Understanding the relationship between Firm's Corporate Social Responsibility and Financial Performance: Empirical Analysis

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Abstract

The research article explores nature of relationship between the firm's financial performance and its corporate social responsibility (CSR) of the Cement sector firms' listed on Karachi Stock Exchange. Panel data of 15 firms listed on KSE for the period of 2006 to 2012 was collected and analyzed by applying statistical tools like correlation and generalized least square Random effect regression. The research finds positive relationship between the financial performance and CSR of the firms studied under this research

Keywords: CSR, Financial performance, panel data, cement sector, KSE.

Corporate social responsibility (CSR) is an emerging topic for the researchers. It got a lot of attention for the managers, researchers and academicians CSR has been explained in different ways and in different forms. CSR is reflected as corporate responsibility, philanthropy, business ethics and corporate captainship. Sometime corporate accountability, triple bottom line and corporate social performance are being used to reflect CSR. World business council for sustainable defined CSR as the attempt of business which give sustainable development to org, its employees, society and community and improve their quality of life as well.(*WBCSD,* 2000) as business organizations are old the same is the history of CSR. Business is considered the one of the most effective factors in changing the profile of society over the centuries (Subroto, 2002). as when the industrialization are started in 1950, the business work more objective oriented in term of money and focused on goods and services that could meet the society needs. Today there is immense and intense competition among all national and multinational firms to get competitive advantages regarding the wellbeing of society and well big of state relationship only those firms succeed which will deliver high corporate citizenship and get the attention of general public due to orating wellbeing for the society and public. Such firms

successfully put the element of CSR in their decision making and get the organizational goals in more effective and efficient way.
21st century owing to the competitiveness, rapid changes and other environmental challenges to survive in every day intense rivalry. To fulfill this gap this study is aimed at exploding this specific issue CSR and firm financial performance in context of sector's firm listed on ICSE. In order to see the dividends of CSR towards corporate financial performance, this study is aimed at exploring this specific issue of CSR and firm financial performance in listed cement sector firms in Karachi stock exchange.

Literature review

In the literature for this study the researcher found a lot of studies that tried to know about the types of relationship between CSR and financial performance of the firm (Lockett & Visser, 2006). Very rare studies conducted on the relationship between corporate social welfare and financial performance. The reason is the limitation that really makes the relationship between CSR and FP very ambiguous and complex and the very difficult to run and evaluate these scientifically (Carroll, 2000; Rowley &. Berman, 2000).

Studies like (Preston, 1999; Schnietz, 2005) reveals that most of the firms have different kinds of internal and external stockholders, to avoid their negative feelings firms continuously and profoundly need social work and well beings to protect the negative intentions that can hart the organization. So they consider the social wellbeing while making decisions (Preston, 1999; Schnietz, 2005). Regarding the positive nature of relationship between CSR and FP, the first study conducted by Freeman (2010) argued that the management of a firm must look at the stockholders rather than focusing satisfying shareholders and working for increasing the monotony profile. He argued that profitability should not be the only aim of the firm's existence. Study like (Peinado-Vara,E., 2006) found that social works and other society based matters can help the firm to achieve long term success and beside these acts are as necessary as other market elements and factors. Studies like (Peinado, 2006) argued that there are certain issues regarding CSR, like societal welfare, environmental issue, product safety and diversity. These all have positive relationship with the firm's financial performance but various from industry to industry as due to the different stockholders demand (Jamali & Mirshak, 2007). Firms which have constructed very good terms of relation with their employees will improve its productivity due to the low cost of the employee's commitment thereby improving financial performance of the firm (Luo & Bttacharya., 2006). Some of the researchers argued that the firms societal activities have negative impact on the financial performance of the firm. These firms consider these social activities as burden (Jensen, M.C., 2001).

Friedman (1970) raised this issue that there exist a negative relationship between CSR and financial performance of the firm . Therefore he called more focus of the arrangement on barring, wasting amount on the social wellbeing of stockholders and environment. Accordingly Bauer& Otten,(2005) termed best interest of the corporation in the maximization of profit rather than social wellbeing. The decision in which social activities are preferred are the wasting of fund and case conflict between the mgt and shareholder of the firm which than effect the financial performance of the firm negatively (Brammer,2006 ;Preston, 1997 ;Jensen,2010).

Research Methodology

The research in hand is applied, and co-relational in nature. The Panel data, of all listed firms in cement sectors, is taken from the secondary sources i.e. company's financial statements, K.S.E website and balance sheet analysis by the State Bank of Pakistan. Total 21 listed firms included in this research study. Random sampling techniques have been used. Total 15 firms taken as a sample for this research study for the period of 2008 – 2014. The data analyzed on the biases of generalized least square regression and correlations on

Variables used in this research study corporate social responsibility used as dependent variable. CSR is defined as "the responsibility of the firm to improve the social well bag, it environment and for more take care of its stockholders, like customers, suppliers, government, shareholders and others (Holme, R. and P. Watts,2000)". According to the Security and Exchange Commission and Company Act -1984 all firms listed must spend their donations in their p/c accounts. Caring employees is another key aspect of CSR (Muller, and Kolk, 2010). Worker welfare Fund (1971) asks all firms to declare about their welfare schemes in their reports. The researches like (Lin, C.H., 2009, Makki, M.A.M., 2008, Zairi, M.2002) used donations as measure for the CSR.

However in this research study the following measures for CSR is used.

CSR = donation + worker's welfare fund/ earnings before tax

Financial performance is used as independent variable in this research study. Further for the measurement of financial performance, returns on asset (ROA) are used. ROE represent and is calculated by dividing EBT divided by total common stock equity. ROA is calculated by dividing earning before tax by the firms total assets. GOP represents the firm's profit we get from subtracting cost of good sold from sales. EPS represent the firm net income derided by the number of shares outstanding (Afza, T. and H.H. Mirza, 2011).

Most of the previous studies revealed that CSR and FP are affected by some factors like leverage, size, risk and age. There are control variables (Ullmann, A.A.,1985, Blazovich, J.L., 2011) in this research study the same control variable are used.

- Size is measured in term of log of total assets and log of total sales. [10 TA & LOTS]
- Leverage is measured as long term debts to total assets
- Age : represent the number of year since its incorporation
- Risk : risk is measured as beta

Model Specifications

This research study conducted on the GLS (generalized lest square) regression following the approaches being used in (Mahoney, L.S.2007, Hoq, M.Z., et al., 2010). GLS is used as it best explains the variability in dependent & independent variables relationship (Gujarati, D.N., 1996). There are four modes used in this research study, farther each model is sub divided into four models. CSR used as dependent and FP used as independent variable. Leverage, size, risk and age in this model used as control variable.

Model 1

1. $CSR = B_0 + B_1 ROE + B_2 Leverage + B_3 LOTA + \in$
2. $CSR = B_0 + B_1 ROE + B_2 Leverage + B_3 LOTS + \in$
3. $CSR = B_0 + B_1 ROE + B_2 Leverage + B_3 RISK + \in$
4. $CSR = B_0 + B_1 ROE + B_2 Leverage + B_3 age + \in$

Model 2

1. $CSR = B_0 + B_1 ROA + B_2 Leverage + B_3 LOTA + \epsilon$
2. $CSR = B_0 + B_1 ROA + B_2 Leverage + B_3 LOTS + \epsilon$
3. $CSR = B_0 + B_1 ROA + B_2 Leverage + B_3 RISK + \epsilon$
4. $CSR = B_0 + B_1 ROA + B_2 Leverage + B_3 AGE + \epsilon$

Analysis, interpretation and Discussion

Table 1

Pearson's Correlation Matrices: Correlations with CSR, and Financial Performance,

	1	2	3	4	5	6	7	8
C.S.R	1	.266**	.287**	-.085	.030	-.296**	.161*	.061
RO.A		1	.557**	.167*	.329**	-.219**	-.053	.053
R.O.E			1	.162*	.414**	-.202**	-.051	.017
LOTA				1	.485**	.158*	-.087	.087
LOTS					1	.011	-.099	.008
LVG						1	-.004	.001
Risk							1	.000
Age								1

Table 1, This table give us the results of correlation between the CSR and financial performance of the firm, proxies i.e. ROE &ROA, is used as independent variables, CSR as dependent variable where as leverage, size, risk and age is used as control variables. The results show that all financial performance variables are positively correlated with CSR of the firm. ROE and ROA shows positive correlation with LOTA and LOTS but with LOTS the association is stronger. Leverage shows negative correlation with CSR, means that applying more debts in capital structure of the firm will discourage the efforts of CSR.

Table 2
Results of Generalized Least Square Random Effect regression analysis

Variable	Model-1			
	1.1	1.2	1.3	1.4
Independent Variable				
ROE	(3.42)*** [0.286]	(3.74)*** [0.271]	(3.56)*** [0.272]	(3.40)*** [0.26]
Control Variables				
Leverage	(-3.55)*** [-.141]	(-2.27)*** [-.142]	(-3.98)*** [-.129]	(-2.86)*** [-139]
Size (Log of Total Assets)	(-0.47) [-.557]			
Size (Log of Total Sales)		(-0.08) [-.533]		
Risk			(2.46*) [0.828]	
Age				(1.13) [0.066]
Year Dummy	Yes	Yes	Yes	Yes
R^2	0.131	0.130	0.152	0.135
Wald-Chi Square	27.77***	26.68***	31.29***	31.24***
$P(x^2)$	0.0001	0.0001	0.0000	0.0000
Panel Data Model Type	Random	Random	Random	Random
Hausman Test	4.7	3.66	3.67	5
Durbin Watson	1.7	1.88	2.05	1.99

Table 2 represent results summary of model 1. Model 1.1, which contains ROE as independent variable where as leverage and size in the form log of total assets as control variables. In this model ROE showed a positive significant on CSR as the co-efficient of CSR is o.286 at p< o.oo1. It means that 1% change in ROE brings about 28.6% changes in CSR. Leverage is negatively significantly related to CSR i.e.-0.141 means that 1% increase in leverage brings about 14.1% decreases in CSR. Log of total assets shows insignificance association. The co-efficient of determination (R^2 is 0.131 means that 13.1% variations in CSR are being caused by the independent variables used in model 1.1. In model 1.2 the same relationship of ROE and Leverage found with CSR .ROE positively impacts the CSR and leverage negatively impacts CSR being bearing the values 0.271 and -0.142 respectively. The R2 of the model 1.2 is 0.13 means that 13% variations in CSR are being brought by the independent variables used in this model. In model 1.3 risks has been taken as control variable. In this model ROE positively influence CSR and leverage negatively impacts CSR (0.272 and-0.129). Risk has high co-efficient of 0.828 shows that 1% increase in risk will bring about 82.8% increase in CSR. The R – square of the model is 0.152 means that 15.2 % changes in CSR are due to independent variables. The model 1.4 behaves like the other models did. ROE is positively whereas leverage is negatively associated with the firm CSR. Durbon Watson values are within the reasonable range of 1.5 to 2.5 meaning that no existence of autocorrelation among the independent variables used in the data.

Table 3
Results of Generalized Least Square Random Effect regression analysis

Variable	Model-2			
	2.1	2.2	2.3	2.4
Independent Variable				
ROA	(3.87)***	(3.53)***	(3.548)***	(3.48)***
	[0.155]	[0.160]	[0.166]	[0.145]
Control Variables				
Leverage	(-2.11)***	(-2.85)**	(-2.96)**	(-2.698)**
	[-.144]	[-0.133]	[-0.142]	[-0.142]
Size (Log of Total Assets)	(-0.65)			
	[-0.794]			
Size (Log of Total Sales)		(-0.17)		
		[-0.241]		
Risk			(2.14*)	
			[0.891]	
Age				(1.31)
				[0.073]

Year Dummy	Yes	Yes	Yes	Yes
R^2	0.133	0.150	0.144	0.123
Wald-Chi-Square	30.86***	29.15***	34.92***	29.82***
$P(x^2)$	0.0001	0.0001	0.0000	0.0000
Panel Data Model Type	Random	Random	Random	Random
Hausman Test	3.04	3.47	3.87	6.50
Durbin	1.88	1.81	1.77	1.94

Table 3 portray results summary of model 2. 2.1, which contains ROA as independent variable where as leverage and size in the form log of total assets as control variables. In this model ROA shows a positive significant association with CSR as the co-efficient of CSR is 0.155 at p< o.oo1. It means that 1% change in ROA brings about 15.5% change in CSR. Leverage is negatively significantly related to CSR i.e. -0.144 means that 1% increase in leverage brings about 14.4% decrease in CSR. Log of total assets shows insignificance association. The co-efficient of determination (R^2 is 0.133 means that 13.3% variations in CSR are being caused by the independent variables used in model 1.1. In model 2.2 the same relationship of ROA and Leverage found with CSR .ROA positively affects the CSR and leverage negatively impacts CSR being bearing the values 0.160 and -0.133 respectively. The R2 of the model 2.2 is 0.15 means that 15% variations in CSR are being brought by the independent variables used in this model. In model 2.3 risk has been taken as control variable. In this model ROA positively influence CSR and leverage negatively impacts CSR (0.166 and-0.142). Risk has high co-efficient of 0.891 shows that 1% increase in risk will bring about 0.891 increase in CSR. The R – square of the model is 0.144 means that 14.4 % changes in CSR are due to independent variables. The model 2.4 behaves like the other models did. ROE is positively whereas leverage is negatively associated with the firm CSR. Durbon Watson values are within the reasonable range of 1.5 to 2.5 meaning that no existence of autocorrelation among the independent variables used in the data.

Conclusion

This research study was conducted on the relationship between corporate social responsibility (CSR) and FP (financial performance) the research study concluded that there is positive relationship between CSR and FP in the listed firms in cement sector. The positive relationship reveals that most of the firms in cement sector contribute to the wellbeing of society and protecting environment from hazardous dimensions. All firms are highly motivated towards the caring of their employees so that to build their confidence and trust. These efforts contribute to the firm sustainability in long run development and also help to achieve the other monetary objectives and benefits.

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