

Will Companies with Poor Environmental Performance Be More Inclined to Donate?

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Abstract

In the past, the research on corporate charitable donations has been studied from the strategic motivation and political motivation of enterprises. From the perspective of instrumental motivation, under the China's policy background of strengthening environmental protection, the study takes listed manufacturing companies in China as a sample to analyze the impact of the enterprises' environmental performance on corporate donations. The study found that the environmental performance of enterprises has a positive impact on the charitable donations of enterprises. The worse the environmental performance of enterprises, the less inclined they are to make charitable donations. Through further research, it is found that enterprises with poor environmental performance will have worse corporate performance. In this situation, charitable donation will further strengthen the impact of environmental performance on corporate performance, that is, charitable donation by enterprises with poor environmental performance will lead to worse corporate performance. This may also be an explanation that companies with poor environmental performance are less inclined to make charitable donations.

Keywords

Environmental Performance, Donation, Corporate Performance

1. Introduction

As an evolving emerging economy, China has experienced the savage development at the expense of the environment. Recognizing the serious harm caused by excessive consumption of resources and serious damage to the environment [1], Chinese government proposed a new form of economic development that focuses on environmental protection. In order to curb the development model of

“high pollution, high emission and high energy consumption” to better protect the ecological environment, Chinese government implemented the “Amendment of the Environmental Protection Law of the People’s Republic of China” on January 1, 2015 (hereinafter referred to as “Environment Protection Law”). Since the day of its promulgation, the “Environmental Protection Law” has aroused widespread concern in the society and has been called “the most stringent environmental protection law in history” by the media. In recent years, the Chinese government has also emphasized the importance of environmental protection for economic development in the relationship between the environment and the economy. Recently, the development concept of “Lucid waters and lush mountains are invaluable assets”, has been put forward, indicating that China attaches importance to environmental protection. Transforming into an environmentally friendly development approach means that companies need to improve their own production methods, which will increase the production costs of enterprises, thereby reducing the short-term profits of enterprises. Although some scholars have proved that improving environmental performance can help enterprises gain more stakeholder support, improve corporate legitimacy and improve corporate performance [2].

In the critical period of transformation and upgrading, in addition to improving environmental performance, the charitable donation behavior of enterprises can also help enterprises improve their legitimacy and help enterprises to obtain the inclination of government resources [3]. After the Wenchuan Earthquake in 2008, the enterprises became the main force of charitable donations. As an important form of corporate social responsibility, corporate charitable donations have become an important supplement for the government in regulating the gap between the rich and the poor, promoting social equity, and maintaining social stability [4]. In developed western economies, a sound institution and market environment will encourage companies to make charitable donations [5], and the corresponding charitable donation system is completed. Unlike western developed countries, Chinese institutional environment and market environment are still improving and developing [6]. The charitable donations of Chinese companies have certain specialities and need to be considered in combination with their unique economic and institutional background. In the Chinese context, scholars have proved that in addition to altruistic motives [7], political motives for establishing political connections with the government [3], for strategic motivation to improve corporate performance [8]. At present, most of the research focuses on the political motives and strategic motives of enterprises, which was focusing on the research of enterprises to obtain support from the government and other stakeholders through charitable donations, thereby alleviating the financing pressure of enterprises and improving the performance of enterprises [9] [10], but less on the instrumental motives of risk prevention to conduct corporate charitable donations [11]. Therefore, we are going to investigate our problem under the background of Chinese government’s promotion of environmental protected development mode and strict supervision of environ-

mental protection. Based on the theory of reputation, this paper studies whether the enterprises with poor environmental performance will carry out charitable donation activities to avoid the negative impact of poor environmental performance on the company, which would be motivated by the purpose of risk prevention under the pressure of environmental supervision.

The possible research contribution of this paper is to explore the choice of corporate social responsibility behavior under the background of environmental pressure. From the perspective of legality theory and reputation theory, this paper made an incremental research on the instrumental motivation of corporate charitable donation behavior, enriched and expanded the analyses of the non-market strategic motivation of enterprises in the context of transitional economy. At the same time, it may help to identify the motive behind the charitable donation behavior of emerging economies and establish a perfect charitable donation system.

The article is organized as follows: the first part is introduction, this part explains the background of environmental supervision in China and the situation of the donation by the enterprise. And explains why this study is meaningful. The second part is literature review, this part summarizes the studies of donation and the studies of environmental performance. The third part is theoretical analysis and research hypothesis, in this part introduces the theories and develops the hypothesis. The fourth part is sample selection and research design. The fifth part is the results of the regression and the robustness test of the research. In the sixth part, this paper does an extended research to find out the relationship between the environmental performance and the performance. The last part of the study is the conclusion.

2. Literature Review

2.1. Motivation of Charitable Donation

Studies on the motivations for charitable donations, Campbell *et al.* (2002), conducted a more authoritative summary through empirical, literature review, and review methods [12]. As far as the existing literature is concerned, the motivations for charitable donations can be divided into the following four types: altruistic motives, strategic motives, political motives, and management self-interested motives.

1) Altruistic motivation. Altruistic motivation is that corporate donation is a purely social gift that does not pursue any form of return. It has nothing to do with corporate strategy, and is a kind of unrequited, good corporate citizenship behavior (Campbell *et al.*, 2002) [12]. Xu Nianxing and Li Zhe (2016) verified the existence of altruistic motives for charitable donations in China from the perspective of the senior team's poverty experience [7].

2) Strategic motivation. The strategic motivation highlights the charitable donation behavior of the enterprise is the integration of the enterprise's own interests and the needs of the public, emphasizing the compatibility of economic

goals and social goals. Ditlevsimonsen and Midttun (2011) argue that charitable giving is a long-term strategy to help companies maximize profits in a highly competitive environment [13]. Enterprises try to use charitable donations to transmit signals that the company has sufficient cash flow and good financial status, thereby winning the trust of investors and creditors and enhancing their reputational capital. At this time, charitable donations are strategically motivated [14].

3) Political motivation. From a politically motivated perspective, the motivation for corporate donations is to build close relationships with government officials, so that they can get some shelter from the government and gain advantages in government subsidies, debt financing, tax rates, and resource allocation. Cooper *et al.* (2010) analyzed the donations of American companies to their political activities from 1979 to 2004 and found that political donations can bring positive benefits to enterprises [15]. Li Sihai (2010) found that companies with political relations are more willing to respond to the government's call for donations [16]. Zhang Min *et al.* (2013) found that non-state-owned enterprises are more inclined to conduct charitable donations than state-owned enterprises to enhance the relationship between government and enterprises [4].

4) Management self-interest motivation. Galaskiewicz (1997) believed that charitable giving is closely related to corporate executives. Executives of the company can improve their social network through charitable donations and enhance their image and status in society [17]. Brown *et al.* (2006) found that enterprises implement charitable donation activities, and business managers can increase the number of participation in donation ceremonies and enhance their personal reputation and social status, thus helping business managers to obtain personal benefits [18]. Li *et al.* (2017) found that the first major shareholder would sacrifice the interests of minority shareholders and invest the company's funds to charity to serve personal interests. It can be seen from the above scholars that the donation of self-interested motivation of management is a self-interested behavior adopted by senior executives to realize personal interests [19].

In addition to the above studies, in recent years scholars have begun to pay attention to the instrumental motives hidden behind charitable donations [20]. They believed that charitable donations may become remedy for companies to reduce the damage of corporate image and reputation in response to negative events and crises. Some bad motives have driven corporate charitable donations. Gao Yongqiang *et al.* (2012) found that the employee welfare level of private enterprises is significantly negatively correlated with charitable donations [21], indicating that private enterprises in China may use charitable donations to transfer attention to the welfare of their employees.

2.2. Environmental Performance

With the change of economic development concept, the Chinese government has paid more and more attention to environmental protection, and environmental supervision is more severe. In addition to being subject to government

policy [22], as people's environmental awareness increases, Chinese companies are also affected by other stakeholders in environmental performance, as well as the supervision from the media. [23]. Based on this background, a large number of scholars have also carried out research on the environmental performance of enterprises.

Research on environmental performance of Chinese companies focuses on the following aspects. The first is the factors that affect the environmental performance of enterprises. Combined with a series of environmental policies and regulatory measures published by the Chinese government, scholars explored the impact of environmental policies and government regulation on corporate environmental performance. Shen Hongtao and Zhou Yankun (2017) used the new policy launched by the Ministry of Environmental Protection in the second half of 2014 as an exogenous event, using the propensity score matching method (PSM) and the difference in differences method (DID), they found it can effectively improve the environmental performance of enterprises in the interviewed areas, and the environmental performance of state-owned enterprises in the interviewed areas are more significant [24]. Chang *et al.* (2015) took China's heavily polluting industry enterprises as a sample and found that the new energy efficiency publicity system in 2006 played an important role in promoting the environmental performance of enterprises [25]. However, some scholars have found that the government's policy constraints and environmental supervision have not promoted the environmental performance of enterprises [26]. Liang Pinghan and Gao Nan (2014) pointed out that due to the promotion of the championship model, the political promotion incentives of local officials led to collusion with polluting enterprises, and the absence of government functions weakened the supervision role of formal institutions on corporate environmental governance. However, some scholars have found that the government's policy constraints and environmental supervision have not promoted the environmental performance of enterprises [27]. Yu Changlin and Gao Hongjian (2015) pointed out through research that the intensity of environmental regulation has a significant negative impact on China's environmental pollution [28].

In addition to examining the impact of formal institutions on environmental performance, scholars also discuss the environmental performance of firms from the perspective of informal institutions. Based on the theory of political legitimacy, Shen Hongtao and Feng Jie (2012) investigated the impact of public opinion supervision on corporate environmental behavior [29]. Media reports on corporate environmental performance can significantly promote corporate environmental information disclosure and environmental performance. Similarly, Wang Yun *et al.* (2017) used the data of listed companies from 2008 to 2014 to do an empirical study from the perspective of media attention. Media attention will significantly increase their investment in environmental protection, and the intensity of environmental regulation will enhance the effect of media attention on environmental governance [25]. Biqian *et al.* (2015) analyzed it from the perspective of traditional Chinese culture, and found that this informal system

can significantly improve the quality of environmental information disclosure of enterprises, play an important role in promoting the environmental performance of enterprises, and form a complementary effect with the formal system [30]. From the perspective of home identity, Hu Jun *et al.* (2017), taking non-financial listed companies in Shanghai and Shenzhen from 2000 to 2014 as samples, analyzed the governance effect of home identity of senior executives on corporate environmental performance. Empirical research confirmed that home identity of senior executives has a positive role in promoting corporate environmental governance behavior [31].

Secondly, the impact of environmental performance on the economic consequences of enterprises has been studied by scholars. Hu Quying (2012) took share listed companies from 2006 to 2009 as samples, and used the unit discharge fee to measure the environmental performance. The research found that the environmental performance of enterprises has a promoting effect on the financial performance of enterprises [32]. Enterprises with better environmental performance have higher excess returns, and institutional investors can bring higher stock returns when they invest in companies with better environmental performance. Kim found that the environmental performance of enterprises was negatively correlated with the stock price crash. The better environmental performance disclosed by enterprises could reduce the impact of future stock price crash [33].

Most of the literatures have studied the motives of corporate charitable donations from different perspectives, confirming the existence of multiple motives for charitable donations. However, compared with other researches, the researches on instrumental motivation of charitable donation are still less. Scholars pay less attention to whether the charitable donation will change significantly when a certain adverse event occurs or in a certain unfavorable situation. We also can find that the research on environmental performance focuses more on the factors affecting the environmental performance of enterprises and the economic consequences of the environmental performance of enterprises, and less on whether environmental performance will affect the strategic decision-making of enterprises.

From the above literature review. There are some gaps in the studies of the motive of donation and the studies of the environmental performance. This paper selects the background of the Chinese government's vigorous implementation of environmental protection policies, observes the changes in charitable donations in the case of poor environmental performance, and attempts to further promote the instrumental motivation research of charitable donations. What's more the study also investigates whether the environmental performance will affect the strategic decision-making of enterprises. In this study we take Chinese background into consideration and use the empirical method to test the hypothesis, which will fulfill the gap of the studies about the environmental performance and the studies about the enterprise donations.

3. Theoretical Analysis and Research Hypothesis

In order to survive and develop continuously, it is not enough to rely on profit and efficiency, but also to gain legitimacy status, that is, its activities must be consistent with the goals and values of the social system or in line with the expectations of legislators (or those who give legitimacy [34]). With the increasing attention of the state to environmental protection and the increasing awareness of environmental protection of the public, the environmental performance of enterprises has become an important factor affecting the legitimacy of enterprises. The legitimacy of enterprises with poor environmental performance will be challenged by various stakeholders, which will not only affect the reputation of enterprises, thus affecting the financing and financial performance of enterprises, but also bring a series of shocks to enterprises in the capital market. In addition, according to Environmental Protection Law, the enterprise will also be subjected to administrative penalties.

The gap between the perceived social legitimacy of the enterprise itself and the legislator's expectations is called the legitimacy gap [35]. When the environmental performance of enterprises is significantly lower than that of other enterprises in the same industry, the legitimacy gap will be more obvious. When there is a gap in legitimacy, the operation of enterprises will be challenged by stakeholders, which will affect the design of corporate governance mechanism and corporate social responsibility behavior [36]. As the highest form of social responsibility, charitable donation has become an important tool for enterprises with poor environmental performance to maintain their legitimacy. Previous studies have proved that corporate philanthropic donation can play a role of risk protection in the case of negative events [21]. From the perspective of reputation theory, enterprises can obtain moral capital through charitable donation, which can reduce the reputation loss of enterprises caused by negative events, thereby reducing the corresponding economic losses [37]. Corporate philanthropic donations can also divert public attention from negative corporate events and influence the public's attribution of negative events [38]. Because corporate charitable donation acts have the similar role of "reputation insurance", this paper argues that enterprises with poor environmental performance will be more inclined to charitable donation, in order to reduce the negative impact of environmental performance on enterprises under the pressure of environmental regulation, and improve the legitimacy of enterprises themselves. Therefore, this paper proposes hypothesis H1a.

H1a: The worse the environmental performance of enterprise is, the more donation will the enterprise give.

But it should also be noted that corporate charitable donation is the highest form of corporate social responsibility, located at the top of the pyramid of social responsibility. Chen *et al.* (2007) pointed out that this form of social responsibility has the lowest status in the minds of managers compared to other forms of social responsibility [34]. Companies with poor environmental performance

show low enthusiasm in fulfilling the lower level of social responsibility of the social responsibility pyramid, and their enthusiasm for charitable donations may also be weaker. On the other hand, charitable giving also means that cash flows directly out of the business. The poor environmental performance of enterprises also reflects the lack of funds for the transformation of environmentally friendly production methods. In the absence of funds, the possibility of charitable donations will be lower. At the same time, under the background of environmental regulation pressure, enterprises with poor environmental performance will make charitable donations, and the public will question their motives for charitable donations. This kind of charitable donation may also be regarded by stakeholders as a tool for managers to gain self-interest and reputation [19]. The donation may even increase the public's resistance and have a negative impact on the reputation of enterprises, thus bringing economic losses to enterprises. Based on the above considerations, enterprises with poor environmental performance may be more inclined not to make charitable donations. Therefore, this paper proposes the competitive hypothesis H1b, which is contrary to the hypothesis H1a.

H1b: The worse the environmental performance of enterprise is, the less donation will the enterprise give.

4. Sample Selection and Research Design

4.1. Sample Selection

This paper chooses Chinese manufacturing listed companies from 2012 to 2017 as the initial sample, because in the background of environmental protection policy and public opinion, "high energy consumption, high emission" manufacturing industry may be the most influential. The sample data of this paper is from the CSMAR database and the annual report of listed companies. The data on corporate environmental performance is obtained by the listed company's annual report. Other control variables are from the CSMAR database. After removing some samples with missing control variables, the final sample size of this paper is 6582.

4.2. Model Design and Variable Definition

4.2.1. Model Design

In order to verify above assumptions and draw on the research design of Gao Yongqiang *et al.* (2012) [21], this paper constructs the following model (Table 1):

$$\begin{aligned} \text{giving}_t = & \alpha_0 + \alpha_1 \text{env}_{t-1} + \alpha_2 \text{age}_{t-1} + \alpha_3 \text{size}_{t-1} + \alpha_4 \text{slack}_{t-1} + \alpha_5 \text{debt}_{t-1} \\ & + \alpha_6 \text{performance}_{t-1} + \alpha_7 \text{dua}_{t-1} + \alpha_8 \text{b_edu}_{t-1} + \alpha_9 \text{b_age}_{t-1} \\ & + \alpha_{10} \text{first}_{t-1} + \alpha_{11} \text{ra_inde}_{t-1} + \alpha_{12} \sum \text{Industry} + \alpha_{13} \sum \text{Year} + \varepsilon \end{aligned}$$

4.2.2. Dependent Variable

Charitable donations (giving). Referring to Wang *et al.* (2011), the natural logarithm of the amount of charitable donation is used to measure [39].

Table 1. Regression model involves variables.

Variable	Variable symbol	Variable definitions
Donation	giving	the natural logarithm of the total amount of corporate charitable donations
Environmental performance	env	the natural logarithm of the total amount of sewage charges of enterprises
Enterprise age	age	study year minus establishment year
The scale of the enterprise	size	the natural logarithm of final asset
liabilities	debt	asset-liability ratio
Enterprise liquidity	slack	current asset-liability ratio
Performance	performance	return on total assets
Duality	dua	whether the chairman is also the CEO, yes is 1, otherwise 0
The education level of board	b_edu	The average of the total educational level of all directors on the board (1 = secondary and secondary school, 2 = college, 3 = undergraduate, 4 = graduate, 5 = doctoral)
The average age of board	b_age	The average age of all the members on the board
The shareholding ratio of the largest shareholder	first	The shareholding ratio of the largest shareholder
The ratio of independent directors	ra_inde	The ratio of independent directors
Industry	Industry	Industry dummy variable
Year	Year	Year dummy variable

4.2.3. Independent Variable

Enterprise Environmental Performance (env). Drawing on the research and definition methods of Hu Jun *et al.* (2017), this paper uses the natural logarithm value of annual sewage discharge fee plus 1 to measure the level of enterprise environmental governance. The cost of sewage discharge is based on the following considerations: 1) the availability of indicators. In 2003, China began to levy pollutant discharge fees on enterprises. After 2009, the data disclosed by the Annual Report Notes of Listed Companies and the Local Environmental Protection Bureau increased year by year. 2) Indicator applicability. Academic research at home and abroad extensively uses pollution indicators to measure the environmental performance and environmental governance level of enterprises from the perspective of output, which proves that the indicators have good applicability and scientificity. 3) Objectivity of indicators. It overcomes the subjectivity of scoring method to measure environmental performance by pollutant discharge fee. At the same time, the punitive fee levied by the government on enterprises [31] cannot change the value and result of the fee, which has strong objectivity.

If the sewage discharge fee is not disclosed in the enterprise's annual report, it shall be treated as 0. This is because the company's sewage charges are punitive costs, not all companies have sewage charges. In addition, the company's re-

sponsibility for sewage charges is an important manifestation of the company's environmental responsibility. In order to pass the signal that the company has assumed environmental responsibility, the company will choose to actively disclose the sewage charges.

4.2.4. Control Variable

Referring to previous research on charitable donations, this paper also controls the following control variables: age (age), size (size), debt ratio (debt), performance (performance), duality (dua), director education level (b_edu), director age (b_age), first largest shareholder share (first), independent director ratio (ra_inde). In addition, the article also controls the industry and the year. The specific control variables are measured in **Table 1**.

4.2.5. Descriptive Statistics and Correlation Analysis

Table 2 is a descriptive statistical analysis of all the variables in this paper. The standard deviation of the results of the logarithmization of charitable donation is 3.337, which indicates that there are large gaps in the charitable donations of different enterprises in China. The standard deviation of enterprise sewage charges (env) for logarithmic processing is 5.340, indicating that there is a large gap in environmental performance among different enterprises in China. The majority of the sewage charges in the sample enterprises are 0, indicating that after the introduction of environmental protection policies in China, enterprises have generally increased their emphasis on the environment, and the environmental performance of enterprises has been improved. The average shareholding ratio of the first largest shareholder in the sample is 0.352. The largest shareholder of a listed company holds an average of 38.1% of the company's total share capital. It can be seen that the phenomenon of "one big share" in listed companies in China is still present.

Table 2. Descriptive statistics.

Variable	min	mean	p50	p25	p75	max	sd
giving	0	11.822	12.388	10.915	13.710	16.744	3.337
env	0	2.274	0	0	0	17.321	5.340
age	4	14.841	15	11	19	27.000	5.163
size	19.978	22.018	21.866	21.187	22.647	25.391	1.132
debt	0.047	0.412	0.401	0.248	0.570	0.875	0.205
slack	0.369	2.559	1.693	1.131	2.838	17.552	2.741
performance	-0.135	0.042	0.037	0.014	0.068	0.198	0.051
dua	0	0.296	0	0	1	1	0.456
b_edu	0	2.492	2.889	1.556	3.391	4.333	1.201
b_age	41.692	48.790	48.889	46.800	50.778	55.630	2.938
first	0.089	0.352	0.335	0.239	0.448	0.764	0.147
ra_inde	0.222	0.379	0.364	0.333	0.429	0.600	0.075

The independent variable is in t-1 period, the dependent variable is t in period, N = 6582.

The correlation coefficient between the variables of the model shows that the correlation coefficient of each variable in the model is lower than the multi-collinearity threshold of 0.70 in the empirical literature, indicating that the collinear threshold of the model is not serious.

5. Results

5.1. The Regression Results

Based on the results of Hausman test, panel regression using fixed effect model is adopted in this paper. **Table 3** shows the analysis results of the regression model. The model 1 contains the regression results of the dependent variables

Table 3. The regression results of environmental performance and charitable donation.

	model_1	model_2
	giving	giving
env		-0.161*** (-11.188)
age	0.107 (-0.629)	0.053 (-0.317)
size	0.583*** (-6.557)	0.598*** (-6.803)
debt	-0.019 (-0.049)	0.01 (-0.026)
slack	-0.005 (-0.227)	-0.005 (-0.252)
performance	5.172*** (-5.897)	5.028*** (-5.803)
dua	-0.08 (-0.757)	-0.055 (-0.529)
b_edu	-0.009 (-0.128)	-0.016 (-0.238)
b_age	-0.006 (-0.267)	-0.002 (-0.076)
first	1.409*** (-2.67)	1.479*** (-2.838)
ra_inde	0.276 (-0.587)	0.345 (-0.743)
_cons	-2.774 (-0.917)	-2.307 (-0.772)
industry	include	include
year	include	include
N	6582	6582
r-squared	0.032	0.056

T value in parentheses, *p < 0.10, **p < 0.05, ***p < 0.01.

and all the control variables. It can be seen from the results that the scale of the enterprise and the performance of the enterprise have a positive impact on the charitable donation of the enterprise.

Model 2 contains the results of regression of all variables. It can be seen from the results that the regression coefficient of the enterprise's sewage charges is significantly negative (beta = -0.161 , $p < 0.01$), because the enterprise's sewage charges have a punitive nature, and the higher the sewage charges. The worse the environmental performance, the regression results show that environmental performance has a positive impact on corporate charitable donation, that is, the better the environmental performance of the enterprise, the more inclined it is to make charitable donations. The worse the environmental performance of the enterprise, the less charitable donation will be made, assuming H1b gets Verification. It shows that in China's manufacturing industry, companies with poor environmental performance are not more inclined to make charitable donations. The risk-defense motivation of charitable donations has not been verified in the manufacturing industry (Table 3).

5.2. Robustness Test

5.2.1. Alternative Measurement of Environmental Performance

In order to ensure the reliability of the results, an alternative measurement method is adopted for the independent variables. Referring to Hu Quying's (2012) study [32], environmental performance is measured by the sewage charges for the year divided by the operating income of the year. The regression results show that the regression coefficient of corporate sewage charges is still significantly negative (beta = $-2.4e+08$, $p < 0.01$), that is, the enterprises with poorer environmental performance are less inclined to make charitable donations. In China's manufacturing industry, the environment Poorly performing companies are not more inclined to make charitable donations. The risk-defense motivation of charitable donations has not been verified in manufacturing. The results of the study have strong robustness (Table 4).

Table 4. The regression results of alternative measurement of environmental performance.

	model_1	model_2
	giving	giving
env		$-2.4e+08^{***}$ (-10.053)
Other l variable	control	control
_cons	-2.774 (-0.917)	1.589 (0.525)
industry	include	include
year	include	include
N	6582	6582
r-squared	0.032	0.051

T value in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

5.2.2. Excluding Some Samples from 2013: Avoiding Interference from Ya'an Earthquake Donation

The charitable donations of Chinese companies after the Wenchuan earthquake in 2008 were more frequent than in the past. In 2008, they were also called the “first year of charity” for Chinese companies. After 2008, the enthusiasm of Chinese companies to participate in charitable donations after earthquakes and other disasters is higher than before [40]. Therefore, in order to reduce the impact of earthquake disasters in special years on this study, this paper excludes the disasters in China in the sample. The year of the event. On April 20, 2013, a magnitude 7.0 earthquake occurred in Lushan County, Ya'an City, Sichuan Province. More than 99% of the houses in Longmen Township of Lushan County collapsed. There were 4045 aftershocks, 103 aftershocks of magnitude 3 and above, and the largest aftershock was 5.7. The affected population was 1.52 million and the affected area was 12,500 square kilometers. In order to reduce the impact of this event on the study, this paper excludes the 2013 sample data and retains 5518 annual company observations.

From the regression results in **Table 5**, it is seen that the sewage charges are significantly negatively correlated with the regression coefficient of the company's charitable donations, assuming that H1b is still supported. After removing the sample size of the earthquake year, the results of this paper are still stable.

6. Extended Research

In order to further understand the reasons why companies with poor environmental performance are less willing to participate in charitable donations, this paper has supplemented the research on the impact of environmental performance on corporate performance. In the context of external environmental regulation pressure, the worse the environmental performance of enterprises, the more

Table 5. The regression results excluding some samples from 2013.

	model_1	model_2
	giving	giving
env		-2.4e+08*** (-10.053)
Other variable	control	control
_cons	-2.774 (-0.917)	1.589 (0.525)
industry	include	include
year	include	include
N	6582	6582
r-squared	0.032	0.051

T value in parentheses, *p < 0.10, **p < 0.05, ***p < 0.01.

legitimacy of enterprises will be challenged. According to the theory of resource dependence, the resources needed for enterprise production and development cannot be completely obtained by itself. Enterprises need to interact with external stakeholders and obtain the support of external stakeholders to obtain the resources needed for enterprise development [41]. In the case of poor environmental performance and the loss of legal status of the enterprise, the enterprise cannot obtain the resources needed for production and development, and thus has a negative impact on the financial performance of the enterprise. Under strict environmental protection policies, companies are even subject to administrative penalties by the Chinese government for poor environmental performance.

In order to verify the above hypothesis, referring to the research of Pan Yue *et al.* [41], this paper established the following model:

$$\begin{aligned} \text{performance}_t = & \alpha_0 + \alpha_1 \text{env}_{t-1} + \alpha_2 \text{giving}_{t-1} + \alpha_3 \text{giving}_{t-1} + \alpha_4 \text{age}_{t-1} * \text{giving}_{t-1} + \alpha_5 \text{size}_{t-1} \\ & + \alpha_6 \text{slack}_{t-1} + \alpha_7 \text{debt}_{t-1} + \alpha_8 \text{performance}_{t-1} + \alpha_9 \text{dua}_{t-1} + \alpha_{10} \text{b_edu}_{t-1} \\ & + \alpha_{11} \text{b_age}_{t-1} + \alpha_{12} \text{first}_{t-1} + \alpha_{13} \text{ra_inde}_{t-1} + \alpha_{14} \sum \text{Industry} + \alpha_{15} \sum \text{Year} \end{aligned}$$

Table 6 shows the regression results of environmental performance and firm performance. Model 1 is the regression result of adding all control variables and regulatory variables. It can be seen from the results that the regression coefficient of the company's previous performance is significantly positive (beta = 0.1580, $p < 0.01$), that is, the company's previous performance has a positive impact on the current performance. The regression coefficient of the company's asset-liability ratio and performance is significantly positive (beta = 0.0160, $p < 0.05$). The debt financing method can better solve the problem of funds needed for reproduction. Therefore, the asset-liability ratio has a positive effect on corporate performance. At the same time, regardless of environmental performance, the level of charitable donations of enterprises also has a positive impact on firm performance (beta = 0.0005, $p < 0.05$).

Model 2 is the regression result after adding environmental performance. It can be seen from the regression results that the regression coefficient of the sewage discharge cost of the enterprise is significantly negative (beta = -0.0005, $p < 0.05$), that is, the higher the sewage discharge cost of the enterprise, the worse the performance of the enterprise, because the company's sewage charges are the reverse indicators of environmental performance, that is, the worse the company's environmental performance, the worse the performance of the company. This may have an important relationship with China's emphasis on environmental protection in recent years, and it also proves that China's environmental protection policy has played a better supervisory role. From the regression results, it can be seen that the method of enterprises to exchange performance in exchange for performance has been invalidated, and even counterproductive.

Model 3 is the regression result after joining the interaction term of the charitable donation and environmental performance. From the results, it can be seen that after joining the charity donation, the regression coefficient of the company's sewage charges is significantly negative (beta = -0.0011, $p < 0.05$),

Table 6. The regression results of the extended research.

	model_1	model_2	model_2
	performance	performance	performance
env		-0.0005** (-1.967)	-0.0011** (-2.353)
pai_giving			0.0000* (1.502)
giving	0.0005** (2.072)	0.0005** (2.059)	0.0001 (0.285)
fperformance	0.1580*** (10.020)	0.1577*** (10.008)	0.1589*** (10.073)
size	-0.0085*** (-4.905)	-0.0084*** (-4.884)	-0.0082*** (-4.767)
debt	0.0160** (2.289)	0.0161** (2.299)	0.0160** (2.286)
slack	0.0009** (2.404)	0.0009** (2.397)	0.0009** (2.378)
dua	0.0036** (1.970)	0.0037** (1.995)	0.0037** (2.025)
age	0.0006 (0.197)	0.0004 (0.135)	0.0005 (0.141)
b_age	-0.0008** (-2.012)	-0.0008** (-1.969)	-0.0008* (-1.943)
first	0.0066 (0.690)	0.0072 (0.754)	0.0070 (0.735)
ra_inde	0.0092 (1.139)	0.0094 (1.158)	0.0096 (1.189)
_cons	0.2291*** (4.079)	0.2308*** (4.109)	0.2311*** (4.115)
industry	include	include	include
year	include	include	include
N	5751	5751	5751
r-squared	0.044	0.046	0.046

and the coefficient becomes smaller (from the original -0.005 to -0.0011), while the intersection term of charitable donation and environmental performance is

significantly positive ($p < 0.1$). This shows that charitable donations can not help companies with poor environmental performance to reduce the negative impact of environmental performance on performance, but rather increase the negative impact. And the cross-over items are significantly positive, which also indicates that charitable giving will aggravate the negative impact of environmental performance on business performance. That is, when companies try to cover up the shortcomings of environmental performance through charitable donations, charitable donations do not work, and even worsen the negative impact of environmental performance malpractice on corporate performance.

7. Conclusion and Discussion

Transforming the development mode and promoting industrial transformation and upgrading are the only way for developing countries to achieve higher-level development. Based on the background of China's environmental protection and green development, this paper analyzes the choice of social responsibility behavior under the pressure of external environmental regulation based on reputation protection theory and resource dependence theory. Using the 2012-2017 Chinese manufacturing enterprise sample to conduct empirical tests, the empirical test results show that the company's environmental performance has a positive impact on the company's charitable donation behavior, and enterprises with poor environmental performance will not be more inclined to charitable donations. Through further expansive research, it is found that the reason for the choice of social responsibility behavior mentioned above is that under the background of environmental regulation pressure, environmental performance has a positive impact on the financial performance of enterprises. The worse the environmental performance is, the worse the financial performance will be. The corporate charitable donation will further strengthen this relationship, which leads companies with poor environmental performance are not more inclined to conduct charitable donations.

The research in this paper can bring the following contributions: firstly, this paper discusses the choice of social responsibility behavior of enterprises in this context in combination with the policy background of China's environmental protection, and makes incremental research on the research of corporate social responsibility in emerging economies. This paper takes Chinese listed manufacturing enterprises as a sample and empirically tests that enterprises with poor environmental performance are not inclined to conduct charitable donations. Through extensive research, under the pressure of environmental regulation, the risk prevention effect of charitable donations is not significant, it will even play a reverse role, and companies will not make charitable donations for instrumental motives. The research in this paper also has certain reference significance for the strategic choice of enterprises in the transition economies: this study also has a certain reference significance for enterprises in transition economies to make strategic choices: compared with charitable donation behavior based on instru-

mental motivation, transformation of their own production and development mode, improving environmental performance, can better improve the performance of enterprises. The research in this paper also has certain limitations: firstly, this paper takes Chinese listed manufacturing enterprises as a sample, and the impact of environmental performance on corporate charitable donations will also exist among non-listed companies; it will be better to discuss those companies. The sample of this paper is limited to listed companies. Subsequent research can focus on the verification results of other samples. Secondly, the research in this paper does not consider the ownership characteristics of enterprises and the degree of marketization in different regions. Subsequent research can consider different factors which will affect this relationship. Finally, due to its unique institutional background, the government has strong control over the market. The research in this paper is based on the unique situation of China's situation. Subsequent research can combine with the unique institutional background of different emerging economies.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- [1] Zheng, S. and Kahn, M.E. (2017) A New Era of Pollution Progress in Urban China? *Journal of Economic Perspectives*, **31**, 71-92. <https://doi.org/10.1257/jep.31.1.71>
- [2] Thoumy, M. and Vashon, S. (2012) Environmental Projects and Financial Performance: Exploring the Impact of Project Characteristics. *International Journal of Production Economics*, **140**, 28-34. <https://doi.org/10.1016/j.ijpe.2012.01.014>
- [3] Zhang, M., Ma, L.J. and Zhang, W. (2013) The Government-Enterprise Linkage Effect of Corporate Charitable Donation: Based on the Empirical Evidence of Listed Companies in China. *Management World*, No. 7, 163-171.
- [4] Su, J. and He, J. (2010) Does Giving Lead to Getting? Evidence from Chinese Private Enterprises. *Journal of Business Ethics*, **93**, 73-90. <https://doi.org/10.1007/s10551-009-0183-0>
- [5] Campbell, J.L. (2007) Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility. *Academy of Management Review*, **32**, 946-967. <https://doi.org/10.5465/amr.2007.25275684>
- [6] Khanna, T. and Palepu, K.G. (2005) Spotting Institutional Voids in Emerging Markets.
- [7] Xu, N.H. and Li, Z. (2016) CEOs' Poverty Experience and Corporate Philanthropy. *Economic Research Journal*, **12**, 135-148.
- [8] Gu, L.L. and Ouyang, W.J. (2017) Corporate Philanthropy, Marketing Capability and Firm Performance. *Nankai Business Review*, **2**, 94-107.
- [9] Wang, D.X. and Pan, Q. (2011) Does Corporate Philanthropy Bring about Corporate Value—The Empirical Evidence Using Stakeholder Satisfaction as a Moderating Variable from Listed Companies. *China Industrial Economics*, **54**, 1159-1181.
- [10] Shan, L.W., Gan, L. and Zhen, T. (2008) Corporate Donations and Economic In-

- centives: An Empirical Study Based on Corporate Donations Following the 5.12 Earthquake in China. *Economic Research Journal*, **11**, 51-61.
- [11] Tang, Y.J., Zuo, J.J., Li, H.D., *et al.* (2014) The Impact of Institutional Environment Transition on Corporate Philanthropic Behavior. *Economic Research Journal*, **2**, 61-73.
- [12] Campbell, D., Moore, G. and Metzger, M. (2002) Corporate Philanthropy in the U.K. 1985-2000 Some Empirical Findings. *Journal of Business Ethics*, **39**, 29-41. <https://doi.org/10.1023/A:1016371731732>
- [13] Ditlevsimonsen, C.D. and Midttun, A. (2011) What Motivates Managers to Pursue Corporate Responsibility? A Survey among Key Stakeholders. *Corporate Social Responsibility and Environmental Management*, **18**, 25-38. <https://doi.org/10.1002/csr.237>
- [14] Zhang, R., Zhu, J., Yue, H., *et al.* (2010) Corporate Philanthropic Giving, Advertising Intensity, and Industry Competition Level. *Journal of Business Ethics*, **94**, 39-52. <https://doi.org/10.1007/s10551-009-0248-0>
- [15] Cooper, M.J., Gulen, H. and Ovtchinnikov, A.V. (2010) Corporate Political Contributions and Stock Returns. *Journal of Finance*, **65**, 687-724. <https://doi.org/10.1111/j.1540-6261.2009.01548.x>
- [16] Li, S.H. (2010) Institutional Environments, Political Relationship and Corporate Donation. *China Accounting Review*, **2**, 161-178.
- [17] Galaskiewicz, J. (1997) An Urban Grants Economy Revisited: Corporate Charitable Contributions in the Twin Cities, 1979-81, 1987-89. *Administrative Science Quarterly*, **42**, 445-471. <https://doi.org/10.2307/2393734>
- [18] Brown, W.O., Helland, E. and Smith, J.K. (2006) Corporate Philanthropic Practices. *Journal of Corporate Finance*, **12**, 855-877. <https://doi.org/10.1016/j.jcorpfin.2006.02.001>
- [19] Li, S., Wu, H., Song, X., *et al.* (2017) Principal-Principal Conflicts and Corporate Philanthropy: Evidence from Chinese Private Firms. *Journal of Business Ethics*, **141**, 605-620. <https://doi.org/10.1007/s10551-015-2720-3>
- [20] Koehn, D. and Ueng, J. (2010) Is Philanthropy Being Used by Corporate Wrongdoers to Buy Good Will? *Journal of Management & Governance*, **14**, 1-16. <https://doi.org/10.1007/s10997-009-9087-8>
- [21] Gao, Y.Q., Chen, Y.J., Zhang, Y.J. (2012) "Red Scarf" or "Green Scarf": A Study on the Motivation of Charitable Donation of Private Enterprises. *Management World*, No. 8, 106-114.
- [22] Bao, Q., Shao, M. and Yang, D.L. (2013) Environmental Regulation, Provincial Legislation and Pollution Emission in China. *Economic Research Journal*, **12**, 42-54.
- [23] Kassinis, G. and Vafeas, N. (2006) Stakeholder Pressures and Environmental Performance. *Academy of Management Journal*, **49**, 145-159. <https://doi.org/10.5465/amj.2006.20785799>
- [24] Zhou, Y. and Shen, H. (2019) Supervision of Environmental Enforcement and Corporate Environmental Performance. *Nankai Business Review International*, **10**, 42-66. <https://doi.org/10.1108/NBRI-06-2018-0036>
- [25] Wang, Y., Li, Y.X., Ma, Z., *et al.* (2017) Media Coverage, Environmental Regulation and Corporate Environment Behavior. *Nankai Business Review*, **12**, 42-54.
- [26] Chang, L., Li, W. and Lu, X. (2015) Government Engagement, Environmental Policy, and Environmental Performance: Evidence from the Most Polluting Chinese Listed Firms. *Business Strategy and the Environment*, **24**, 1-19.

<https://doi.org/10.1002/bse.1802>

- [27] Liang, P.H. and Gao, N. (2014) Personnel Change, Legal Environment and Local Environmental Pollution. *Management World*, No. 6, 65-78.
- [28] Yu, C.-L. and Gao, H.-J. (2015) The Effect of Environmental Regulation on Environmental Pollution in China—Based on the Hidden Economy Perspective. *China Industrial Economics*, No. 7, 21-35.
- [29] Amp, S.H. and Jie, F. (2012) Media Monitoring, Government Supervision, and Corporate Environmental Disclosure. *Accounting Research*, **26**, 187-199.
- [30] Bi, Q., Gu, L.M. and Zhang, J.J. (2015) Traditional Culture, Environmental System and Corporate Environmental Information Disclosure. *Accounting Research*, No. 3, 12-19.
- [31] Hu, J., Song, X.Z. and Wang, H.J. (2017) Informal System, Home Identity and Corporate Environmental Governance. *Management World*, No. 3, 76-94.
- [32] Hu, Q.-Y. (2012) Research on Relationship between Environmental Performance and Financial Performance of Chinese Listed Companies. *China Population, Resources and Environment*, **3**, 76-94.
- [33] Kim, Y., Li, H., Li, S., *et al.* (2014) Corporate Social Responsibility and Stock Price Crash Risk. *Journal of Banking and Finance*, **43**, 1-13.
<https://doi.org/10.1016/j.jbankfin.2014.02.013>
- [34] Chen, J.C. and Roberts, P.R.W. (2008) Corporate Charitable Contributions: A Corporate Social Performance or Legitimacy Strategy? *Journal of Business Ethics*, **82**, 131-144. <https://doi.org/10.1007/s10551-007-9567-1>
- [35] Sethi, S.P. (1979) Conceptual Framework for Environmental of Analysis of Social Issues and Evaluation of Business Response Patterns. *Academy of Management Review*, **4**, 63-74. <https://doi.org/10.5465/amr.1979.4289184>
- [36] Filatotchev, I. and Nakajima, C. (2014) Corporate Governance, Responsible Managerial Behavior, and Corporate Social Responsibility: Organizational Efficiency versus Organizational Legitimacy? *Academy of Management Perspectives*, **28**, 289-306. <https://doi.org/10.5465/amp.2014.0014>
- [37] Godfrey, P.C. (2005) The Relationship between Corporate Philanthropy and Shareholder Wealth: A Risk Management Perspective. *The Academy of Management Review*, **30**, 777-798. <https://doi.org/10.5465/amr.2005.18378878>
- [38] Luo, J., Kaul, A., Seo, H., *et al.* (2018) Winning Us with Trifles: Adverse Selection in the Use of Philanthropy as Insurance. *Strategic Management Journal*, **39**, 2591-2617. <https://doi.org/10.1002/smj.2935>
- [39] Wang, H. and Qian, C. (2011) Corporate Philanthropy and Corporate Financial Performance: The Roles of Stakeholder Response and Political Access. *Academy of Management Journal*, **54**, 1159-1181. <https://doi.org/10.5465/amj.2009.0548>
- [40] Zhu, J.G., Xin, Y. and Chou, W.Y. (2017) Research on Anchoring Effect in Enterprise Donation—An Empirical Study Based on Enterprise Donation in Wenchuan Earthquake and Ya'an Earthquake. *Management World*, No. 7, 129-141.
- [41] Pan, Y., Weng, R.Y. and Liu, S.Y. (2017) Selfishness and Goodwill: New Evidence Based on Corporate Charitable Donations in Typhoon. *China Industrial Economics*, No. 5, 135-153.