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RESEARCH ON ENVIRONMENTAL INFORMATION DISCLOSURE AND ENTERPRISE VALUE

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ABSTRACT: *This paper selects 98 companies in China from 2014 to 2016 to conduct panel data model analysis to study the relationship between corporate environmental information disclosure level and corporate value. The research shows that the higher the level of corporate environmental information disclosure is not conducive to the improvement of corporate value; at the same time, the average value of state-owned enterprises that disclose environmental information is lower than that of non-state-owned enterprises. Finally, this paper proposes relevant recommended measures.*

KEYWORDS: Environmental Information Disclosure; Corporate Value; Green Accounting; Social Responsibility

INTRODUCTION

With the development of the economy, the improvement of economic quality, the emergence of environmental pollution and ecological damage, and the impediment to the sustainable development of China's economy, developed countries have introduced corresponding policies to deal with environmental pollution. China's environmental protection is also receiving increasing attention. The 18th National Congress of the Communist Party of China proposed to build "beautiful China", while emphasizing the importance of ecological civilization construction, and the construction of ecological civilization is an urgent task. In the context of the "green economy", how companies respond to national policies and assume due social responsibilities is an issue that should be explored at this stage.

This paper analyzes the related literatures on enterprise environmental information disclosure and enterprise value at home and abroad. On this basis, the regression analysis is carried out with relevant data of 98 enterprises in China from 2014 to 2016, and relevant measures are given according to the results of empirical research.

Research Hypothesis

Kothari (2002) selected companies in the heavily polluting industry as a sample to study the impact of corporate environmental information disclosure on the cost of equity capital. The results show that environmental information disclosure can reduce the cost of equity capital, thereby increasing corporate value. Clarkson (2013), based on a sample of US paper, chemical, oil, gas, mining and utility listed companies in 2003-2006, found that the signalling role of environmental disclosure and financial performance prediction is a means of voluntary environmental disclosure to enhance the value of the company because Environmental

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information disclosure plays a positive role in promoting future cash flow, thereby enhancing corporate value. Plumlee et al. (2015) re-examined the relationship between corporate voluntary environmental information disclosure and corporate value components. The study found that the level of environmental information disclosure in non-environmentally sensitive industries is negatively correlated with equity cash flow, which negatively affects corporate value. Zhang Shuhui et al. (2011) believe that improving the quality of environmental information disclosure can enhance corporate value, and this promotion is mainly due to the increase in expected cash flow caused by environmental information disclosure, and its effect of reducing corporate capital cost is not obvious. Zhang Cui and Wu Shuangxia (2015) believe that environmental responsibility has a significant positive effect on Chinese corporate performance; Li Xiuyu and Shi Yaya (2016) use carbon information disclosure and financial data research of companies using the SSE Social Responsibility Index constituents to indicate carbon information The improvement in disclosure quality can improve the financial performance of the company. However, Wu Jianfeng (2015) research results show that political connections are negatively related to corporate environmental information disclosure, and will inhibit the positive effects of environmental performance on environmental information disclosure; Ding Yingpeng (2017) found that the quality of carbon information disclosure is not only for market value or finance. Performance has no obvious negative impact. Cheng Yin (2017) used the data of 165 listed companies in the petrochemical industry of Shanghai and Shenzhen in 2011-2015 as a sample for regression analysis, and found that environmental information disclosure of listed companies in the petrochemical industry is negative for corporate value. Impact; Antai, Li Yuping (2017) found that from the perspective of environmental information disclosure levels of different dimensions, the level of environmental information disclosure of listed companies in China's heavily polluting industries is not high, and the level of environmental liability information disclosure is significantly negatively correlated with corporate value. Liu Qing (2018) found that environmental information disclosure is not conducive to corporate value creation. Because of the high cost of information disclosure at this stage, and stakeholders may have a negative interpretation of the financial statement information, it will have an adverse impact on the value of the company. Therefore, this paper presents the hypothesis:

H1: Corporate charitable donations are positively related to corporate performance under other conditions.

EMPIRICAL RESEARCH

Data selection

This paper selects the 2014-2016 China A-share listed company as the initial sample of the research. The corporate environmental information disclosure index (EDI) comes from the corporate environmental information disclosure index disclosed by the Environmental Economic Research Center of Fudan University; the relevant financial data comes from the CSMAR database; The researcher's data processing method, this paper is based on the

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following principles: (1) delete the listed companies in the financial and insurance securities industry; (2) delete ST, *ST and other abnormal trading status listed companies; (3) delete data missing Listed company. In the end, the sample size of the data collected in this paper is 294 observations, and the data processing software uses Stata 14.1.

Variable Definitions

The explanatory variable is the enterprise premium. This paper uses TQ value to measure the enterprise premium degree. The main explanatory variable is the enterprise environmental information disclosure index EDI. The larger the value, the more sufficient the enterprise environmental information disclosure degree is. The reference to other scholars introduces the control variable. There are total return on assets, size of the company, debt ratio of the enterprise, and the ability of the company to grow.

Table 1 Variable Selection and Definition

Variable	Index	Variable
Dependent variable	*TQ*	Corporate Premium
Independent variable	*EDI*	The degree of environmental information disclosure in enterprises
Control variables	*ROA*	Total Asset yield
	Lev	Asset-Liability ratio
	Lnsize	Company size, total assets of the company value
	Growth	Growth rate of operating income
	*H*5	The top five shareholders ' shareholding ratio Squared
	Private	Nature of the Enterprise, $Private=1$,Indicates that the enterprise is a state-owned enterprise ; $Private=0$,Indicates that the enterprise is a non-state-owned enterprise

Model Construction

$$TQ=\alpha+\beta_1 EDI+\beta_2 ROA+\beta_3 Lev+\beta_4 Lnsize+\beta_5 Growth+\beta_6 H2+\beta_7 Private+\varepsilon$$

Among them, the dependent variable TQ is the enterprise premium, and EDI is the degree of corporate environmental information disclosure; the control variables include total return on assets (ROA), asset-liability ratio (Lev), firm size ($Lnsize$), firm growth ability ($Growth$);

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α is constant terms; $\beta_i (i = 1, 2, ..., 7)$ is the estimated coefficient of the corresponding variable; ε is a random disturbance term.

Descriptive statistics and correlation analysis of the data to initially determine the correlation between the variables. Tables 2 and 3 give descriptive statistics and correlation analysis results of the variables. It can be seen that although there are significant correlations among some explanatory variables, the correlation coefficient is small, indicating that there is no obvious multicollinearity and further variance. A multicollinearity test of the expansion factor showed an average VIF of 1.35, which did not affect the regression results. At the same time, the degree of corporate information disclosure is significantly negatively correlated with the company's value. That is to say, the more fully the company's information disclosure, the smaller its value, and the hypothesis 1 receives initial support.

Table 2 Descriptive statistics of variables

Variable sample	size	mean	standard deviation	minimum	maximum
TQ	294	1.6113	1.5710	0.1753	8.6348
EDI	294	40.5293	17.4884	5.7000	90.6000
ROA	294	0.0480	0.0599	-0.1800	0.2300
Lev	294	0.5298	0.2012	0.0900	1.0500
Lnsize	294	23.2934	1.2461	21.3300	28.0400
Growth	294	0.2034	1.0291	-1.0800	15.4500
H2	294	3341.42	2010.79	343.36	9036.40
Private	294	0.64	0.48	0.00	1.00

Table 3 Correlation analysis

	TQB	EDI	ROA	Lev	Lnsize	Growth	H2	private
TQB	1.0000							
EDI	-0.388***	1.0000						
ROA	0.541***	-0.171***	1.0000					
Lev	-0.680***	0.262***	-0.526***	1.0000				
Lnsize	-0.482***	0.395***	-0.112*	0.429***	1.0000			
Growth	0.0470	0.0110	0.0270	-0.0230	-0.0000	1.000		
H2	-0.010	0.223***	0.076	0.026	0.547***	-0.049	1.000	
private	-0.350***	0.162***	-0.304***	0.292***	0.204***	0.063	0.179***	1.000

Note: *, **, *** indicate significant at the 10%, 5%, and 1% levels, respectively.

In order to verify the relationship between the company's environmental information disclosure and corporate value, this paper uses the multi-linear regression analysis method to calculate the

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enterprise value (TQ) and corporate environmental information disclosure level (EDI). The relationship hypothesis is tested and the results of the regression analysis are shown in Table 4. Model (2) shows that the company's environmental information disclosure and corporate value are negatively significant at the 1% level. This indicates that the company's environmental information disclosure is not conducive to the improvement of enterprise value. This may be due to the existence of market environmental information asymmetry. The more environmental information is disclosed, the higher the disclosure cost of the company, but the report users are not sensitive to its response.

Further sample-regression of the sample, it can be seen that for state-owned enterprises, the degree of environmental information disclosure and corporate value is significantly negative at 5%; for non-state-owned enterprises, the degree of environmental information disclosure and corporate value is at 10%. Significantly negative. At the same time, the dummy variable *Private* is significantly negative at the 1% confidence level, indicating that the average value of state-owned enterprises in environmental information disclosure is lower than that of non-state-owned enterprises, probably because of the special status of state-owned enterprises, and their investment in environmental information disclosure is relatively There are many reasons, and relative to non-state-owned enterprises, the public expectation is higher for state-owned enterprises.

Table 4 Results of multiple regression models

variable	TQ	TQ		
	(1)	Total sample (2)	State-owned enterprises (3)	Non-state-owned enterprises (4)
EDI		-0.0141*** (-3.90)	-0.0079** (-2.44)	-0.0147* (-1.84)
ROA	6.8300*** (5.82)	7.226*** (6.31)	1.3723 (1.21)	11.2651*** (5.03)
Lev	-2.6060*** (-6.69)	-2.699*** (-7.03)	-2.248*** (-6.83)	-4.032*** (-4.18)
Lnsize	-0.5134*** (-7.99)	-0.4483*** (-6.80)	-0.4670*** (-7.41)	-0.2788* (-1.70)
Growth	0.7898 (1.40)	0.0664 (1.19)	0.9185** (2.15)	0.1572 (0.38)
H2	0.0002*** (4.90)	0.0002*** (4.60)	0.0002*** (3.98)	0.0002*** (3.21)
Private	-0.4383*** (-3.34)			
constant	14.2938*** (10.64)	13.1487*** (9.69)	13.1281*** (10.17)	9.7287*** (0.005)
Number of samples	294	294	189	105

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CONCLUSION

The traditional view is that corporate social responsibility and disclosure are conducive to improving corporate image and thus promoting corporate value. However, based on the actual situation in China at this stage, enterprises are responsible for social environmental responsibility and disclosure, and will invest a large amount of funds, human capital, etc., and the corresponding incentive measures are not perfect. At the same time, the mentality of stakeholders and the inconsistency of information transmission may lead to the wrong information interpretation of stakeholders' disclosure of social responsibility behavior. Enterprises should appropriately disclose environmental information in light of their respective national policies, in order to improve the company's value and promote the company's sound development.

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