

Research Article

The Empirical Study of Correlation between Food Industry's Corporate Social Responsibility and Enterprise Value

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Abstract: Based on stakeholder theory, through an empirical analysis of the enterprises in food manufacturing industry which people are very concerned about, the study researched the correlation between food enterprises' Corporate Social Responsibility (CSR) and enterprise value. The result of the study indicated that food enterprises fulfilling the responsibility to shareholder was significantly positively related to enterprise value and fulfilling the responsibility to the creditors, suppliers, consumers, government and society donation had a not significantly positive correlation with corporate value. But the responsibility to the staff has a not significant negative correlation with enterprise value, indicating that food companies should enhance the concern of efficiency for human input.

Keywords: Corporate social responsibility, corporate value, food enterprises

INTRODUCTION

In recent years, the frequent problems of food enterprises made people to have much prejudices and fears with them, while more and more media attention focused on the fulfillment of food enterprises' CSR. Now, people talk much about whether a company bear the corresponding CSR. Research on CSR, the western countries started earlier, had a relatively complete theoretical system and long-term practical experience. The late start of the modern enterprise, research related to corporate social responsibility was relatively lagged, which also caused a lot of problems of corporate social responsibility in the implementation and information disclosure.

However, the lack of corporate social responsibility is not only just about consumers, in fact, as long as paying attention to the relationship between their own development of corporate and CSR. It is not difficult to find, once a major CSR problem outbreak, it will impact business, enterprises need to spend a lot of time and money to calm crises; even bankrupt as Sanlu Group and lead a direct impact on the normal and orderly development of the local economy.

From the perspective of stakeholder theory, investors and managers decision may generate externalities for other stakeholders. And the company is not only a "economic man", but a "social person", its development is inseparable from the various interest groups participation and support, so that if the enterprise wants to obtain resources, to achieve better development, it can not only consider the interests of shareholders, but also to maintain the rights and interests of other interest groups. The stakeholder theory to solve the two problems: one is who are the

stakeholders of enterprises, two is why enterprises to perform their social responsibility, what are the benefits of fulfilling social responsibility.

In 1924 Sheldon in the "management philosophy" book for the first time put forward the concept of "corporate social responsibility", through development of more than 90 years, corporate social responsibility is more and more recognized by the majority of scholars, has become an area of focus attention of scholars at home and abroad. In the field, to study the relationship between corporate social responsibility and corporate value has been very concerned problem of the business and academic.

In this study, we used the latest data of the Shanghai and Shenzhen A-share food company's financial statements for 2010-2013 as the samples, based on the stakeholder theory, found the best financial indicators proxy variable for various stakeholders, constructed multivariate regression model, then empirical tested food industry listed corporate's social responsibility impact on business value.

LITERATURE REVIEW

Looking at the results from the current study abroad and most scholars tend to think that corporate social responsibility will increase business performance to improve corporate value, social responsibility commitment will bring tremendous long-term benefits for enterprises to create a brand image and win customer loyalty and attract talent, improve the regulatory environment and other advantages. Ruf *et al.* (2001), who found that if the corporate social responsibility fulfillment' situation has improved, will

have a positive impact on the current economic benefit, also play a positive role on the lag of economic benefits, that good corporate social responsibility performance is beneficial to the increase of enterprise value. McPeak and Tooley (2008) with DJSI agency announced the 56 actively fulfill the social responsibility of America companies as samples, found that the financial performance of these enterprises outstanding performance, show that the implementation of corporate social responsibility and corporate value has a positive correlation. Shen and Yang (2008) the study found, Information disclosed by listed companies in China relating to social responsibility and corporate values have some certain correlation, the quantity and quality of information of disclosure information which have a positive impact on stock returns. And the influence of social responsibility information of Chinese enterprises on enterprise value developed from never value relevance to value relevant in 2002.

Another part of the scholars pursued Milton (1991) and other scholars as the representative of the classical concept of corporate social responsibility, thought that of enterprises for their own development, should not be too much to bear the social responsibility in the market competition and even put forward a point that the enterprise only social responsibility is to maximize profits, through the natural process to maximize profits can increase social benefits. Brammer *et al.* (2006) using stock returns as a measure of corporate value indicators, found that it had a negative correlation between Social Responsibility performance and industry factors will have an impact on them. Brine *et al.* (2007) using the Australian company as a sample explored the relationship between these corporate social responsibility performance and enterprise value, also found no significant correlation between the two. Chen and Ma (2005) studied the market feedback information on the contribution of corporate social and found our listed enterprise value is not very relevant with corporate social responsibility, but because each industry has its own characteristics, the value of the correlation of different industries there are also some differences.

METHODOLOGY

Hypothesis: Although from the current view of food enterprises to fulfill their social responsibility for various stakeholders will pay a certain price, such as improving the employee salary level, repay the supplier payment, for charitable donations, all these will lead to the outflow of economic benefits of the enterprise, increase the company's current financial burden, to a certain extent may inhibit the enterprise for the current period financial performance. But we should be aware of: If the business actively fulfill social responsibility for various stakeholders and the stockholder, creditors, consumers, employees and society perceive this, they

will actively provide resources for business operations, thereby enhancing the production and profitability then will be sufficient to improve the financial performance of the business is current, so as to enhance corporate value. Therefore propose the following hypothesis H.

H: The more food companies fulfill their social responsibility for various stakeholders, the greater enterprise value.

Data sources and design of research variables:

Data sources: In this study, studied data come from the huge influx of information website and the Tai'an CSMAR professional database, randomly selects 35 food listing corporation of 2010-2013 years as the sample data, eliminate the lack of social responsibility finally get an effective sample of 120. Using SPSS statistical analysis software and EXCEL 2011 to deal with data.

The measurement of the enterprise value: Market-book ratio is currently widely used by scholars of the index in the aspect of measuring the value of the enterprise. This index is derived from the Tobin Q value. Li (2012) and Liu (2012) and other scholars have pointed out that "the capital market of our country has the particularity, China listing Corporation stock are not the full circulation, in the measure of equity market value, need to consider the market value of outstanding shares and non-tradable shares". Therefore, this research base on the food industry in the enterprise value, using the most suitable market-book ratio.

Measurement of corporate social responsibility: In this study, based on the stakeholder theory, corporate social responsibility is divided into the following 7 specific dimensions.

The responsibility to stockholder: The stockholders as the ultimate owner of corporate property rights, exercise the power by the investment holding shares of the company, stockholders as key resources investment, their objectives are: to obtain a higher rate of return on investment. Responsibility to stockholders, most people with EPS.

Duty to creditors: Creditors provided external finance for the sole purpose to earn revenue in the short term that is due to recover the principal and obtained a certain interest income. So this study uses the ratio of net operating cash flow to total debt as a measure to undertake social responsibility status of creditors. The larger the index, indicating that corporate solvency better, more to protect the interests of creditors.

Liability for suppliers: Corporate commitment social responsibility to suppliers, requires companies to ensure timely payment of suppliers of money, enhance the supplier companies' sense of trust, we use accounts

Table 1: Variable definition description table

Variable type		Variable name	Variable code	Calculation method
The dependent variable	Enterprise value	Market-book ratio	EValue	(The market value of equity + book value of liabilities) /total assets book value
The independent variables	The CSR for shareholder	Earnings per share	EPS	Net profit/new equity
	The CSR for creditors	Net operating cash flow and debt ratio	Ncf_Debt	Net operating cash flow/total debt
	The CSR for suppliers	Turnover ratio of accounts payable	APT_ratio	Operating costs/accounts payable amount of the average occupancy
	The CSR for the consumer	Main business cost rate	C_rate	Major business cost/main business income
	The CSR for employees	Employee income and operating income ratio	EPL	The amount paid to employees and for employees paid/main revenue
	The CSR for government	Property tax rates	PT_rate	Total taxes/total assets
	The CSR for social donation	Social donation rate	SD_rate	Social donations/total profit
Control variables	Company size	Total assets	Size	The final total assets of logarithm
	Ownership	The state-owned or non	NC	State owned enterprises 1, otherwise 0

payable turnover ratio to measure corporate responsibility to suppliers.

The responsibility for the consumer: For consumers and customers in spite of corporate social responsibility approach are many, but to the community to provide high quality products and services is the most direct way to the best performance of corporate social responsibility, here used the main business cost rate as the customer's financial interests surrogates.

Liability for employees: This study uses the income of workers and operating income ratio as an index to measure corporate social responsibility to employees.

The responsibility for the government: Property tax rate is an important indicator of the size of the business for government responsibility. Therefore, this study uses the index.

The responsibility for social donation: Social responsibility primarily refers to community building, how much do charity contribution, so using social donation rate to measure. Donations of which is taken from corporate annual report notes the size of donations in the non-business expenditure. If there is no data to indicate the donation, we think the year of social donations as zero.

Control variables:

Enterprise scale: Generally believed that the larger the enterprise, its strength is stronger, but also more vulnerable to public attention, firm size has a positive impact on social responsibility.

The nature of the enterprise: State-controlled enterprises are vulnerable to government intervention and social expectations of the people affected and thus voluntarily or "forced" to fulfill their social responsibility, generally considered the state-owned holding companies in terms of social responsibility better than private enterprises.

The specific definition and calculation of related index Table 1.

Model design: Based on the enterprise scale and nature of the control effect of food of corporate social responsibility, the influence of food enterprise society responsibility to enterprise value, establish the following multiple regression model:

$$EValue = a_0 + a_1EPS + a_2Ncf_Debt + a_3APT_ratio + a_4C_rate + EPL + a_6AT_rate + a_7SD_rate + a_8Size + a_9NC + \epsilon$$

where, ϵ is a random error term model.

EMPIRICAL RESULTS

Correlation analysis: By Pearson correlation test to the full sample, the results are given in Table 2.

As Table 2 shows, the correlation coefficient between the main explanatory variables does not exceed the multicollinearity in 0.8, indicating a good fit of the model.

Analysis of the effect of food enterprise society responsibility to enterprise value: Multiple regression analyses were performed on the samples, the regression results in Table 3.

Multiple regression results in Table 3, the following conclusions can be drawn: in the 1% significance level, food enterprises to fulfill their responsibility for stockholder has a significant positive correlation on enterprise value. Therefore, companies are more willing to fulfill the responsibility to stockholders, but also pay more attention to fulfilling responsibilities to stockholders. Food enterprises to fulfill CSR to creditors, supply, consumers, government, society exists no significant positive correlation, which indicates how much performance the food companies to suppliers, consumers, government, society does not significantly affect the value of the business. The nature is not very affected food companies fulfill their corporate social responsibility.

At the same time, food companies to fulfill responsibilities to employees and the enterprise value exists not significant negative correlation, which maybe there are too much corporate concern for employees' income, but the actual labor income efficiency is not

Table 2: Major regression variables Pearson correlation coefficient test table

Variables	EValue	EPS	Ncf Debt	APT ratio	C rate	EPL	AT rate	SD rate	Size	NC
EValue	1									
EPS	0.526** (0.000)	1								
Ncf_Debt	0.422** (0.000)	0.287** (0.001)	1							
APT_ratio	-223* (0.014)	-0.040 (0.661)	-0.136 (0.139)	1						
C_rate	-0.056 (0.461)	-0.010 (0.573)	0.093 (0.372)	0.511** (0.000)	1					
EPL	0.539** (0.000)	0.462** (0.000)	0.126 (0.135)	-0.183 (0.103)	-0.367** (0.000)	1				
PT_rate	0.032 (0.725)	-0.093 (0.314)	0.024 (0.794)	0.145 (0.115)	-0.034 (0.713)	0.034 (0.709)	1			
SD_rate	-0.005 (0.957)	-0.233** (0.011)	0.177 (0.054)	-0.426** (0.000)	-0.335** (0.000)	0.142 (0.122)	-0.013 (0.892)	1		
Size	0.225* (0.013)	0.437** (0.000)	-0.014 (0.883)	-0.024 (0.796)	-0.146 (0.112)	0.347** (0.000)	-0.061 (0.506)	-0.246** (0.007)	1	
NC	0.066 (0.447)	0.272** (0.003)	0.038 (0.679)	0.096 (0.299)	-0.068 (0.463)	0.269** (0.003)	-0.101 (0.274)	-0.172 (0.060)	0.312** (0.001)	1

*, **: Were expressed in confidence (bilateral) was 0.05, 0.01, the correlation is significant; In parentheses is the p-value

Table 3: Regression results of the effect of food CSR to enterprise value

Variables	Coefficient	t	Probability (significant)
C	0.729	1.985	0.050
EPS	0.545	4.558	0.000
Ncf_Debt	0.040	0.505	0.641
APT_ratio	0.164	1.723	0.118
C_rate	0.049	0.417	0.677
PT_rate	0.137	1.112	0.268
SD_rate	0.118	0.985	0.316
EPL	-0.097	-1.145	0.255
Size	-0.082	-0.915	0.362
NC	0.045	0.615	0.540
The adjusted R square	0.427		
F	10.843		
N	120.000		

high. The control variables-firm size also has a not significant negative correlation with enterprise value; it may be because with the expansion of business scale, management costs and other expenses increased, thus inhibiting thus affecting the performance of the enterprise and value of enterprise.

CONCLUSION AND RECOMMENDATIONS

Based on the above empirical analysis, various dimensions of corporate social responsibility for food enterprise value' effects significantly different, which, fulfill CSR to stockholders significantly affect enterprise value. Food companies should pay attention to and strengthen stakeholder management, to avoid the excessive growth of employee compensation impact long-term development and financial performance of the company, but also focus on employee welfare, to avoid aggravating the brain drain costs. In addition, should also be strengthened to fulfill the CSR to government and society, making an increase of Enterprise Performance. Corporate social responsibility should promptly disclose information to improve

stakeholder awareness of corporate social responsibility practices.

With the era of development and stakeholders to enhance the binding of the enterprise, in order to obtain food companies in the fierce competition in the food industry a competitive advantage, enhance corporate value, it must fulfill the relevant CSR more seriously, in order to protect business continuity healthy development.

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