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**The relationship between Corporate Social Responsibility and financial performance:
evidence from Chinese company**

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by

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ABSTRACT

Corporate social responsibility (CSR) in China still acknowledged as a new topic. The relationship between financial performance of the firm and its corporate social responsibility is momentous for a company, especially under the Chinese government economic developed policies. The primary purpose of this research to develop a coherent framework that will underlying relationships between CSR and financial performance of the companies in China. Empirical results using the regression models show that corporate social responsibility has a positive relationship with financial performance.

Keywords: corporate social responsibility, financial performance, developing countries

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I. INTRODUCTION

The world's second largest economy as it is, China remains a developing country, and much awaits to be done in modernization. In recent years, Chinese government has the conviction that lucid waters and lush mountains are as good as mountains of gold and silver, and they advocate harmonious coexistence between humans and nature. Last year, Chinese government publish the sustainability report of Chinese firms for the first time in history. Governors and officers want to make changes to our symbiotic community. Therefore, the relationship between CSR and companies' financial performance has received considerable attention. This research will promote the managers of company to utilize better management strategies to operate company, and improve company's overall performance. Managers should have long term view to develop their social responsibility, which will help company to flourish continually and consistently.

Corporate social responsibility can be divided into two types, the first one is traditional social responsibility, when company makes profits and values, they do not care other people's benefits exclude stakeholders and clients. Company just raise the funds, and donate them as charity, but they do not consider CSR as their company's mission. The second one is contemporary social responsibility. Company will combine their mission with CSR, to accomplish win-win situation between profits and society's expectations. CSR in the business can be reflected from three aspects: environment, employee benefits and community. Those contributions will help company to attract more investors and good social reputations. For instance, there are a lot of famous company take social responsibility initiatively. Starbucks have Coffee And Farmer Equity (C.A.F.E.) practices to ensure that Starbucks develop

sustainably and processed coffee, and this already brings large profits margin for them. They made a good example for other companies.

As the core mission of a company, they are eager to make profits. For measure company's profit, financial performance is a proper indicator. Financial performance will evaluate a company from its profitability, operation capacity, debt paying ability and risk tolerance ability. Profitability, operation capacity and debt paying ability are considering when I am developing my models. For the risk tolerance, there are limited researches that measured a company's risk tolerance.

In this research paper, I will use A share listed company in 2018 to analyze the relationship between CSR and financial relationship. Regression model is being used for my methodology, and I will explore two main relationships as my main objectives:

- the relationship between CSR disclosure and financial performance
- the relationship between CSR score and financial performance

The reminder of my research structure is as follows. In the second section, I will analyze literature review and previous relevant theories. My methodology will be explained at the third section, and the analysis and findings will be elaborated in the fourth part. And in the last section, conclusion, limitations and suggestions for future studies will be specified.

II. LITERATURE REVIEW

Corporate social responsibility Analysis

Corporate social responsibility is considered as an organization's commitment to make the most of its positive impact on stakeholders and minimizing their negative impact on the society (Wells et al., 2011). The debate over CSR goes back to the 1930s. The main concept of debate is around "whether the firms should perform social responsibility?". On the one side of debate, they indicate the firms should not perform CSR considering from economics fields. On the another side of debate, they argue from social contract theory that firms should fulfill the expectations and requirement from stakeholders. At the same time, government and some other Non-Governmental Organization play a driving role during the process. The development of the firm brings severe pollution and destruction gradually, many non-governmental protection organizations release pressure to the firms, requires them to protect the environment.

Based on the precious actions of those organizations, government begins to enforce firms to perform environment responsibility through establishing strict regulations and legislation. Besides, with the economic globalization develops enormously, cross-border companies have become the main actors of economic society, and their operating behavior may affect the political stability of a country and regions' economic development and cultural progress. In 1956, Japan's government passed resolution of "Awakening and Practice of Social Responsibility of Management Personnel", to strengthen the supervision and management of corporate social responsibility behavior. After several strong supports and constantly promote

from the government and other organizations, the concept of CSR has taken shape and is recognized by society.

Relationships between CSR and Financial Performance

Previous studies contain a number of researches which investigate CSR influences financial performance utilizing different models and mechanisms. As the core part of a company, Chief Executive Power (CEO)'s decision is strongly correlated to their operation performance, which also affects their financial performance. CSR already become the symbol of one company that they contribute to their community, especially to the employees or environment. According to Li's research, If CEOs are more powerful, the firms will be less socially responsible. And CSR activities are positively related to firm value and value enhancement (Li et al., 2016). In one study, Giroud indicates that weak governance firms will cause lower labor productivity and higher input costs, which will cause they lower market values, but only in industries with low competitive industries. And they suggest firms should focus on improve firms' operations. (Giroud & Mueller, 2011). Also, corporate proxy with mutual monitoring is more crucial for the firms when the firms have information asymmetry between the top management (Li, 2014). CSR engagement influences firm value and firms' financial performance positively. Company's CSR choice is related with governance characteristics, such as their equity ownership and organizational structure. According to Waddock's research, he measures the profitability of corporate financial performance by using ROE, ROA and ROS, which provide me some measures for the financial sectors (Waddock and Graves, 1997). In the long-term, if firms donate for the local schools and improve local community conditions, the firms will have outstanding profits and impact in the society. Those papers provide me the directions of data collection and sources.

Some of them use the agency theory and some famous database. Including my models, they mention the dummy variables and other correlations, which is essential variables for my empirical analysis.

For the financial performance of a firm, it is assessed by both stock returns and other accounting factors, and those are related to CSR (McGuire et al., 1988). The impact of CSR on corporate performance for society varies from one company to another. Situational contingencies affect the relationship between CSR and firm financial performance. CSR could improve employees' productivity and lower their financial costs, thus increase firm's profitability (Dhaliwal et al., 2012). CSR will help the firms to increase customer's brand recognition, enhance customers' loyalty to the company, and will attract more new customers who have strong social responsibility awareness (Kotler and Lee, 2005). Moreover, as the researches for the competitive strategy of the firms, perform CSR will help firms to gain more competitive advantages. And it was researched that the firms with outstanding CSR performance will have advantages in Human Resources Hiring procedures, much easier for the firms to attract preminent and faithful employees. And this will reduce the relevant risks of the firms (Turban and Greening, 1997). Actively perform CSR can help firms significantly reduce a variety of non-systematic risks (Sun and Cui, 2014).

Currently, the main methodology of research about the relationship between CSR and financial performance is empirical research analysis, involved in some moderator variables which relevant to the firms, to discuss the relationship. However, the research results are different, and they have three type of relationship: positive correlation, negative correlation and no correlation. Positive correlation takes the most percentage of results, negative correlation and no correlation take smaller percentage. Brammer thinks CSR is the investment behavior for the firm, and its capital will loss or leak out without any financial value for the firm. Hence CSR will affect company's financial performance going depression

(Brammer et al, 2007). By contrast, according to another empirical research, they found there is no correlation between CSR and financial performance, which perform CSR will not affect firms' financial performance (McWilliams and Siegel, 2000). However, the most researchers still indicate both of the variables have positive correlation relationship. To explain from stakeholder aspects, firm fulfills the expectations from the stakeholders, and this will decrease the risk premium, the firm's cost will not increase because of conflicting or arguing with stakeholders. For instance, keep a good relationship with the government will benefits their daily operations, keep a good relationship with the suppliers will assure the raw materials supply, keep a good relationship with the employees will motivate their work efficiency and loyalty awareness to firms, keep a good relationship with creditors will make firms more easier and cheaper when they issue bonds. To explain from transaction costs theory, there is a long-term and steady cooperation relationship between firms and stakeholders, which will decrease their contract costs significantly.

Based on the limited number of empirical studies discussed above, the scholars analyzed the relationship between CSR and corporate financial performance from different aspects, but they do not have a unified conclusion. Moreover, current analysis is not comprehensive, which not considered with Chinese economic environment. Hence, I learned from relevant scholars' research, also involved in our China's market situation, technology innovation and other aspects, investigate the effect of social responsibility on the financial performance and present my corresponding suggestions.

III. APPROACH AND METHODOLOGY

Hypothesis Development

According to relevant researches and my sample data distribution conditions, I will analyze from CSR discourse and its quality of the firms, and my hypothesis is as follows:

H1: Positive correlation between CSR disclosure and financial performance.

H2: Positive correlation between CSR score and financial performance.

Variables Clarifications

After reading and reviewing enormous related research, considering the accessibility to my data. Financial performance will be the dependent variables, CSR and other related variables will be the independent variables.

Corporate financial performance: in this research, I will use returns on total assets (ROA) as my measurement core criteria, and earning per shares (EPS) as my additional criteria, both of them shaped my financial performance evaluation system. For calculating ROA, $ROA = \text{Net Income} / \text{Average Total Assets}$, it reflects the firm's profitability and total assets efficiency, which is a comprehensive indicator of financial performance. As one of the most popular indicators in the investment fields, $EPS = \text{Net Income} - \text{Preferred Dividends} / \text{Average Common Shares}$, company's stock prices and investors quantity will reflect financial

performance directly and clearly. Earning per shares higher, more profits company will make, stakeholders will have more dividends.

Corporate Social Responsibility: to measure CSR, I collect the data from Rankins CRS Ratings (RKS). They publish corporate social responsibility report ranking scores to evaluate social responsibility indicators. The total score is 100, and RKS measure the company from three aspects: Macrocosm (30%), Content (50%) and Technique (20%). Higher score means the quality of responsibility report better.

Other control variables: firm size, financial risk, profitability, operation risks, system risk and so on. And in my research, I will pick some of them as the following chart:

Variables Types	Variables Names	Variable Identity	Variables Measurement
Variables	Financial performance	ROA	Net Profit/ Average Total Asset
		EPS	Net Profit/ Equity Capital
	CSR Disclosure	CSR	If firm disclosures, assign 1. Otherwise 0
	CSR Quality	CSR Score	Rankins CRS Ratings (RKS)
	The nature of firm	PRO	If firm is state-controlled, assign 1, otherwise 0.
Control Variables	Operation Capacity	TAT	Net Sales/ Total Assets
	Profitability	NOM	Net Profit/ Operation Revenue
	Growth ability	GROWTH	(Revenue of year 1- revenue of year 0)/ revenue of year 1

Notes: ROA refers to Return on Assets

EPS refers to Earnings Per Share

PRO refers to Property Rights Ownership

TAT refers to Total Asset Turnover

NOM refers to Net Operating Margin

GROWTH refers to Revenue growth rate

Sample and data

In my research, I choose the data of A share listed company in 2018. The data including two parts, the first part is CSR score provided by Rankins CRS Ratings (RKS), and the second part is listed company's financial information, its nature of the company and so on. I collect those data from CSMAR, Bloomberg and companies annual report. To make my samples more reliable and reasonable, I drop some companies from my dataset because of their information absence or other reasons. Hence, I have 3589 samples for my model.

Models

To verify my hypothesis, and based on other related researches. I control the company's operation capacity, profitability and other variables. Establish my regression models as follows:

Model 1: Correlation between CSR disclosure and financial performance

$$\text{ROA} = \beta_0 + \beta_1 \text{CSR} + \beta_2 \text{PRO} + \beta_3 \text{TAT} + \beta_4 \text{GROWTH} + \beta_5 \text{NOM} + \varepsilon$$

Model 2: Correlation between CSR score and financial performance

$$\text{EPS} = \beta_0 + \beta_1 \text{CSR Score} + \beta_2 \text{TAT} + \beta_3 \text{GROWTH} + \beta_4 \text{NOM} + \varepsilon$$

Notes: β_0 is intercept term

ϵ is residual term

IV. ANALYSIS AND FINDINGS

Descriptive Statistics Analysis

In this paper, there are 3,589 samples were collected. Among those samples, there are 846 samples that disclosure their CSR report, and there are 2,743 samples do not disclosure their report, the details of my samples are as follows:

Descriptive Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
tat	3589	.632	.545	0	9.663
growth	3589	.337	7.341	-.997	429.036
roa	3589	.026	.122	-1.872	.466
pro	3589	.309	.462	0	1
csr	846	.236	.425	0	1
nom	3589	-.119	5.097	-293.374	22.716

According to the chart above, there are 3589 samples in my paper, but only 846 samples disclosure their CSR Report, which means the overall awareness of companies to disclosure their report is not high. And from their scores, there is a big difference from the biggest to smallest, which indicates that the quality of their report has big difference. The mean of all samples' CSR score is 42.52, it is lower than average level of the world. The reason for our score is lower, because our government does not pay enough attention on the social

responsibility of companies, including imperfections of relevant legislations. We should improve the quality of companies' report, especially for their awareness for community.

Regression Analysis

The result of first model regression:

Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) tat1	1.000					
(2) growth1	0.011	1.000				
(3) roa1	0.107	0.010	1.000			
(4) pro1	-0.014	-0.010	0.017	1.000		
(5) nom1	0.036	0.006	0.126	0.024	1.000	
(6) csr1	-0.043	-0.016	0.029	0.317	0.024	1.000

Descriptive Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
tat	3589	.632	.545	0	9.663
growth	3589	.337	7.341	-.997	429.036
roa	3589	.026	.122	-1.872	.466
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csr	846	.236	.425	0	1
nom	3589	-.119	5.097	-293.374	22.716

VARIABLES	(1) roa1
tat1	0.104*** (6.299)
growth1	0.009 (0.558)
pro1	0.007 (0.395)
nom1	0.121*** (7.326)
csr1	0.029** (1.655)
Constant	0.000 (0.000)
Observations	3,589
R-squared	0.027
Year FE	YES
Industry FE	YES
Pseudo R-sq)

t-statistics in parentheses*** p<0.01, ** p<0.05, * p<0.1

The result of first model is as above. We can tell that Company's CSR disclosure has positive correlation with financial performance, and at the 5% level of significance, which means the disclosure of company's CSR report has positive correlation with its financial performance. My first hypothesis is valid.

The result of second model regression:

Descriptive Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
tat	846	.59	.488	.001	3.878
eps	846	.509	.939	-9.569	6.589
growth	846	.123	.419	-.941	8.507
nom	846	.1	.901	-6.695	22.716
csrscore	846	42.521	13.685	18.442	89.003

Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)
(1) tat1	1.000				
(2) eps1	0.129	1.000			
(3) growth1	0.140	0.139	1.000		
(4) nom1	-0.061	0.277	0.093	1.000	
(5) csrscore1	0.029	0.253	0.055	0.002	1.000

VARIABLES	(1) eps1
tat1	0.127*** (3.991)
growth1	0.082** (2.557)
nom1	0.277*** (8.720)
csrscore1	0.244*** (7.726)
Constant	-0.000 (-0.000)

Observations	846
R-squared	0.166
Year FE	YES
Industry FE	YES
Pseudo R-sq)

t-statistics in parentheses*** p<0.01, ** p<0.05, * p<0.1

According to the chart above, it indicates that CSR score has the positive correlation at 1% significance level, which has much strong correlation compared to model 1. The quality of the company's CSR report is much important than they just disclosure the report. The stakeholders pay more attention on the quality of company's report. The CSR score higher, the quality of their report is better, their financial performance is more outstanding. The second hypothesis is valid.

Heteroskedasticity Test

Model 1

White's test for Ho: homoskedasticity
against Ha: unrestricted heteroskedasticity
chi2(18) = 53.58
Prob > chi2 = 0.0000

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	53.580	18	0.387
Skewness	12.490	5	0.307
Kurtosis	4.770	1	0.571
Total	70.840	24	0.411

Model 2

White's test for Ho: homoskedasticity
against Ha: unrestricted heteroskedasticity
chi2(14) = 371.42
Prob > chi2 = 0.0000

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	371.420	14	0.426
Skewness	13.990	4	0.312
Kurtosis	4.090	1	0.473
Total	389.500	19	0.541

To test my models are valid, I used homoskedasticity to test my hypothesis. The results of two models are as above.

V. CONCLUSION

In conclusion, the disclosure of CSR report has positive correlation with financial performance, and if the CSR score higher, their financial performance better. My research provides the theory support for the regulations' establishment of disclosing report. My research will help the Chinese companies to improve their awareness of social responsibility, standardize their operations, stakeholders plays a crucial role on supervising company's performance. On the one hand, the stakeholders and other relevant investors will have a proper attitude for the effect of CSR on financial performance, company would like to disclose their CSR report, to convey the society that they have outstanding performance. On the other hand, disclose the report will encourage company to take more social responsibility, and eventually will promote sound and rapid development of the Chinese economy.

However, my study has several limitations. First, my data collects from a single developing country, China, to investigate the relationships. Hence, my results might not be applicable and practical for other developed countries. Second, for deciding my control variables, I should include more variables, such as financial risk, GDP factors and other variables to make my regression models more precise. In addition, my models should consider the effect of nature of the company, for example, the state ownership may have relationships with

financial performance. Future studies may address those limitations by developing more comprehensive regression models.

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