

# **A Study on Relation of Corporate Social Responsibility and Corporate Financial Performance or Corporate Value: Empirical Evidence from Listed Real Estate Companies**

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## **Abstract**

*By using 112 listed real estate companies in 2012, I did research on relationship between corporate social responsibility (CSR) and corporate financial performance or corporate value. The more of the CSR activities for the government, employees and creditor a corporate undertook, the more the financial performance was. The more of the CSR activities for the consumers a corporate undertook, the more the corporate value was. In 2012, the CSR activities for other stakeholders a corporate undertook didn't have obvious influence on financial performance or corporate value. However, in the long run, CSR activities will increase financial performance or corporate value. In addition, CSR activities can reduce the risk of gaining or losing business critical resources, which are beneficial for the sustainable development of enterprises.*

**Keywords:** corporate social responsibility; financial performance; corporate value; risk hedging

## **1. Introduction**

In recent years, incidents of Chinese enterprises harming the public interest have occurred again and again. From the "Sanlu milk powder incident" to the stained bread, using the drug clenbuterol in pig meat and poison capsule, Chinese food safety problems are pushed to the cusp. In addition, "Black brick kiln incident", "Foxconn jumped incident" has been exposed one after another. These events reflect the phenomenon that in the production life the enterprises only pursue their own interests, but ignore the obligations to consumers, employees, communities and so on. With the emergence of these issues, corporate social responsibilities cause for public concern again.

Whether companies should undertake the social responsibility, there are two views in the academic fields. Friedman (1970) believed that the only social responsibility of companies is the pursuit of profit, promoting social welfare is the government's affair. However, Freeman (1984) suggested that the development of enterprises is inseparable from the input and participation of various stakeholders. Enterprises should be pursuing the interests of all stakeholders, not just the interests of individual subjects. These two views been debating for a long time, the result is that enterprises should actively undertake obligations to other stakeholders in seeking to maximize the interests of shareholders simultaneously. Therefore, it is necessary for corporate to undertake social responsibility. Based on stakeholder theory, I put forward the following hypothesis and selected the relevant indicators to test and verify these hypothesis by using China's real estate listed companies as the research object.

Hypothesis 1: Corporate social responsibility (CSR) for the creditors has positive correlation with corporate financial performance and corporate value

Hypothesis 2: Corporate social responsibility (CSR) for the employees has positive correlation with corporate financial performance and corporate value

Hypothesis 3: Corporate social responsibility (CSR) for the government has positive correlation with corporate financial performance and corporate value

Hypothesis 4: Corporate social responsibility (CSR) for the consumers has positive correlation with corporate financial performance and corporate value

Hypothesis 5: Corporate social responsibility (CSR) for the social welfare has positive correlation with corporate financial performance and corporate value

## **2. Corporate Social Responsibility and Risk Hedging Ideas**

Risk hedging is a risk management strategy to write off the potential risk of loss of the underlying asset. Risk hedging is widely used. It can not only be applied in derivative products, but also has a wide range of applications in other financial and business hedging. Enterprises undertaking corporate social responsibility is actually a kind of risk hedging strategy selection. This is a way to take advantage of the time span, which manages risk by matching the time. In real life, we can also see such examples. For instance, tobacco companies who are considered as hazardous to health are always keen on sponsoring competitive sports aimed at improving human's physical fitness. Oil companies, listed as the biggest destroyer of the human environment, are the most ardent advocates and participate in the environmental protection campaigns. This is a typical example of these companies to hedge their business risks by undertaking social responsibility (Zhong Wenqing, 2009).

In addition, resource dependence theory suggests that the important resources related to the survival and development of enterprises are often not under their own control, but in possession of other organizations. So enterprises are facing uncertainty in the process of obtaining these resources (Pfeffer and Salancik, 1978). In the case of asymmetric information, if companies want to get resources from the hands of these stakeholders, they must convey the signal that they are reliable by undertaking corporate social responsibility so as to reduce the risk of access to relevant resources.

It is very difficult for enterprises to avoid negative impact generated by emergencies. For example, the milk scandal made China milk powder market into crisis in 2008. At the same time, many well-known companies such as Mengniu and Yili were also involved in and were serious losses. While these companies are gradually coming back to life by virtue of their good image built before, there are still a lot of people who do not dare to buy domestic milk. If these well-known companies such as Mengniu and Yili can undertake corporate social responsibility for consumers and never added melamine in milk, then they will come out on the top of China milk powder market nowadays. Thereby they reduced the risk of losing the consumer market. Therefore, the enterprises undertaking the corporate social responsibility can also reduce the risk of losing critical resources.

In summary, on one hand, enterprises pay some cost to undertake the corporate social responsibility; on the other hand, undertaking corporate social responsibility reduces the risk of gaining or losing resources which are beneficial for the production, operation and sustainable development of enterprises. Thus, enterprises undertaking the corporate social responsibility is not pure altruism, but a best choice called as "egoism with also altruism" (Zhang Zhaoguo, 2009).

## **3. Research Design**

### **3.1 Sample Selection**

In this paper, I selected 112 companies of Chinese real estate industry in Shanghai and Shenzhen listed companies as the research objects, excluding ST companies, \*ST companies and companies that issued A shares and also issued H shares. Companies with incomplete public reporting or missing financial data were also not included. The data with which calculating value of the companies and other financial data were from the listed companies' 2012 Annual Report and the Sina Finance website. I did correlation analysis and regression analysis on the financial indicators so as to study the impact that corporate social responsibility makes on corporate financial performance and corporate value.

### **3.2 Variable Design**

#### **3.2.1 Dependent Variable**

McGuire, Sundgren and Schneeweis (1988) believed that when did some research on the relationship between corporate responsibility and its financial performance, with the use of accounting indicators can get better results than using the market indicators based on stock. However, Xia Lijun and Fang Yiqiang (2005) pointed out that the direct use of the accounting indicators to measure the corporate performance was difficult to reflect the companies' long-term performance, and it was susceptible to be artificial manipulation. Griffin and Mahon (1997) also pointed out that a single indicator cannot be a good measure of the companies' financial performance.

In conclusion, I selected return on common stockholders' equity (ROE) and TobinQ value as the indicators to measure the corporate performance.

These two indicators reflect the performance of enterprises from different angles: ROE measures the profitability of the enterprises and TobinQ value reflects the companies' ability to grow. And the calculation method of TobinQ value used in this paper is the same as which Li Zheng (2006) used in his paper.

### 3.2.2. Independent Variables

Enterprise is an economic body whose goal is to create wealth for the shareholders, so the corporate social responsibility studied in this paper does not include corporate social responsibility for the shareholders. From the perspective of stakeholders, I finally selected interest coverage ratio, wages and benefits growth rate, asset tax rate, the main business cost rate and social donations rate to measure the corporate social responsibility for the creditors, employees, government, consumers and social welfare respectively, with the reference to Chen Yuqing (2005), Shi Jinping (2012), Gao Min (2013) and other papers.

### 3.2.3. Control Variables

Considering that enterprises of different scale may have different levels of performance, I selected the natural logarithm of total assets as "company size" variable to analyze its impact on corporate performance.

According to the dependent variable and independent variables in Table 1, I construct the following model to test the hypothesis above.

$$\text{Model ( 1) } \text{ROE} = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6 + \varepsilon_1$$

$$\text{Model ( 2) } \text{TQ} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon_2$$

In which,  $\alpha_0$  and  $\beta_0$  are the intercepts,  $\alpha_1 \sim \alpha_6$  and  $\beta_1 \sim \beta_6$  are the coefficients,  $\varepsilon_1$  and  $\varepsilon_2$  are the random error terms.

**Table 1: Names and Meanings of Variable**

Symbol	Meanings	Formula
$X_1$	CSR for the creditors	interest coverage ratio = EBIT / interest expense
$X_2$	CSR for the employees	wages and benefits growth rate = (cash paid to and paid for employees during this year - cash paid to and paid for employees last year) / cash paid to and paid for employees last year
$X_3$	CSR for the government	asset tax rate = (income + main business tax and surcharge) / total assets
$X_4$	CSR for the consumers	main business cost ratio = main business cost / income from principal operations
$X_5$	CSR for the social welfare	social donations rate = social donation expenditure/ income from principal operations
ROE	return on common stockholders' equity	return on common stockholders' equity = Net profit / average shareholders' equity
TQ	TobinQ value	TobinQ value = (market value of equity <sup>①</sup> + book value of liabilities) / book value of total assets
$X_6$	company size	company size = ln (total assets)

①market value of equity = closing price of A share × number of A shares outstanding + closing price of B share × RMB Exchange Rate × number of B shares outstanding + (total number of shares - number of A shares outstanding - number of B shares outstanding) × per share of net assets

## 4. Empirical Results and Analysis

### 4.1 Descriptive Statistics of Variables

**Table 2: Descriptive Statistics**

	Minimum	Maximum	Mean	Std. Deviation
$X_1$	1.1452	157.8819	18.370745	29.6962408
$X_2$	-.3343	1.7480	.196829	.2815827
$X_3$	-.0256	.1509	.035096	.0268268
$X_4$	.2045	.9849	.621024	.1406114
$X_5$	0.0000	.0093	.000524	.0011955
$X_6$	19.6605	26.6603	22.916682	1.2015864
ROE	.0003	.4163	.113696	.0807863
TQ	.9378	7.8899	1.372068	.7281316

The maximum value of the interest coverage ratio of Chinese real estate listed companies is Huayuan Property CO., LTD. (600743), valued as 157.8819. The minimum is Metro Land Corporation Ltd. (600683), valued as only 1.1452, and the standard deviation is 29.6962408. The foregoing indicates that there is a big gap between different Chinese real estate companies in terms of CSR for the creditors. The minimum value of wages and benefits growth rate is Hubei Wuchangyu CO., LTD.( 600275) , valued as -0.3343. The company reduced employees' wages and benefits instead of increasing them this year. The maximum value is JOIN-IN ( HOLDING) CO., LTD.( 600745) , valued as 1.7480. The minimum value of asset tax rate is China World Trade Center Co., Ltd. ( 600007) , valued as -0.0256. This is a foreign joint venture that has enjoyed a lot of government tax benefits, so its asset tax was negative. The maximum value is Tianjin Guangyu Development CO., LTD. ( 000537) , valued as 0.1509. The minimum value of main business cost ratio is Yang Guang CO., LTD. ( 000608) , valued as 0.2045. The maximum value is Shenzhen Fountain Corporation ( 000005) , valued as 0.9849. The mean of social donations rate is 0.000524 and the standard deviation is 0.0011955, which shows that the social donation rate gap between the real estate companies is not big, but the overall level is low. The difference between the standard deviation values of ROE and TobinQ value is not large, but the gap between the maximum and minimum values is a great disparity, which intimates that there are two extreme conditions in corporate performance of Chinese real estate listed companies.

#### 4.2 Results of Correlation Analysis and Description

**Table 3: Results of Correlation Analysis**

	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	ROE	TQ
X <sub>1</sub>	.146	.418**	-.180	.034	.014	.513**	-.035
X <sub>2</sub>		.027	-.069	.202*	.200*	.306**	-.229*
X <sub>3</sub>			-.269**	.113	-.075	.617**	.012
X <sub>4</sub>				-.094	-.001	-.195*	.200*
X <sub>5</sub>					.127	.239*	-.084
X <sub>6</sub>						.288**	-.547**

It can be seen from Table 3 that CSR for the creditors has a significant positive correlation with ROE at the 1% level, but has a no significant negative correlation with TobinQ value, which is inconsistent with Hypothesis 1. This result suggests that undertaking the CSR activities for the creditors actively can increase the companies' financial credit, borrow more money from the creditors and increase their short-term profitability. But in this case, the companies cannot make good use of financial leverage, and then the long-term development of enterprises will be restricted.

CSR for the employees has a significant positive correlation with ROE at the 1% level, but has a significant negative correlation with TobinQ value at the 5% level, which is inconsistent with Hypothesis 2. This result implies that undertaking the CSR activities for the employees actively by means of increasing employees' wages and benefits can mobilize the motivation of the staff so as to encourage them to devote themselves into the production and operation of enterprises with greatest enthusiasm and create more benefits for the enterprises. However, according to Maslow's hierarchy of needs theory, once the employees' basic needs are satisfied, then increasing the wages and benefits has been difficult to mobilize the enthusiasm of the staff. In this case, the increased wages and benefits will form the corporate costs and expenses, which impact the performance of the enterprises and are not conducive to the development of enterprises. Therefore, undertaking the CSR activities for the employees should be conducted in many ways, increasing wages and benefits of employees is only one aspect, and the increasing amount should be controlled within a certain range.

CSR for the government has a significant positive correlation with ROE at the 1% level, and has a no significant positive correlation with TobinQ value, which is consistent with Hypothesis 3. This result intimates that undertaking the CSR activities for the government actively by means of pay taxes actively can establish a good corporate image in front of the government so as to get more government support and preferential policies, which are beneficial to the development of enterprises.

CSR for the consumers has a significant negative correlation with ROE at the 5% level, but has a significant positive correlation with TobinQ value at the 5% level, which is inconsistent with Hypothesis 4.

Consumption is the final part of the production; companies have no profits and no value to exist if there is no consumption. Therefore, it is essential for companies to deal with the relationship with the consumers.

Although undertaking the CSR activities for the consumers actively may increase the short-term costs of enterprises and the corporate financial performance is affected, it is conducive to the long-term development of enterprises.

CSR for the social welfare has a significant positive correlation with ROE at the 5% level, but has a no significant negative correlation with TobinQ value, which is inconsistent with Hypothesis 5. This result indicates that undertaking the CSR activities for the social actively can improve the public image of the enterprises and bring a temporary increase in corporate financial performance, but the effect will gradually decline in the long term. In addition, this action increases additional costs of companies, which is not good for the sustainable development of enterprises.

### 4.3 Results of Multiple Regression and Description

**Table 4: Results of Multiple Regression**

Variable	Model( 1)	Model( 1)
	Regression Results( ROE)	Regression Results( TQ)
X1	0.001** (3.940)	0.000416 ( 0.193)
X2	0.051** (2.778)	-0.303 ( -1.420)
X3	1.543** (7.370)	0.569 ( 0.234)
X4	0.008 (0.218)	1.046* ( 2.461)
X5	6.939 (1.626)	13.221 ( 0.267)
X6	0.018** (4.365)	-0.318** ( -6.481)
R-square	0.609	0.352
F	27.302**	9.491**
N	112	112

Note: \*\* and \* represents significance at 1% and 5% level respectively; first row in the table are the regression coefficients and the second row are the values of t.

It can be seen from Table 4 that the R-square values of model (1) and model (2) are 0.609 and 0.352 respectively, which means the overall interpretations of the independent variables on corporate social responsibility factors are up to 60.9% and 35.2% respectively. And F values are significant at the 1% level. Variance Inflation Factor (VIF) values are less than 2 (not listed), so there is no multicollinearity between the dependent variables.

In model (1), the regression coefficients  $X_1$ ,  $X_2$  and  $X_3$  are positive, and they are significant at the 1% level. Therefore, undertaking the CSR activities for the creditors, employees and government actively can bring remarkable economic growth for the companies. Among them, undertaking the CSR activities for the government has the greatest impact on the companies' financial performance, followed by the CSR activities for the employees, and the CSR activities for the creditors are the smallest.

In model (2), the regression coefficient  $X_4$  is positive, and it is significant at the 5% level. So consumers are the important factor that affects the sustainable development of enterprises. Undertaking the CSR activities for the consumers is premise for the healthy and stable development of enterprises. The more CSR activities for the consumers the companies undertake the greater corporate value the companies have.

## 5. Conclusions and Suggestions

The research in this paper shows that real estate companies undertaking the CSR activities for the government, employees and creditors actively will increase the corporate financial performance and the influence gradually becomes weaker. Undertaking the CSR activities for other stakeholders has a no significant influence on the corporate financial performance.

Undertaking the CSR activities for the consumers will increase the corporate value, while undertaking the CSR activities for other stakeholders has a no significant influence on the corporate value.

Government is the strong backing of the sustainable development of real estate enterprises, the creditors are the powerful guarantee for the real estate enterprises' operation mode of "debt management", and the employees are the prerequisite for the profitability of enterprises. All these determine that the real estate companies must undertake the CSR activities for the government, employees and creditors actively. However, Chinese real estate companies have been classified as mandatory inspection program by National Tax Administration for 12 years, that is to say highly profitable real estate industry has become the hardest hit of tax evasion. In addition, payments and wages arrears have often occurred in Chinese real estate companies, but the events that real estate companies refuse to repay the loan are rarely heard. Because of the characteristics of "debt management", real estate companies must deal with the relationship with the creditors in order to get a steady stream of funding. However, we can learn from the above findings that undertaking the CSR activities for the creditors is a very small factor that affects the corporate financial performance; the real influential factors are the CSR activities for the government and employees. Therefore, the real estate companies didn't recognize the major and minor. They should clearly recognize the positive impact on corporate financial performance by undertaking the CSR activities for the government and employees. And Chinese real estate companies should pay taxes actively, pay the wages and salaries on time and increase employees' benefits. Only in this way can they develop the enterprises.

Consumers are the final judge of the companies' products, at the same time, consumers may be investors. In short, consumers are the important factor that affects the sustainable development of enterprises. Therefore, the real estate enterprises should undertake the CSR activities for the consumers actively so as to establish a good reputation and improve the market value of the enterprises. But CSR activities for the consumers are not limited to set lower prices, better sales service and stronger quality assurance are also the aspects of CSR activities for the consumers. Chinese real estate companies should look for the most effective way of undertaking CSR activities for the consumers and fulfill actively so as to enhance the value of the enterprises.

Although in the short term, the CSR activities for the stakeholders a corporate undertook have no influence on the corporate financial performance and corporate value, or even have a negative impact. In the long run, undertaking CSR activities for the creditors, employees, government, consumers, social welfare and other stakeholders can bring the enterprises profits. As Liu Jianqiu and Song Xianzhong (2010) pointed out, the purpose that enterprises undertake CSR activities was to accumulate corporate reputation capital so as to enhance corporate value. Donaldson (1995), the raiser of Tools Theory, pointed out that the purpose of enterprises undertaking CSR activities was to improve their competitive advantage and creation value. In addition, from the perspective of risk hedging, undertaking CSR activities can reduce the risk of gaining or losing critical corporate resources, allow companies to make better use of these resources so as to improve corporate financial performance and increase the value of the enterprises. Companies can manage risks by matching the time and hedging the risks of damaging their stakeholder interests in the business process by means of undertaking CSR activities. Therefore, when pursuing the maximum profits, enterprises should also undertake CSR activities for all stakeholders actively. Only in this way can enterprises develop continuously and healthily.

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