CORPORATE PHILANTHROPIC DISASTER RESPONSE AND POST PERFORMANCE: EVIDENCE FROM CHINA

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ABSTRACT

This paper examines whether the decision and amount of firm charitable giving in response to catastrophic events are related to firm post-performance, and whether firm ownership type moderates this relationship. Using data on Chinese firms' philanthropic response to the 2008 Sichuan earthquake, we find that firm future sales growth and ROA change are positively associated with both the probability and the amount of corporate giving. The results also indicate that this positive philanthropic giving-post performance relationship is more pronounced in non-state-owned firms as philanthropic donation is more strategically driven for those firms. This study thus provides evidence suggesting that corporate philanthropic giving furthers firms' economic objectives, even in an emerging market setting.

JEL: G11, G12

KEYWORDS: Catastrophic Events, Corporate Philanthropy, Corporate Social Responsibility, Post Performance, State-owned Firms

INTRODUCTION

The Great Recession resulted in corporate giving decreases of between 4.5% and 8% in inflation-adjusted dollars for US firms, according to the Giving USA Foundation. However, there was a simultaneous surge in the demand for help as the economy spiraled lower and catastrophic events occurred frequently. These events include the South Asian tsunami in December 2004, Hurricane Katrina in the southern U.S. in August 2005, the Kashmiri earthquake in October 2005, China's Sichuan earthquake in May 2008, and the Haiti earthquake in January 2010. How should firms respond to philanthropic disasters in this tough time? Should they decrease their donations? The answer to these questions relies on whether corporate philanthropy enhances financial performance or whether it is a distribution of corporate profits. Accordingly, the purpose of this study is to examine whether corporate philanthropy furthers major objectives of business enterprises—revenue growth and net income increase.

The present research focuses on one special class of corporate social responsibility (CSR) — corporate philanthropic giving (CPG). Although corporate philanthropic response is not enforced as are economic and legal responsibilities, it is increasingly practiced by companies and is generally viewed as a sign of good corporate citizenship. Previous research (e.g., Chapple and Moon, 2005; Katz et al., 2001; Kolk, 2005; Muller and Whiteman, 2009; Shen, 2004; Welford, 2005) suggests that companies worldwide react and respond differently to natural disasters, and their philanthropic donations can be motivated by a variety of factors, including cultural, institutional (e.g., stakeholder configurations), organizational, economic, and geographic. The motivation for corporate giving is not inherently altruistic. Corporate giving is a reaction to seismic shifts in the environmental landscape, and it represents a reactive strategy crafted to counter pressures such as stakeholder demands, threats of government intrusion into industry's freedom, and escalating public expectations (Campbell et al, 1999; Gardberg and Fombrun, 2006; Patten, 2008). In today's global business, CPG is becoming more strategic, as has been indicated by Brammer and Millington (2006), Saiia (2002), and Sánchez (2000). The recent Great Recession has caused firms to become more focused on strategic giving and tighten the link between corporate giving and the products and services companies sell (Farrell, 2010). Corporate philanthropy may help a firm establish reputation, brand recognition, and loyalty; promote itself as a "socially responsible" firm; or attract and maintain a work force (Sánchez, 2000). Dean (2003) finds that corporate donations can help the company forge a relationship with the customer and build loyalty. As such, we predict that corporate philanthropy improves a major objective of business enterprises—revenue growth and further enhances the bottom line—net income.

The relationships between philanthropy and post-performance are not the same for firms with different ownership types. Zhang et al. (2010) find that the extent of corporate philanthropic contributions for state-owned firms is less than that for private firms. They also find that state-owned firms are less likely to respond compared to non-state-owned firms. According to the strategic view, firms engage in CPG to increase firm reputation, attract customers, build political relations, and further increase profit. Managers of non-state-owned firms have more incentives to prompt firm profit and accordingly are more likely to engage in CPG. As thus, we predict that the relation between CPG and post-performance are stronger for non-state-owned firms as CPG in those firms are more strategically driven.

The context of our study is the Sichuan earthquake in China, which took place in May 2008. Anecdotal evidence indicates that Chinese companies quickly and effectively responded to the call for donations and disaster response efforts, and that corporate donations were significant. We identified 703 Chinese listed firms that engaged in CPG through outright cash donations and/or in-kind donations with the value released by the donor firm in May and June 2008. We find that the likelihood and extent of corporate contributions are positively related to firms' future revenue growth and ROA increase. We also document the mediating effect of ownership type on the relationship: the positive relationship between CPG and post-performance is more pronounced in non-state-owned firms. Our findings are robust when we examine only firms that made donations.

This study contributes to the literature in several ways. First, using a unique research setting provided by the Sichuan earthquake, we investigate the link between CPG and post-performance. To the best of our knowledge, this is the first empirical study explicitly addressing such an association in an emerging market setting. While the issue of CPG has attracted growing research interest in recent years, most empirical results are based on U.S. data, and this paper is one of the few empirical studies in emerging markets using a large research sample. This article adds to a growing number of non-U.S. studies by investigating the link between CPG and post-performance in China, the largest developing economy in the world. Second, we provide evidence of positive association between CPG and post-performance. These findings are consistent with previous research in that CSR activities are driven by strategic motivation and are justified by future performance improvement. Our results add to our understanding of the motivations behind CPG and consequences of CPG and carry important implications for practice. We contribute to the literature on sustainability, performance, and CSR by investigating the association between corporate philanthropy (donations) and post-performance. Third, we also find a mediating effect of ownership type on this relationship, which has never been documented before.

The remainder of this article is organized as follows: the "Background and hypotheses development" section provides institutional background, the literature review, and research questions. The "Sample and descriptive analysis" section describes data collection and research methods. The "Empirical results" section presents the results. The ''Discussion and conclusion'' section concludes, suggesting implications of the study.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Background

The 2008 Sichuan earthquake, which registered 8.0 on the Richter scale, occurred on the afternoon of May 12, 2008. As of October 8, 2008, official figures stated that 69,227 people were confirmed dead, 374,643 injured, and 17,923 were still listed as missing. 46.25 million people lived in the affected area and the direct economic loss is estimated as high as 845.1 RMB (123 billion U.S. dollars).(Xinhua Net, 2008) It was both the strongest and the deadliest earthquake to hit China since the 1976 Tangshan earthquake, which claimed the lives of at least 240,000 (Spignesi, 2005). A report by reinsurer Munich

Re (2008) revealed that the number of great natural catastrophes has a rising trend since 1950s, and overall losses and insured losses from such events have been rising steadily from 1950 to 2008. The increasing natural disasters call for more financial and social disaster relief efforts by the government, non-governmental organizations (NGOs), individuals, and corporations in the future. As Muller and Whiteman (2009) suggest, such corporate activities include financial donations and non-financial donations such as employee volunteer jobs. With the economic development of emerging markets, listed firms in those markets have been more and more involved in corporate philanthropic activities in recent years. In the aftermath of the Sichuan earthquake, almost half of the firms listed on the Chinese stock market made relief efforts. According to the Deputy Secretary-General of the China Charity Foundation (CCF), both the number of companies participating and the size of the gifts were extraordinary (Wang, 2008).

Motivations for CPG

The literature suggests four popular motivations for CPG: managerial utility, altruistic, political, and strategic (Brammer and Millington, 2005; Brown et al., 2006; Campbel et al., 2002; Saiia et al., 2003). According to managerial utility motivation, corporate philanthropy is used by CEO's to enhance their self-interests at the expense of company (Atkinson and Galaskiewicz, 1988; Galaskiewicz, 1997; Haley, 1991). Altruistic motivation refers to that corporate philanthropy is viewed as a firm's obligation to maximize public welfare without any expected return (Campbell et al., 1999; Cowton, 1987). Political motivation posits that firm engages in charity activities in order to maximize political return on investment, such as community reputation (Neiheisel, 1994; Sánchez, 2000). But one notable trend of CPG is that corporate philanthropy activity is becoming more strategic (Brown et al., 2006; Saiia, 2002; Sánchez, 2000). Saiia et al. (2003) define strategic philanthropy as the practice of "giving of corporate resources to address non-business community issues that also benefits the firm's strategic position and, ultimately, its bottom line" (Saiia et al., 2003, p.170).

From the perspective of strategic CPG, firms "do good in order to do well," and corporate philanthropy appears to be consistent with the concept of the profit-maximizing model of a business. A lot of empirical papers have showed that CSR is positively associated with firm's future financial performance and stock value (Moskowitz, 1972; Waddock and Graves, 1997). According to Griffin and Mahon's (1997) review, the majority of research papers from 1970s to 1990s concerning the relationship between CSR and financial performance are positive. Patten (2008) finds that CPG is valued by the stock market. Sánchez (2000) suggests that firms engage in philanthropy to maximize benefits. In recent years, increased global competition has required that firms establish their competitive advantage from various sources. Corporate philanthropy may help a firm establish brand recognition and loyalty, promote itself as a "socially responsible" firm, or attract and maintain a work force (Sánchez, 2000). As Brammer and Millington (2006) suggest, strategy plays a significant role in determining how firms manage their philanthropy. Our study thus focuses on the strategic motives for giving and its relationship with firm future performance, while taking into account firm ownership type.

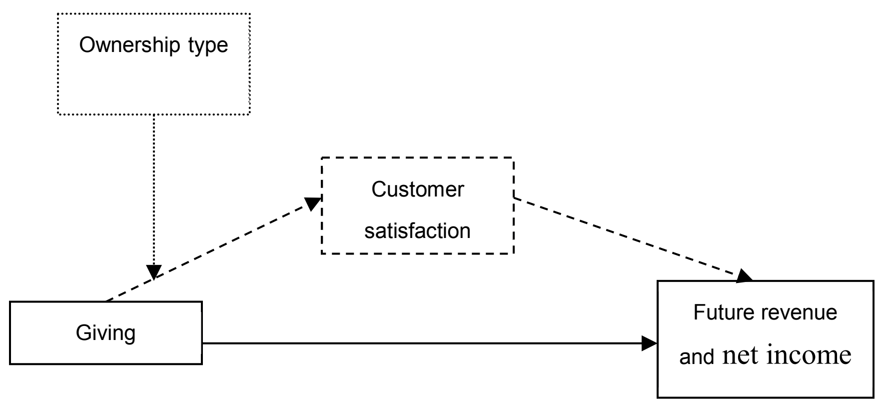
CPG, Post-Performance, and Ownership Type: Hypothesis Development

While it is not easy to ascertain managers' true motivations for engaging in corporate philanthropy, we can study the effects of this activity. In particular, we examine two major consequences of corporate giving—the enhancement of revenue growth and ROA. Anecdotal evidence, as well as the prior empirical and theoretical research that we discussed below, provide the ground-work for investigating the link between philanthropy and post-performance.Well-designed contributions can increase the firm's reputation and brand recognition among customers in a similar manner to advertising (Lev et al. 2010). After Wang Lao Ji, a Chinese beverage company, donated 100,000,000 Yuan, which equals to its 2007 annual income, to the Sichuan earthquake, people are inspired by its good deeds and its sales encountered huge increase afterwards (Shan et al., 2008). McWilliams and Siegel (2001) suggest that companies can also adopt CSR as a differentiation strategy because CSR helps a firm to build its reputation as being reliable and honest. Indeed, studies show that consumers assume the products of a reliable and honest firm will be of high quality (Brammer and Millington, 2005; Fisman et al., 2006). A survey of 463 U.S.

companies found that companies taking a more businesslike approach to charity reported a better image, increased employee loyalty, and improved customer ties (Schwartz and Smart, 1995). Another survey by Walker Information Inc., a research and consulting company that tracks customer satisfaction and business ethics, found that 47 percent of consumers would be more likely to buy from a "good" company that was socially responsible (Sato, 1998). The contributions-future performance relation we conjecture is depicted in Figure 1 based on Lev et al. (2010). There are at least several ways that contribution can affect future sales and income. First, philanthropy can improve the reputation of a company and enhance its customer loyalty, thereby reducing the price elasticity of demand. Second, philanthropy programs can also raise consumer demand directly. One example is the case of Wang Lao Ji that we discussed before. Furthermore, firms can use their community involvement and relationships with nonprofit organizations, sustained by contributions, to generate new sales leads. Finally, firms can improve economic conditions internationally with the long term goal of enhancing the size and quality of their markets (Lev et al., 2010). Thus, we posit that CPG is positively related to firm future revenue growth and ROA change. Accordingly, we hypothesize that

H1: There is a positive relation between CPG and firm future revenue growth and ROA change.

Figure 1: The Link Between Corporate Philanthropy and Post-Performance



Based on Lev et al. (2010)

Previous research also indicates that firm ownership type is an important determinant of firm strategies and influences CPG. Economists usually view government ownership as being detrimental to corporate performance (Megginson and Netter, 2001; Shleifer and Vishny, 1998). Thus, Estrin and Perotin (1991) argue that firms with the government as an owner will not concentrate on profit maximization because the state has both political and economic objectives, and that corporate performance in such firms will be inferior because of weaker governance arrangements. This suggests that government ownership is detrimental to company performance. Megginson and Netter (2001) conclude that "[the weight of empirical research] is now decisively in favor of the proposition that privately owned firms are more efficient and more profitable than otherwise comparable state-owned firms."

As such, Zhang et al. (2010) find that state-ownership hinders CPG. First, according to the strategic view, firms engage in CPG to increase firm reputation, attract customers, build political relations, and further increase profit. Managers of non-state-owned firms have more incentives to prompt firm profit and accordingly are more likely to engage in CPG. Another possible reason that non-state-owned firms are more likely to be involved in CPG is that, as prior literature has documented, non-state-owned firms have better corporate governance structures than state-owned firms (Estrin and Perotin, 1991) and better corporate governance will enhance a firm's corporate social performance (Coffey and Wang, 1998; Wang and Coffey, 1992). Thus, non-state-owned firms should have more incentives to use CPG to differentiate itself from its competitors and they should also enjoy better effects of using CPG to enhance future performance. Accordingly, we propose the following hypothesis:

H2: The positive relation between CPG and post-performance is stronger for non-state-owned firms.

<u>Sample</u>

We combine data from different sources in the current study. The most unique feature of our data is that we hand collected data on donation amounts and donation characteristics for all companies listed on the Chinese A-share stock market. Consistent with previous literature (e.g., Muller and Whiteman, 2009), our research on donations is based on firm self-reporting. We collect data from the official information disclosure website appointed by the China Securities Regulatory Commission (CSRC), companies' websites and press releases. We also systematically search information via Lexis Nexis China and Google China News. We conducted our search in the period of May-June 2008, as the requirement for a dated press release increases the likelihood that the contributing firm is seeking strategic value for its giving (Patten, 2008). In total, we identified 703 companies, about 47% of the total number of A-share companies, with an earthquake relief–oriented press release issued within the time frame of interest. We measured corporate contributions as outright cash donations plus in-kind donations.

The announced contributions for the donation firms ranged from 8,000 Yuan to 60,210,000 Yuan with a mean (median) of 3,086,688 (1,001,000) Yuan. We get financial data from the CSMAR database, and use the comparison of firm financial variables (i.e., sales growth and change of return on assets) for quarter 2-quarter 4 in 2007 to quarter 2-quarter 4's in 2008 as our post-performance measures. We use widely accepted accounting-based performance measures, including sales growth and the change of return on assets (ROA), to measure the impact of donation on firm's performance. Among the sample firms with available financial data, we obtain the ultimate controlling shareholder data from the CCER database, and we then classify the firms into state-owned firms whose ultimate shareholder is the state and non-state-owned firms whose ultimate shareholder is an entity other than the state.

To facilitate empirical study, we include only firms that have no missing financial data. For firms' sales growth, we exclude observations whose distances to the sample mean are larger than three times of the sample standard deviation. We winsorize the other continuous variables at the top 1% and bottom 99% to alleviate outlier problems. Our final sample includes 1,326 companies, with 614 donators and 712 non-donators. Table 1 reports the summary statistics of sample firms.

For the donation variables, we find that 46.3% of the sample companies contribute to earthquake relief and the amount of donation varies greatly across firms. The percent of state-owned firms in our sample is 64.8, which is higher than those in Japan (0.80), Singapore (23.50), UK (0.08), Germany (6.30), and France (5.11). (Claessens et al., 2000; Faccio and Lang, 2002) Compared with quarter 2-quarter 4 in 2007, quarter 2-quarter 4's sales in 2008 increase 8% on average. The mean ROA of sample firm is 1.8%, and the profitability of sample firms deteriorates because DROA is -1.3% on average.

Table 1: Descriptive Statistics

	N	Mean	STD	Min	Q1	Median	Q3	Max
1. Donation dummy	1326	0.463	0.499	0.000	0.000	0.000	1.000	1.000
2. Donation	1326	6.524	7.092	0.000	0.000	0.000	13.816	17.913
3. State	1326	0.648	0.478	0.000	0.000	1.000	1.000	1.000
4. Size	1326	21.519	1.129	18.346	20.739	21.424	22.163	25.135
5. Leverage	1326	0.507	0.181	0.075	0.378	0.518	0.638	0.996
6. SG	1326	0.080	0.364	-0.968	-0.104	0.067	0.245	2.114
7. ROA	1326	0.018	0.081	-0.504	0.005	0.023	0.050	0.355
8. DROA	1326	-0.013	0.086	-0.509	-0.032	-0.005	0.011	0.686

This table shows the descriptive statistics used in our analysis. Variable Definitions: Donation dummy: a dummy variable that takes the value of 1 if the firm contributes to earthquake relief and 0 otherwise. Donation: log form of total amount of cash and in-kind donation of firms. State: a dummy variable that takes the value of 1 if state is the ultimate controller for firm i and 0 otherwise. Size: log form of total assets at the beginning of the year t. Leverage: total debt divided by total assets at the beginning of the year t. SG: the difference between quarter 2-quarter 4's sales in year t and quarter 2-quarter 4's sales in year t-1 divided by quarter 2-quarter 4's sales in year t-1. ROA: net income divided by total assets. DROA: the difference between net income in year t and net income in year t-1 divided by total assets at the beginning of the year t.

RESULTS

In order to formally investigate our research questions, we conduct the ordinary least squares (OLS) regressions to examine the relation between CPG decisions and firm post-performance, and the mediating effect of ownership type. To control other factors which may also affect firms' future performance, we also include firms' size, leverage, and past financial performance in the regression models (e.g. Lev et al., 2010; Su and He, 2010).

$$\begin{aligned} SG_{it} = {} & \alpha_0 + \alpha_1 DonationDummy_{it} + \alpha_2 State_{it} + \alpha_3 DonationDummy_{it} \cdot State_{it} \\ & + \alpha_4 Size_{it-1} + \alpha_4 Lev_{it-1} + \alpha_5 ROA_{it-1} + \alpha_6 SG_{it-1} + Industries + \varepsilon_{it} \end{aligned} \tag{1}$$

$$\begin{aligned} DROA_{it} = {} & \alpha_0 + \alpha_1 DonationDummy_{it} + \alpha_2 State_{it} + \alpha_3 DonationDummy_{it} \cdot State_{it} \\ & + \alpha_4 Size_{it-1} + \alpha_4 Lev_{it-1} + \alpha_5 ROA_{it-1} + Industries + \varepsilon_{it} \end{aligned} \tag{2}$$

Table 2 presents the results of equation (1). After controlling for the various drivers of CPG, we find that the coefficients of donation dummy are significantly positive, indicating that donation firms enjoy higher sales growth rate. Our result is consistent with Lev et al. (2010)'s assertion that corporate philanthropy has a positive effect on sales growth, even in the emerging market setting. This finding provides evidence for our first hypothesis. To examine whether ownership type mediates the relationship between corporate giving and post-performance, we estimate the coefficient of the interaction "$DonationDummy \cdot State$". We find that "$DonationDummy \cdot State$" is negatively associated with sales growth. This result is consistent with our conjecture that the positive relation between donation decision and sales growth is stronger for non-state-owned firms.

Table 2: Multiple Regression Results for Tests of the Relation Between Sales Growth and Firm Donation Decision

	Reg1		Reg2	
Model explanatory power				
Number of observations	1238		1238	
Adjusted R^2	0.029		0.031	
F-statistic	3.00		2.90	
Significance of F-statistic	0.000		0.000	
Parameter estimates				
Variables	Parameter estimate	t-statistic	Parameter estimate	t-statistic
Intercept	-0.549**	2.28	-0.571**	2.36
$DonationDummy_t$	0.039*	1.82	0.100**	2.41
$State_t$	0.009	0.38	0.054	1.49
$DonationDummy_t \cdot State_t$			-0.092**	1.96
$Size_{t-1}$	0.026**	2.24	0.025**	2.22
Lev_{t-1}	0.041	0.52	0.04	0.51
ROA_{t-1}	0.301	1.47	0.292	1.44
SG_{t-1}	0.004	0.29	0.003	0.25
Industries	Controlled		Controlled	

*This table shows the relation between sales growth and firm donation decision as estimated using Equation 1. *p<0.1, **p<0.05, ***p<0.01. Standard errors are adjusted for heteroskedasticity. SG_{Q1}: the difference between quarter 1's sales in year t and quarter 1's sales in year t-1 divided by quarter 1's sales in year t-1. Please refer to Table 1 for variable definitions.*

In Table 3, we use using ROA change as the dependent variable. The coefficient on donation dummy is positive and significant. This result indicates that donation has a positive effect on firm's post performance. The interaction "$DonationDummy \cdot State$" is significantly negative, supporting the view that the positive contributions-post performance relationship is stronger for non-state-owned firms.

Table 3: Multiple Regression Results for Tests of the Relation between ROA and Firm Donation Decision

	Reg1		Reg2	
Model explanatory power				
Number of observations	1326		1326	
Adjusted R^2	0.293		0.295	
F-statistic	13.08		13.09	
Significance of F-statistic	0.000		0.000	
Parameter estimates				
Variables	Parameter estimate	t-statistic	Parameter estimate	t-statistic
Intercept	-0.065	1.45	-0.07	1.57
$DonationDummy_t$	0.023***	6.10	0.035***	4.65
$State_t$	-0.005	0.97	0.004	0.61
$DonationDummy_t \cdot State_t$			-0.018**	2.08
$Size_{t-1}$	0.005**	2.13	0.005**	2.13
Lev_{t-1}	-0.078***	5.05	-0.078***	5.08
ROA_{t-1}	-0.665***	9.57	-0.668***	9.62
Industries	Controlled		Controlled	

*This table shows the relation between ROA and firm donation decision. *p<0.1, **p<0.05, ***p<0.01. Standard errors are adjusted for heteroskedasticity. Please refer to Table 1 for variable definitions.*

Size has a positive association with ROA change, which indicates that big firms' profit increase more than that of small firms. Leverage is inversely related with ROA change, in line with the finding in the literature that high leverage is detrimental to firm performance (e.g. Opler and Titman, 1994). The coefficient of lag ROA is negative, which is consistent with the mean reversion phenomenon (Nissim and Penman, 2001).

In equation (1) and (2), we investigate the impact of firms' donation likelihood on their post-performances, and the mediating effect of ownership type. In this part, we replace donation dummy with donation to see whether donation amount will influence afterwards revenue growth and ROA changes. We define donation as log form of total amount of cash and in-kind donation of firms. If firm does not donate, then donation equals to zero.

$$SG_{it} = \alpha_0 + \alpha_1 Donation_{it} + \alpha_2 State_{it} + \alpha_3 Donation_{it} \cdot State_{it} + \alpha_4 Size_{it-1} + \alpha_5 Lev_{it-1} + \alpha_6 ROA_{it-1} + \alpha_7 SG_{it-1} + Industries + \varepsilon_{it} \quad (3)$$

$$DROA_{it} = \alpha_0 + \alpha_1 Donation_{it} + \alpha_2 State_{it} + \alpha_3 Donation_{it} \cdot State_{it} + \alpha_4 Size_{it-1} + \alpha_4 Lev_{it-1} + \alpha_5 ROA_{it-1} + Industries + \varepsilon_{it} \quad (4)$$

Table 4 reports the multiple regression analysis of equation (3). The coefficient of donation is positive and significant in both regression 1 and regression 2, in accordance with our first hypothesis, which is that firms who donate enjoy higher future revenue growth. The interaction " $Donation \cdot State$ " is significantly negative, supporting our second hypothesis, indicating that the positive relation between CPG and post-performance is stronger for non-state-owned firms.

Table 4: Multiple Regression Results for Tests of the Relation Between Sales Growth and Firm Donation Amount

	Reg1		**Reg2**	
Model explanatory power				
Number of observations	1238		1238	
Adjusted R^2	0.030		0.033	
F-statistic	3.11		3.00	
Significance of *F*-statistic	0.000		0.000	
Parameter estimates				
Variables	Parameter estimate	*t*-statistic	Parameter estimate	*t*-statistic
Intercept	-0.512**	2.10	-0.539**	2.21
$Donation_t$	0.003**	2.16	0.008***	2.67
$State_t$	0.011	0.46	0.058	1.58
$Donation_t \cdot State_t$			-0.007**	2.06
$Size_{t-1}$	0.024**	2.04	0.023**	2.04
Lev_{t-1}	0.042	0.54	0.042	0.53
ROA_{t-1}	0.292	1.43	0.283	1.39
SG_{t-1}	0.004	0.28	0.003	0.23
Industries	Controlled		Controlled	

*This table shows the relation between sales growth and firm donation amount as estimated using Equation 3. *p<0.1, **p<0.05, ***p<0.01. Standard errors are adjusted for heteroskedasticity. SG_{Q1}: the difference between quarter 1's sales in year t and quarter 1's sales in year t-1 divided by quarter 1's sales in year t-1. Please refer to Table 1 for variable definitions.*

As reported in Table 5, donation also has a significantly positive impact on ROA change, with a t-statistic of 6.45 and 5.06 in regression 1 and regression 2, respectively. Again, the coefficient of the interaction " $Donation \cdot State$ " is negative and significant. These results are in line with the fundamental relationship depicted in Figure 1 and further confirm our hypotheses.

Table 5: Multiple Regression Results for Tests of The Relation Between ROA and Firm Donation Amount

	Reg1		Reg2	
Model explanatory power				
Number of observations	1326		1326	
Adjusted R^2	0.295		0.298	
F-statistic	13.43		13.55	
Significance of *F*-statistic	0.000		0.000	
Parameter estimates				
Variables	Parameter estimate	*t*-statistic	Parameter estimate	*t*-statistic
Intercept	-0.049	1.09	-0.056	1.25
$Donation_t$	0.002^{***}	6.45	0.003^{***}	5.06
$State_t$	-0.004	0.85	0.006	0.88
$Donation_t \cdot State_t$			-0.001^{**}	2.35
$Size_{t-1}$	0.004^{*}	1.77	0.004^{*}	1.80
Lev_{t-1}	-0.078^{***}	5.04	-0.078^{***}	5.08
ROA_{t-1}	-0.669^{***}	9.65	-0.672^{***}	9.70
Industries	Controlled		Controlled	

*This table shows the relation between ROA and firm donation amount as estimated using Equation 4. *p<0.1, **p<0.05, ***p<0.01. Standard errors are adjusted for heteroskedasticity. Please refer to Table 1 for variable definitions.*

CONCLUSION

The present study investigates the relationship between CPG and afterwards revenue growth and ROA changes. Using data on Chinese firms' philanthropic response to the 2008 Sichuan earthquake, we find that the probability and amount of charitable giving are positively associated with firms' future performance. The findings are consistent with the strategic view of CPG, in that managers use philanthropic giving as part of the firm's strategy to enhance economic targets. Firms are not purely altruistic when making philanthropic donations. Instead firms utilize CPG as a marketing strategy to differentiate themselves from their competitors with the intent to establish firm reputation and create economic value for shareholders. As a result, firms' philanthropic donation improves their future performance. More interestingly, we find that the positive relationship between CPG and post-performance is stronger for non-state-owned firms. This suggests that non-state-owned firms have more incentives and work harder at differentiating themselves from their competitors and further reach their economic goal.

Our findings offer useful implications for future research. Although the strategy literature (e.g., Fry et al., 1982) suggests that charitable contributions are strategic to develop the firm's reputation and to increase shareholder wealth, this perspective has not been tested previously in an emerging country. As there are important differences in cultural, institutional, legal, economic, and ethical backgrounds between developed and developing countries (Ge and Thomas, 2007; Lam and Shi, 2008; Whitcomb et al., 1998), our finding that firms in an emerging market use CPG as a strategic tool to enhance future performance is an important contribution to the CPG literature. Moreover, our finding that firm ownership type significantly affects the relationship between CPG and post-performance suggests that CPG cannot be viewed in isolation from other corporate behavior or the economic environment. It is appropriate in future research to consider CPG as part of both the economic and the cultural environments. Our documented relationships between CPG, ownership type, and post-performance have important implications for business managers in China. As our evidence shows that corporate philanthropic disaster donations enhance future firm performance, managers can justify donation programs to shareholders and use donations strategically to foster firms' future development. For state-owned firms, our results show them the importance of strategically incorporating CPG in firm strategies to build better image and to increase firm value.

Our study also has implications for governors. In view of rising natural catastrophes in recent years, corporate philanthropic disaster response is playing a more important role in helping societies recover from the disasters. Although governments and other non-profit organizations are major relief sources, corporate giving plays a major complementary role. Therefore the government and its regulatory bodies should design a more effective donation system to encourage corporate charity and create a win-win situation for all related parties.

Although this study provides important insights into CPG, the limitations of the paper suggest several directions for future research. First, our research examines only the listed firms in China. While China is an important emerging market that provides a worthwhile research environment, our results may not generalize to other countries because institutional structure and national culture can affect firms' CSR behavior (Furrer et al., 2004). To better understand the roles of institutional structure and national culture in firms' CPG behavior, future research could compare the strategic use of CPG in different countries. Second, due to data limitation, we focus on listed firms, while nonlisted firms may also donate. Examining the CPG behavior of nonlisted firms is promising, as listed firms are only a small portion of all firms. Besides, listed firms' donation decisions may be affected by investor sentiment in the stock market. Finally, although we show robust evidence that firms strategically use CPG to enhance firm future profits, we did not investigate the effectiveness of different types of corporate philanthropy programs (e.g., donation in goods, volunteering) on firm performance nor other mechanisms by which corporate philanthropic donation enhances a firm's competitive advantages (e.g., improving labor relations, or influencing regulators). It would be a fruitful area to investigate the effectiveness of different philanthropy programs and how firms plan their CPG strategies.

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