

Corporate Social Responsibility, Degree of Marketization and Enterprise Value

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Abstract: *This paper focuses A-share listed companies in Shanghai and Shenzhen from 2010 to 2017, The influence of corporate social responsibility on the enterprise value is discussed, The degree of marketization as a regulatory variable is included in the process of this empirical analysis, Results found that: (1) The performance of social responsibility can promote the improvement of enterprise value, That is, corporate social responsibility has the role of responding to interest demands and transmitting signals, Promote enterprise value improvement; (2) The degree of marketization plays a reverse regulatory role in the relationship between corporate social responsibility and enterprise value, Businesses located in less marketable areas, The performance of social responsibility has a greater impact on the improvement of its corporate value. The result we get provide empirical support for enterprises to fulfill social responsibilities conducive to their development and corresponding policy advice for the government.*

Keywords: *corporate social responsibility, degree of marketization, enterprise value*

1. Introduction

With the economic development of China, the role of enterprises is becoming more and more important in the society, and the social responsibility assumed also has an impact on its own value. Song Jianbo and others, based on the "four categories of social responsibility" proposed by Carroll^[1], show that corporate social responsibility can have a positive impact on corporate performance. Yang Bojian uses the social responsibility index of listed companies compiled by Shanghai National Accounting Institute to test the impact of Chinese listed companies on their performance^[2], and believes that when enterprises combine social responsibility with corporate governance and development strategy, they can not only take into account their own development, but also actively fulfill their social responsibilities. Clarkson explains corporate social responsibility from the perspective of the stakeholder management model, believing that corporate social responsibility includes two aspects: profit and ethics^[3]. Corporate decision-making needs to coordinate two different responsibilities, so that the overall interests are balanced. Thinking from the direction of signal transmission, enterprises conduct impression management through social responsibility information disclosure^[4]. When the external system passes it as a positive signal, the enterprise will receive positive feedback, such as high evaluation by the market, obtain more policy support, attract more outstanding talents, etc.

From the perspective of institutional theory, Dong Shulan believes that when considering organizational behavior, it should be included in the regulatory role of environmental variables. Therefore, the degree of marketization needs to be taken into consideration. According to the research of Wang Liping and others and the findings of scholars, enterprise behavior in regions with high degree of marketization is serious homogenization, and most enterprises can consciously fulfill their social responsibilities, but their contribution to the improvement of the value of enterprises is not significant. This is due to the pressure formed by enterprises in areas with high market oriented degree. Correspondingly, they should follow certain trading rules and deal with the attention of the social environment. Therefore, paying attention to the rights and interests of stakeholders has become a necessary prerequisite for enterprises to seek competitive advantages^[5].

2. Theoretical analysis and research assumptions

(1) Corporate social responsibility and corporate value

In the past, most literature holds a positive view on the relationship between corporate responsibility

and enterprise value.

From the perspective of stakeholder theory, the survival and development of an enterprise depends on the quality of the enterprise's response to the interests of the stakeholders^[6]. Therefore, in order to form a good interest cycle chain, the enterprise must consider the interests of the stakeholders in the business decision-making. Performing social responsibility can be regarded as one of this feedback decision-making manifestations.

From the perspective of signal transmission theory, enterprises need to release information to the outside timely in the asymmetric information environment, and the performance of social responsibility can be regarded as a signal release of the company. By investing in the society, the enterprise thus forms a good social relationship with the stakeholders to enhance the interests^[7].

Stakeholder theory shows that the enterprise's social responsibility is the decision choice under the balance, while the signal transmission theory shows that the social responsibility of the enterprise will bring benefits to the enterprise, and the two theory makes assumptions:

H1: Corporate social responsibility has a positive impact on corporate value

(2) Corporate social responsibility, degree of marketization and enterprise value

In the environment where the enterprise operation and development is located, the degree of marketization is to measure the environment. It is generally believed that in areas with the higher the degree of marketization, the less the government intervention, the better the performance of social responsibilities, and the more the industry competition and resource access focus on the enterprise itself.

In areas with low degree of marketization, enterprises' sense of responsibility can promote the improvement of enterprise value to a greater extent compared with areas with high degree of marketization^[8]. The hypothesis is therefore proposed:

H2: The degree of marketization plays a reverse adjustment role in the relationship between corporate social responsibility and enterprise value

3. Model construction

3.1. Data source and sample selection

The data of this article are from corporate social responsibility information disclosure and corporate annual financial report based on Wind database, Guo Tai'an database, 2010-2017 China Statistical Yearbook, 20.A-share listed companies in Shanghai and Shenzhen from 2010 to 2017 were selected as the research subjects. After processing, the enterprises with financial category, ST, ST *, PT and incomplete data were eliminated, and 1,853 research samples were finally determined.

3.2. Variable design and model construction

(1) Explained variable. Enterprise value is a more scientific enterprise evaluation index compared to short-term profit. Therefore, we choose the Tobin Q value that can reflect the future value of the enterprise to measure enterprise value. This paper measures the method of Zhu Jinfeng and Yang Pengpeng et al. (2011).

(2) Explanatory variable. We draw on the corporate social responsibility scoring method and construct a scoring system of three first-level indicators, five secondary indicators and 15 three-level indicators, including holder responsibility, environmental responsibility and social responsibility, to evaluate the social responsibility of listed companies.

(3) Regulated variable. This paper examines the influence of corporate social responsibility on enterprise value under different degrees of marketization. According to previous literature and empirical experience, the general marketization index of Wang Xiaolu, Fan Gang and Yu Jingwen was adopted as the measure of the degree of marketization in all regions of China.

(4) Controlled variable. Based on the existing literature research, in order to make the research results more robust, we consider the enterprise size, financial leverage, shareholder shareholding ratio, return on equity and so on as the control variables of the model. The main variables and the specific definitions are shown in Table 1.

Table 1: Variables definition table

type of variable	Variable name	Variable code	variable declaration
explained variable	enterprise value	TQ	Total company market value / assets
explanatory variable	Corporate Social Responsibility	CSR	The score is calculated according to the index system of the above table. The higher the score is, the more socially responsible the enterprise is
regulated variable	The degree of marketization	MD	Market-oriented index of Chinese provinces
controlled variable	scale	SIZE	Natural log of total assets
	financial leverage	DFL	(Net profit + income tax expenses + financial expenses) / (net profit + income tax expenses)
	Return on Equity	ROE	Net profit/Net asset
	Holding ratio of the controlling shareholder	CR 10	The top 10 shareholders hold their shares

According to the aforementioned research assumption, the following two regression models are established, in order to verify the impact of corporate social responsibility on enterprise value, we establish model (1)

$$TQ = \alpha_0 + \alpha_1 CSR + \alpha_2 SIZE + \alpha_3 DFL + \alpha_4 CR10 + \alpha_5 ROE + \varepsilon \quad (1)$$

In order to verify the regulatory role of the degree of marketization in the relationship between corporate social responsibility and enterprise value, the interaction term is added to the model (1) to get the model (2): $CSR \times MD$

$$TQ = \beta_0 + \beta_1 CSR + \beta_2 MD + \beta_3 CSR \cdot MD + \beta_4 SIZE + \beta_5 DFL + \beta_6 CR10 + \beta_7 ROE + \varepsilon \quad (2)$$

$CSR \times MD \beta_2 \beta_2$, the regression coefficient of the cross term of corporate social responsibility and marketization degree measures the adjustment effect of marketization degree on the relationship between corporate social responsibility and enterprise value.

4. Positive results analysis

4.1. Descriptive statistics

Table 2: Description of the data for each indicator

variable	average value	standard deviation	least value	crest value
TQ	1.798	1.685	0.0936	12.74
CSR	37.82	21.09	-3.720	90.87
MD	8.335	1.637	2.870	11.11
SIZE	23.09	1.500	19.91	29.44
DFL	1.604	5.394	-0.354	205.4
ROE	0.129	0.0867	-0.0923	0.630
CR10	59.01	15.43	12.72	94.67

As seen from the table, the TQ represents a maximum of 12.74 and a minimum of 0.0936. There are differences in categories and industries between selected enterprises, so that the enterprise value is different. The CSR has negative value, which means when the enterprise improper operation causes the enterprise losses, the stakeholder responsibility index will appear a negative value. The standard deviation of social responsibility data is as high as 20.58, indicating great variability in the performance of social responsibilities. The maximum MD degree of regulatory variable regional marketization is 11.11 and the minimum value is 2.870, indicating that different regions have obvious differences, which can be used to further explore the regulatory effect of different degrees of marketization.

4.2. Correlation analysis

To reduce the effect of multiple collinearity on significance level, we used Pearson's correlation coefficient for correlation test and performed a variance expansion factor diagnosis, obtaining the absolute value of variable correlation coefficient is less than 0.5, the VIF corresponding to each variable is less than 2, it can be considered that there is no multiple collinearity effect among variables. Results of the correlation analysis are shown in the table.

Table 3: The correlation test results of each index data

	TQ	CSR	MD	CR10	LEV	SIZE	ROE
TQ	1						
CSR	-0.054***	1					
MD	-0.065***	-0.139***	1				
CR10	0.050***	0.180***	0.047***	1			
DFL	-0.067***	-0.077***	0.012	-0.02	1		
SIZE	-0.490***	0.250***	0.116***	0.260***	0.018	1	
ROE	0.317***	0.308***	-0.121***	0.161***	-0.116***	0.107***	1

*** p<0.01, ** p<0.05, * p<0.1

Among them, there is a significant negative relationship between corporate social responsibility and enterprise value, opposite to the direction of the regression results. Referring to previous scholars, the research may be caused by the significant negative impact of the enterprise scale and the enterprise value. Finally, we take the regression results as the empirical basis.

4.3. Regression analysis

Table 4: Variable regression results

variable	benchmark model		model (1)		model (2)	
	TQ		TQ		TQ	
CSR	0.003**	(2.25)			0.020***	(2.74)
L.CSR			0.003***	(2.68)		
MD					0.130***	(3.77)
CSR*MD					-0.002***	(-2.85)
SIZE	-0.697***	(-17.03)	-0.627***	(-15.39)	-0.642***	(-26.06)
LEV	0.002	(0.48)	0.002	(0.47)	-0.004	(-1.51)
CR10	0.007***	(2.88)	0.003	(1.12)	0.015***	(7.13)
ROE	5.235***	(17.08)	5.856***	(18.32)	6.933***	(12.15)
Constant	16.771***	(18.35)	15.024***	(16.50)	13.731***	(25.87)
Observations	1,853		1,597		1,853	
R-squared	0.349		0.300		0.399	
Year FE	YES		YES		YES	

*** p<0.01, ** p<0.05, * p<0.1

(1) According to the benchmark model in regression results, the enterprise value and corporate social responsibility passed the significance test, showing a significant positive relationship, which empirically verified H1, indicating that the performance of social responsibility can promote the improvement of enterprise value.

(2) According to the mode l(2) in regression results, the positive relationship between corporate social responsibility and corporate value appeared at the significance level of 1%.At the same time, the regression coefficient of the degree of marketization and corporate social responsibility is-0.002, which has a negative relationship with the enterprise value at the significance level of 1%, indicating that the degree of marketization plays a reverse adjustment role in the relationship between corporate social responsibility and enterprise value, and provides strong support for H2.

(3) Endogenous test.As the performance of social responsibility may have a two-way causal relationship with the improvement of enterprise value, we need to lag the explanatory variables in order to judge the chronological order of both enterprises, so as to help us determine who is the reason and who is the result.In this paper, the regression of the independent variable lags behind one phase, and the resulting regression model is model (1). We can see that the impact of the explanatory variable is still significant at 1%, indicating that the impact of social responsibility in time before, the change of enterprise value after, to some extent, shows that the social responsibility is the reason, the enterprise value is the result, and also shows that the two-way causal problem does not exist.

5. Research conclusions and enlightenment suggestions

From the conclusion, the active performance of social responsibility has a positive role in promoting

the promotion of their own value. However, this promotion effect becomes more and more significant with the increasing degree of marketization, which also provides new thinking for enterprises and the government.

(1) Enterprises: Correctly understand and actively fulfill their social responsibilities

Regional markets with a low degree of marketization are also less transparent. Therefore, enterprises need to assume more social responsibility to carry out their own image management^[9]. By actively assuming responsibilities for stakeholders and strengthening information disclosure that enterprises fulfill social responsibilities, enterprises can highlight their own advantages in the competition.

(2) Government: Create a good business environment

In areas with a low degree of marketization, enterprises need to maintain good contact with the government^[10], which consumes their too much energy and make it difficult to compete with enterprises in areas with a high degree of marketization. Therefore, the local government needs to establish a more perfect social responsibility performance and information disclosure mechanism, so that enterprises can have the resources to seek new competitive advantages.

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