Impact of Corporate Social Responsibility on Financial Performance: Evidence from Pakistan's Cement Industry

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Abstract

In this research work investigated the impact of corporate social responsibility on financial performance of cement sector listed firms on Karachi Stock Exchange (Pakistan). Sample size of fifteen companies selected on the basis of availability of data of companies. For data used annual reports during time period of 2008-2014. For analysis purpose used fixed and random effect models and on the basis of Hausman test fixed model is best for analysis. From the results it is concluded that there is positive and significant relationship between corporate social responsibility and financial performance. This results support the theoretical relation between corporate social responsibility and financial performance. Hypotheses of positive and significant relationship of corporate social responsibility and financial performance has been supported. This work also support the view of all those researchers whose empirical evidence found positive and significant relationship between corporate social responsibility and financial performance.

Keywords: Corporate Social Responsibility, Financial Performance, Cement Industry

The modern concept of corporate social responsibility (CSR) has been evolved in 1950s, in 1960s the concept has formalized and in 1970s it was proliferated. Post (2003) given the argument that the motivational factor for firm to make investment in corporate social responsibility activities is driven by the stakeholder theory. The concept of stakeholder theory explained by Pirsch, Gupta & Grau (2007) that the survival and success of organizations are contingent to satisfy economic objectives as well the non-economic objectives of the firms to fulfill the needs of all stakeholders of companies. According to Jan and Baloch (2011) CSR is set of ethical, legal, and socio-economic expectations of society towards the business organizations operating within its premises.

Carroll (1979) is one of the early Corporate Social Responsibility theorists explained corporate social responsibility concept “business encompasses the economic, legal, ethical and discretionary expectations that society has of organization at a given point in time”. The World
Business Council for Sustainable Development (1999) suggests that: “CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large”. Crowther & Guler (2008) described that corporate social responsibility is a concept which has become a dominant aspect of business reporting, broadest corporate social responsibility definition is what is? Or should be, Corporate social responsibility is the relationship of global corporations, government of countries and as well individual as a citizens.

Jooh et al., (2010) in their study shown that in the current decade the sustainability approach is become one of the important area for business researchers because, from one side the business create value for stockholders and from another side for sustainable world provide social responsibility obligations.

From the financial performance perspective of firms it is a generally accepted phenomenon that the primary goal of any firm is maximization of profit. Those firms which perform their operational in efficient way will generate maximum profit. In modern business the concept of social responsibility is develop to play an important role in companies’ success therefore, in today business era companies also focus and spend on corporate social responsibility in term of employees’ salaries, wages, pension benefits and donations and other financial help of society.

From the common theoretical perspective it is general view of researchers and other experts that all those firms which spend more on different corporate social responsibility activities their financial performance will high. From the research perspective this is concluded from more empirical evidence that corporate social responsibility and financial performance has positive and significant relationship. The financial performance of firms are calculated by different proxies in different research work.

Motivating Factors and Problem Statement of the Study

Discussed by many researchers that the corporate social responsibility concept has evolved from 1950s as mentioned by Kiran, Shahid & Farzana (2015) in their work. In research work of Tsoutsoura and Margarita (2004) mentioned that from 1971 to 2001 there were 122 studies are published on the subject of corporate social responsibility and financial performance. After comprehensively studied the available literature, this is found that the relation of Corporate Social Responsibility and financial performance of firms are still at a conflicting position. Some of the studies show positive relation between CSR and financial performance, as investigated by Waddock & Graves (1997) and Cheruiyot (2010), but some researchers in their studies found that there is negative relation of CSR with the financial performance such
investigated by Cordeiro & Sarkis (1997) and Wagner et al., (2002). Still some studies mentioned that there is no relation prevail between CSR and financial performance as found by McWilliams & Siegel (2000). This conflicting phenomena become the motivating factor for this study to conduct. There is not a clear convincing approach on the relationship of corporate social responsibility and financial performance of firms as mentioned by Griffin & Mahons (1997) this relationship may be negative, positive or neutral.

Conflicting nature of studies also investigated in Pakistan such as Malik & Muhammad (2014) has found positive relation of corporate social responsibility practices and variables of financial performance in banking sector of Pakistan. Kiran et al., (2015) in their study conclude that there is positive but insignificant relation between corporate social responsibility and profitability of firms. Kanwal et al., (2013) also found positive relation and Aga et al., (2012) conclude significant relationship of corporate social responsibility and financial performance. Iqbal et al., (2012) in their study found negative and non-significant relationship of corporate social responsibility and financial performance of firms. This is also become a motivating factor for this current research work.

Concept of corporate social responsibility is also develop in Pakistan, and also some researchers performed empirical work on it, work in Pakistan available in oil and gas sector by Kiran et al., (2015). Javed, Rashid, Rab & Qamar (2013) on KSE-30 Index, Iqbal et al., (2012) textile, chemical, cement and the tobacco sectors. Malik & Muhammad (2014) on banking sector and some other studies also available in Pakistan. Whereas, Jan & Baloch (2011) term CSR in Pakistan’s pharmaceutical industry still at its infancy stage and short of meeting its social obligations.

This study related with the relation of corporate social responsibility and financial performance of cement sector in Pakistan. Another motivating factor of this study is the utmost importance of cement industry in Pakistan economy, as at the same time cement demand increase in the local market due to some factors like reconstruction after earth quick in Pakistan, floods and also due to the infrastructure development in Pakistan in recent years. It is also worthwhile to mention here that cement production has serious impact on environment and all its stakeholders because it use the raw material in the form of stone etc., and its pollution impact on society and especially on its employees. Therefore, in this study focus on the cement sector in Pakistan.

Objective of the Study
The objectives of this study are

- To investigate the impact of corporate social responsibility on financial performance of cement sector companies in Pakistan.
To examine the relationship of corporate social responsibility and financial performance of cement sector companies in Pakistan.

Literature Review

The review of literature in this research work is organized as: all previous studies in other countries as supporting of positive, negative and no relation of CSR and financial performance, and then review the studies in Pakistan in this perspective.

Cochran & Wood (1984) investigate in their study the relationship of corporate social responsibility and accounting measures as proxy of financial performance and conclude that there is positive correlation between corporate social responsibility and financial performance. In another study Waddock & Graves (1997) investigate the relation of corporate social responsibility and financial performance and found that the relation of corporate social responsibility and financial performance is positive and at the same time is significant. Tsoutsoura & Margarita (2004) conduct the study in time period of 1996 to 2000 of S & P 500 listed firms. Examined the relation of corporate social responsibility and financial performance. Concluded from the analysis that there is positive and significant relation between corporate social responsibility and financial performance. The study of Nelling & Elizabeth (2009) also examined the relationship of corporate social responsibility and financial performance and mention here that there is significant relationship between corporate social responsibility and financial performance. Relative study performance by Cheruiyot (2010), in this research researcher focused on the relationship of corporate social responsibility and financial performance of firms of Nairobi stock exchange, used cross sectional study of forty seven companies and regression analysis for study and conclude that there is significant relation between corporate social responsibility and financial performance measured in term of return on equity, return on assets and return on sales. Setiawan & Darmawan (2011) also carried the study of relationship of corporate social responsibility and financial performance of Indonesian Stock Exchange listed firms, used the panel data estimation and conclude the results that there is positive effect of corporate social responsibility on the financial performance of sample firms. Another study performed by Mutasim & Salah (2012) on the effect of corporate social responsibility and profitability of Jordan industrial sector firms, they found positive relationship of corporate social responsibility with profitability of firms selected for this study. Amole et al. (2012) worked on corporate social responsibility and financial performance of banks in Nigeria and from the regression analysis results it is concluded that the relationship of corporate social responsibility and financial performance is positive. Meanwhile Mwangi & Oyenje (2013) examined the relation of corporate social responsibility...
and financial performance of manufacturing, construction and allied sector firms listed on Nairobi Securities Exchange in period of 2001-2011. From the analysis result this is concluded that there is positive but insignificant relation between corporate social responsibility and financial performance. John, Akinyomi & Olutoye (2013) in this research work investigate the corporate social responsibility and financial performance relationship of Nigerian manufacturing firms, during time period of 2002-2011 selected twenty firms and used the correlation and regression analysis and conclude that there is significant relationship between corporate social responsibility and financial performance of selected firms of Nigerian firms.

Most recent studies on the same concept carried by Cornett, Otgontsetseg, & Hassan (2014) examined the relationship of corporate social responsibility and financial performance of listed commercial banks of USA. From this study it is concluded that the relation of corporate social responsibility and financial performance measured in term of ROA and ROE are significant.

In this scenario study done by Babalola (2012) in his research work investigate the relationship of corporate social responsibility and financial performance of firms listed on Nigerian Stock Exchange, results of the study explored that there is negative relationship of corporate social responsibility with financial performance measurement. This is not supporting study of above mention literature.

The no relation approach of corporate social responsibility and financial performance support by the study of Fauzi (2009), in this research work researcher investigated the relationship of corporate social responsibility and financial performance of companies listed on New York Securities Exchange. Selected sample size of 101 listed companies and for analysis used regression model, from the analysis it is concluded that there is no effect of corporate social responsibility on financial performance of examined sample firms. Mutuku (2005) also concluded from research work that there is no relationship of corporate social responsibility and financial performance, in this research work investigated the relationship of corporate social responsibility and financial performance.

Corporate Social Responsibility and Financial Performance

As mentioned above this study is concern to examine the impact of corporate social responsibility on financial performance of cement sector of Pakistan. Therefore it is necessary to review the studies carried on this aspect in Pakistan. The results from literature review is also mix in Pakistan context as positive, negative and no relation.

Malik & Muhammad (2014) studied the impact of corporate social responsibility on financial performance of banks in Pakistan, time period of the study is from 2008 to 2012. Data is secondary in nature and collected from the annual reports of banks, used variables of earnings per
share, return on assets, and return on equity, net profit margin and corporate social responsibility. For analysis the regression model was considered, from results it is found that there is positive relation of corporate social responsibility practices and variables of financial performance measurement in banking sector of Pakistan. Same aspect is also examined by Kiran et al., (2015), investigated in this study the impact of corporate social responsibility on the financial performance of listed Pakistani firms, selected ten firms from the oil and gas sector for the time period of 2006 to 2013. Variables of the study are corporate social responsibility spending, net profit margin, net profit and total assets of the firms, these data collected from the annual reports of these firms. Used the regression and correlation tests in excel, from the analysis of data it is concluded that the relation of corporate social responsibility with net profit and net profit margin is positive but at the same time relation of corporate social responsibility has negative relation with total assets. Overall finding reveal that the impact of corporate social responsibility activities is insignificant with firms profitability. Another study conduct by Kanwal et al., (2013) in this work explored the relation of corporate social responsibility and financial performance, used sample of fifteen companies listed on Karachi Stock Exchange. Model of correlation analysis used for analysis and from the results conclude that there is positive relation between corporate social responsibility and financial performance of firms.

In this study researchers supported negative and insignificant relation of corporate social responsibility and financial performance, Iqbal et al., (2012) examined the relation of corporate social responsibility with financial performance, financial leverage and share market value of firms. Sample of one hundred and fifty six companies selected from chemical, textile, cement and tobacco sectors, in the period of 2010-2011. From the results it is concluded that there is no impact of corporate social responsibility on the financial performance of firms, negative relation of corporate social responsibility with market value of share and no relation with debt to equity is observed in this study.

**Research Hypotheses**

On the basis of previous conflicting phenomenon of relationship between corporate social responsibility and financial performance the following directional hypotheses were developed.

i. There is no relationship of corporate social responsibility with financial performance of firms.

ii. There is positive/negative relationship of corporate social responsibility with financial performance of firms.

iii. The corporate social responsibility has no impact on financial performance of firms.

iv. The corporate social responsibility has impact on financial performance of firms.
Research Methodology

McGuire, Sundgren & Schneeweis (1988) accounting measures can be used for the financial performance measurement as opposed to the market based performance measurement. The accounting measures are used in the form of return on equity, return on assets and return on sales, these measure provides different information related with companies. In this study used the accounting based method of measurement means long run approach.

Previous studies on corporate social responsibility and financial performance are investigated by the methods of short run and long run. Most of researchers used the long run approach in empirical studies. The results of these studies are mixed, means some support the view that there is positive relationship of corporate social responsibility and financial performance of firm while others conclude negative relation and some studies found no significant impact of corporate social responsibility on financial performance.

Tsoutsoura & Margarita (2004) explained that the methodology of the studies on corporate social responsibly and financial performance are of two types, in first the researchers used the concept of event study, it reveal the financial performance of firms and their corporate social responsibility relation in short run by using the abnormal return concept. From the second aspect researchers used the long run approach of financial performance measurement and corporate social responsibility by using the accounting measurement. From these two methods the researchers conclude the mixed results. First concept used by Wright & Ferris (1997) and found positive relationship of corporate social responsibly and financial performance, Posnikoff (1997) concluded negative relationship of corporate social responsibility and financial measurement, while Welch & Wazzan (1999) conclude that there is no relation of financial performance and corporate social responsibility. The second type of methods used by Cochran & Wood (1984) and found positive relation of financial performance and corporate social responsibility, Aupperle, Carroll & Hatfield (1985) conclude from their study no significant relation of financial performance and corporate social responsibility.

Data Source and Nature of Data

The data used in this study are collected from the annual reports of the sample firms, nature of data is secondary and is panel.

Population and Sample of the study

Population of this study is the cement sector listed companies on Karachi Stock Exchange, time period of this study is 2008-2014, like some previous studies the time period of this study is also lengthy. Ding (2014) during long run the corporate social responsibility increase the financial performance of firms.
Population of this study is cement sector companies listed on Karachi Stock Exchange, Out of sixteen listed companies fifteen were included in this study on the basis of the availability of their annual reports during the study time period, due to non-availability of the data one company is not included in the study.

**Variables of the Study and its Measurements**

**Independent Variable**

Corporate social responsibility is use as independent variable, proxy use for it as salaries and wages spending of employees, donation in the form of health and education etc., employees’ welfare funds. Proxy used by Kiran et al., (2015).

**Dependent Variable**


**Control Variables**

Size of firms and debt to total assets are used as control variables of the study, Tsoutsoura and Margarita (2004). Size is measure as measured by Tsoutsoura and Margarita (2004), natural log of total assets. Natural log of total assets is also used by Ding (2014).

Debt to total assets is calculated by total debts divided by total assets, Tsoutsoura and Margarita (2004), which is use as a measure of the capital structure of firms.

**Model of the Study**

The regression model use for the analysis of data as used by Tsoutsoura and Margarita (2004), Iqbal et al., (2012), Kiran et al. (2015), Nelling & Elizabeth (2009) for the analysis of data used the panel data models.

\[
\text{ROA}_i = \beta_0 + \beta_1 X_{CSR_i} + \beta_2 X_{SA_i} + \beta_3 X_{D/A_i} + \epsilon_i
\]

\(X_{CSR_i}\) means corporate social responsibility spending of firm i in time t.
\(X_{SA_i}\) means return on assets of firm i at time t.
\(X_{D/A_i}\) means size in form of total assets of firm i at time t.
\(X_{D/A_i}\) means debt to equity means return on assets of firm i at time t.
\(\epsilon_i\) means error term of the models
\(\beta_0\) is constant while \(\beta_1\), \(\beta_2\) and \(\beta_3\) are the coefficients of variables.

**Data Analysis and Results**
Fixed Effect Results
Dependent Variable: ROA
Method: Panel Least Squares
Periods included: 7
Cross-sections included: 105
Total panel (balanced) observations: 735

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.046328</td>
<td>0.014248</td>
<td>3.251466</td>
<td>0.0012</td>
</tr>
<tr>
<td>CSR</td>
<td>2.02E-10</td>
<td>7.34E-11</td>
<td>2.755970</td>
<td>0.0060</td>
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<tr>
<td>SA</td>
<td>-0.009936</td>
<td>0.014396</td>
<td>-0.690203</td>
<td>0.4903</td>
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<tr>
<td>DA</td>
<td>-0.394006</td>
<td>0.036588</td>
<td>-10.76858</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Effects Specification

Cross-section fixed (dummy variables)

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.527705</td>
<td>Mean dependent var</td>
<td>0.007482</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.447106</td>
<td>S.D. dependent var</td>
<td>0.043701</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.032494</td>
<td>Akaike info criterion</td>
<td>-3.880540</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>0.662044</td>
<td>Schwarz criterion</td>
<td>-3.204640</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>1534.098</td>
<td>Hannan-Quinn criter.</td>
<td>-3.619856</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>6.547293</td>
<td>Durbin-Watson stat</td>
<td>1.706888</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the analysis of this study researchers used the panel data analysis procedures, from the above table of analysis this is concluded that dependent variable of the study is return on assets it is used as proxy for the measurement of financial performance of firms. Corporate social responsibility is used as independent variable and used control variables as size of firm and debt to assets. From the coefficient of corporate social responsibility it is clear that the relationship between return on assets and corporate social responsibility is positive and support the theoretical view that by increasing cooperate social responsibility activities the level of financial performance also increase. Support the view of Pakistani researchers that there is positive relationship between corporate social responsibility and financial performance as of Malik & Muhammad (2014), Kiran et al., (2015) and Kanwal et al., (2013)

From t-value and ρ-value it is also concluded that the impact of corporate social responsibility on financial performance is significant. This is concluded from the t and ρ-values that this work support the theoretical view that the financial performance are affected by corporate social responsibility. It is mention here that in the cement sector of Pakistani listed firms the corporate social responsibility is positive relation and significant impact on the financial performance. The results of this study also support the view of Ding (2014) that in long run due to corporate social responsibility activities of firms the financial

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performance increase. Our results have similarities with the view of Cochran & Wood (1984), Waddock & Graves (1997), Tsoutsoura & Margarita (2004), Nelling & Elizabeth (2009), Cheruiyot (2010), Setiawan & Darmawan (2011), Mutasim & Salah (2012), Amole et al. (2012), John, Akinyomi & Olutoye (2013) and Cornett, Otgontsetseg, & Hassan (2014) that there is positive and significant relationship between corporate social responsibility and financial performance. It also clear that this study also have same conclusion of significant relationship as drawn by previous Pakistani researchers as Aga et al., (2012).

From the table it is clear that relationship of firm size and debt to assets with financial performance are negative. The impact of debt to assets and financial performance is significant but the impact of size of firm with financial performance is insignificant. From the value of R-square it is also clear that in this model independent and control variables explain dependent variable 52.77%, which is acceptable value according to standards.

**Hausman Test Results**

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period random</td>
<td>23.316599</td>
<td>3</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The above table provide the detail of Hausman test results. This test is applied for the decision purpose to select random or fixed effect model. After fixed and random effect models on the basis of Hausman test effect it is concluded that fixed effect model is best suited for this study, because ρ-value is less than 1%. This decision of fixed effect model is best for this study analysis is support by the view of Gujarati and Dawn (2008).

**Conclusion**

In this research work researchers examined the impact of corporate social responsibility on financial performance. Used seven years data of cement sector listed firms, panel data models are used for analysis purpose because data is secondary and panel in nature. From the analysis of this study this is concluded that the impact of corporate social responsibility and financial performance is significant and positive. This is concluded from the analysis that the results support the theoretical view of the relationship between corporate social responsibility and financial performance.
**Future Research Plan**

From this study it is concluded that there is also possibility to examine the relationship of corporate social responsibility and financial performance by using the market base data of firms. It is also examined in Pakistan there is no proper index for corporate social responsibly measurement therefore, it is recommended to use the sustainability annual report data of firms which is available of some firms to most accurately measure corporate social responsibility.

**References**


