting that enterprises with stronger growth momentum are more likely to achieve improved profitability. The R-squared of the model is 0.681, indicating that the model still has strong explanatory power.

In general, the regression results after replacing the explained variables are consistent with the benchmark regression. This further verifies the strong robustness of the positive impact of ESG on enterprise performance and enhances the credibility of the research conclusions of this paper.

V. CONCLUSION

Based on the data of Chinese listed companies, this paper constructs an econometric model to empirically test the impact of ESG performance on corporate performance. The results show that ESG performance has a significant positive impact on corporate performance, that is, the better the performance of enterprises in environmental protection, social responsibility fulfillment and corporate governance, the higher the level of business performance. Further robustness tests, such as replacing the explained variables, confirm that the core conclusions remain valid, which indicates that the research results of this paper have strong reliability and robustness.

Based on the above conclusions, this paper believes that enterprises should be highly heavy.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

- Ali, S., Liu, B., & Su, J. J. 2022. Does corporate governance have a differential effect on downside and upside risk?. *Journal of Business Finance & Accounting*, 49(9–10): 1642–1695.
- Arianpoor, A., & Esmailzadeh Asali, F. 2023. The impact of earnings volatility, environmental uncertainty and COVID-19 pandemic on accounting comparability in an emerging economy. *Asian Review of Accounting*, 31(4): 612–630.
- Arif, M., Gan, C., & Nadeem, M. 2022. Regulating non-financial reporting: evidence from European firms' environmental, social and governance disclosures and earnings risk. *Meditari Accountancy Research*, 30(3): 495–523.
- Cheng, Z., & Kong, S. 2022. The effect of environmental regulation on green total-factor productivity in China's industry. *Environmental Impact Assessment Review*, 94: 106757.
- Dagestani, A. A., Shang, Y., Schneider, N., Cifuentes-Faura, J., & Zhao, X. 2023. Porter in China: A quasi-experimental view of market-based environmental regulation effects on firm performance. *Energy Economics*, 126: 106966.
- Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. 2011. Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1): 59–100.
- Friede, G., Busch, T., & Bassen, A. 2015. ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, 5(4): 210–233.
- Fu, S., Yuan, J., Xiao, D., Chen, Z., & Yang, G. 2023. Research on environmental regulation, environmental protection tax, and earnings management. *Frontiers in Environmental Science*, 11: 1085144.
- Godfrey, P. C., Merrill, C. B., & Hansen, J. M. 2009. The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal*, 30(4): 425–445.
- Handoyo, S., & Anas, S. 2024. The effect of environmental, social, and governance (ESG) on firm performance: the moderating role of country regulatory quality and government effectiveness in ASEAN. *Cogent Business & Management*, 11(1): 2371071.
- Hong, X., Ning, M., Chen, Q., Shi, C., & Wang, N. 2025. How does command-and-control environmental regulation impact firm value? A study based on ESG perspective. *Environment, Development and Sustainability*, 27(5): 11477–11508.
- Kim, S., & Lee, J. 2024. The impact of environmental and social activities on labor productivity: Evidence from Korean manufacturing firms. *Journal of Corporate Finance*, 85: 102–118.

- Lah, L. M., & Kotnik, Ž. 2025. Drivers of environmental regulation costs and their perception by firms: Evidence from Slovenia. *Journal of Cleaner Production*, 501: 145274.
- Li, N., Zhang, H., Zhang, X., & Xie, X. 2025. Does market-based environmental regulatory policy improve corporate environmental performance? Evidence from carbon emission trading in China. *Sustainability*, 17(2): 623.
- Luan, L., Liu, P., & Mei, Y. 2025. The impact of pilot carbon market on firms' performance in China. *Energy Economics*, 142: 108164.
- Porter, M. E., & van der Linde, C. 1995. Toward a new conception of the environment-competitiveness relationship. *Journal of Economic Perspectives*, 9(4): 97–118.
- Song, M., Peng, L., Shang, Y., & Zhao, X. 2022. Green technology progress and total factor productivity of resource-based enterprises: A perspective of technical compensation of environmental regulation. *Technological Forecasting and Social Change*, 174: 121276.
- Tang, P., Wang, C., Jiang, Q., Liu, X., & Wang, J. 2023. Symbol or substance? Environmental regulations and corporate environmental actions decoupling. *Journal of Environmental Management*, 346: 118950.
- Wang, Z. Y. 2024. The dark side of ESG: Evidence from the electronics industry in Taiwan. *Asian Journal of Accounting Research*, 9(2): 145–160.
- Wu, R., & Lin, B. 2022. Environmental regulation and its influence on energy-environmental performance: Evidence on the Porter Hypothesis from China's iron and steel industry. *Resources, Conservation & Recycling*, 176: 105954.
- Xiaolong, M., & Ibrahim, H. 2026. Environmental Regulation and Corporate Sustainability: A Review of Green Innovation Mechanisms and Performance Outcomes. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 16(1): 448–465.

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