2025 International Journal of Management Science Research, Vol.8, Issue 7, (Jul)
ISSN 2536-605X
DOI: 10.53469/ijomsr.2025.08(07).06

Research on the Relationship between ESG Performance and Corporate Value of Listed Companies in the Transportation Industry

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Abstract: ***Transportation industry is an indispensable and important industry in every country, which has absolute influence on the economic development of the country, realizing the spatial movement of travelers and materials, thus promoting the development of the overall regional economic level. In the environment of the new crown epidemic, according to the relevant national epidemic prevention policies, travelers' trips are greatly reduced, and cargo transportation is also subject to strict control, so the impact of the transportation industry is unimaginable, but good ESG performance of the enterprise can alleviate the constraints of corporate financing, improve the efficiency of daily operation of the enterprise, so as to enhance the value of the enterprise, so it is very important to analyze the relationship between ESG performance of the transportation enterprise and the value of the enterprise. Therefore, it is very important to analyze the relationship between ESG performance and enterprise value of transportation enterprises. In this paper, the ESG scores of listed companies in China's transportation industry from Wind database and Bloomberg database are selected as the empirical data variables to measure the ESG performance of listed companies in China's transportation industry, and the listed companies in China's A-share transportation industry from 2014 to 2020 are taken as the research object. The results show that ESG performance is negatively correlated with enterprise value; environmental performance is positively correlated with enterprise value; social performance is negatively correlated with enterprise value; and corporate governance performance is negatively correlated with enterprise value. Afterwards, based on the empirical results, relevant countermeasures are proposed to the companies and regulators.***

Keywords: ESG performance, Firm value, Transportation industry, TobinQ.

1. INTRODUCTION

In the context of the new economy, environmental governance and innovative development have become the strategic core of China's economic green development. In recent years, the research on the relationship between ESG and corporate value has been deepening, and scholars at home and abroad generally believe that ESG can promote the growth of corporate value by optimising the governance structure, enhancing information transparency, and strengthening the fulfilment of social responsibility, but the path of its role, the mechanism of its influence and the industry differences are still more controversial.

In terms of governance dimension, Beine (2004) and Pan Fuxiang (2004)[8] verified the positive effect of governance optimisation on firm performance from foreign and domestic perspectives respectively. On the environmental front, Telle (2006)[2] found that environmental inputs have value-creating potential, while Shuhui Zhang (2011)[9] noted that environmental disclosure may have a dual effect. Sarkis (2009)[3] emphasises the short-term cost lag characteristic of ESG, which is also echoed in national studies. In terms of social responsibility, Qingxiang Zhu (2019)[14], Xiaoyi Chen (2020)[15] and Cahan (2015)[4] jointly revealed the mediating role of stakeholder mechanisms and disclosure in value transmission. In addition, Velte (2017)[5] and Ruan Ke (2015)[10] explore the driving mechanism of ESG from the perspectives of corporate governance and institutional safeguards, while Li (2018)[6] and Zhang Limin (2017)[11] point out the positive guiding effect of transparency and regulatory environment on investor confidence. Bohyun (2018)[7] found that the impact of ESG on firms is industry-specific, which is in line with the reality that domestic research generally focuses on traditional industries such as coal and chemicals, while neglecting service-oriented industries such as transport. Meanwhile, Zhang Rongguang (2018)[12] emphasises the facilitating role of technological progress on ESG transformation paths, which also provides a dynamic perspective for subsequent studies. Both Chinese and foreign studies have shown that ESG has positive potential for corporate value, and its value depends on the synergistic evolution of multiple factors such as governance, institutions, technology and industry characteristics. However, most of these studies focus on a single aspect environment, social responsibility or corporate governance, and there is a lack of systematic research on the overall impact of ESG, and the relevant studies have not yet reached a clear and unified conclusion, and most of the studies have neglected the time lag effect of ESG, which may lead to a certain degree of bias in the results. At

the same time, most of the studies mainly focus on traditional manufacturing industries such as coal and chemical industry, and studies for other fields are still insufficient. This paper takes the transport industry as the target, based on stakeholder theory, competitive strategy theory, signalling theory and other related theories, combined with domestic and international research results and the background of China's market economy, uses the assumption of finite rationality to explore the relationship between the ESG performance of enterprises in the transport industry and their corporate value and conducts an empirical test, with a view to serving the green transformation and high-quality sustainable development of enterprises in the transport industry.

2. RESEARCH DESIGN

2.1 Theoretical Analysis and Research Hypothesis

2.1.1 Relationship between ESG performance and enterprise value

From a stakeholder perspective, management that optimises a company's ESG performance usually enhances the company's brand image. However, improving ESG performance usually requires a significant investment by companies, and the timing of its effects is often unpredictable. From an investor's perspective, corporate image is an important intangible asset, and negative ESG information may adversely affect a company's reputation and, in turn, damage its overall value. And, if most of a company's resources and capital are used to improve ESG performance, investors may perceive that the company's resources are not allocated appropriately, which may affect their expectations of the company's future value.

From a sustainability perspective, as the Chinese government, the capital market and the general public pay increasing attention to ESG performance, companies are gradually becoming more aware of the need to fulfil their social responsibilities. At the same time, promoting ESG behaviours requires companies to consume large amounts of resources, leaving them with a choice between ‘promoting social well-being’ and ‘pursuing economic profit’. Certain scholars believe that companies should take profit maximisation as their primary goal, and that investing more than necessary in environmental protection and social responsibility may compress a company's resources in its day-to-day operations, ultimately adversely affecting its overall operational efficiency. Therefore, this paper proposes the conjecture:

Hypothesis 1. There is a negative correlation between firms' ESG performance and firm value.

2.1.2 Relationship between environmental performance and enterprise value

Based on the stakeholder theory and reputation theory, listed companies in the transport industry, in enhancing their environmental awareness, should actively interface with national policies to promote the development of green transport, reduce environmental pollution and continuously enhance their social credibility. Through these initiatives, companies are able to gain a competitive advantage in the marketplace, thereby increasing their overall value. Firm value was analysed from the perspective of environmental capital investment, suggesting a U-shaped relationship between firm value and environmental capital investment. Specifically, in the short term, environmental capital investments may lead to a decrease in the value of the firm, while in the long term, such investments contribute to an increase in the value of the firm[16]. In addition, equity concentration plays an important moderating role in this process. From a long-term perspective, increased investment in environmental protection can help promote technological innovation and improve corporate efficiency, which in turn will enhance corporate value. Therefore, this paper proposes the conjecture:

Hypothesis 2. There is a positive correlation between environmental performance and firm value.

2.1.3 Relationship between social performance and corporate value

Among listed companies in the transport industry, active fulfilment of social responsibility not only helps to protect the legitimate rights and interests of internal and external stakeholders, but also effectively reduces the risks faced by the company and improves its ability to cope with market fluctuations and uncertainties. Even in times of market turmoil or other crisis events, companies that fulfil their social responsibilities are often able to obtain a certain level of protection, which helps to mitigate the company's business risks, thereby enhancing its financial performance and ultimately its overall value. However, enterprises want to improve social performance needs a lot of costs, for example, enterprises need to invest a lot of money to maintain the transport equipment, timely

replacement of faulty equipment, routine maintenance of manpower and electricity will increase the expenditure of enterprises.

In terms of stakeholder theory, when a listed company in the transport industry has problems, it often has a huge negative impact on the company, and for shareholders as well as investors, the disclosure of these negative impacts is likely to cause potential investors in the market to abandon their investment in the company, thus reducing the value of the company. Relevant studies have shown that enterprises are actually assuming social responsibility at the expense of the development of their own economic interests, in the process of which they consume their resources and put themselves in a disadvantaged position in the market, and it is difficult to develop their economic value. Specifically, behaviours such as making charitable donations, developing community development plans, and focusing on environmental protection will bring about an increase in the cost of business operations, so those enterprises with a high degree of social responsibility might be at a relative disadvantage in terms of development[17]. Therefore, this paper proposes the conjecture:

Hypothesis 3. Social performance has a negative correlation on firm value.

2.1.4 The relationship between corporate governance performance and enterprise value

Scholars at home and abroad have tried to establish the relationship between corporate governance structure and firm value from different perspectives. However, the connotation of corporate governance is very wide, and there are many influencing factors. Although there are many scholars on the relationship between a certain level of corporate governance and the value of the company, such as ‘separation of powers’, ‘size of the board of directors’, ‘proportion of independent directors’, etc., no unified conclusion has been reached. proportion of independent directors" and so on, but no unified conclusion has been reached.

From the perspective of separation of powers, equity separation will lead to the enterprise being hollowed out by the actual controller, which will lead to the decline of enterprise value[18-20], accompanied by the continuous development of the capital market and the gradual improvement of the laws and regulations, the corporate governance plays a pivotal role in investors' investment decisions, and also affects the value of the company to a large extent[21]. In terms of the size of the board of directors, the larger the size of the board of directors of an enterprise, on the contrary, the more unfavourable to the enhancement of the value of the enterprise[22], because the large size of the board of directors tends to lead to the difficulty of unity of opinion, which leads to the reduction of the efficiency of the board of directors. Therefore, this paper proposes the conjecture:

Hypothesis 4. Corporate governance has a negative relationship on firm value.

2.2 Data Sources and Sample Selection

Due to the impact of the Xinguan epidemic, which may cause the data for the period of 2021-2024 to deviate seriously from the norm, and in order to facilitate comparative analyses with the pre-epidemic data, as well as to take into account the completeness and comparability of the study, the annual reports of listed companies in China for the period of 2014 to 2020 are selected as a research sample for the study, and the financial data used are mainly sourced from Bloomberg's database. In order to ensure the accuracy of the calculation results, we have conducted the necessary screening of the original sample, excluding companies with incomplete data, ST and *ST companies, as well as other listed companies that do not meet the requirements. In order to reduce the interference of extreme values in the results, we Winsorised the continuous variables at 1% and 99%, thus improving the robustness and reliability of the data.

2.3 Variable Design

2.3.1 Explained Variable - Firm Value

Thanh Kyung Luen and Nguyen Tze Peng (2005)[23] suggested that the value of a company can take many forms, which not only reflects the company's future long-term earnings, but also involves the company's current short-term earnings. In measuring the value of a company, a holistic view should be taken, taking into account the company's development potential and using market value analysis methods as well as quantitative analysis tools to assess the profitability of the company's assets. Therefore, the TobinQ value was chosen as a measure of firm value in this study.

2.3.2 The explanatory variables

This study draws on the indicators chosen by Qiu Muyuan and Yin Hong (2019)[13], mainly considering the high reliability of the alternative indicators he chose as he conducted a principal component analysis of possible alternatives in each dimension before choosing the indicators. However, considering the current ESG indicator system constructed by scholars at home and abroad, its information coverage is still very limited, and it is necessary to use third-party assessment data if we want to obtain a more credible and broader ESG indicator system. The independent variables in this paper include ESG performance, environmental performance (E), social performance (S), and corporate governance (G).

2.3.3 Control Variables

The control variables in this paper are: asset-liability ratio (ALR), total asset turnover ratio (ATR), nature of ownership (Property), size of assets (Size), annual turnover rate (Turn), year of listing (Age), ratio of shareholding of the first largest shareholder (Top), earnings per share (EPS), and return on total assets (ROA) variables as shown in Table 1:

Table 1: Variable Definition

Variable Type	Variable Symbols	Variable Definition
Explained Variable	*TobinQ*	*Enterprise market value/enterprise replacement cost*
Explanatory Variables	*ESG*	Wind ESG Composite Score, the higher the score, the better the ESG performance
	E	Environmental Disclosure Score
	S	Social Information Disclosure Score
	G	Governance Disclosure Score
Control Variables	*Size*	*Ln(Natural logarithm of an enterprise's assets at year-end)*
	ALR	*Total Liabilities/Total Assets*
	Top	Proportion of shares of listed companies held by the largest shareholder
	Property	1 for state-owned enterprises, 0 for non-state-owned enterprises
	EPS	Ratio of profit after tax to total equity
	Turn	Conversion speed for stock investment trading
	Age	*2022 - Year of Listing*
	ATR	*ATR = Operating Income/Total Assets End of Period*
	PE	Stock price divided by earnings per share
	Growth	*(Amount for the current period of the year - amount for the same period of the previous year)/(amount for the same period of the previous year)*

2.4 Model

Regression Analysis of ESG Performance and Firm Value. In this thesis, the following model is developed to test the hypotheses using panel data:

$$TobinQ_{i,t} = \alpha_0 + \beta_1 ESG_{i,t} + \beta_2 Top_{i,t} + \beta_3 EPS_{i,t} + \beta_4 PE_{i,t} + \beta_5 Growth_{i,t} + \beta_6 ALR_{i,t} + \beta_7 Age_{i,t} + \beta_8 ATR_{i,t} + \beta_9 ROE_{i,t} + \beta_{10} Property_{i,t} + \varepsilon_{i,t} \quad (1)$$

In the model, i denotes different individual firms and t denotes the year. There is variation across firms, which is reflected in the fact that each firm has its own i-value and t-value. ESGi,t as the core explanatory variable, represents the aggregate ESG performance of firm i at time point t. TobinQi,t as the explanatory variables, denotes the enterprise value of firm i at year t.i,t is a perturbation term that varies with individual and time. In order to explore in more depth how the specific performance of the environmental, social and governance dimensions affects firm value, this paper further breaks down the aggregate ESG performance into three components. Specifically, variable E is used to denote the firm's environmental performance, variable S is used to denote social performance, and variable G is used to denote the firm's governance performance, and accordingly the following model was constructed:

$$TobinQ_{i,t} = \alpha_0 + \beta_1 E_{i,t} + \beta_2 S_{i,t} + \beta_3 G_{i,t} + \beta_4 Top_{i,t} + \beta_5 EPS_{i,t} + \beta_6 PE_{i,t} + \beta_7 Growth_{i,t} + \beta_8 ALR_{i,t} + \beta_9 Age_{i,t} + \beta_{10} ATR_{i,t} + \beta_{11} ROE_{i,t} + \beta_{12} Property_{i,t} + \varepsilon_{i,t} \quad (2)$$

In order to test H1, model (1) is used in this paper, while H2 to H4 are tested through model (2).In estimating the coefficients of each variable, if the parameters are significant and positive, it indicates that there is a positive

correlation between these parameters and the value of the firm, and vice versa, it indicates that there is a negative correlation.

In order to eliminate the effect of outliers on the regression estimates, the variables in this paper, except for the ESG indicator, are quantile-tailored. Specifically, observations in the distribution of each variable that are less than the 1% quartile and greater than the 99% quartile are adjusted to the threshold level for the corresponding quartile, respectively.

3. FINDINGS

Prior to performing the regression analysis, the raw information was organized in a tabular form using Microsoft Excel 2019.Descriptive statistics and correlation analyses of the variables were conducted using Stata16 software, which provided a comprehensive measure of differences and correlations among the variables. The collected sample information was then used to test the hypotheses described in Chapter 3, respectively, and based on this, the conclusions obtained were tested for robustness.

3.1 Descriptive Statistics

In order to better analyze and grasp the selected sample data, this paper firstly carried out descriptive statistical analysis on the observations of the relevant variables of the data, and the specific results are shown in Table 2:

Table 2: Descriptive statistical tests for key variables

VARIABLES	N	mean	sd	min	max
TobingQ	643	1.466	0.782	0.690	7.906
ESG	643	22.18	7.977	9.091	51.24
E	643	10.76	9.460	0	47.29
S	643	23.39	11.55	0	63.16
G	643	47.58	5.806	3.571	64.29
Age	643	20.22	5.180	4	30
size	643	23.68	1.273	20.21	26.70
ALR	643	0.463	0.195	0.0742	1.280
Property	643	0.918	0.275	0	1
TOP	643	43.72	14.53	12.42	79.47
Growth	643	0.258	2.467	-0.918	58.49
ATR	643	0.408	0.265	0.00761	2.289
ROE	643	0.0565	0.191	-3.837	0.525
TURN	643	293.2	279.4	1.738	2,170
EPS	643	0.342	0.506	-2.941	4.248
PE	643	68.63	208.0	4.039	3,506

Table 2 shows the results of descriptive statistical tests for the main variables. On the explanatory variables, it can be seen from Table 4 that the mean value of TobinQ during the sample period is 1.466, the maximum value is 7.906, the minimum value is 0.690, and the standard deviation is 0.782, and this result reflects the fact that the sample companies have a high return on investment in the industry, and that there is a large demand for investment in the market as a whole. On the explanatory variables, ESG is 22.18, the standard deviation is 7.977, the maximum value is 51.24, and the minimum value is 9.091, which indicates that there is a difference in ESG scores among the sample firms and that the difference is large.

3.2 Correlation Analysis and Multicollinearity Analysis

3.2.1 Correlation analysis

In order to ensure the correctness of the model analysis, this section first tests the association between the variables, and then empirically investigates the value effect generated by the ESG performance of the sample companies, and the test results are shown in Table 3:

Table 3: Correlation analysis

	TobingQ	ESG	E	S	G	Age	size
TobingQ	1						
ESG	-0.262***	1					

E	0.202***	0.954***	1				
S	-0.306***	0.854***	0.711***	1			
G	-0.201***	0.572***	0.437***	0.363***	1		
Age	0.281***	-0.146***	-0.104***	-0.180***	-0.103***	1	
size	-0.444***	0.644***	0.596***	0.551***	0.467***	-0.360***	1
ALR	-0.131***	0.267***	0.276***	0.194***	0.163***	-0.00700	0.375***
Property	-0.203***	0.178***	0.139***	0.189***	0.160***	-0.160***	0.286***
TOP	-0.158***	-0.0500	-0.072*	-0.0430	0.0260	-0.214***	0.161***
Growth	0.0490	-0.0530	-0.0300	-0.0610	-0.084**	0.0350	-0.0340
ATR	0.187***	-0.0490	-0.0160	-0.124***	-0.0120	0.152***	-0.080**
ROE	-0.0240	0.0600	0.0460	0.081**	0.0200	-0.0510	0.079**
TURN	0.451***	-0.208***	-0.172***	-0.207***	-0.190***	0.172***	-0.365***
EPS	-0.080**	0.095**	0.087**	0.093**	0.0440	-0.0230	0.099**
PE	0.194***	-0.076*	-0.074*	-0.068*	-0.0460	0.0380	-0.070*

	ALR	Property	TOP	Growth	ATR	ROE	TURN
ALR	1						
Property	0.100**	1					
TOP	-0.153***	0.368***	1				
Growth	0.076*	-0.125***	-0.0350	1			
ATR	0.164***	-0.070*	-0.166***	0.0420	1		
ROE	-0.243***	0.094**	0.077*	0.0240	0.00100	1	
TURN	0.070*	-0.182***	-0.198***	0.0330	0.202***	-0.093**	1
EPS	-0.270***	0.109***	0.191***	0.0120	0.0130	0.524***	-0.111***
PE	0.081**	-0.091**	-0.085**	0.0240	-0.0300	-0.317***	0.200***

	EPS	PE
EPS	1	
PE	-0.210***	1

Note: Robust standard error values for the estimated coefficients are in parentheses, and ***, **, and * indicate significant performance at the 1%, 5%, and 10% levels, respectively. The following tables are identical to this note.

As can be seen from Table 3, without controlling for other variables, the correlation coefficients of the explanatory variable enterprise value (TobinQ) with the key explanatory variables (ESG) as well as E, S, and G are -0.262, -0.202, -0.306, and -0.201, respectively, which are significant and negative at the 1% level, i.e., the ESG performance is negatively correlated with the value of the enterprise. Variables such as firm size (SIZE), asset-liability ratio (ALR), age of incorporation (AGE), proportion of shares held by the first largest shareholder (TOP), total asset turnover ratio (ATR), annual turnover rate (TURN), and the nature of ownership (PROPERTY) all have a significant effect on firm value. This suggests that the selection of appropriate control variables in the analysis of environmental protection performance and firm value helps to validate the relevant findings. In addition, the numerical analysis of each correlation coefficient reveals that the degree of covariance between the variables is low in the sample selected for this study, thus, the control variables in this study are justified.

3.2.2 Multicollinearity analysis

The value of VIF can be used to measure the correlation between the explanatory variables, when 0<VIF<10, then the covariance between the explanatory variables is not significant. The results of the variance-inflated factor analysis among the variables in this paper are shown in Table 4.It can be seen that the VIF values of all variables are less than 10 and the tolerances are greater than 0.1, which indicates that there is no problem of multicollinearity among all the variables involved in the model of this study.

Table 4: Multicollinearity analysis

Variable	Model 1		Model 2	
	VIF	1/VIF	VIF	1/VIF
ESG	1.860	0.538		
E			2.510	0.398
S			2.170	0.461
G			1.330	0.749
size	2.700	0.370	2.770	0.361
EPS	1.610	0.622	1.610	0.621
ALR	1.520	0.659	1.520	0.657
Top	1.360	0.737	1.370	0.731

TURN	1.320	0.758	1.320	0.756
Property	1.360	0.737	1.370	0.730
Age	1.220	0.818	1.240	0.809
ATR	1.170	0.856	1.190	0.840
PE	1.160	0.861	1.160	0.860
Growth	1.040	0.964	1.040	0.960
ROE	1.730	0.580	1.740	0.576
Mean	VIF	1.500	VIF	1.600

3.3 Analysis of Regression Results

Based on the collected sample data and variable settings, this paper used a fixed effect model to analyze the regression. The results are shown in Table 5:

Table 5: Analysis of regression results

VARIABLES	(1) TobingQ	(2) TobingQ
ESG	-0.012***	
	(-3.19)	
E		0.009**
		(2.16)
S		-0.014***
		(-4.22)
G		-0.014***
		(-2.81)
TOP	-0.004*	-0.004**
	(-1.82)	(-2.01)
EPS	-0.052	-0.065
	(-0.63)	(-0.80)
PE	0.001***	0.001***
	(4.62)	(4.79)
Growth	0.011	0.008
	(1.02)	(0.79)
ALR	-0.798***	-0.818***
	(-5.02)	(-5.21)
Age	0.029***	0.027***
	(5.33)	(5.06)
ATR	0.427***	0.374***
	(4.03)	(3.55)
ROE	0.092	0.358
	(0.13)	(0.51)
Property	-0.199*	-0.145
	(-1.77)	(-1.30)
Constant	1.639***	2.290***
	(7.90)	(7.91)
Observations	595	595
R-squared	0.227	0.253
F test		0
r2_a		0.237
F		16.38

When analyzing the sample as a whole, ESG has a negative impact on the enterprise value of listed companies in the transportation industry as a whole, i.e., the higher the ESG performance, the lower their enterprise value will be, which is in line with hypothesis H1;Among the three pillars of ESG, environmental performance E shows a positive correlation with firm value, that is, the better the environmental performance E of listed companies in the transportation sector, the higher their firm value, which is in line with hypothesis H2;However, there is a negative correlation between social performance S and corporate governance G and firm value, which means that the better the social performance and corporate governance of the listed companies in the transportation industry, the lower the firm value, which is consistent with hypotheses H3 and H4.

It is possible that the reason for these results is that, on the one hand, the positive correlation between environmental performance and firm value may be the result of consumers being more conscious of environmental protection, whereas an increase in a firm's performance with respect to the environment will make consumers and investors more trusting of the firm and willing to work with it, thus increasing the value of the firm. On the other hand, the negative correlation between social performance and corporate governance and firm value may be due to their excessive input costs and long time to effect, the improvement of social performance is a long term process, which requires firms to improve their reputation in all aspects and to actively pay taxes, while corporate governance requires the improvement of internal management norms and the successful compliance with corporate management. This process is uncertain and risky and may therefore be detrimental to the value of the business.

3.4 Robustness Check

Considering that the explanatory variable (ESG performance) and the explained variable (firm value) may have endogenous problems that may affect the regression results, such as there may be omitted factors that have some impact on the relationship between firms' ESG performance and firm value, reverse causality of firm value on ESG performance, and so on. Therefore, this paper uses the return on total assets (ROA) instead of firm value to start the regression of the original model. When replacing the new explanatory variables, the coefficients of the core explanatory variables are all significant at less than 1% level and their direction of influence is basically the same. The opposite results of the impact of social performance and corporate governance performance on firm value in the regression model with ROA as a proxy variable for firm value and in the regression model with TobinQ adopted as a proxy variable for firm value may be due to the essential difference between the two, ROA and TobinQ. In the above three models, the impact of all the variables on firm value is similar, except for the factors such as the proportion of the first largest shareholder, TOP, EPS, and equity, which have a significant impact on firm value. The results of the robustness test are consistent with the previous regression analysis, indicating that the conclusions of this paper are credible.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Research has shown that there is a negative correlation between a firm's ESG performance and its market value. While greater investment in the environment can significantly increase the overall value of a firm, this process also raises questions about the direction of the impact of overall ESG performance, social performance and corporate governance on firm value.

First, ESG achievements may not be adequately reflected in the evaluation system and may not send clear signals in the market. In addition, investors may not have access to comprehensive ESG information, resulting in their inability to form positive feedback.

Secondly, listed companies in the transportation sector struggle to see significant returns in the short term due to the large amount of money invested in social performance. At the same time, the expansion of the transportation industry often requires a large number of human resources, which puts pressure on the governance structure of the enterprise and makes it difficult for capital investments in corporate governance to produce immediate benefits in the short term, which in turn may have a negative impact on the overall value of the enterprise.

4.2 Recommendations

4.2.1 Recommendations to regulators

First, improve the ESG evaluation system with Chinese characteristics. During the epidemic, China's ESG evaluation system should not only combine the country's actual situation, but also be in line with international standards to ensure that it can realize the interaction and sharing of academics and practices on a global scale. Considering the impact of the epidemic on various industries, the evaluation system needs to give special consideration to industry differences so that it can accurately reflect the response and development potential of different industries in the epidemic. Ultimately, the resulting ESG evaluation criteria should be broadly applicable and authoritative, able to support horizontal comparisons between industries as well as vertical comparisons of companies at different points in time, and provide a strong basis for decision-making by policymakers and investors.

Second, enhance the transparency of ESG disclosure and encourage companies to take the initiative to disclose. During the epidemic, firms faced an environment of heightened uncertainty, which made ESG disclosure particularly important. Transparent ESG reporting not only keeps investors abreast of a company's strategy and effectiveness in responding to an outbreak, but also helps build trust among consumers, employees and the community. To this end, the disclosure of ESG reports should require the active participation of corporate boards of directors and provide more precise and quantitative data, especially in key areas such as how companies responded to health and safety issues and how they safeguarded the welfare of their employees during the outbreak, which should be highlighted. Meanwhile, key industries, such as the transportation industry, should improve their safety indicator systems in the special context of the epidemic, ensure more objective and truthful data disclosure, and promote synergistic disclosure of qualitative and quantitative information, so as to enhance the overall utility of ESG reports.

Regulators such as the Securities and Exchange Commission (SEC) and the stock exchanges can take this opportunity to establish more complete and uniform disclosure standards to enhance the quality of listed companies' ESG reports and the comprehensiveness of their data. In addition, the epidemic has exposed deficiencies in information disclosure in many industries. Therefore, regulators of various industries can set up appropriate reward and punishment mechanisms according to the special circumstances during the epidemic to incentivize companies to disclose ESG information more actively and to restrain their inappropriate behaviors during the crisis, so as to enhance the sense of social responsibility and sustainable development of companies.

4.2.2 Advice to the company

First, regular training should be conducted to improve the sense of responsibility within the organization. In the traditional ESG disclosure process, many companies tend to choose to disclose positive information, while negative information is often avoided or concealed, which makes the authenticity and completeness of the disclosure results questionable. Therefore, companies should organize regular training on social responsibility, especially during a crisis, to help employees accurately understand and implement ESG reporting requirements. By advocating an attitude of truthfulness and transparency, it promotes the standardization and efficiency of ESG reporting, thereby enhancing the reliability and validity of disclosed information. Especially in special times such as epidemics, enterprises should pay more attention to the implementation of social responsibility, and effectively improve employees' knowledge and action of social responsibility.

Second, the clarity and quantitative indicators of ESG disclosure should be improved. When preparing ESG reports, the three basic principles of “completeness”, ‘accuracy’ and “truthfulness” must be emphasized. During an epidemic, companies face both operational and financial pressures, so clearer ESG disclosure is critical for investors and the public. Companies should digitally quantify the effectiveness of their management and use charts and data presentation to enhance the simplicity of their reports. For those indicators that are difficult to quantify, progress can be compared by setting specific targets, for example, by setting clear social responsibility goals and comparing actual progress with expected progress. In addition, companies should include a description of the negative events and propose effective measures to address them in their disclosures and avoid disclosing only favorable information. Especially during epidemics, companies may face more challenges, and true and comprehensive information disclosure can provide investors with a more reliable basis for decision-making, while helping companies to increase their market value, and ultimately realizing a win-win situation between investors and companies.

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