

DO TARGETED POVERTY ALLEVIATION AND SOCIAL RESPONSIBILITY AFFECT THE SOCIAL CAPITAL OF CORPORATE?

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ABSTRACT. *This paper uses a fixed effects regression on a sample of the activities of 163 companies during the period from 2016 to 2019 to study the impact of social responsibility and participation in targeted poverty alleviation on corporate social capital. We then go on to explore roll models of corporate social responsibility in both targeted poverty alleviation and social capital. Our study shows that targeted poverty alleviation has a positive impact on corporate social capital, and social responsibility also has a more delayed positive impact on corporate social capital.*

Keywords: Targeted poverty alleviation, Social capital, Moderating effect, Social responsibility

1. Introduction. In November 2013, the General Secretary Xi Jinping proposed the “Targeted Poverty Alleviation” initiative in Xiangxi, Hunan Province. Under these guidelines, enterprises were called to fulfill their social responsibility by playing an important role in winning the battle against poverty. In previous studies, enterprises can obtain government subsidies [1] and improve corporate performance [2]. However, there are as yet no studies specifically linking targeted poverty alleviation with social capital. In one study on corporate social responsibility, the results showed that it cannot only improve corporate performance [3], but it can also alleviate financing constraints [4]. Meanwhile, Xu and Yang’s [5] results support the idea that social responsibility can promote the accumulation of corporate social capital. However, there is no research that links social responsibility with specific policies to explore the practical impact on targeted poverty alleviation.

We use a sample of 163 companies during the period from 2016 to 2019 in a fixed-effects regression analysis to determine the impact of corporate participation in targeted poverty alleviation and that of social responsibility on social capital. We then explore the moderating role of corporate social responsibility in targeted poverty alleviation and social capital. From the results of our study, we found that (a) targeted poverty alleviation has a positive impact on corporate social capital; (b) social responsibility has a delayed positive impact on corporate social capital; and (c) corporate social responsibility has a moderating effect on the relationship between targeted poverty alleviation and social capital.

The contributions of this study are as follows: 1) we provide a new interpretation of corporate participation in targeted poverty alleviation; 2) we provide a new evaluation index with which to measure corporate social capital; and 3) we provide empirical evidence to aid in the improvement of policy to ensure corporate participation. We formulate our hypotheses in Section 2, while in Section 3, we present our research design and sample

selection. In Section 4, we reveal and discuss the results of the empirical analysis. Finally, Section 5 contains the conclusion and our suggestions for future research.

2. Hypothesis Development. The concept of social capital was first introduced by French sociologist Bourdieu [6] in the 1970s, and it refers to the scarce resources that fulfill individual needs. Later, scholars began to apply Bourdieu's concept to enterprises, and Nahapiet and Ghoshal [7] first defined social capital at the enterprise level in 1997. In their study, they suggest that corporate social capital is a variety of physical or virtual resources possessed by enterprises. It exists in work relationships, group relationships, and organizational relationships, and it can be utilized to achieve goals through social networking.

Enterprises play an important role in winning the battle against poverty. According to the CSAMR targeted poverty alleviation database, 423 A-share listed enterprises continuously took part in these activities from 2016 to 2020. During this same period, a combined total of 164.396 billion yuan were invested by these enterprises, and, as a result, they in turn received important resources such as long-term performance increases, financial benefits, and government subsidies [8]. However, these kinds of resources are only a fraction of what an enterprise requires for success. We believe that targeted poverty alleviation by enterprises can generate social capital from the various resources provided by stakeholders. This is a unique type of social capital that supports the survival and development of enterprises. With this as our basis, we proposed the following research hypothesis:

Hypothesis 1. Targeted poverty alleviation has a positive impact on corporate social capital.

Carroll [9] suggested that there is a natural connection between corporate social responsibility and stakeholders. Enterprises should fulfill their social responsibility to stakeholders and establish good social relationships in order to obtain their resources and external investment that can form social capital. Geng et al. [10] view corporate social responsibility as an accumulation of prestige capital, while Cui and He [11] argue that the accumulation of prestige capital by enterprises can in turn promote the accumulation of social capital. Thus, we developed the following hypothesis:

Hypothesis 2. Corporate social responsibility has a positive impact on corporate social capital.

In participating in corporate philanthropic responsibility, enterprises devote their resources to protecting and improving social welfare. In these cases, targeted poverty alleviation is considered a philanthropic responsibility. Since 2016, targeted poverty alleviation has become an independent aspect of corporate social responsibility (CSR) reports and now makes up a large portion of the report itself. According to the 2019-2021 Environmental, Social, and Corporate Governance (ESG) scores given by R&L Global, industries with higher CSR scores were more consistent with the distribution goal of corporate targeted poverty alleviation participation. At the same time, these behaviors had a positive impact on social responsibility and improved the attractiveness of industry financing. Hu [12] believes that corporate participation in poverty alleviation is an effective way to fulfill corporate social responsibility. Here, Hypothesis 1 and Hypothesis 2 both mention that targeted poverty alleviation and corporate social responsibility can improve corporate social capital. Based on these assumptions, therefore, if companies involved in precision poverty alleviation actively fulfill their social responsibility, they will gain more social capital. This idea leads to the following hypothesis.

Hypothesis 3. Corporate social responsibility influences both targeted poverty alleviation and corporate social capital.

Our research leads to the construction of the conceptual model shown in Figure 1.

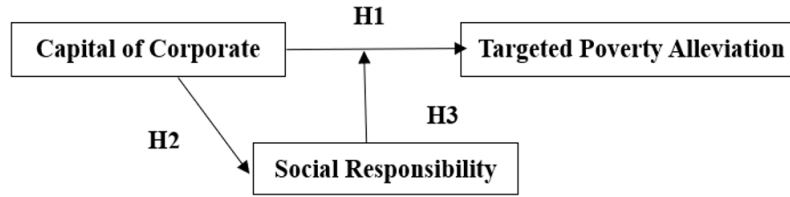


FIGURE 1. Conceptual model

3. Research Design.

3.1. **Sample selection and data sources.** In our research, we selected companies in Shanghai and Shenzhen who held the position of main board listed companies between 2016 and 2019, and then we selected our final sample using the following qualifications: 1) exclude special treatment (ST) and *ST companies with unstable financial conditions; 2) eliminate companies with missing financial data and related variable data; 3) eliminate financial companies. Our final sample included 163 listed companies in the experimental group. The main data in this article came from the China Stock Market and Accounting Research (CSMAR) database. Corporate social responsibility fulfillment level values were obtained from Hexun’s CSR reports. We then used State15.0 to sort and process the collected data. In order to avoid the influence of extreme values on the regression results, the continuous variables in the model were reduced by 1% both before and after analysis.

3.2. **Selection and measurement of research variables.** In this paper, we expand or reduce the ratio by a certain factor in order to avoid excessive regression coefficients. We used the sum of poverty alleviation funds, as well as the material discount and business income of listed companies, to measure targeted poverty alleviation input (PPA) and we also used the total score in Hexun’s CSR report to measure CSR. As corporate social capital (CSC) is an abstract concept that is difficult to directly quantify, we constructed our use of it here from the perspective of the investors (cash received from investment absorption), the suppliers (accounts payable), the customers (advance receipts), the employees (employee compensation payable and main business income), the government (number of directors and supervisors with government background/total number of directors and supervisors), the banks (credit borrowing), and the academic institutions (number of directors and supervisors engaged in research in universities, research institutions, and associations, the total number of directors and supervisors). In order to ensure the soundness and stability of the study, we controlled for variables that could have an impact on social capital, including firm age (AGE), firm size (ASSETS), return on net assets (ROE), and year dummy variables. AGE is the number of years the company has been in existence; ASSETS equals the natural log of total assets, and ROE is the net profit or net assets.

3.3. **Research model.** In order to test Hypothesis 1, we constructed model (1) as described below. After controlling for factors that have an impact on CSC, we added corporate targeted PPA. To test Hypothesis 2, model (2) was constructed. In this model, CSR was the variable that measured corporate social responsibility. Finally, in order to test Hypothesis 3, an interaction term (PPACSR) was added to model (3) and corporate precision poverty alleviation efforts were multiplied by the CSR to build model (3). In these models, γ , β , θ are coefficients, while ε is the random perturbation term.

$$CSC_{i,t} = \gamma_0 + \gamma_1 PPA_{i,t} + \gamma_2 ASSETS_{i,t} + \gamma_3 AGE_{i,t} + \gamma_4 ROE_{i,t} + Year + \varepsilon \tag{1}$$

$$CSC_{i,t} = \beta_0 + \beta_1 PPA_{i,t} + \beta_2 ASSETS_{i,t} + \beta_3 AGE_{i,t} + \beta_4 ROE_{i,t} + Year + \varepsilon \tag{2}$$

$$CSC_{i,t} = \theta_0 + \theta_1 PPA_{i,t} + \theta_2 CSR_{i,t} + \theta_3 PPACSR_{i,t} + \theta_4 ASSETS_{i,t} + \theta_5 AGE_{i,t} + \theta_6 ROE_{i,t} + Year + \varepsilon \tag{3}$$

4. Empirical Analysis.

4.1. **Descriptive statistics.** The results of the descriptive statistics revealed that the data of the 163 enterprises as recorded between 2016-2019 would be considered volatile for all the explained, explanatory, and control variables. This is mainly due to the different strengths of the various enterprises who participated in targeted poverty alleviation during that time.

TABLE 1. Descriptive statistics for the full sample

Variables	N	mean	sd	min	max
CSC	652	47.09	113.0	0.168	726.8
PPA	652	13.17	48.91	0.0211	387.5
CSR	650	29.74	15.38	8.580	75.65
AGE	652	157.1	63.40	10	260
ROE	652	103.5	68.87	6.600	351.4
ASSETS	652	2,393	141.2	2,144	2,746

4.2. **Regression analysis.** Before the regression, the Hausman test was performed on the model, and the statistic yielded was 21.28 with a p -value of 0.0007. Column (1) of Table 2 reports the regression results for model (1), where, after controlling for all control variables, the constant was 1,612.618, while R-squared was 0.105 and social capital had a moderate fitting effect. The regression coefficient for the PPA was 0.283 and was significant at the 4% level. There was a significant positive relationship between targeted poverty alleviation and corporate social capital, as enterprises could improve their social capital by increasing their investment in targeted poverty alleviation. This result verifies Hypothesis 1.

TABLE 2. The impact of PPA on CSC and the impact of CSR on CSC

Variables	CSC(1)	CSC(2)	CSC(3)	CSC(4)	CSC(5)	CSC(6)
PPA	0.283** (2.07)					
L.PPA		-0.379** (-2.00)				
L2.PPA			-0.036 (-0.10)			
CSR				-0.056 (-0.12)		
L.CSR					1.060* (1.90)	
L2.CSR						-0.615 (-0.88)
Control variable	control	control	control	control	control	control
Year FE	YES	YES	YES	YES	YES	YES
Constant	1,612.618 (1.48)	4,487.777** (2.17)	5,065.894 (1.62)	1,467.548 (1.34)	4,639.264** (2.24)	5,035.672 (1.61)
Observations	652	489	326	650	488	326
R-squared	0.105	0.119	0.157	0.097	0.118	0.161

t-statistics in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

As shown in column (1) of Table 3, the constant was measured at 4,711.658 and the R-squared value was 0.126. The coefficient of targeted poverty alleviation efforts without the interaction term between corporate precision poverty alleviation inputs and corporate social responsibility was 0.340, indicating that it was significantly positively correlated with corporate social capital at the 9% level. The coefficient of CSR with one period lag is 1.069, which is also significantly positively correlated with corporate social capital at the 9% level. Thus, poverty alleviation and corporate social responsibility can both simultaneously have a significant positive impact on corporate social capital. As seen in column (2) of Table 3, after adding the interaction term, the constant was 4,364.269, while the R-squared value was 0.141. The coefficient of the interaction term was 0.017, meaning it was significantly positively correlated at the 2% level. From this, we determined that both the targeted poverty alleviation and the lagging one-period CSR were not significant. This is due to the high degree of covariance generated between the interaction term and the independent and moderating variables. As in column (3) of Table 3, in order to solve the covariance problem, the constant was 4,357.256, the R-squared value was 0.141, and the social capital fitting effect was not reduced. From here, we centralized both targeted poverty alleviation efforts and lagging one-period social responsibility before analyzing the interaction term. After adding the treated interaction term, we found that targeted poverty alleviation and lagging one-period CSR were significantly positively related to the firm’s value at the 3% and 7% levels. The coefficient of the interaction term was 0.017 here, and it was significantly positively correlated at the 2% level. This indicates that corporate social responsibility can further promote a positive relationship between targeted poverty alleviation and social capital. When enterprises invest in poverty alleviation, they fulfill more social responsibility and, in turn, accumulate more social capital. According to the results of the above analysis, both targeted poverty alleviation and social responsibility can improve corporate social capital. However, the fulfillment of social responsibility does not have a positive impact on social capital in the short term. Enterprises may not take the initiative to fulfill social responsibility to stakeholders, but if companies can actively fulfill their social responsibility, this can promote social capital accumulation related to more than a single policy in the long-run.

TABLE 3. The moderating effect of CSR

Variables	CSC(1)	CSC(2)	CSC(3)
PPA	0.340* (1.71)	-0.079 (-0.30)	0.453** (2.24)
L.CSR	1.069* (1.93)	0.789 (1.40)	1.010* (1.83)
PPA_LCSR		0.017** (2.36)	
PPA_LCSR_C			0.017** (2.36)
Constant	4,711.658** (2.28)	4,364.269** (2.12)	4,357.256** (2.12)
Control variable	control	control	control
Year FE	YES	YES	YES
Observations	488	488	488
R-squared	0.126	0.141	0.141

t-statistics in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

4.3. Robustness test. To test the robustness of the analysis performed in this paper, we replaced a part of the CSC and performed the models again. The sum of corporate targeted poverty alleviation funds and material discounts was increased by a value of one to take the natural logarithm and indicate the PPA. The RL social responsibility score was used to determine the CSR, and we used more listed companies and their activities between 2016 and 2019 as our sample, and other control variables (total assets, quick ratio, and current ratio) were selected. As shown in Table 4, the regression coefficient of corporate precision poverty alleviation input (PPA) was 0.049, which is significant at the 1% level and thus supports Hypothesis 1. Meanwhile, the regression coefficient of corporate social responsibility (CSR) was 0.077, which is significant at the 10% level, thereby supporting Hypothesis 2. After dealing with the covariance problem, corporate PPA was found to be significantly positively correlated at the 5% level, while the interaction term coefficient was 0.000. These results ultimately support Hypothesis 3 and confirm the robustness of this paper.

TABLE 4. Robustness test

Variables	CSC(1)	CSC(2)	CSC(3)	CSC(4)	CSC(5)
CSR		0.077* (1.70)	0.080* (1.76)	0.008 (0.13)	0.067 (1.45)
PPA	0.049*** (2.67)		0.050*** (2.71)	0.023 (0.96)	0.046** (2.49)
PPACSR				0.000* (1.74)	
PPACSR_C					0.000* (1.74)
Constant	796.565*** (11.81)	799.669*** (11.83)	790.534*** (11.71)	801.033*** (11.83)	787.429*** (11.67)
Number of newcodes	353	353	353	353	353
Year FE	YES	YES	YES	YES	YES
Observations	1,412	1,412	1,412	1,412	1,412
R-squared	0.168	0.165	0.171	0.173	0.173

t-statistics in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

5. Conclusion and Suggestion. Based on the CSMAR database from 2016-2019, as well as the social capital indicators in this paper, we used fixed model effects to test the role of corporate social responsibility concerning targeted poverty alleviation and social capital. The results are as follows: 1) targeted poverty alleviation has a positive impact on corporate social capital; 2) corporate social responsibility with a lag of one period has a positive influence on corporate social capital; and 3) corporate social responsibility has a moderating effect on the relationship between targeted poverty alleviation and corporate social capital, while fulfillment of social responsibility can promote a positive relationship between targeted poverty alleviation and corporate social capital.

This paper provides a theoretical point of reference to motivate enterprise participation in efficient poverty alleviation behavior by demonstrating the importance of an enterprises' fulfillment of their social responsibilities. Our analysis also fits the development goal of the articulation period between precise poverty alleviation and rural revitalization in China. However, China's current victory in the battle against poverty is only the starting point for encouraging enterprise participation; in order to consolidate the victory, the government has extended various preferential policies in addition to encouraging participation

in the application of poverty alleviation and rural revitalization and influencing the direction of actions after the application. The implementation of this policy requires the full participation of the various parties, and, as such, the guidance provided by government policy and an understanding of the realistic impact of the action will force enterprises to selectively participate after considering the pros and cons. Thus, clarifying the relationship between the specific poverty alleviation behavior of enterprises, their corporate social responsibility, and corporate social capital is conducive to supporting the government in drafting policy to achieve a superior impact. In order to encourage enterprises to participate more actively in future rural revitalization and promote the high-quality implementation of policies, we give the following recommendations: 1) enterprises should, based on their specific context, fulfill their social responsibilities, rely on precise poverty alleviation projects, and work to stabilize the results of poverty alleviation in order to help revitalize the countryside; and 2) the government should continue its policy of supporting businesses, establish a sound recognition system, and promote sustainable development in order to encourage enterprise participation.

This paper does have limitations in the empirical study. First, our selection of the constituent indicators of social capital was complex, and some indicators were difficult to collect until 2020. The issue can be improved by utilizing more years of data in subsequent studies. Second, the sample size of this study was small. In future studies, the number of enterprises involved in poverty alleviation used in the sample should be increased.

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