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Corporation social responsibility and firm performance

In Partial Fulfillment of the Requirements

for the Bachelor of Science in Finance

by

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Abstract

This study discussed the opportunities and challenges for companies to take corporate social responsibility (CSR). Firms can gain benefits from good brand image but they also can make many expenses in order to fulfill the requirements of corporate social responsibility. CSR rating was evaluated in many dimensions such as community, environment, employee and governance. In order to obtain a consistent and detailed relationship on CSR and firm performance, a conceptual model with four independent variables was constructed and tested by applying 100 American companies' information. Based on correlation between each dimension, the relationship between CSR and firm performance cannot be tested separately and regression result showed there is no significance relationship between CSR and firm performance. Due to missing data of some companies in disclosure and small sample size, the results might be limited that expected future study.

Keywords: corporate social responsibility; firm performance; American company

1. Introduction

Nowadays, making a balance between corporate social responsibility (CSR) and firm performance is becoming more and more significant. The public wish companies behave ethically in treating employees, forming communities, being friendly to environment and operating sustainably. With the development of technologies, social media enhance consumers to expose more to CSR information, which leads to lots of discussions and brings more challenges to companies. Consumers prefer products and services from firms with good reputation while most investors believe that investing in good-image companies is profitable in long term.

From perspectives of executives, they prefer to evaluate the physical return of taking CSR though CSR requires firms to view and operate beyond profits. Many people insist the firm that takes CSR may have a deduction in financial performance. For instance, chemical manufacturers that take CSR must find a solution to pour waste with the least pollution though there is a high cost. On the other hand, some think firms can get benefits from both consumers and employees because of taking CSR. Indeed, increased profits can show that consumers prefer firms with good image and employee loyalty can improve productivity. However, there are still many people suggest that there is no relationship between CSR and firm performance. (Sebastian & Mathew, 2019)

Figure out the relationship between CSR and firm performance is tough to measure because firm applied diversified approaches to take corporate social responsibility. In addition, there are many factors can affect the relationship such as industrial differences. (Lyanar & Prasad, 2018) Indian researchers tested the relationship between CSR and firm

performance in six different industries but only found significance in the Infrastructure and Power & Energy industry. Moreover, the number of employee relates to community and employee aspect. To obtain a consistent result, the main purpose of this study is to investigate the relationship between corporate social responsibility and firm performance regarding American Top 100 companies and whether firm size can moderate the relation. Secondary data from creditable financial websites are preferred on collecting CSR information and financial performance.

2. Literature Review

2.1 Opportunities and Challenges of Taking CSR

The concept of CSR was firstly suggested by Adam Smith after the industrial revolution. The classical economic theory holds a view that, if a company uses its resource efficiency and provides customers goods and services demanded, the company is taking its responsibility. With the development of politics and society, more content has been added to CSR, especially environmental responsibility.

Director takes CSR into consideration because of not only social requirements but also benefits from taking CSR. Although taking CSR may spend lots of money such as charity, CSR can generate opportunities, innovation and make competitive advantages. (Porter & Kramer, 2006) Under pressure from society, corporates might rack their minds to figure out the optimal solution that no one found in the past. It is a kind of improvement and may lead to revolution. Corporate social responsibility strategy is an important prerequisite for green innovation. Rapid growth in green innovation can bring financial benefits in short term and

step-by-step green innovation will lead long term benefits. (Wei, Peng & Zhang, 2012) In addition, strategic CSR can provokes sustainable product innovation. (Arshad & Razak, 2011) The big number of patents in China in 2014 showed strengthened Investment in the Research and Technology department under the requirements of CSR. (Liu & Xu, 2014)

The behavior of a company is associated with employees' work engagement, morale, and loyalty. These factors directly related to productivity. At the same time, these directly affected workers will influence their colleagues which is called organizational citizenship behavior.(Liu, Wang, Tian & Tang, 2017) It is much more productive when company establish a close company-employee responsibility community. (Zhu & Yong, 2013)

In other ways, many companies have begun to use CSR as a measurement to distinguish employees. (Stoyanova & Stoyanov, 2019) As CSR engaged in enterprise cultural construction, it is easier for directors to figure out their appropriate employees. It is because employees prefer to do projects that along with their own value and company prefer to award employees that consistent with company value.

As stakeholders, firm performance is associated with the brand name and financial performance measured by capital structure, return on asset and cash flow operations. (Hurtado, Ferràs, Arimany & Meijide, 2015)

From regulatory perspectives, since they can oversee information of all responsible companies, they can make a deeper understanding of how firms take CSR and improve CSR system in evaluating and supervising. (Arshad & Razak, 2011)

However, Inevitably, taking corporate social responsibility can cause some negative effects. Social responsibilities can slow down the improvement of financial performance and

overusage of resources can also happen. (Iyanar & Rajiv Prasad, 2018) Many researchers proposed, out of the majority's prediction, taking environmental responsibilities can surprisingly help companies increase financial performance. It is significant to test this association relationship is stable or not.

2.2 Relationship Between CSR and Firm Performance

Applied ROA and ROE to measure firm performance, Amrousy, Gavious and Yosef(2012) found Israel firms' performance were not affected by CSR rating. However, ignored the influence of firm size and debt, Selcuk and Kiymaz (2017) found negative relationship after testing 1023 firms with CSR and ROA data. Specially, they viewed CSR in seven separated dimensions which concluded environment, energy, consumer, community involvement, employee health and safety, other employee-related issues, and general (Aras, Aybars, & Kutlu ,2010) Assessing stock information, it was observed that company were more sensitive to the market after the declaration of CSR. (McGuire, Sundgren & Schneeweis, 1988)

There are many factors affecting the relationship between CSR and firm performance. Along with CSR, industry type indicates different spending level on CSR related, which is mainly divided by consumer goods companies, industrial goods companies, and services （Sebastian & Mathew, 2019） Mandated CSR legislation is varied in different nations, states and time periods. Also, the size of the firm and capital structure are both affecting the moderating effect. (Bhattacharyya, Lutfur Rahman, 2019) Moreover, since stakeholders take capital structure into consideration, the research found the mediating effect of profitability. It is said that there is a negative relationship between the speed of capital

structure and profitability whereas CSR is positively related to profitability. (Akhtar, Ming & Usama, 2016) Based on Conceptual model from Zhu and Yong (2013), the relationship between corporate social responsibility and brand equity exist. And they found mediating effect of consumers' emotional and rational cognition.

Nowadays, many previous studies investigated the effect of CSR spending on firm performance, restricting information in developed economies which is limited. (Bhattacharyya & Rahman, 2019) And nonmonetary aspects have been ignored in most research. However, nonmonetary effect can make a difference in American market. (Saeidi & Sofian, 2014） Therefore, applied reliable information for Top100 American company is effective to analyze.

3. Methodology and Data

3.1 Data selected

3.1.1 Dependent variable

Regarding firm performance, company's profit growth, return on asset and market value collected from Fortune 500 will be applied as dependent variables.

3.1.2 Independent variable

Based on previous study, corporate social responsibility is recorded and analyzed in the form of CSR index which takes environment, community, employee and governance into consideration. (Han & Li, 2013) CSR index information was collected from CSRHub which enables to recognize and compare company sustainability and CSR behavior.

Environment data covers a company's behavior in usage of natural resources, influence on

ecosystem and how the company react to latest environmental policies. Community rating reflects a company view on the relationship between employee and firm and how the company affects the local and supply chain. Employees evaluation concentrates on fair treatment of all employees, demonstrated training and development opportunities. From governance perspective, a great company discloses its policies and procedures, pay attention to stakeholder concerns and has execution with ethical leadership and behaviors, particularly in sustainability.

3.1.3 Moderating variable

Company's number of employee information collected from Fortune 500, representing company size, is used to test moderating effect on the relationship between independent variables and independent variables.

3.2 Discussion of Sample

As mentioned above, nation difference can cause conflicting results in relationship between corporate social responsibility and firm performance. Therefore, the sample is going to be analyzed is restricted to Top 100 company from the U.S.

3.3 Methodology, model and hypotheses

This is a quantitative research aims at testing the relationship between corporate social responsibility and firm performance is positive, negative or null.

3.3.1 Discussion and Explanation of Methodology:

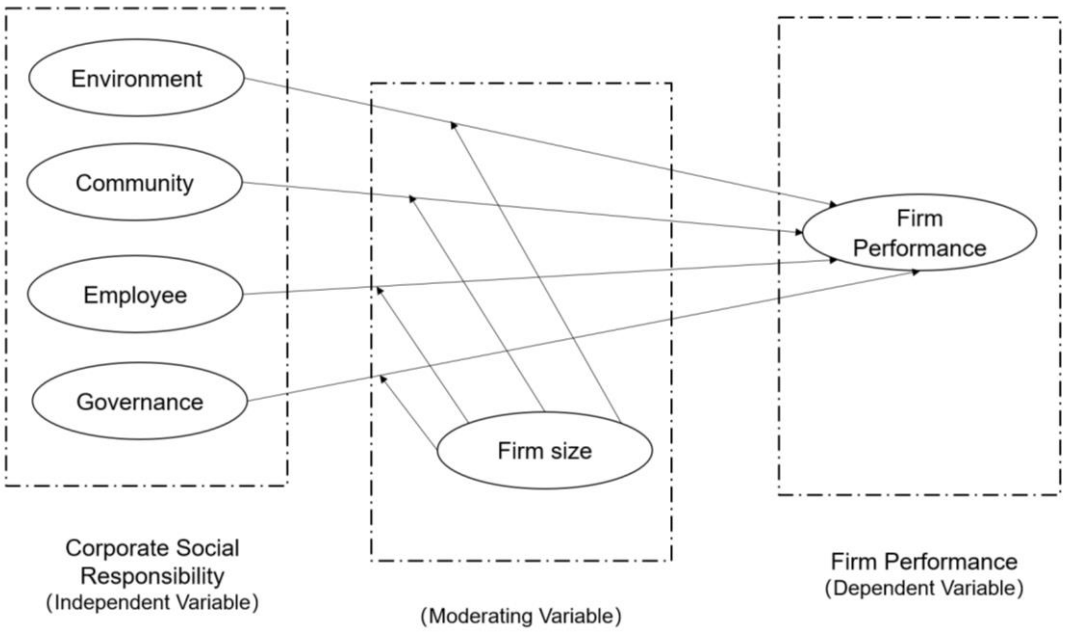
Correlation analysis was used to study the collinearity among community, environment,

employee and governance rating. Then, regression analysis was applied to study the relationship between CSR and firm performance is significant or not. Moderation analysis applied by using "Model 1" in Process Macro used to examine how the effect of CSR on a firm performance depends on company size. (Hayes, 2013)

3.3.2 Discussion and Explanation of Model and Hypotheses:

Based on previous explanation and CSR & Brand Equity Model(Han & Li, 2013), the relationship can be tested separately in environment, community, employee and governance in order to find the most significant factor to improve firm performance. Additionally, moderating effect should also be tested in 4 separate pathways. Therefore, the model becomes as figure 1.

Figure 1: Conceptual Framework



Based on the conceptual model, each pathway matched a hypothesis. Therefore eight

hypotheses were constructed as follow:

H1: There is no relationship between environment rating and firm performance.

H2: There is no relationship between community rating and firm performance.

H3: There is no relationship between employee rating and firm performance.

H4: There is no relationship between governance rating and firm performance.

H5: The relationship between environment rating to firm performance cannot be moderated by firm size.

H6: The relationship between community rating to firm performance cannot be moderated by firm size.

H7: The relationship between employee rating to firm performance cannot be moderated by firm size.

H8: The relationship between governance rating to firm performance cannot be moderated by firm size.

4 . Analysis and findings

The result of correlation analysis proved the collinearity among community, environment, employee and governance rating because all correlation coefficients exceeded 0.5. Therefore, relationship between CSR and firm performance cannot be tested separately. Overall CSR rating and profit growth, return on asset and market value in 2018 were applied in regression model to test the significance. With a large p-value, as shown in *Table 2: Regression Analysis*, we can conclude that the relationship between CSR and firm performance are insignificance.

Based on regression analysis, process cannot be applied because of against analysis

requirements. The four conditions required to use process models are: (1) independent variable should significantly relate to dependent variable; (2)independent variable should significantly relate to moderating variable should be significant; (3) moderating variable should significantly relate to dependent variable; (4) the overall relationship should be significance. However, we did not find significant relationship between independent variable, CSR, and dependent variable, firm performance. Therefore, we conclude that there is no relationship between corporate social responsibility and firm performance.

5. Conclusion

In reality, taking corporate social responsibility is similar as investing. Opportunities and challenges are associated with each other. Company can gain more revenue due to its good reputation and increased productivity. Additionally, CSR can help to provoke innovation and patients, which is beneficial for the society. However, at the same time, some firms may have deductions in finance for investments in research to make improvements in operations in order to meet the requirements of CSR.

Researching on making a balance between CSR and firm performance becomes popular. However, previous studies showed contradictory results based on different sample and diversified methodology. This study contradict previous researches in analyzing CSR in distinct dimensions because of collinearity. And based on regression analysis, it was found there is no relationship between corporate social responsibility and firm performance.

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7. Figure and Table

Figure 1: Conceptual Framework

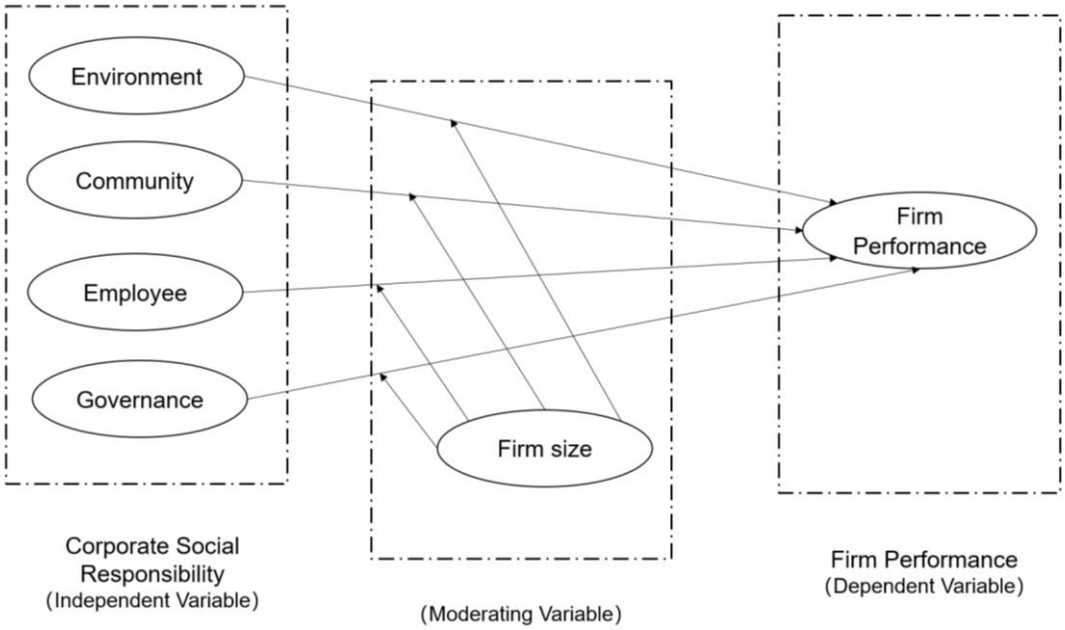

Table 2: Regression analysis on CSR and profit growth, ROA, market value

	Profit Growth & CSR	ROA & CSR	Market Value & CSR
P-value	0.217366457	0.304053042	0.17815863

8. Appendix

Appendix A: Correlation analysis

	Community	**Employees**	**Environment**	**Governance**
Community	1			
Employees	0.669377638	1		
Environment	0.708388747	0.466456655	1	
Governance	0.620020041	0.644473656	0.589084207	1

Appendix B: Regression on CSR and profit growth, ROA, market value

Profit Growth

Regression Statistics	
Multiple R	0.14033532
R Square	0.019694002
Adjusted R Square	0.006962755
Standard Error	0.982459036
Observations	79

ANOVA

	df	SS	MS	F	Significance F
Regression	1	1.493110488	1.493110488	1.546902864	0.217366457
Residual	77	74.32238331	0.965225757		
Total	78	75.8154938			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.475483118	1.017110168	1.450662047	0.150935634	-0.549841974	3.50080821	-0.549841974	3.50080821
CSR	-0.022816988	0.018345383	-1.243745498	0.217366457	-0.059347314	0.013713337	-0.059347314	0.013713337

ROA

Regression Statistics	
Multiple R	0.117102451
R Square	0.013712984
Adjusted R Square	0.000904062
Standard Error	0.04752857
Observations	79

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.002418404	0.002418404	1.070580619	0.304053042
Residual	77	0.173940303	0.002258965		
Total	78	0.176358707			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.007018486	0.049204893	0.142637959	0.886948703	-0.090960974	0.104997945	-0.090960974	0.104997945
CSR	0.000918283	0.000887497	1.034688658	0.304053042	-0.00084895	0.002685517	-0.00084895	0.002685517

Market Value

Regression Statistics	
Multiple R	0.153032277
R Square	0.023418878
Adjusted R Square	0.010736006
Standard Error	174035.499
Observations	79

ANOVA

	df	SS	MS	F	Significance F
Regression	1	55927340171	55927340171	1.846496461	0.17815863
Residual	77	2.3322E+12	30288354924		
Total	78	2.38813E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-97354.31435	180173.6959	-0.54033589	0.590524922	-456125.9783	261417.3496	-456125.9783	261417.3496
CSR	4415.952833	3249.751749	1.358858514	0.17815863	-2055.129622	10887.03529	-2055.129622	10887.03529