2 The Effect of Corporate Social Performance on Firm Financial Performance: The Moderating Effect of Ownership Concentration

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2.1 Introduction

Corporate social responsibility (CSR) has become an issue of emergent interest in the business world. CSR is an instrument which firms used to show their corporate social performance (CSP) (Williams and Siegel 2001). CSP is indicative of an agency problem, a clash among the interest of CEOs and stockholders. Corporations are practicing different categories of CSP such as environmental effort, philanthropy, ethical labor practices, and volunteering. Social performance becomes essential to develop a competitive advantage in today's environment. Moreover, a number of scholars and practitioners are paying more attention to corporate social performance (Griffin and Mahon 1997). An effort to increase the environmental and social performance is done to maintain the image and corporate reputation which increased the legitimacy of the corporation. According to Fisman et al. (2005), the effect of CSR on profit is stronger in competitive industries. Further they revealed that CSR is used as a means of differentiation in competitive environments. Most of these studies have been concerned about the direct relationship between corporate social performance and a firm's financial performance (FP). The findings of these studies showed mixed results of the relation between corporate social responsibility and financial performance.

This motivates us to find whether there is any factor that makes this relationship weak or strong. Further, Grewatsch and Kleindienst (2017) emphasized the need for more studies on the mediators and moderators of corporate social relationship and financial performance relationship. The role of corporate governance factors for the CSR–FP relationship is especially limited within the context of developing

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countries (Selcuk 2019). According to Peng and Yang (2014), ownership concentration is common in emerging markets. The theory which relates to ownership concentration is the agency theory. Agency theory argues that concentrated ownership can be an incentive for shareholders to direct the managers to improve performance and shareholder value. Thereby the purpose of this study is to investigate the moderating effect of the ownership concentration on the relationship between CSP and a firm's FP. The findings of the study will fill the knowledge gap in the moderating effect of ownership concentration.

2.2 Literature Review

Previous studies have found various empirical results of relations between CSP and a firm's FP. Abeysinghe and Basnayake (2015) found that there is a negative relationship between CSR disclosures and the financial performance of selected Sri Lankan commercial banks. Further findings revealed that financial performance will not be totally dependent on CSR disclosures.

The same results were found by Tyagi and Sharma (2013) who addressed the question of whether corporate social performance is linked to corporate financial performance using empirical methods. Data covering a 7-year period from 2005 to 2011 was used for the study. This study also confirmed a negative relationship between CSP and corporate financial performance. In contrast to the above results, Javeed and Lefen (2019) revealed a significant positive association between CSR and firm performance using a sample of manufacturing companies in Pakistan.

The studies which found the negative relationship between CSP and a firm's FP argue that the funds that are used for CSP could have been used for firm effective investments (Gollop and Roberts 1983; Smith and Sims 1985). Researchers who found a positive relationship suggest that despite the extra cost of engaging in CSR activities, firms benefit from CSR through improved relationships with stakeholders in line with the stakeholder theory. Firms benefit from CSR via improved reputation.

Since there are contradictory empirical findings in the studies to find the relationship between CSP and firm financial performance, Grewatsch and Kleindienst (2017) emphasized the need for more studies on the mediators and moderators for that relationship. Accordingly, Mahoney and Roberts (2007) examined the relationship of corporate social performance to financial performance and institutional ownership. Peng and Yang (2014) examined the role of the ownership concentration on the link between CSP and FP from five highly polluting industries in Taiwan. According to the findings of this study, the relationship between CSP and short-run FP is negatively moderated by a high degree of control–cash flow divergence, and also there is a negative relationship between CSP and long-run FB among firms with a high degree of control–cash flow divergence. The study concluded that ownership concentration plays a critical monitoring role in the association between CSP and FB in emerging markets.

This study found no significant relationship between a composite measure of firms' CSP and FP. Further the results revealed that there is a significant relationship

between firms' composite CSP measure and the number of institutions investing in firms' stock. Fisman et al. (2005) found that the profit effects of CSR are more positive when large external shareholders are on the board.

Wang et al. (2013) found that CSR disclosure is certainly positively accompanying with ownership concentration. Utomo et al. (2017) found ownership concentration positively related to firm performance. But there is no relationship between ownership concentration and environmental performance. Ishtiaq et al. (2017) concluded that ownership structure controls the organizations' success. Therefore many studies have used ownership structure as a moderating variable to the relationship between corporate social performance and firm performance. Selcuk (2019) investigated the impact of CSR engagement on firm financial performance in a developing country and analyzed the moderating role of ownership concentration in the CSR financial performance relationship. There is a positive relationship between CSR and FP while ownership concentration negatively moderates that relationship. In contrast to the above results, Ishtiaq et al. (2017) discovered that the ownership concentration significantly positively moderates the relationship between CSR and FP in non-financial companies of Pakistan stock exchange. Since there are contradictory results in the studies on testing the moderating effect of ownership concentration in the relationship between corporate social performance and firm performance, this study is focused to examine the impact of CSP on firm performance and the moderation effect of ownership structure in the Sri Lankan context.

2.2.1 Research Questions

1. Is there any relationship between CSP and firm performance?
2. Is there any moderating effect of ownership structure on the relationship between CSP and financial performance?

2.2.2 Research Hypotheses

H1 – There is a significant relationship between CSP and firm performance.
H2 – Ownership concentration has a significant influence on the relationship between CSP and financial performance.

2.3 Methodology

2.3.1 Data Collection Method

Secondary data were obtained from the annual reports. Data was collected from 30 companies which are listed under chemical and pharmaceutical; beverage, food, and tobacco; hotel and travel; and manufacturing sectors for the 6-year period from

2013 to 2018. Companies were selected proportionately from each sector. Most environment-related sectors were selected for the study.

2.3.2 Operationalization of the Variables

The dependent variable of the study was the firm performance which is measured by return on equity (ROE) and return on assets (ROA). ROE and ROA indicate the firms' efficiency of utilizing and managing their assets to maximize profitability (Table 2.1).

2.4 Research Model

This study considered secondary data of 30 companies listed in the Colombo Stock Exchange for 6 years which represent panel data series. Panel data consist of both time series and cross-sectional data.

To select the best-suited model for panel data analysis, the Hausman test was carried out. Based on the result of the Hausman test, the random effect model and fixed effect model were used to run the regression equation. There are two main objectives of this study: to examine the direct relationship between the firm's CSP and FP and the moderating effect of the ownership concentration on the relationship between CSP and FP. Thereby, there are two steps in the study.

Step 1 tested the direct relationship between CSP and FP. The estimated regression equation is

$$\mathrm{FP} = \alpha 0 + \alpha 1\mathrm{PCI} + \alpha 2\mathrm{OWC} + \alpha 3\mathrm{MTB} + \alpha 4\mathrm{SIZE} + \alpha 5\mathrm{DBT} + \alpha 6\mathrm{GDPGR} + \varepsilon_{\mathrm{it}}$$

Step 2 tested the moderating effect of Ownership Concentration on the above relationship. The estimated regression equation is

$$\mathrm{FP} = \alpha 0 + \alpha 1\mathrm{PCI} + \alpha 2\mathrm{OWC} + \alpha 3\mathrm{MTB} + \alpha 4\mathrm{SIZE} + \alpha 5\mathrm{DBT} + \alpha 6\mathrm{GDPGR} + \alpha 7\mathrm{PCI} * \mathrm{OWC} + \varepsilon_{\mathrm{it}}$$

Financial performance was measured by using two performance variables return on equity (ROE) and return on assets (ROA).

Model 1

$$\mathrm{FP} = \alpha 0 + \alpha 1\mathrm{CSP} + \alpha 2\mathrm{OWC} + \alpha 3\mathrm{MTB} + \alpha 4\mathrm{SIZE} + \alpha 5\mathrm{DBT} + \alpha 6\mathrm{GDPGR} + \varepsilon_{\mathrm{it}}$$

Model 2

$$\mathrm{FP} = \alpha 0 + \alpha 1\mathrm{CSP} + \alpha 2\mathrm{OWC} + \alpha 3\mathrm{MTB} + \alpha 4\mathrm{SIZE} + \alpha 5\mathrm{DBT} + \alpha 6\mathrm{GDPGR} + \alpha 7\mathrm{PCI} * \mathrm{OWC} + \varepsilon_{\mathrm{it}}$$

FP = Financial performance
CSP = Corporate social performance
OWC = Ownership concentration

Table 2.1 Operationalization of variables

Dependent variables	Financial performance	Return on equity (ROE) = profit for the year/shareholders' average equity	
		Return on assets (ROA) = net income/total assets	Ishtiaq et al. (2017)
Independent variable	Corporate social performance	Measured by setting a numerical value 1 for the firms with pollution control investment and 0 otherwise	Peng and Yang (2014)
Moderate variable	Ownership concentration	Sum of ownership percentage of five largest investors	Al-Jaifi (2017)
Control variables	Market to book value	(market value of equity/book value of equity)*100	Chien and Peng (2012)
	Firm size	Natural logarithm of a firm's total assets	Ishtiaq et al. (2017) and Chien and Peng (2012)
	Leverage	Total debts/total assets	Ishtiaq et al. (2017) and Chien and Peng (2012)
	GDP growth	Annual growth rate of Sri Lanka gross domestic production	Chien and Peng (2012)

Source: Author-constructed

MTB = Ratio of the market value of equity to its book value of equity
SIZE = Natural logarithm of a firm's total assets
DBT = Ratio of debt to assets
GDPGR = Annual growth rate of Sri Lanka gross domestic production

2.4.1 Hypotheses of the Study

H1 – There is a significant relationship between corporate social performance and financial performance.
H2 – Ownership concentration moderates the relationship between corporate social performance and financial performance.

2.4.2 Conceptual Framework (Fig. 2.1)

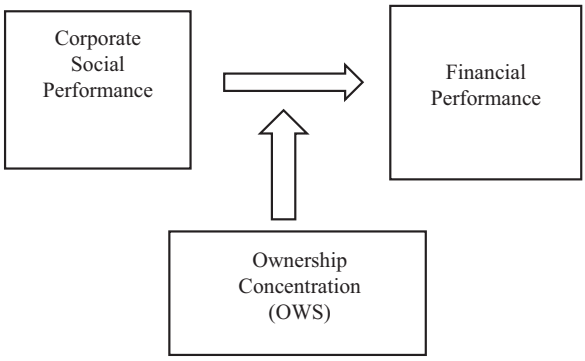

Fig. 2.1 Conceptual framework

2.4.3 Descriptive Statistics (Table 2.2)

According to the descriptive statistics, the average return on equity of sampled companies is 11%. But it can be spread out from the average value by 18%. And also ROE range between a maximum of 95% to a minimum of −46%. According to the statistics, it can be summarized that the average value of the return on assets is 7% with a minimum value of −18% and a maximum value of 44%. The standard deviation of ROA is 8%. It indicates that an average value of 7% can be spread by 8%. The spread of the observations of the return on assets is relatively low.

The average value of the ownership concentration is 80%. It means that there is a high ownership concentration in Sri Lankan listed companies with a minimum value of 55% and a maximum value of 100%. The standard deviation of this variable is 10%. The mean value of the market to book value of equity is 94%. This

Table 2.2 Descriptive statistics

	ROE	ROA	PCI	OWC	MTB	NLT	DTA	GDPGR
Mean	0.11	0.07	0.69	0.80	0.94	21.72	0.25	0.04
Median	0.10	0.06	1.00	0.81	0.83	21.65	0.22	0.04
Maximum	0.95	0.44	1.00	1	3.77	23.47	0.77	0.05
Minimum	−0.46	−0.18	0.00	0.55	0.03	19.03	0.00	0.03
Std. dev.	0.18	0.08	0.46	0.10	0.62	1.06	0.19	0.01

Source: Research data

average value can be spread by 62%. The minimum value of the market to book value of equity is 3.07%, and the maximum value is 377%.

The average value of debt to total assets ratio is 25%. It indicates that averagely companies have financed their 25% of assets by debt. The standard deviation of this variable is 19%. The minimum value of debt to total assets ratio is 0%, and the maximum value is 77%. The ordinary value of the growth rate of the gross domestic product is 4.16% for the time period of 2013 to 2018. The minimum value of the growth rate of the gross domestic product is 3.3% (2016/2017), and the maximum value of the growth rate of the gross domestic product is 5% (2013/2014).

2.4.4 Correlation Analysis (Table 2.3)

According to the correlation analysis, there is a positive correlation between financial performance (measured by ROA and ROE) and corporate social responsibility. Ownership concentration is also positively concentrated with both ROE and ROA. It indicates that powerful shareholders are able to influence on the financial performance of companies.

2.4.5 Regression Analysis

Multiple regression was applied to analyze the panel data. The dependent variable of this study was the firm's financial performance which was measured by ROE and ROA. The analysis consisted of two steps. First, the direct relationship between corporate social performance and financial performance was tested. Second, the moderating effect of ownership concentration on the relationship between corporate social performance and financial performance was verified.

The Hausman test was used to select the most appropriate regression model (fixed effect model or the random effect model) to analyze the panel data. The hypotheses tested under the Hausman test are as follows:

H_0 – Random effect model is appropriate.

H_1 – Fixed effect model is appropriate.

2.4.6 Return on Equity (ROE)

Result of the Hausman Test (Table 2.4)

The probability value of the chi-square statistic is not significant at 5% significance level. As per the Hausman test, the null hypothesis was accepted and the alternative hypothesis rejected. Thereby the Hausman test concluded that the random effect model is more appropriate to analyze the panel data (Table 2.5).

$$\begin{aligned}\mathrm{ROE} = &-0.544 + 0.0809\mathrm{CSP} + 0.166\mathrm{OWC} - 0.026\mathrm{MTB} \\ &+0.025\mathrm{NLT} - 0.155\mathrm{DBT} - 0.232\mathrm{GDPGR} + \varepsilon_{it}\end{aligned}$$

Table 2.3 Correlation statistics

	ROE	ROA	CSP	OWC	MTB	LNTA	DEBT	GDPGR
ROE	1.000	0.870	0.252	0.341	−0.256	0.133	0.062	−0.007
ROA	0.870	1.000	0.272	0.472	−0.349	0.170	−0.110	−0.039
PCI	0.252	0.272	1.000	0.098	0.063	0.206	−0.147	0.003
OWC	0.341	0.472	0.098	1.000	−0.415	0.169	−0.127	−0.015
MTB	−0.256	−0.349	0.063	−0.415	1.000	0.035	0.015	−0.030
LNTA	0.133	0.170	0.206	0.169	0.035	1.000	0.005	−0.022
DEBT	0.062	−0.110	−0.147	−0.127	0.015	0.005	1.000	−0.008
GDPGR	−0.007	−0.039	0.003	−0.015	−0.030	−0.022	−0.008	1.000

Source: Research data

Table 2.4 Hausman test statistics (ROE)

Correlated random effects – Hausman test			
Test cross-sectional random effects			
Test summary	Chi-sq. statistic	Chi-sq. d.f.	Prob.
Cross-sectional random	11.063639	6	0.0864

Source: Research data

Table 2.5 Regression analysis ROE (Model 01)

Variable	Coefficient	*t*-statistic	Prob.
C	−0.544	−1.129	0.260
CSP	0.0809	3.141	0.002
OWC	0.166	1.723	0.086
MTB	−0.026	−1.570	0.118
NLT	0.025	1.138	0.256
DTA	−0.155	−1.982	0.049
GDPGR	−0.232	−0.238	0.812

Source: Research data

Corporate social performance positively influenced on the firm's financial performance. The coefficient value is 0.0809. The probability value is 0.0020 which is significant at 5% confidence level. Therefore, H1 can be accepted. It is concluded that there is a positive and statistically significant relationship between corporate social performance and a firm's financial performance. The debt-to-asset ratio has also a significant effect on the firm's performance. There is a negative impact of debt level on the firm's financial performance (Table 2.6).

$$\begin{aligned} \mathrm{ROE} = {} & -0.710704 + 0.654739\mathrm{CSP} + 0.557695\mathrm{OWC} \\ & -0.036372\mathrm{MTB} + 0.018031\mathrm{NLT} \\ & -0.170736\mathrm{DBT} \; -0.196268\mathrm{GDPGR} \\ & -0.708687\mathrm{CSP} * \mathrm{OWC} + \varepsilon_{\mathrm{it}} \end{aligned}$$

Table 2.6 Regression analysis ROE (Model 02)

Variable	Coefficient	*t*-statistic	Prob.
C	−0.710704	−1.490900	0.1378
CSP	0.654739	4.546270	0.0000
OWC	0.557695	4.178473	0.0000
MTB	−0.036372	−2.23814	0.0265
NLT	0.018031	0.825666	0.4101
DTA8	−0.170736	−2.25779	0.0252
GDPGR	−0.196268	−0.21121	0.8330
CSP*OWC	−0.708687	−4.04794	0.0001

Source: Research data

Table 2.7 Hausman test statistics (ROA)

Correlated random effects – Hausman test			
Test cross-sectional random effects			
Test summary	Chi-sq. statistic	Chi-sq. d.f.	Prob.
Cross-sectional random	15.407298	6	0.0173

Source: Research data

The interaction between the independent variable and moderate variable measures the moderation effect. So according to the results, the interaction between PCI and OWC (PCI*OWC) is −0.708687. And also the probability value of the coefficient is 0.0001 which is significant at 5% significance level. Accordingly, H2 is accepted. It is concluded that there is a significant moderating effect of ownership concentration on the relationship between financial performance and corporate social performance. Ownership concentration negatively moderates that relationship.

By comparing with Model 01, the adjusted R-squared increases by 4.33% from 9.26% to 13.74%. The change in the adjusted R-squared is significant. ($P < 5\%$), which indicates that the interaction between pollution control investment and ownership concentration contributes significantly to the model.

2.4.7 Return on Asset

2.4.7.1 Result of the Hausman Test (Table 2.7)

The probability value of the chi-square statistic is significant at 5% significance level. The alternative hypothesis was accepted and the null hypothesis rejected. Results of the Hausman test indicated that the fixed effect model is the most appropriate model to analyze the data set which explains the return on assets as the dependent variable (Table 2.8).

Based on the results of fixed effect regression model, the following equation can be identified:

Table 2.8 Regression analysis ROA (Model 01)

Variable	Coefficient	*t*-statistic	Prob.
C	−0.848	−1.603	0.110
CSP	0.049	3.016	0.003
OWC	0.075	1.266	0.207
MTB	−0.017	−1.588	0.114
NLT	0.042	1.723	0.086
DTA	−0.182	−3.305	0.001
GDPGR	−0.450	−0.768	0.443

Source: Research data

$$\text{ROA} = -0.848 + 0.049\text{CSP} + 0.075\text{OWC} - 0.017\text{MTB} + 0.042\text{NLT} - 0.182\text{DBT} - 0.450\text{GDPGR} + \varepsilon_{it}$$

The coefficient value of pollution control investments is 0.049. It specifies that there is a positive impact of investments in pollution control on return on investment. The probability value of the coefficient is 0.0030 which is significant at 5% confidence level. Therefore, H_1 can be accepted. Based on the above result, it can be concluded that there is a positive and statistically significant impact of corporate social performance on financial performance at 5% confidence level.

The coefficient value of ownership concentration is 0.075 which explains that when the sum of the ownership percentage of the five largest investors is increased by 1 unit, the return on assets will increase by 0.075 units. The probability value of the coefficient is 0.2073 which is not significant at 5% confidence level. Then it can be concluded that, though ownership concentration positively influenced on financial performance, it is not significant (Table 2.9).

Based on the results of the regression analysis, the following equation can be identified:

$$\text{ROA} = -0.955 + 0.255\text{PCI} + 0.214\text{OWC} - 0.021\text{MTB} + 0.041\text{NLT} - 0.188\text{DTA} - 0.432\text{GDPGR} - 0.254\text{PCI} * \text{OWC} + \varepsilon_{it}$$

Model 2 tested the moderating effect of the ownership concentration on the relationship between financial performance and corporate social performance. By comparing with Step 01, the adjusted R-squared increases by 1.07% from 63.04% to 64.11%. The change in the adjusted R-squared is significant. ($P < 5\%$), which indicates that the interaction between pollution control investment and ownership concentration contributes significantly to the model.

The coefficient value of the PCI*OWC is −0.254441. And also the probability value of the coefficient is 0.0229 which is significant at 5% significance level. According to that H2 is accepted. And it is concluded that there is a significant moderating effect of ownership concentration on the relationship between financial performance and corporate social performance.

Table 2.9 Regression analysis ROA (Model 02)

Variable	Coefficient	*t*-statistic	Prob.
C	−0.955	−1.824	0.0701
CSP	0.255	2.809	0.0057
OWC	0.214	2.545	0.0120
MTB	−0.021	−2.008	0.0465
NLT	0.0417	1.737	0.0845
DTA	−0.188	−3.460	0.0007
GDPGR	−0.432	−0.748	0.4553
CSP*OWC	−0.254	−2.300	0.0229

Source: Research data

2.5 Conclusion

The aim of the study was to examine the impact of corporate social performance on the firms' financial performance and to study the role of ownership concentration on the relationship between corporate social performance and a firm's financial performance. Corporate social performance can be considered as a principal–agent problem due to managers overinvesting in social activities to improve the company's reputation as a good social citizen. The study was focused on the selected environment-related industries in the Colombo Stock Exchange. The findings of this study concluded that there is a significant positive impact of investment in pollution control on the financial performance of the listed companies. Further it revealed that the relationship between corporate social performance and a firm's financial performance is negatively moderated by ownership concentration. The results are in line with the findings of Peng and Yang (2014) and Selcuk (2019) who found the same argument. It is claimed that the financial performance of companies can be improved by increasing attention to the firm's corporate social performance. Moreover, this relationship exists when the ownership percentage of the largest owners is low which leads to more shared ownership. Controlling shareholder affects the link between corporate social performance and financial performance negatively. The findings of the study will help policy makers and regulators better identify how the ownership concentration is associated with firm incentives to engage in social performance.

Chapter Takeaways

- Corporate social performance (CSP) refers to the principles, practices, and outcomes of businesses' relationships with people, organizations, institutions, communities, societies, and the earth in terms of the deliberate actions of businesses towards these stakeholders as well as the unintended externalities of business activity.
- Ownership concentration was measured by taking the sum of ownership percentage of the five largest investors.
- Ownership concentration in Sri Lankan listed companies is high.
- Corporate social performance positively influenced on the firm's financial performance.
- The relationship between corporate social performance and a firm's financial performance is negatively moderated by ownership concentration.

Reflection Questions

- What is meant by corporate social performance?
- What is meant by ownership concentration?
- What is the use of the Hausman test?
- How does corporate social performance influence on firm performance?
- How does ownership structure moderate the relationship between corporate social responsibility and firm performance?

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