Research on the Impact of ESG Practices on the Development of New Quality Productive Forces in Enterprises

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Abstract: The idea of new quality productive forces has received a lot of attention since it is particularly important for the advancement of high-quality economic transformation, according to both and academia business. This article examines the connection between ESG practices and the emergence of new, highquality productive forces using data from **Chinese A-share listed companies from 2013** to 2022. The findings demonstrate that the emergence of new, high-caliber productive forces in A-share listed businesses is aided by significant improvements in ESG ratings. In the cross validation of the Wind ESG rating database and the SSI ESG rating database, the research findings are steady and consistent. This work adds to the body of knowledge regarding the ESG concept and offers some theoretical guidance for businesses looking to expand sustainably.

Keywords: ESG; New Quality Productive Forces; Entropy Method; Sustainable Development

1. Introduction

Productive forces are the ability to transform nature by the combination of labor force and production materials. The leap and development of productive forces is the fundamental driving force to promote the progress of human society. In order to meet the needs of China's current high-quality economic development and transformation. In September 2023, the concept of new quality productivity was first put forward, centering on nurturing strategic and emerging sectors like renewable energy, novel materials, cutting-edge manufacturing, and electronic information, this approach fosters nascent industries, expedites the emergence of fresh productive capabilities,

and fortifies novel developmental impetuses. By harnessing scientific and technological advancements, it guides the enduring and sustainable progress of China's economy. [1]. The term "new quality productive forces " has been highly concerned by academia and industry since its inception. As the main force of social and economic development, listed companies play a crucial role in achieving high-quality development and transformation of China's economy through the effective improvement of their new quality productive forces levels. The development of new quality productive forces of enterprises pays attention to the improvement of both quality and efficiency, which is reflected in the upgrading of industrial structure, improving production efficiency, increasing resource utilization rate and reducing environmental pollution [2]. There is a significant change that the information disclosure standard of enterprises has changed from single financial information disclosure to multi-dimensional ESG-related disclosure information including environmental protection, social responsibility and corporate governance. The theory of ESG investing was first presented by the UN Environment Programme in 2004, with a focus on how environmental, social, and governance considerations might be integrated into the process decision-making when making investments. The ESG investment concept gained widespread recognition in western capital market. Despite the late start, China's ESG development has gained rapid momentum. ESG growth of A-share listed businesses in China enters a new phase with the formal adoption of the "Guidelines for Sustainable Growth Reports of Listed Businesses" by the stock exchanges of Shanghai, the stock

exchanges of Shenzhen and the stock

exchanges of Beijing in May 2024. As of May

2024, a total of 2,094 A-share listed enterprises have disclosed the ESG reports for 2023, reaching 39.05%, a year-on-year increase of 2.68%. Enterprises practice ESG concept to focus on green innovation, social responsibility, sustainable development, which is highly consistent with the high-quality sustainable development requirements under the guidance of the "double carbon" goal.

Enterprises practice ESG concept and advocate green and environmentally friendly production mode, which is consistent with the fact that new quality productive forces is green, lowcarbon and sustainable productive forces. ESG concept adheres to the principle of maximizing the stakeholders' interests in enterprises, and pays attention to the improvement and optimization of corporate governance structure, while the development of new quality productive forces in enterprises needs to be supported by new production relations, which are highly consistent with each other. Therefore, studying the link between the application of the ESG concept and the progression of new quality productive forces within enterprises bears critical theoretical and practical relevance, contributing to the advancement of China's high-quality economic transformation.

Compared with the existing studies, this paper may have two marginal contributions: Firstly, the majority of the research that has been done on new, high-quality productive forces is qualitative. This paper investigates, from a quantitative research perspective, how the ESG concept affects the emergence of new, highquality productive forces in businesses. This contributes to the body of knowledge regarding the determinants of these new, highquality productive forces and the impact of ESG practices on business development and operation. Secondly, this paper selects the data from 2013-2022 for empirical analysis to ensure the integrity of the inspection cycle and the adequacy of the number of samples, and uses the cross verification of SSI ESG rating data and Wind ESG rating data to ensure the robustness of empirical conclusions.

2. Literature Review

The new quality productive forces belong to the category of productive forces in essence, which is a more epochal manifestation of productive force in the process of social and economic development. It is also a leap of traditional productive forces theory combined with China's existing national conditions, and an innovation and extension of traditional productive forces [3,4]. The combination of new quality production factors, labor objects, labor materials, and workers results in new quality productive forces. The significance of scientific and technical innovation is highlighted, and digitalization, networking, intelligence, sustainability are the and fundamental traits of modern, high-quality production [5]. The essence of new quality productive forces resides in the qualitative transformation of the optimal interplay between workers, labor objects, and means of production. [6]. In the "double carbon" era, the new quality productivity has the characteristics of scientific and technological innovation as the lead, industrial efficiency and low consumption green as the purpose, public facilities and services as the goal, clean technology, digital empowerment and modern governance as the starting point [7]. As the cornerstone of socioeconomic activity, the progression of new quality productive forces within companies holds immense significance in driving China's modernization endeavors forward [8]. The latest phase of the industrial and technological revolution can be considered a "green" industrial revolution, which requires enterprises to apply scientific and technological innovation to drive green development, integrate digital and green production factors to help enterprises reduce costs and increase efficiency, reduce pollution and reduce carbon, improve the cycle and efficiency of enterprises using resources, develop new productivity with green science and technology, release ecological efficiency, and build a new pattern of ecological civilization [9,10]. Economy, society, and environment form the

Economy, society, and environment form the tripod of sustainable development, constituting the pivotal pathway towards attaining China's high-quality development objectives [11]. ESG, a holistic value framework encompassing environmental stewardship, social responsibility, and corporate governance, has emerged as a central topic in global sustainable development discourse [12]. Numerous research findings indicate that exemplary ESG performance can enhance corporate investment efficiency, bolster financial performance, and foster green innovation within enterprises[13-15]. However, some research results also find that the practice of ESG concept increases enterprise costs and reduces enterprise profits, which is not conducive to enterprise growth [16]. Studies on the connection between new quality productive forces development and ESG performance are currently few. A few studies have shown that ESG development concept can improve the connection between enterprises and stakeholders, reduce the cost of intermediate goods and financing costs, attract external investors, and thus improve the degree of new quality productive forces in enterprises [17].

3. Research Method

3.1 Data Source and Sample Selection

In view of the research content and data availability of this paper, in order to more effectively test the relationship between enterprise ESG practice and enterprise new quality productive forces, This paper designates China's A-share listed companies as the primary research subjects, with a sample period spanning from 2013 to 2022. The SSI ESG data of listed Company is used for enterprise ESG performance, the China Research Data Service Platform is the source of the invention patent data (CNRDS), the financial data is from Wind database, and the merger and acquisition data is from CSMAR database. Sample data are processed as follows: (1) Remove financial samples; (2) Remove business anomaly samples such as ST or *ST; (3) Samples missing ESG data and financial data are excluded. After the above processing, 17,805 valid observations from 3562 enterprises were obtained. To avoid the test result of the extreme value lead to error, this article for all 1% shrinkage tail processing continuous variables.

3.2 Model Design

This research aims to investigate how ESG practices affect the growth of new quality productive forces in companies. In order to absorb related fixed effects, control industry effects and time effects to estimate, the following model (1) is constructed:

 $Npro_{it} = \beta_0 + \beta_1 ESG_{it} + \sum Controls + \sum Industry + \sum Year + \varepsilon_{it}$ (1)

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Among them: Npro is the explained variable, representing the new quality productive forces of companies. ESG is an explanatory represents variable. which the environmental protection, social responsibility and corporate governance status of companies. Controls represents a group of control variables; Industry and Year represent fixed effect of industry and fixed effect of time. ε_{it} signifies a random disturbance element, with i and t distinctly representing individual companies and years, respectively.

3.3 Measurement of Variables

3.3.1 Explained variables

The new quality productive forces of enterprises is the explained variable in this research. By drawing on existing studies constructed an index system of enterprise new quality productive forces, and calculated the weight and comprehensive score of each index by using entropy method [17,18]. The specific methods are as follows:

Firstly, according to the theory of two factors of productivity, construct the new quality productive forces index system. Productivity encompasses two fundamental components: labor force and means of production. The labor force comprises two subdivisions: living labor and the labor object. Similarly, production tools are structured into two constituent parts: hard technology and soft technology. The following metrics were assessed: the percentage of R&D personnel's salaries, the proportion of R&D personnel numbers, the ratio of high-quality talent, and the digital expertise of senior executives. The percentage of fixed assets and the percentage of production costs are measured. The percentage of R&D depreciation and amortization, the percentage of R&D leasing costs, the percentage of R&D direct investment, the percentage of digital assets, the percentage of intangible assets and the innovation output of enterprises are measured. The total asset turnover and technology multiplier of soft equity selection are measured. In addition, considering that a higher equity multiplier will lead to a higher financial risk for an enterprise, which is a negative indicator,

this paper adopts the reciprocal of the equity multiplier for measurement. The higher the reciprocal equity multiplier, the lower the risk of the enterprise and the higher the new quality productive forces of the company.

Secondly, the entropy method is employed to determine the weights of pertinent indicators, and the cumulative sum of these weighted indicators yields the comprehensive score for new quality productive forces (*Npro*). The procedure for implementing the entropy method comprises the following steps:

In order to eliminate the difference of measurement units among different indicators, all indicators are treated without dimension. Indicators are categorized into two types: positive and negative. For positive indicators, an increase in their values signifies a corresponding elevation in the level of new quality productive forces. Conversely, higher values of negative indicators imply a lower level of new quality productive forces. Given that all indicators have been harmonized to positive during the aforementioned indicators construction process, these positive indicators undergo standardization:

$$x_{ij} = \frac{x_{ij} - \min\{x_j\}}{\max\{x_j\} - \min\{x_j\}}$$
(2)

Where: $max\{x_j\}$ represents the maximum value attained by the indicator across all years under consideration, $min\{x_j\}$ represents the minimum value attained by the indicator across all years under consideration, and x_{ij} is the result of nondimensionalization. Then the objective weight of each indicator is calculated. The weight of item j in year i is represented by w_{ij} :

$$w_{ij} = \frac{x_{ij}}{\sum_{i=1}^{m} x_{ij}} \tag{3}$$

If the information entropy e_j of the index is calculated, then:

$$e_j = -\frac{1}{\ln m} \sum_{i=1}^m w_{ij} \times \ln w_{ij} \qquad (4)$$

The information entropy redundancy d_j is calculated, then:

$$d_j = 1 - e_j \tag{5}$$

Where, m is the evaluation year of the entropy method, and the index weight φ_j is calculated according to the information entropy redundancy, then:

$$\varphi_j = \frac{d_j}{\sum_{j=1}^m d_j} \tag{6}$$

According to the standardized index x_{ij} and the calculated index weight φ_j , the comprehensive score of new quality productive forces (*Npro*) is obtained by summing up. The calculation formula is as follows:

$$Npro_i = \sum_{j=1}^m \varphi_j \times w_{ij}$$
 (7)

The comprehensive score of enterprise new quality productive forces (Npro) calculated by the above formula ranges from 0 to 1. The larger $(Npro_i)$ is, the higher the level of new quality productive forces of the enterprise, and the lower the level of new quality productive forces of the enterprise. In addition, in order to eliminate the dimensional difference between the comprehensive score obtained by entropy method and the explanatory variables and control variables, the Npro value is expanded by 100 times. Table 1 presents the value description and corresponding weight assigned to each indicator.

Factor	Subfactors	Indicator	Explanation of	Secondar	First-order
			Indicator Values	y index	index
				weight	weight
Labor	Living	Percentage of R&D	R&D expenses-Salary/total revenue	5.9602	26.874
force	labor	staff salary			
		The percentage of	Number of R&D personnel/Total	3.4995	
		R&D personnel	number of employees		
		The percentage of	Number of bachelor degree or	1.7498	
		high-quality talents	above/Number of employees		
		Executive digita	The executive has a digital background,	15.6645	
		background	with a value of 1, otherwise 0		
	Subject of	Percentage of fixed	Fixed assets/total assets	1.7813	1.9861
	labor	assets			

 Table 1. Enterprise New Quality Productive Forces Index

		Percentage of	(Cash outflow from operating activities	0.2048	
		overhead	+ depreciation of fixed assets +		
			amortization of intangible assets +		
			impairment reserve - Purchase of goods		
			and services worth cash - wages paid to		
			employees) / (Cash outflow from		
			operating activities + depreciation of		
			fixed assets + amortization of intangible		
			assets + impairment reserve)		
Means	Hard	R&D depreciation and	R&D expenses - Depreciation and	8.8923	69.3923
of	technology	amortization ratio	amortization/operating income		
produc		Percentage of R&D	R&D expenses - Lease fees/operating	20.0766	
tion		leasing costs	income		
		Percentage of direct	R&D expenses - Direct input/operating	3.882	
		investment in R&D	income		
		Percentage of digital	Digital assets/intangible assets	29.8769	
		assets			
		Percentage of	Intangible assets/total assets	3.0281	
		intangible assets	-		
		Enterprise innovation	Ln (Number of enterprise invention	3.6364	
		output	patent applications +1)		
	Soft	Total assets turnover	Operating income/Average assets	1.3533	1.7476
	technology	The inverse of the	Total owner's equity/assets	0.3943	
		equity multiplier			
New qu	uality produ	ictive forces		100	100

3.3.2 Explanatory variables

ESG—corporate environmental protection, social responsibility, and governance. In this paper, the SSI ESG rating data of listed enterprises is selected, and its rating levels from high to low are respectively AAA, AA, A, BBB, BB, B, CCC, CC and C. In order to facilitate empirical analysis, grades 1-9 are given according to ESG rating levels, that is, AAA is recorded as 9 points, AA is recorded as 8 points, and so on. Grade C is marked as 1 point.

3.3.3 Control variables

This paper refers to existing research literature [19]. The asset-liability ratio (Lev), the greatest shareholder's percentage of shares (Top1), the price earnings ratio (PE), the Age of the enterprise (Age), the proportion of independent directors (Indep), the combination of two positions (Dua), the nature of enterprise property rights (SOE) and the Size of the enterprise were selected as the control variables. The enterprise's P/E ratio is quantified using the natural logarithm of its actual value. The natural logarithm of the difference between the current year and the year of the enterprise's formation is used to determine the

enterprise's age. Additionally, the natural logarithm of a company's total assets is used to calculate its size.

4. Empirical Analysis

4.1 Descriptive Statistics and Core Tests

The descriptive statistics for each variable are shown in Table 2, including the number of observations, mean and variance, etc. The mean value of the explained variable Npro is 4.458, the median is 2.960, the maximum value is 44.93, the minimum value is 0.246, and the standard deviation is 5.066, indicating that the new quality productive forces of Chinese enterprises is at a relatively low level, and there is still a large room for improvement. There are great differences in the level of new quality productive forces of different enterprises. The mean value of explanatory variable ESG is 4.208, the median is 4.250, the maximum value is 8, the minimum value is 1, and the standard deviation is 0.971, indicating that there are certain differences in the overall ESG level of enterprises. The multicollinearity test results of each variable show that the VIF values are

notably below 5, the maximum value is 2.08, and the average value is 1.39. This finding underscores the absence of multicollinearity among the chosen variables, thereby fulfilling the prerequisites for the research.

Table 2. Descriptive Statistical Table of Variables

Variable	N	Mean	Median	SD	Min	Max
Npro	17805	4.458	2.96	5.066	0.246	44.93
ESG	17805	4.208	4.25	0.971	1	8
Lev	17805	0.396	0.385	0.203	0.008	1.34
Top1	17805	0.346	0.325	0.149	0.003	0.9
PE	17805	3.71	3.607	1.037	-4.811	12.95
Age	17805	1.978	2.197	0.967	0	3.466
Indep	17805	0.377	0.364	0.056	0.143	0.8
Dua	17805	0.284	0	0.451	0	1
SOE	17805	0.341	0	0.474	0	1
Size	17805	22.37	22.18	1.302	19.03	28.5

4.2 Baseline Regression

To examine the influence of ESG rating on *Npro*, this study employs model (1) to perform a regression analysis utilizing 17,805 sample data points from listed companies spanning 2013 to 2022. Table 3 displays the benchmark regression results.

As can be seen from column (1), when control variables and fixed effects are not introduced, the regression coefficient between ESG rating and new quality productive forces of enterprises is 0.290, significant at the 1% level. As can be seen from column (2), when control variables are introduced and fixed effects are not introduced, the regression coefficient between ESG rating and new quality productive forces of enterprises becomes 0.276, which is significant at 1% level. It can be seen from column (3), when control variables and year fixed effects are introduced, the regression coefficient between firm ESG rating and firm new quality productive forces becomes 0.271, which is significant at 1% level. It can be seen from column (4) that when control variables and fixed effects of year and industry are introduced, the regression coefficient between firm ESG rating and firm new quality productive forces becomes 0.175, which is significant at the 1% level. The aforementioned findings suggest that raising the ESG rating significantly fosters the growth of new quality productive forces. The reason is that companies practicing ESG concept pay more attention to green development and pollution reduction and carbon reduction, and will invest more resources in innovation and research and development of cleaner production and energy conservation and emission reduction, which is in line with the creation of new quality productive forces. Simultaneously, companies that excel in ESG performance enjoy heightened popularity in the talent market, enabling them to draw in a greater number of exceptional individuals who contribute to the development of new quality productive forces within the enterprise.

	Table 5. Regression Results of ESG and Apro						
	(1)	(2)	(3)	(4)			
	Npro	Npro	Npro	Npro			
ESG	0.290***	0.276***	0.271***	0.175***			
	-7.42	-6.81	-6.75	-4.54			
Lev		-2.571***	-2.277***	-0.939***			
		(-11.44)	(-10.48)	(-4.28)			
Top1		-4.018***	-3.589***	-1.294***			
		(-15.13)	(-13.03)	(-5.26)			
PE		0.403***	0.560***	0.245***			
		-10.02	-13.18	-6.32			
Age		-0.625***	-0.644***	-0.342***			
		(-13.04)	(-13.68)	(-7.52)			
Indep		2.528***	2.005***	0.7			
		-3.78	-3	-1.15			
Dua		0.603***	0.497***	0.358^{***}			

Table 3. Regression Results of ESG and Npro

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		-6.92	-5.27	-4.17
SOE		-0.389***	-0.260***	-0.221**
		(-4.07)	(-2.88)	(-2.56)
Size		0.361***	0.334***	0.313***
		-8.87	-7.83	-7.68
cons	3.238***	-3.629***	-3.611***	-2.985***
	-19.2	(-3.94)	(-3.80)	(-3.33)
Year	No	No	Yes	Yes
Industry	No	No	No	Yes
Ν	17805	17805	17805	17804
R-squared	0.003	0.062	0.088	0.243

Statistical significance at the 10%, 5% and 1% confidence levels are indicated by *, **, and ***, respectively.

4.3 Robustness Test

To further verify the relationship between ESG rating and new quality productive forces. In this paper, the Wind ESG rating of listed companies from 2018 to 2022 are selected to replace the ESG indicators used in the benchmark regression, and the Table 4 Regression empirical test is conducted using the same method as the benchmark regression. The results are shown in Table 4. The Wind ESG rating of enterprises (WESG) has a significant positive promoting effect on the new quality productive forces of enterprises at the level of 1%. The results of baseline regression are further supported.

	Table 4.	Regression Results	of WESG and Npr	0	
	(1)	(2)	(3)	(4)	
	Npro	Npro	Npro	Npro	
WESG	1.109***	0.937***	0.948***	0.606***	
	-18.06	-15.35	-13.75	-8.97	
Lev		-2.650***	-2.658***	-1.879***	
		(-8.46)	(-8.68)	(-6.28)	
Top1		-4.493***	-4.495****	-1.697***	
•		(-12.31)	(-11.91)	(-5.07)	
PE		0.736***	0.736***	0.370***	
		-12.92	-12.17	-6.65	
Age		-0.661***	-0.665***	-0.364***	
		(-10.55)	(-10.54)	(-6.05)	
Indep		2.001**	1.983**	0.554	
•		-2.21	-2.23	-0.69	
Dua		0.486***	0.487***	0.307***	
		-4.15	-3.86	-2.68	
SOE		-0.262**	-0.261**	-0.251**	
		(-1.98)	(-2.03)	(-2.07)	
Size		0.322***	0.325***	0.337***	
		-5.88	-5.71	-6.15	
cons	-1.544***	-7.290***	-7.408***	-5.570***	
	(-4.14)	(-5.84)	(-5.70)	(-4.54)	
Year	No	No	Yes	Yes	
Industry	No	No	No	Yes	
N	10557	10557	10557	10556	
R-squared	0.03	0.098	0.099	0.263	

Statistical significance at the 10%, 5% and 1% confidence levels are indicated by *, **, and ***, respectively.

Table 5. Regression results of L.ESG and Npro

	(1)	(2)	(3)	(4)
	Npro	Npro	Npro	Npro
L.ESG	0.169***	0.218***	0.206***	0.154***
	-3.72	-4.73	-4.52	-3.5
Lev		-2.302***	-2.108***	-0.645**
		(-8.26)	(-7.59)	(-2.29)

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Top1		-3.898***	-3.660****	-1.129***
		(-12.09)	(-10.96)	(-3.82)
PE		0.483***	0.650***	0.290***
		-9.6	-12.08	-5.92
Age		-0.833***	-0.819***	-0.365***
		(-11.98)	(-12.31)	(-5.68)
Indep		2.574***	2.099***	0.859
		-3.21	-2.63	-1.19
Dua		0.516***	0.421***	0.260**
		-4.83	-3.6	-2.45
SOE		-0.432***	-0.350***	-0.356***
		(-3.79)	(-3.19)	(-3.41)
Size		0.298^{***}	0.328***	0.277***
		-6.11	-6.48	-5.73
cons	3.835***	-1.679	-2.912***	-2.205**
	-19.35	(-1.52)	(-2.60)	(-2.09)
Year	No	No	Yes	Yes
Industry	No	No	No	Yes
N	12264	12264	12264	12264
R-squared	0.001	0.065	0.085	0.25

Statistical significance at the 10%, 5% and 1% confidence levels are indicated by *, **, and ***, respectively.

4.4 Endogeneity Test

To alleviate the effects of endogeneity concerns on the empirical outcomes, this paper adopts established practices as a reference [20], and takes L.ESG, the explanatory variable ESG processed with a lag of one period, as the new explanatory variable to test the relationship between the ESG rating of enterprises and the new quality productive forces of enterprises. The results are shown in Table 5. Both L.ESG coefficients are significantly positive at the 1% level, which indicates that after considering the endogenous problem, the enhancement of ESG ratings continues to exert a notable and positive influence on the development of enterprises' new quality productive forces.

5. Conclusion

As an evaluation standard for enterprises to practice the concept of "green, energy saving and sustainable development", ESG rating has a close relationship with the creation of new quality productive forces and its guiding objectives for enterprise operation and management. The major research samples for this study are China's A-share listed companies from 2013 to 2022. It examines the effect of ESG practices on the emergence of new quality productive forces business drivers. The findings demonstrate that the creation of new quality productive forces is significantly aided by an improvement in ESG rating. After the cross-verification of the SSI ESG rating data and Wind ESG rating data, the empirical conclusion is robust and consistent. Taking into account the potential of endogeneity influence issues on empirical findings, this paper conducts a regression analysis on the explanatory variable ESG with a one-period lag. The results align with the baseline regression outcomes. Consequently, the following three policy recommendations are proposed, grounded in the aforementioned research findings:

Firstly, enterprises should actively carry out ESG practice. Because ESG reports have not yet implemented mandatory disclosure requirements for Chinese enterprises, there are still many companies that do not pay enough attention to ESG practice. As the fundamental operational units within the market economy, enterprises hold an indispensable position in driving socioeconomic development. The practice of ESG concept is consistent with the development of new quality productive forces of enterprises. Therefore, it is suggested that in the process of operation and management, enterprises should pay more attention to ESG practice, adhere to the concept of sustainable development, actively undertake measures such as environmental protection, social responsibility and corporate governance, realize high-quality development of enterprises, improve new productivity of enterprises, and then enhance business efficiency.

Secondly, enterprises ought to intensify their focus on scientific and technological advancements, alongside attracting top-tier talents, both of which are crucial for fostering the creation of new quality productive forces. Combined with the practice of ESG in enterprises, from the perspective of environment (E), enterprises can bolster their capabilities in areas such environmental protection, as energy conservation, and low-carbon emission reduction, thereby mitigating their negative environmental impact and enhancing their overall competitiveness; From the perspective of society (S), enterprises can develop safe and efficient production machinery and equipment to provide employees with better working conditions, so as to enhance the social image of enterprises; From the perspective of corporate governance (G), enterprises can improve their internal control and risk management mechanism to enhance their level and governance management transparency, and help enterprises better cope with external risks and challenges.

Thirdly, the Chinese government should build and improve the ESG supervision and management system, lead enterprises to practice the ESG concept, in order to promote the development of new quality productive forces of enterprises. In recent years, China has achieved notable progress in the advancement and development of ESG practices, but there is still potential for improvement, which is rooted in the imperfect ESG supervision and management system. Therefore, the improvement of ESG supervision and management system is an urgent problem to be solved. It is suggested that responsible departments the of government, while considering China's national conditions, should learn from the evaluation criteria of international ESG, improve the evaluation system and information disclosure rules of ESG in enterprises, and help enterprises achieve high-quality sustainable development.

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