

## Effects of Corporate Governance on Capital Structure and Financial Performance: Empirical Evidence from Listed Cement Corporations in Pakistan

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### Abstract

*The key aim of current research is to investigate the influence of CG on financial performance (FP) and capital structure (CS) of cement companies listed on Pakistan Stock Exchange (PSX). To accomplish this purpose, twenty cement firms listed on the PSX was deployed from 2005 to 2014. Auto-correlation and heteroscedasticity were tested and Regression analyses were used to test the hypotheses. SPSS 21 is conducted to perform the analyses. CG is analyzed via board size, board independence, and institutional ownership while, return on assets and return on equity are employed to analyze FP, whereas CS is calculated via debt to equity. The outcomes document that CG positively affects FP; however, negatively impact CS. This research not only contributes to examining the impact and association between CG, FP, and CS but also prove the outcomes of previous studies that have presented a significant influence and association between CG, FP, and CS.*

### Key Words

Corporate Governance,  
Capital Structure,  
Financial Performance,  
Pakistan Stock Exchange

### Introduction

Investors have identified the importance of CG to compete locally and internationally (Owen, 2003). Nowadays CG is acknowledged as a central field of business, serving economic CS growth, keeping and enhancing investors' trust. CG has acquired sound attention in developed and underdeveloped economies (Snyder, 2007; Weir & Laing, 2001). Solomon (2010) highlighted that the notion of CG in advanced economies have been elucidated by deploying several theories. A dire need was identified for good practices of CG particularly in underdeveloped countries due to increasing numbers of financial scandals in the last few years (Roggi, Garvey, & Damodaran, 2012).

In earlier times, corporate entities' management and business were governed according to the fundamental principles of agency and trust, which were limited to highest good faith, accountability, and transparency. It was found insufficient to completely protect and promote the stake of all stakeholders with growth in size, growing business environment complexities, absence of regulatory framework and fundamental agency and trust principle. These initial experiences directed for the emergence of particular laws to control the listing of corporations and the necessities for such corporations to adhere to agreed laws and practices for carrying out business and management. The evolutionary process developed an intricate mechanism of laws and practices which deal with all facet of CG. Still, the evolutionary process continues.

CG has got growing interest in Pakistan largely as plays a key role in changing the economics for developing civil society and market economy. The Security and Exchange Commission of Pakistan (SECP) has emphasized regulatory measures on encouraging trust of investors' to sustain strong CG to ensure transparency and accountability in firms and protect the stake of entire stakeholders, mostly minority. The SECP (2014) issued a code of CG for Pakistan in 2002 and at that time Pakistan included amongst those few countries who adopted the code.

The practice of CG is believed as an internal system in order to monitor management. Sound CG is a useful instrument for assisting the corporation for accomplishment of sound performance (Ghabayen, 2012). CG significantly impacts the FP of companies. CG practices enhance FP and firms offer a good return to investors and maximize earning per share while weak corporate practices adversely affect financial performance and firms bear massive distress situation.

CG ominously influences FP and CS of firms. Firms governed efficiently can minimize their risk by selecting optimal CS. Brennan (1995) disclosed that bankruptcy risk and default risk could be minimized by risk-averse managers by preferring equity financing over-leveraging. Investors observe sound governed corporations as low risky and call for lesser return, consequently will lead to high valuation. The anticipated return could be elaborated by risk relevant to CG that impact projected monitoring cost (Velnampy, & Nimalthasan, 2013). A good system of CG ensures optimal CS due to which the bankruptcy risk of firm declines as high levered firms are highly risky and rational investors reluctant to invest in such risky firms.

Sound practices of CG can help the firms for attaining the aforementioned objectives. Therefore, it is highly imperative to investigate the application and impact of CG on FP and CS of cement companies enlisted on PSX in the light of the code of CG issued by SECP.

## **Literature Review**

CG is deemed as the backbone for the survival and growth of any organization and is indispensable for the accomplishment of organizational goal in every sector across the globe. The pivotal influence in instilling trust of investors' upon financial market has been identified in the world keeping in view the past financial scandals, technological advancement, liberalizations, the emergence of financial markets, and liberalization of trade and capital mobilization. In the business world, academicians, and legislators, CG has been believed as a noteworthy concern in a corporate structure. (Claessens, Djankov & Lang, 2000).

Weak practices of CG cast doubts on corporate trustworthiness, reliability or obligation to stockholders. Corporations which support or tolerate illegal activities can create scandals like Adelphia Communications, Kmart, Chiquita Brands Int, Enron, World Com, One.Tel, Kabul Bank, Pacific Gas, and Electric Company and Wells Fargo (Baydoun, Maguire, Ryan, & Willett, 2013). These corporate scandals around the world verified that weak system of CG cannot prevent frauds, deception, complain of corruptions and internal trading. These corporate' scandals shaken the investors trust the capital market. These corporate scandals occurred due to bad CG mechanism. Due to these corporate scandals, regulatory authorities in the globe made obligatory that corporations must comply codes of CG with the best practices of code of CG to uphold accountability, transparency, and fairness for stockholders. These practices, in turn, alleviate the agency cost prophesied by Jensen and Meckling (1976). The numerous corporate scandals and Jensen and Meckling theory are key causes at the back, spreading the CG codes in the globe.

CG for the very first time came into fashion in the United States of America in the 1970s, whereas, the SECP issued code of CG in 2002 in Pakistan. The fundamental purpose of code of CG around the world is to ensure transparency and accountability in a firm entire affair to protect the interest of each stakeholder: shareholder, government, creditor, employees, society, customer, and business at large. As it has been experienced that mostly the minority stakeholders' rights have been violated (Agyei, & Owusu, 2014). The mechanism of CG could vary to a great extent depending on the mechanism that corporate owners utilize to persuade managers (Brown & Caylor, 2004). The system of CG varies amongst countries in the diversity of capitalism systems in which they are entrenched (Hermalin & Weisbach, 2001). Thus, various models of CG are functioning across the globe and these models have separate and distinct traits (Hasan, Kobeissi, and Song (2011). Davies, Hillier, & McColgan (2005) documented the corporate structure comprise two models: stakeholders and stockholders. Further, they described that stockholders model focuses on enhancing the worth of stockholders only whereas, stakeholders' models widely focus on the entire stakeholders rather than stockholders only. Every organization strives to achieve its goal and objective by deploying its resources effectively and efficiently to compete in domestic and foreign markets and maximize return for investors. History has been witnessed that those firms which are properly directed and controlled have been secured their goals and objectives, whereas, those not directed and controlled properly have been disappeared from the markets. Numerous researchers have termed the functions of directing and controlling corporate affairs as CG. The system through organizations are directed and controlled is known as CG (Butt, 2012). The mechanism through which companies are directed and controlled is termed as CG (Barbosa & Louri, 2005). The Australian Standard (2003) described that the mechanism via companies is directed and controlled is termed as CG. This means that CG includes the legitimate authority for directing and controlling applied in the process of running corporations. This definition identifies the requirement for check and balance in the process of administering concerns (Gompers, Ishii, & Metrick, 2013). In addition, it is same as the definition given by the Audit Commission (2009) which focuses on the central part of accountability and control. Firms need to be directed and controlled properly to attain their objective.

One of the primary objectives of any business organization is to maximize shareholders' wealth. The goal is accomplished if the company is financially sound. FP greatly influences corporate goodwill and investors' trust. FP of an organization may be indicated from the operation, wither it is producing a profit or bearing loss. Profit

generation or sustaining loss translates a firm FP (Chugh, Meador & Kumar, 2009). Those organization yielding more profit shows good FP while those facing loss exhibits weak FP. Organizations' with sound FP leads to high return for its investors, pay off the principal and interest amount on time, and grow with the passage of time. Investors in stock markets prefer corporations with high return with low risk. Rationale investors deploy numerous approaches to analyze a firm in thoroughly before investment. Therefore, companies are required to generate enough profit to retain current investors and attract more national and foreign investors to meet the operating, fixed assets and financing needs of the company. Bhagat, & Bolton, (2008) documented that price-earnings, ROA, ROI, EPS, and dividend yields indicate the productivity, profitability, and growth of a firm. Boosting corporate sales, ROA, ROE, and efficiency show FP of the company (Cheema & Din, 2014). Firms properly practicing the CG lead to good FP (Edwards, & Nibler, 2000). Those organizations which are properly directed and controlled, generate a high return for the investor, high return on assets and ultimately positively impact firm image. Companies are required to be properly governed to augment FP and maximize market share in the national and international market.

Researches have proved a direct affirmative association between CG and FP of companies across the globe. As proper practices of CG will lead to enhance the FP. CG has an affirmative correlation with FP of corporations (Azeem, Hassan, & Kouser, 2013). Javed and Iqbal (2006) carried research to inspect the impact of CG on FP of fifty non-financial corporations enlisted on KSE, Pakistan for a period of 10 years. The outcomes revealed a positive impact of CG on FP. Baydoun, Maguire, Ryan, & Willett (2013) carried research to evaluate the association between CG and FP of business organizations in 5 Gulf countries. The outcomes indicate an affirmative association between CG and FP. Chugh, Meador, and Kumar (2009) described that good CG implication raises firms' FP, whereas weakly governed organizations bear the risk. The past financial scandals in different developed and developing economies shows that the fundamental reason behind the fraud, bankruptcy and collapse of these firms were weak CG practices. Weak practices of CG lead a firm to high risk. The chance of riskiness in the weak governed organization is higher than sound governed organizations. Highly levered companies are highly risky as the level of debt in CS increases, the bankruptcy risk also rises. Therefore firms must ensure a balance between debt and equity ratio. The proportion of debt to equity is known as CS (Agyei, & Owusu, 2014). The combination of debt and equity is termed as CS (Driffield, Mahambare, & Pal, 2007). CS is the blend of debt and equity securities. CS is how a firm finances its overall operations and fixed assets requirements through various sources: equity and debts. Firms' tradeoff benefit of tax with the cost of bankruptcy while choosing debt to equity ratio in order to attract more financiers and offer a sound return to investors (Kraus & Litzenberger, 1973). Researchers have documented that CG practices have a negative association with CS. Good practices of CG will ensure the balance of debt to equity ratio to protect the firm from future uncertainties (Prasetyo, 2011). Reddy, Locke and Frank (2010) also proved a negative association with CS. Ullah et al. (2017) also proved a negative association between CG and CS of cement companies enlisted on KSE, Pakistan. Driffield, Mahambare, & Pal (2007) documented that well governed firms have a negative association with CS. The findings of their research proved a negative association between CG and CS. The literature proves that properly managed firms can maximize corporate worth and diminish the level of debt in CS.

In this study, CG is analyzed with board size, board independence, and institutional ownership, while FP is calculated via RoA and RoE, whereas CS is evaluated through debt to equity. The current research attempts to examine a positive association between CG and FP and negative link with CS for cement corporations enlisted on PSX from 2005 to 2014.

### **Hypothesis**

For analyzing the influence of CG on FP and CS, the following hypotheses are developed:

**H<sub>1</sub>:** CG has a significant and affirmative impact on FP.

**H<sub>2</sub>:** CG has a negative association with CS.

### **Model**

The conceptual model of this study is developed from the earlier research work done in the area of CG and FP, CG and CS. The models of (Hassan & Kouser, 2013; Javed, & Iqbal, 2006; Ullah et al., 2017) are employed to develop the below given conceptual model (Figure, 1). This model indicates the association between CG, FP, and CS of cement companies enlisted on PSX, Pakistan.

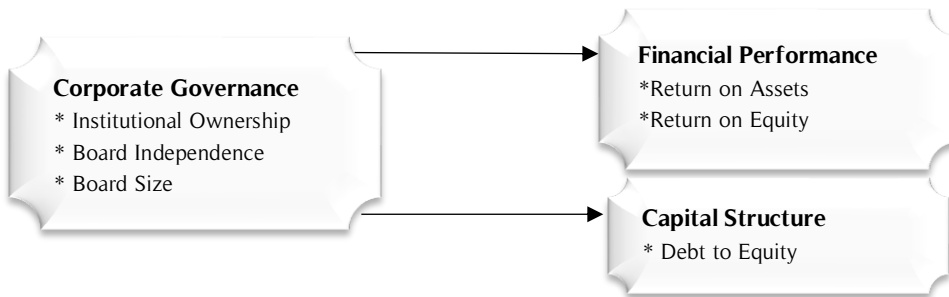


Figure 1: Model

**Data**

In the current research, data pertaining to CG, FP and CS of twenty cement corporations enlisted on PSX from 2005 to 2014 are deployed to accomplish the research objectives. The annual audited reports are used as a secondary source to accumulate data regarding CG, CS, and FP. Data were analyzed via descriptive statistics, auto-correlations and multiple regression. SPSS 21 is employed to carry out the analyses.

**Descriptive Statistics**

Table 1. Descriptive Statistic (N=200)

Variables	Mean	Std Dvn	Mnm	Mxm
Board Size	0.56	0.30	0.01	3.97
Board Independence	0.15	0.36	0.01	1.00
Institutional Ownership	0.21	0.06	0.17	3.13
Return on Assets	035	0.14	0.10	2.19
Return on Equity	0.29	0.29	0.03	2.09
Debt to Equity	1.48	0.19	0.06	1.48

**Pearson Correlation Analysis**

The below Table 2 shows that facets of CG positively correlates FP, however negatively associates with CS. The outcomes documents that board size, has a positive correlation with RoA and RoE, however negative with CS (r = .17, .27, and -0.12). The outcomes show that institutional ownership, have a positive association with RoA and RoE, however negative with CS (r = .20, .24, and -0.48). The results reveal board independence positively correlates with RoA and RoE, however negative with CS (r = .49, 0.35, and -0.40).

Table 2. CG and FP

Variables	BS	IO	BI	RoA	RoE	D/E
BS	--					
IO	.15	--				
BI	-.18*	.11	--			
RoA	.17	.20*	.49**	--		
RoE	.27	.24**	.35**	.12*	--	
D/E	-.12	-.48*	-.40**	-.23**	-.39**	--

Note. BS = Board Size, BI = Board Independence, IO = Institutional Ownership, RoA = Return on Asset, RoE = Return on Equity, Debt to equity = D/E

**Model Equations**

RoA (Net Income/Total Assets) and RoE (Net Income/ Shareholders Equity) are used for analyzing FP. This model depicts that FP is regressed on CG (See Table 3).

$$FP = \pi + \beta_1 \{BS\} + \beta_2 \{BI\} + \beta_3 \{IO\} + \mu t \quad (\text{Equation 1})$$

Debt to Equity (Total Liabilities / Shareholders Equity) is employed for examining CS. This model indicates that CS is regressed on CG (See Table 4).

$$CS = \pi + \beta_1 \{BS\} + \beta_2 \{BI\} + \beta_3 \{IO\} + \mu t \quad (\text{Equation 2})$$

In above equation 1 and equation 2, BS denotes board size, BI indicates board independence, IO shows institutional ownership,  $\pi$  denotes constant term,  $\mu t$  denotes the error term and  $\beta$  denotes beta.

### Regression Analyses

**CG and FP.** Table 3 indicates the influence of CG on FP. The outcomes in the given table documents that all facets of CG jointly elucidates 48% change in FP ( $R^2 = .51$ ,  $F = 45$ ,  $\Delta R^2 = .48$ ,  $P < 0.05$ ). The outcomes exhibit the beta value of 0.15 for BS, 0.29 for BI, 0.26 for IO, and t-values 2.25 for BS, 4.14 for BI, 3.83 for IO, with p-value 0.025 for BS, 0.000 for BI, and 0.000 for IO.

The outcomes designate that CG affirmatively influences FP. This proves the first hypothesis that examine the affirmative influence of CG on FP (Shahid et al., 2017; Wahla et al., 2012).

**Table 3.** Regression Analysis: CG and FP (N=200)

FP	$\beta$	t	p-value
BS	0.15	2.25	0.025
BI	0.29	4.14	0.000
IO	0.26	3.83	0.000
F = 45			
P = 0.001			
$R^2 = 0.51$			
$\Delta R^2 = 0.48$			

Note: \*\*=  $p < 0.01$ , \* =  $p < 0.05$ ,

CG and CS. The given below Table 4 designates the influence of CG on CS. The outcomes in below table describes that CG jointly elucidates 0.56% change in CS ( $R^2 = 0.59$ ,  $F = 39.6$ ,  $\Delta R^2 = 0.56$ ,  $P < 0.05$ ). The results show beta values of -0.15 for BS, -0.28 for BI, -0.29 for IO, and t-values -0.69 for BS, -4.43 for BI, and 3.83 for IO with p-values 0.081 for BS, 0.001 for BI, and 0.001 for IO.

This verifies the second hypothesis that examines the negative impact of CG on CS. Agyei, & Owusu, 2014; Gaaniyu, & Abiodun, 2012) also proved that CG has a negative impact on CS.

**Table 4.** Regression Analysis: CG and CS (N= 200)

CS	$\beta$	t	p-value
BS	-0.15	-0.69	0.081
BI	-0.28	-4.43	0.001
IO	-0.29	-4.53	0.001
F = 39.6			
P = 0.000			
$R^2 = 0.59$			
$\Delta R^2 = 0.56$			

Note: \*\*=  $p < 0.01$ , \* =  $p < 0.05$

### Conclusion

The current research finds evidence that CG has a positive influence on FP and negative with CS of cement corporations enlisted on PSX from the year 2005 to 2014. The outcomes of this research proved that facets of CG (board size, institutional ownership and board independence) maximize FP, and minimize debt level in CS. This research fully supports the hypotheses of the current research. An adequate board size, presence of institutional ownership and board independence maximize FP and minimize debt level in CS. There are empirical proofs of CG and FP and outcomes of this research support earlier researches (Ghabayen, 2012; Javed, & Iqbal, 2006). The

outcomes of this study also support the prior research work that CG negatively influences CS (Agyei & Owusu, 2014; Driffield, Mahambare, & Pal, 2007; Gaaniyu, & Abiodun, 2012).

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**Corporate Governance Variable**

- **Board Size**

The number of board of directors sitting in the company board.

- **Board Independence**

The number of independent directors in the company.

- **Institutional Ownership**

Percentage of shares owned by outside institutional stockholders.

**Financial Performance Variables**

- **Return on Assets**

Net income divided by total assets:  $\text{Net Income} / \text{Total Assets}$ .

- **Return on Equity**

Net income divided by total shareholders' equity:  $\text{Net Income} / \text{Total Shareholders' equity}$ .

**Capital Structure**

- **Debt to Equity**

Total Debts/ Total Equity.