The Research of Relationship between Central Enterprises’ Social Responsibility and Corporate Performance

Heng Ma and Ruoyu Zhang

Department of Economic and Management, Nanjing University of Aeronautics and Astronautics, China

Abstract

China’s economy has been in a period of rapid development over the past decades. However, the increasing amount of gross domestic product usually based on the environmental pollution and resource plunder. In this condition, it is important to balance the corporate social responsibility and corporate performance. The paper conducted an empirical study of the relationship between corporate performance and corporate social responsibility of 99 listed Central Enterprises with the panel data from 2010 to 2014. The main empirical results demonstrate that corporate social responsibility and corporate performance have mutual promoted effects. Hence, Central Enterprises should take the social responsibility when trying to increase the corporate profits.

Keywords: Corporate Social Responsibility; Corporate Performance; Central Enterprises, Environment

1. Introduction

In the early 20th century, some scholars put forward the concept of corporate social responsibility, with the development of China’s economy, and the relationship between corporate social responsibility and corporate performance also become one of the hottest topic among scholars. In 2006, State-owned Assets Supervision and Administration Commission published “Central corporate social responsibility report,” after that 8 state-owned enterprises have publicly released the first annual corporate social responsibility report or sustainable development report. The Chinese Academy of Social Sciences has published the “Corporate social report” since 2009, and the report shows that the index of our country’s social responsibility is only 34.4 which is lower than those developing countries. However, in the recent years, more and more companies fulfill their social responsibility. The report also points that the central enterprises do better than other enterprises. Central enterprises play the leading role in Chinese state-owned economy development, and it has a great influence on the social and economic development of the country and can set an example to other enterprises. Thus, compared to other enterprises, the central enterprises bear more responsibility in the country’s economic and social development. The goal of the central enterprises should not only be simply to maximize the economic benefits of enterprises but also protect the interests of the public and environment. Therefore, it is worthier to pay attention to the relationship between the central enterprises to fulfill their social responsibility and corporate performance.

2. Literature Review

2.1. Positive correlation between social responsibility and corporate performance

After summarizing the relevant past research adequately, Weber (2008) thought that enterprises proactively fulfill the corporate social responsibility can promote the image and reputation among the
public, and then, enhance the relationship between the stakeholder and company which may decrease the cost of the company and increase the income. Simpson and Kohers (2002) used the data from 1993 to 1994 of American State-owned banks proved that there is a positive correlation between CSR and corporate performance. Salzamann (2005) found that synergy theory can explain the correlation between CSR and corporate performance, through the performance of social responsibility can significantly improve the competitiveness of enterprises in the market. Archie and Kareem (2010) proved that the customer’s concern and trust of the enterprise can be improved by publishing the CSR Report. Flammer (2015) set the shareholders’ proposal of corporate social responsibility is adopted or not at as a breaking point. Using the regression discontinuity approach, approved that the passing of shareholder proposals on CSR leads to an increase in financial performance, especially for those companies who have lower social performance before. Wen and Fang (2008) found that most of the variables of social responsibility have a negative impact on the current financial performance in the short term, but it has a positive impact in the long term. Zhang et al. (2013) found that one period lag social performance has positive impact to current corporate performance using the GMM method. Li and Lv (2014) analyze the real estate industry and found that in the real estate industry, the performance of social responsibility has obviously influence to the corporate’s financial performance. The higher ranking of social performance, the better financial situation will be. Wang and Wang (2014) based on the fixed effect panel model evidenced that social performance of state-owned enterprises has positive interactive relation to corporate performance.

2.2. Negative correlation between social responsibility and corporate performance

Freeman and Karen (1982) thought that social responsibility leads to the higher cost for enterprises and ill with economic benefits. Brammer et al. (2006) evidenced that stock return has negative correlation between corporate social responsibilities, which means the lower social performance, the higher stock returns. Li (2006) analyzes the relationship between enterprises’ social activity and corporate value, the empirical evidence shows that corporate take more social responsibility will lead to lower corporate value in current year. Wang and Song (2007) researched 180 listed company, thought that the responsibility to employee is negative to financial performance, and social activities uncorrelated to financial performance.

To sum up, there are large amount literatures about the relationship between social responsibility and corporate performance, but using EVA as the index to evaluate the corporate performance of the central enterprises in China is limited. Although this issue has been researched for serval years, still do not have an identical conclusion. The main reason is the index selection in the research which is different. In this essay, choose the data from 2010 to 2014 of central enterprises to evaluate the correlation between social responsibility and corporate performance, in order to provide some empirical evidence support for central enterprises to balance the relationship of those two index.

3. Hypotheses

Based on the perspective of stakeholders, the central enterprise needs to take responsibility to shareholders, customers, employees, and environment. Enterprises use the CSR report to show what they have done to the society and shareholders. The fully disclosure of information usually makes investors have more trust to the company and may influence their investment. On the one hand, social responsibility will lead to the cost and human resource increase, and on the other hand, external reputation resources, customer trust, and protection of the environment can bring long-term benefits, it will be more powerful to promote the improvement of corporate performance. We hypothesize a positive relationship between corporate social and financial performance:

Hypothesis 1: CSR of central enterprises leads to an increase in financial performance.

The abundant enterprise funds can make enterprises have more opportunities to make charitable contributions to society and raise the level of science and technology. Whether it is to improve the quality of products or optimize the working environment of employees, all those activities are based on the companies’ economic level. If the performance of the company continues to decline, it will not
be able to provide sufficient funds and energy to fulfill social responsibility. Accordingly, we propose the following hypothesis:

Hypothesis 2: Financial performance of central enterprises leads to an increase in CSR.

4. Data and Methodology

4.1. Data

The samples used to test our two research questions were initially drawn from the MCTI and Wind database. The State Council started to use EVA as the index to measure the central enterprises’ performance since 2010. To make sure the data are continuously, this essay chooses the listed central enterprises who published CSR report from 2010 to 2014, which had only 99 companies, resulting in a total of 495 observations.

4.2. Variables

4.2.1. Corporate performance

Compared to the traditional financial performance index, EVA adds the capital cost into the calculation, which considers the opportunity cost of equity capital. Using EVA to evaluate the corporate performance, requires a profit of the enterprise is higher than the cost of capital, this index can accurately reflect the increase or decrease in owner’s equity. It is a comprehensive evaluation of the effective use of capital and the ability to create value for shareholders. Therefore, it can reflect the enterprise’s capital use efficiency and value creation ability more accurately than the traditional accounting indicators. On data processing, the economic value added rate (EVAR) to measure corporate performance.

\[
EVAR = \frac{(\text{Net operating profit after tax} - \text{capital cost})}{\text{invested cost}}.
\]

4.2.2. Corporate social responsibility

This essay uses the MCTI rating system as the indicator of corporate social responsibility. In the current situation in China, MCTI rating system is one of the most comprehensive assessment systems. It evaluates the corporate social responsibility report from following four aspects: The overall, content, technology, and industry. Indicators have a high degree of quantitative.

4.2.3. Control variables

1. The size of the company (SIZE), generally speaking, larger enterprises will be more concerned by the public, and then take on more social responsibility. Some research also shows that the size of the company will lead to differences in profitability, which further affect the performance of enterprises.

2. The enterprise is heavy polluting enterprise or not (WR). This control variable is a dummy variable, heavy polluting enterprise is 1, and not heavy polluting enterprise is 0. Enterprises which are belonging to heavy pollution area are facing more problems of environmental protection. Therefore, compared to other companies, those heavy polluting enterprises need to take more social responsibility and spend more money to protect the environment.

3. The previous EVAR (EVAR\text{t−1}). The performance of the previous period will affect the performance of the next period. Similarly, the previous performance of the enterprise will also affect the performance of social responsibility. Enterprise has a good performance in the last year which means it has more money to invest in the charity and employee welfares.

4.3. Panel data model

From two hypotheses above, to determine the effect of CSR on firm performance, according to hypothesis 1, we estimate the following regression:
\[ EVAR_t = \beta_0 + \beta_1 \text{CSR}_t + \beta_2 \text{SIZE}_t + \beta_3 \text{WR}_t + \beta_4 EVAR_{t-1} + \epsilon_t \]  

According to hypothesis 2, we estimate the following regression:

\[ \text{CSR}_t = \beta_0 + \beta_1 EVAR_t + \beta_2 \text{SIZE}_t + \beta_3 \text{WR}_t + \beta_4 EVAR_{t-1} + \epsilon_t \]  

5. Result

5.1. Correlation analysis

The essay uses SPSS 19.0 to calculate the Pearson correlation. Table 1 shows that enterprises’ size, social responsibility, and heavy polluting enterprises significant correlation at 1% confidence level. The previous corporate performance also is in correlation with the current year corporate performance at 1% confidence level. Other indicators do not have a significant correlation. Considering there is the influence of multicollinearity exists in the variables, which may result the different conclusion. Hence, the essay does the multicollinearity analysis in the following paragraph.

5.2. Multicollinearity analysis

From Table 1, the correlation coefficient between the variables is > 0.5, which means we cannot exclude the possibility of multicollinearity among variables. From Table 2, it shows that the VIF of variables is lower than 5. Hence, the variables in this model do not have significant multicollinearity.

5.3. Regression analysis

5.3.1. The impact of social responsibility on central enterprises’ performance

The impact of CSR on corporate performance is shown in Table 3. Social responsibility is positively related to current performance and significant at the 5% level. Hypothesis 1 has been proved; the results show that the central enterprises to undertake social responsibility will have a positive impact on corporate performance. EVAR in the previous period has a positive correlation with the current corporate performance and significant at the 5% level, which means the central enterprises have better performance in the previous year, distributable profits increased will promote current year financial performance. Corporate size has a negative correlation with corporate performance and significant at the 5% level. May be due to the larger the size of the enterprise led to an increase in the cost of the

<table>
<thead>
<tr>
<th>Table 1: The correlation analysis of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>CSR</td>
</tr>
<tr>
<td>EVAR(_t)</td>
</tr>
<tr>
<td>SIZE</td>
</tr>
<tr>
<td>WR</td>
</tr>
<tr>
<td>EVAR(_{t-1})</td>
</tr>
</tbody>
</table>

**P<0.01

<table>
<thead>
<tr>
<th>Table 2: The multicollinearity analysis of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>CSR</td>
</tr>
<tr>
<td>EVAR(_t)</td>
</tr>
<tr>
<td>SIZE</td>
</tr>
<tr>
<td>WR</td>
</tr>
<tr>
<td>EVAR(_{t-1})</td>
</tr>
</tbody>
</table>
enterprise and need a higher level of management requirements, thus affecting the growth of enterprise performance. The enterprise is heavy polluting enterprise or not has no significant correlation between EVARs. This may be determined by the nature of the central enterprises, whether it is polluting enterprises will not affect its pivotal position in the national economy, also will not affect the state’s investment and support. Therefore, it do not have a great impact on the financial performance of the enterprise.

5.3.2. The impact of central enterprises’ performance on social responsibility

The impact of the performance level of the central enterprises on social responsibility is shown in Table 4. It can be seen that the current financial performance is positively related to CSR and significant at the 5% level. Hypothesis 2 has been proved. However, the previous financial performance has no

<p>| Table 3: The regression results of the impact of social responsibility on corporate financial performance |</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.205768</td>
<td>0.102822</td>
<td>2.001216</td>
<td>0.045926</td>
</tr>
<tr>
<td>CSR</td>
<td>0.002668</td>
<td>0.001132</td>
<td>2.356430</td>
<td>0.018848</td>
</tr>
<tr>
<td>Size</td>
<td>−0.019746</td>
<td>0.008633</td>
<td>−2.287400</td>
<td>0.022602</td>
</tr>
<tr>
<td>WR</td>
<td>0.045615</td>
<td>0.024696</td>
<td>1.847053</td>
<td>0.065348</td>
</tr>
<tr>
<td>EVAR_{it−1}</td>
<td>0.211763</td>
<td>0.038844</td>
<td>5.451595</td>
<td>0.000000</td>
</tr>
</tbody>
</table>

Effects specification
Period fixed (dummy variables)
R² | 0.07488 | Mean-dependent variable | 0.059591 |
Adjusted R² | 0.05963 | S.D.-dependent variable | 0.272647 |
S.E. of regression | 0.26439 | Akaike info criterion | 0.195294 |
Sum squared residual | 33.90339 | Schwarz criterion | 0.271858 |
Log-likelihood | −39.23753 | Hannan-Quinn criteria | 0.225353 |
F-statistic | 4.90739 | Durbin-Watson stat | 1.976096 |
P (F-statistic) | 0.00001 | |

<p>| Table 4: The regression results of the impact of corporate financial performance on social responsibility |</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>−24.87583</td>
<td>3.95921</td>
<td>−6.28303</td>
<td>0.00000</td>
</tr>
<tr>
<td>EVAR</td>
<td>4.24270</td>
<td>1.80048</td>
<td>2.35643</td>
<td>0.01885</td>
</tr>
<tr>
<td>Size</td>
<td>4.69839</td>
<td>0.27253</td>
<td>17.23976</td>
<td>0.00000</td>
</tr>
<tr>
<td>WR</td>
<td>−3.09459</td>
<td>0.97825</td>
<td>−3.16339</td>
<td>0.00166</td>
</tr>
<tr>
<td>EVAR_{it−1}</td>
<td>−2.40230</td>
<td>1.59205</td>
<td>−1.50894</td>
<td>0.13197</td>
</tr>
</tbody>
</table>

Effects specification
Period fixed (dummy variables)
R² | 0.41627 | Mean dependent variable | 42.38259 |
Adjusted R² | 0.40664 | S.D. dependent variable | 13.68745 |
S.E. of regression | 10.54341 | Akaike info criterion | 7.566930 |
Sum squared residual | 53914.29083 | Schwarz criterion | 7.643494 |
Log-likelihood | −1860.03162 | Hannan-Quinn criteria | 7.596989 |
F-statistic | 43.23294 | Durbin-Watson stat | 0.236549 |
significant correlation between social responsibility. Heavy polluting enterprises or not is negatively correlated with corporate social responsibility and significant at the 5% level. The results show that the higher degree of pollution will affect the improvement of the level of CSR. Compared with other enterprises, high polluting enterprises will have more negative effects on the environment, governance, and financial needs are greater, which lead to some companies are not willing to fulfil their social responsibilities. Company size is positively correlated with social responsibility and is significant at 5% level, indicates that the larger the size of the company, and can take more responsibility than those smaller enterprises.

6. Conclusion

Chinese central enterprises can effectively promote the improvement of economic value added in the process of actively fulfilling their social responsibilities and enhance enterprise performance. The growth of enterprise performance can also provide economic support for enterprises to fulfil their social responsibilities. Central enterprises as part of the market players not only maintain the market operation, to prevent market failure, at the same time, but also take the responsibility to maximize the interests of enterprises. Therefore, the central enterprises should continue to improve business performance. At the same time, because of the particularity of the state-owned economy, the central enterprises also have to take into account the social responsibility when pursuing profit. The empirical results also show that there is a positive correlation between firm size and social responsibility. It shows that large enterprises in general can better fulfil their social responsibilities. Therefore, the central enterprises as China’s super large enterprises, compared with other enterprises should play a leading role in taking the social responsibility. Finally, polluting enterprises should improve their awareness of environmental protection and take more responsibility in the environment.

References

Wen, S., Fang, Y. (2008), Research of social responsibility and corporate performance - Based on the panel data. China Industrial Economics, 10, 150-160.