



Determinants of Corporate Volunteering Service: An Empirical Study of China

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ABSTRACT. Using data of Chinese listed companies, this study investigates the determinants of corporate volunteering. We find that, based on "signal" and "reputation" motivation, corporate size has a significantly positive effect on corporate volunteering. Large companies are engaged in more volunteer services to enhance their reputations. Moreover, state-owned enterprises are more willing to participate in volunteerism and have higher level of volunteer service; and Central-state-owned enterprises have higher level of volunteer service than local-state-owned enterprises (LSOEs). These findings provide suggestions for corporate CSR strategy making and the government to build up the institution to improve the development of Chinese philanthropy.

Keywords: Corporate size, ownership, corporate volunteering

1 Introduction

Volunteerism originated from religious charity service in western countries in the early 19th century. In China volunteerism has developed rapidly since the Olympic Games volunteerism in 2008. The outbreak of the COVID-19 pandemic in 2020, volunteerism in China reached a new milestone. According to "Annual Report on China's Philanthropy Development (2021)", the number of volunteers in 2021 is 231 million, of which 86.49 million volunteers provided 3.719 billion hours of volunteering, contributing a labor cost of 162 billion yuan, equivalent to 1.85 million full-time employees.

However, the current research on corporate social responsibility has been focused on corporate philanthropic donations, neglecting corporate volunteering services. In the event of public crises such as epidemics and disasters, volunteer service, which is characterized by providing "labor" (time, knowledge, skills) is more important than donating money. This article focuses on the determinants of corporate participating in volunteer service. We are interested to investigate the effects of company size and ownership on corporate volunteering based on the COVID-19 pandemic to provide suggestions for the government to build up the institution of volunteer service.

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2 Literature Review

2.1 Corporate Volunteering: Measurements and Antecedents

The first method to measure corporate volunteering is the time that employees have spent on volunteer service. The second method is to design a scale, such as the scale based on 26 specific volunteer activities (helping the elderly, voluntary tree planting, etc.) developed by Gillath et al.¹, Rodel's² unidimensional scale based on individual action perceptions (including energy, talent, etc.) and Liu, Fang et al.'s³ 5-level Likert scale. The antecedents of corporate volunteering are mainly discussed from the organizational and employee levels. The organizational level factors include organizational support (Macphail & Bowles, 2009)⁴, work characteristics, interpersonal factors etc. Factors at the employee level include prosocial values, internal psychological motivation and cognition of volunteer services.

2.2 Corporate Volunteering: Pattern and Performance

Pan Chunling and Zhang Xiaohong⁵ summarized corporate volunteering into five development models through the analysis of companies in Beijing. Wang Zhongping et al.⁶ found that there is a large difference in the participation rate of corporate volunteerism through the survey of Guangzhou enterprises. Meng Huiwen and Wang Zhongping⁷ summarized the experiences and problems in organizational system, corporate culture and other aspects of corporate volunteer service in China.

2.3 Ownership and Corporate Social Responsibility

Corporate social responsibility is affected by ownership. Because of a unique ownership and governance structure in China, the SOEs have responsibility of both profitability and sociality, so undertaking more social obligations. The literature generally confirmed that private enterprises donate more than state-owned enterprises. However, other studies have found that state-owned enterprises fulfill more social responsibilities than private enterprises (Lv Suli et al., 2016)⁸.

3 Theoretical Hypothesis

Company size has important effects on corporate strategic decision making. First, according to the resource dependence theory, large enterprises generally have more asset advantages, more employees, and richer human resources. Therefore, they are more capable of devoting human and financial resources to carry out volunteer services. Secondly, according to the political cost theory, larger companies have usually greater social influence, which will bring them more public attention and expectation, so large enterprises are faced with higher social responsibility pressure. Thirdly, according to the signal transmission theory, large companies hope to transmit to the public that they

are responsible "corporate citizens" by actively participating in volunteerism, thus bringing better reputation. Based on the above analysis, the assumption is proposed:

Hypothesis 1: Larger companies perform more willing to participate in volunteer services and have a higher level of volunteerism as compared to small companies.

State-owned enterprises(SOEs) have both "profit" and "society" objective. SOEs will attach more importance on non-economic goals as well. Enterprises ultimately controlled by the government tend to subordinate their interest to the macroeconomic goals for the government, so taking on more social obligations (Lv Suli et al., 2016)⁸. In addition, SOEs are restricted by the policy to donation money and complicated donation procedure. Therefore, SOEs can carry on more volunteering activities, rather than philanthropic donation. Accordingly, the following assumption is put forward:

Hypothesis 2: Compared to non-state-owned enterprises, state-owned enterprises perform more willing to volunteering activities and have higher level of volunteerism.

The central-state-owned enterprises(CSOEs) undertake more responsibilities of government to "ensuring the people's livelihood and benefiting the people" than local-state-owned enterprises(LSOEs). According to "Blue Book of Corporate Social Responsibility (2022)" released by the Chinese Academy of Social Sciences, the social responsibility development index of CSOEs rank highest with 60.7 points, higher than state-owned financial enterprises with 51 points and other state-owned enterprise with 40.7 points. Based on the above analysis, the hypothesis is proposed:

Hypothesis 3: Compared to LSOEs, central-state-owned enterprises have more willing to volunteering services and have higher level of volunteerism.

4 Empirical Research Design

4.1 Sample Selection

We take Chinese listed companies that have issued CSR reports as the sample. We select the sample in the light of the following criteria: (1) We exclude listed companies pertaining to the banking, insurance, and other financial industries. (2) We delete firms with transaction statuses of special treatment (ST) or particular transfer (PT). (3) We eliminate samples with data are unavailable. Finally, a sample of 1953 observations are obtained. Corporate volunteering service data is collected by manually searching for keywords such as "volunteer service", "volunteer activity" and "volunteer" in corporate social responsibility report. Other data comes from the CSMAR database. Stata 15.0 is used for data processing and analysis.

4.2 Variable Definition

4.2.1. Explained Variables.

Two methods are used to measure corporate volunteering: (1) Whether to participate in volunteering, which is a dummy variable, expressed in Vol. If an enterprise discloses volunteering matters in CSR report, the value is 1; otherwise, it is 0. (2) Volunteer hours(hours), which means the cumulative duration of volunteer service disclosed in the corporate social responsibility report, expressed in Vol-hour.

4.2.2. Explanatory Variables.

This study is mainly aimed to examine the impact of firm size and ownership on corporate volunteer service. Therefore, firm size and ownership are taken as explanatory variables. The samples are first divided into state-owned enterprises(SOEs) and non-state-owned enterprises(NSOEs). Further, the state-owned enterprises are divided into national SOEs and local SOEs to be empirically tested respectively.

The variables measurement is shown in Table 1.

Table 1. Variable measurement

Type of variable	Name	Code	Variable measurement
Explained variables	Participating in volunteering service	Vol-dummy	If enterprise discloses volunteering matters in CSR report, the value is 1; otherwise,0
	Volunteering service hours	Vol-hour	The natural logarithm of volunteer service time (hours) disclosed in CSR report plus 1
Explanatory variables	Company size	SIZE	The natural logarithm of total assets
	Ownership	SOE	If the actual controller is a government agency, the value is 1, otherwise, 0
	Central SOEs	CSOE	If the actual controller is central government ,the value is 1; otherwise 0.
	Debt	LEV	Total liabilities divided by total assets
Control variables	Industry	INDUSTRY	A dummy variable. If the enterprise belongs to an industry that directly contacts consumers, the value is 1; otherwise, it is 0
	Profitability	ROA	Net profit divided by total assets
	Development	GROWTH	Revenue growth rate
	Concentration	FIRST	Shareholding ratio of the largest shareholder

4.3 Empirical Models Specification

Model 1 is constructed to verify the hypothesis. Since participating in volunteering (Vol) is a dummy variable and volunteer hours (Vol-hour) is a continuous variable, the Logit model and the OLS model are applied to test the samples respectively.

$$\text{Vol}_{i,t} = \beta_0 + \beta_1 \cdot \text{Size}_{i,t} + \beta_2 \cdot \text{Ownership}_{i,t} + \beta_3 \cdot \text{Lev}_{i,t} + \beta_4 \cdot \text{Controls} + \varepsilon_{i,t} \quad (1)$$

5 The Empirical Results

5.1 Descriptive Statistics

Table 2 show the descriptive statistics results. The mean of Vol dummy is 0.566, indicating that 56.6% of the sample have participated in volunteer service, showing that volunteer service has been a common behavior recently, which may be related to the impact of natural disasters and COVID-19 pandemic. The mean of SOE is 0.491, indicating that 49.1% of the sample are state-owned enterprises and 51% are non-state-owned enterprises. In 2020, China Mobile (600941) ranked the first in volunteer hours, providing 94.52 million hours. In 2021, Overseas Chinese Town (000069) ranked the first, providing 234.74 million hours of volunteer service, including epidemic prevention, nature education, environmental protection, etc.

Table 2. Descriptive statistics

Variable	N	Mean	Standard deviation	Minimum	Max
Vol-dummy	1953	0.566	0.496	0.000	1.000
Vol-hour	1953	0.805	2.571	0.000	14.669
SIZE	1953	23.507	1.504	20.119	28.548
SOE	1953	0.491	0.500	0.000	1.000
LEV	1953	0.468	0.190	0.014	1.093
INDUSTRY	1953	0.314	0.464	0.000	1.000
ROA	1953	0.049	0.067	-0.384	0.478
GROWTH	1953	0.245	2.459	-0.847	102.630
FIRST	1953	0.358	0.162	0.041	0.900

Fig .1 shows t corporate size has a significant impact on volunteer hours, and this effect is more obvious in state-owned enterprises, consistent with hypothesis 1.

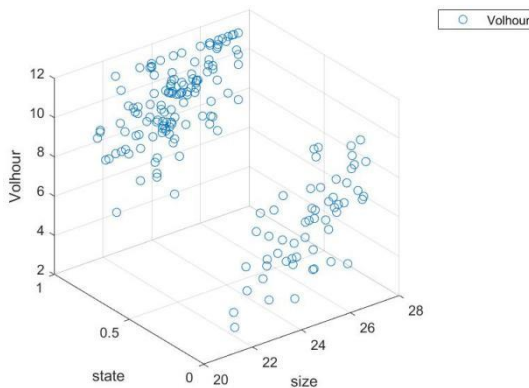


Fig. 1. Size, state and corporate volunteer service hours

Table 3 shows that SOEs account for a higher proportion than NSOEs, which means SOEs assume more social obligations and have more resources to take on volunteer service. The result is consistent with the hypothesis. We also find that NSOEs (mainly private enterprises) are important complement of China volunteer service career.

Table 3. Ownership and corporate involvement in volunteering

Ownership	2020		2021	
	Number of companies involved in volunteering	Proportion/%	Number of companies involved in volunteering	Proportion/%
SOEs	303	57.71	330	56.8
NSOEs	222	42.29	251	43.2
Total	525	100	581	100

5.2 Regression Results

Table 4 shows the results of regression analysis. SIZE is positively correlated with corporate participating in volunteering and volunteer hours at a significant level of 1%. Hypothesis 1 is verified. The regression coefficients of SOE are positive and pass the significance test, which means that SOEs are more willing to take on volunteering service and have higher level of volunteering, which supports hypothesis 2.

Table 4. Size, ownership and corporate volunteering

Variable	The full sample (N=1953)		The sub-sample (N=1106)
	Vol-dummy	Vol-hour	Vol-hour
SIZE	0.428*** (9.57)	0.574*** (12.40)	0.742*** (9.63)
SOE	0.407*** (3.76)	0.260** (2.13)	0.378* (1.73)
Constant	-10.297*** (-10.85)	-12.344*** (-12.69)	-14.243*** (-8.02)
Other variables	Control	Control	Control
χ^2/F	233.21	33.20	16.50
Pseudo/R ²	0.087	0.107	0.107

Note: *, **, *** are significant at the level of 10%, 5% and 1% respectively; Z value in parentheses for Logit models and T value in parentheses for OLS models

Figure 2 shows that corporate size and ownership have a positive impact on corporate volunteering. In addition, this effect occurs mainly in SOEs.

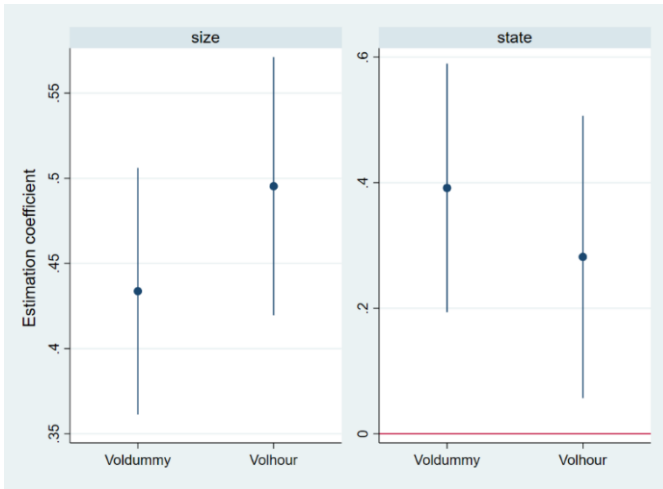


Fig. 2. The visualization of the regression results

Further, we used state-owned enterprises(SOEs) as sample. Table 5 shows that central SOE is positively correlated with Vol-dummy and Vol-hour at the significance level of 5% and 10% respectively. The results show that central state-owned enterprise performs better than local state-owned enterprises(LSOEs). Hypothesis 3 is tested.

Table 5. CSOE and corporate volunteering

Variable	Vol-dummy	Vol-hour
SIZE	0.521*** (7.35)	0.702*** (8.49)
CSOE	0.455** (2.49)	0.383* (1.66)
Constant	-12.244*** (-8.18)	-15.537*** (-9.12)
Other variables	Control	Control
N	957	957
χ^2/F	117.37	16.14
Pseudo/R ²	0.096	0.106

5.3 Robustness Test

1. Replace explanatory variables.

We selected the natural logarithm of the total operating income, replacing total assets, to measure company size. The regression results in Table 6 show that the coefficients of Size, SOE, and CSOE are still significant. The conclusion is unchanged.

Table 6. Robustness test (replace explanatory variables)

Variable	Vol-dummy	Vol-hour	Vol-hour	Vol-dummy	Vol-hour
SIZE	0.336*** (8.35)	0.479*** (11.08)	0.599*** (8.59)	0.351*** (5.81)	0.533*** (6.97)
SOE	0.480*** (4.50)	0.354*** (2.90)	0.453** (2.11)		
CSOE				0.499*** (2.73)	0.473** (2.02)
Constant	-8.038*** (-9.85)	-9.873*** (-11.40)	-12.057*** (-8.49)	-8.388*** (-6.92)	-11.590*** (-7.71)
Other variables	Control	Control	Control	Control	Control
N	1953	1953	1106	957	957
χ^2/F	207.53	28.62	16.05	92.93	12.66
Pseudo/R ²	0.078	0.093	0.093	0.076	0.085

2. Replace explained variables.

We used number of employees participating in volunteering (Vol-employees) to measure the level of corporate volunteering. The results in Table 7 show that Size and SOE is both positively correlated with the person-time of employees at the significance level of 1%.

Table 7. Robustness test (replace explained variables)

Variable	The full sample (N=1953)	The sub-sample (N=1106)	SOE sample (N=957)
SIZE	0.288*** (7.99)	0.318*** (5.31)	0.379*** (5.77)
SOE	0.309*** (3.25)	0.500*** (2.95)	
CSOE			0.204 (1.11)
Constant	-6.484*** (-8.55)	-7.233*** (-5.69)	-8.347*** (-6.16)
Other variables	Control	Control	Control
χ^2/F	20.50	10.62	8.01
Pseudo/R ²	0.069	0.063	0.056

The sub-sample refer to companies that disclosed volunteer services activities in CSR report.

6 Conclusion

Using data of Chinese listed companies during COVID-19 epidemic, this paper put forward and empirically testified the influence of company size and ownership on corporate volunteering. The results show that, based on "signal" and "reputation" motivation, large companies take on more volunteer services responsibility. In addition, SOEs take on more volunteer services responsibility. Existing literature has found that private enterprises have higher level of philanthropic donations than SOEs. However, our findings show that in China SOEs still undertake more social obligations by providing volunteer services in the form of devoting labor, time and service, rather than giving monetary donation. This conclusion confirms the "social" characteristics of SOEs.

Based on the findings, the following suggestions are put forward: (1) In the crisis event, the government should actively develop the regulations to promote the development of Chinese volunteering career. The government institutional policies to stimulate SOEs to bear more social responsibilities should be strengthened. (2) State-owned enterprises are supposed to develop corporate policies about volunteering, provide policy guarantees for employees to be engaged in volunteer activities, enhancing corporate social image and reputation; (3) Volunteer service is an important means of the third distribution, which could improve social governance and cohering social values. A good charitable cultural atmosphere should be strengthened in the society.

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