Mediating Role of Capital Structure between Corporate Governance and Risk

Mahboob Ullah[*], Haider Ali Malik[†], Arooj Zeb[‡] and Alam Rehman[§]

Abstract

This research examines the mediating role of capital structure (CS) between corporate governance (CG) and riskof cement firms listed on Pakistan Stock Exchange from 2005-2014. CG is measured through board independence, institutional ownership and audit committee, whereas debt to equity isused to calculate CS, however,risk is measured through interest coverage ratio. The collected data from the annual reports of listedtwenty cement corporations was analyzed through Pearson Correlation and Multiple Regression. The outcomes revealedthat CS mediatesthe association between CG and risk. Firms adhering code of CG, make optimal CS decision and minimize debt level in CSwhich mitigate risk.

KeyWords: Corporate Governance, Capital Structure, Risk and Pakistan Stock Exchange

Introduction

In this era, the policy makers and regulators are facing substantial challenges (increasing complexities of investment chain, stock exchangevolatility, new investors emergence, trade practices and investment strategies) to adjust the CG mechanism. CG helps in building environment of transparency, accountability and trust for nurturing long term investments, businesses integrity,and financial stability as well as facilitating sound economic growth.

CG has got embryonic interest as it is employed as a tool for economic growth. Good practices of CG ensure optimal capital structure (CS)to boost firm performance,reduce risk.Furthermore, CG ensuresminimization of corporate failures, strong internal control system, andeliminates weak structure of corporation.Whereas, due to weak

[*] Mahboob Ullah, PhD Scholar, Preston University, Islamabad, Pakistan
mahboobmails@gmail.com
[†] Haider Ali Malik, Assistant Professor, National University of Computer & Emerging Sciences, Islamabad.
‡ Arooj Zeb, PhD Scholar, Islamia College, Peshawar
§ Dr. Alam Rehman, Assistant Professor, National University of Modern Languages (NUML)

system of CG, theentire stakeholders and particularly shareholders lose confidence.

CG is the set of rules, laws and policies for directing and controlling a firm (Duru, Iyengar & Zampellic, 2016). According to Ueng, (2016)CGis the systemdeployed to direct and control an organization. One of the basic objectives of CG is to protect the stake of entire stakeholders including;shareholders, creditors, government organization and crew. The interest of entirestakeholders and in particular to shareholders is achieved if the firm creates value. Value creation occurs when firm increase earnings per share, which is done by making optimal CS decision. CS is the hybrid of debt and equity securities (Velnampy & Nimalthasan, 2013). According to (Okiro, 2015), CS is how a firm finance its overall operating and fixed assets needs through debt and equity. Good governed firms make better combination of debt and equity to increase benefit and reduce cost. High debt level in CS leads a firm to morerisk. Highly risky firms cannot meet the demands of shareholders as firm may indulge in to loss and bankruptcy. Risk is the in-efficiency of an organization to meet principal and interest on maturity. Firms highly finance through debts bear more financial distress and assume high risk (Rogers, 2016).

Financial scandals in many countries have been compelled managers and executives to properly direct and control firms' affairs in order to achieve goal effectively. Firms apply various mechanismsto control financial scandals. Adheringcode of CG is one of the most significant tools which are used across the globe for this purpose. The code describes the operation of firms to accomplish the corporate goal and objectives. Presence of at least one independent director or one third of the entire board, at least three audit committee members headed by independent director and adequate ratio of institutional ownership are few of the significant elements of the code of CG of Pakistan issued by the Securities and Commission of Pakistan (SECP). The SECP has made it obligatory for the firms for listing on PSX. The listed firms are required to exercise the codes of CG issued by SECP to ensure its successful operation, minimize financial scandals maximizing shareholders wealth and minimizing risk.

CG assists corporations to access funds for long term and facilitates by ensuring that all corporate stakeholders including shareholders who participate in success are fairly treated. Board independence, institutional ownership and audit committee are the significant dimensions of CG which are employed in this research to

analyze the mediating effect of CS (debt to equity ratio) between CG and risk (interest coverage ratio) of cement firms listed on PSX from 2005-2014.

Literature Review

Firms, governments and investors have recognized the importance of CG in boosting performance, economic growth, and stability of capital market. Studies across the globe have proved that sound practices of CG performs a dynamic role in improving an organization performance and mitigating risk whereas, weak practices of CG cast doubts on corporate trustworthiness, reliability or obligation to stockholders.

The code of CG came into fashion in 1970s in United States of America for the very first time, whereasSECPissued code of CG in 2002 and amended gradually in order to bring transparency and fairness in corporate sector of Pakistan.

Researchers have been checked the association between CG and CS in developed and under developed economies (Masnoon & Rauf, 2013). According to Mansur and Tangal (2018) CG primarily related to CS and significantly affects risk of firms. Masnoon and Rauf, 2013; Muneer et al., 2013; Okiro, 2015) have proved a negative association between CG and CS. They documented that good governed firms target less debt level in CS. Companies prefer less debt in CS to attract more investors as rationale investors prefer to invest in low levered firmdue to low risk. Sound practices of CG help the firms to access funds at minimum cost which in turn minimize the entire cost of debts (Goel &Mclver, 2015). Kansal, Joshi, Babu and Sharma (2018) conducted a research to examine the association between CG and CS anddocumented a negative association between CG and CS. Managers seek to get low debts due to sound practices of CG. Gaaniyu and Abiodun (2012) analyzed the relationship between CG and CS of ten beverages and food corporations of Nigeria Stock Exchange from year 2000 to 2009. The results indicated that CG significantly affects financing decisions. Furthermore, they concluded that infusing institutional ownership, larger board size and more board independence reduce the debt level in corporate CS. Masnoon and Rauf (2013) carried a research to check the influence of CG on CS of Pakistani firms. The results indicated that CG: board independence, managerial shareholdings and board size has negative association with CS: debt to equity. Further they described that those organizations with more board independence, proper functioning

audit committee and greater board size will concentrate on low debt financing.

Driffield, Mahambare, and Pal (2007) proved negative association between CG (board independence, board size, institutional ownership, and audit committee) and CS: debt to equity. They argued that holding of stocks in a company by other institutions, larger board size, proper functioning audit committee and existence of more board independence will lead a firm to strict monitoring over the corporate matters as well as managers will borrow less in order to minimize company risk and create corporate worth. Arif and Syed (2015) analyzed the relation between CG and CS of companies enlisted on Nigeria Stock Exchange and concluded that facets of CG: board size, institutional shareholding and board composition has negative association with CS: debt to equity. They found a negative association between CG and CS. They elaborated that good CG will lead the company to finance assets through equity rather than debt in order to minimize company risk and create goodwill.

Okiro (2015) checked the association between CG, CS and financial performance of corporations listed on Uganda, Kenya, Burundi, Tanzania and Rwanda from 2009 to 2013. The results indicate that CG positively correlates financial performance whereas, negatively correlates CS. They described that due to good practices of CG, firms need not to borrow more fund and can utilize retained earnings to meet the operating and assets requirement of company. Their research not only elaborates the influence of CG on corporate financial performance but also reveals significance of CG mechanism in CS.The results of Agyei and Owusu (2014) proved a negative association between CG and CS of corporations enlisted on Ghana Stock Exchange.

The existing literature documents that good governed firms will prefer equity as compare to debts. Companies around the globe choose optimal CS to meet operating and assets needs, which in turn minimize risk.Good practices of CG restrain firms from indulging into risk due to effective control of operating and financial matters of the company. The current research analyze the association between CG, CS and risk as well as test the mediating effect of CS between CG and risk of cement firms listed on PSX from 2005 to 2014.

Hypotheses

The beneath hypotheses are developed for accomplishment of research objective;

H_1:CG (board independence, institutional ownership and audit committee) negatively influences CS (debt to equity).
H_2: CG negatively associates risk (interest coverage ratio).
H_3: CS positivelyaffectsrisk.
H_4: CS mediates the association between CG and risk.

Data Analysis

The present research has used data of twenty cement manufacturing firms listed on PSXfrom 2005-2014. The SPSS 21 is deployed for descriptive statistics, Pearson correlation and linear regression analyses.

Descriptive Statistics

The descriptive statistics of CG (board independence, institutional ownership and audit committee), CS (debt to equity) and risk (interest coverage) are shown in below Table 1. The values of means range from 0.05 to21.52, while the values of standard deviation range from 0.15 to 0.51, which indicate that the entire facets were operated for use.

Table 1
Descriptive Statistics: CG, CS and Risk (N=200)

Variables	Minimum	Maximum	Mean	Std. Deviation
CG	13.02	39.23	21.52	0.51
Brd Ind	0.00	3.00	0.53	0.41
Inst Owr	1.21	21.20	5.63	0.39
AC	3.00	4.00	3.20	0.15
Risk	-1.32	0.89	0.05	0.27
CS	0.02	8.31	0.68	0.25

Pearson Correlation Analysis

The below Table 2 demonstrates that the measures of CG negatively associates CS and risk. The results indicates that board independence, institutional ownership and audit committee has negative relation with CS (r = -0.39, -0.23 and -0.38) and risk (r = -0.31, -0.25 and -0.36).

Table 2
CG, CS and Risk

Variables	Brd Ind	Inst Owr	AC	CS	RISK
Brd Ind	--				
Inst Owr	0.16	--			
AC	0.19*	0.12	--		
CS	-0.39	-0.23*	-0.38**	--	
Risk	-0.31	-0.25**	-0.36**	-0.13*	--

Regression Analysis

The hypotheses were testified by deploying linear regression analysis to examine the effect of CG on CS and risk. The CG is a predicator variable while CS and risk are outcome variables.

CG and CS**.**The equation 1is estimated and outcomes are demonstrated in Table 3, which documents the influence of CG on CS. The outcomes in given table revealed that R^2= 0.51, which indicates that facets of CG described 51% of CS. The outcomes also confirm that F value =39.8 at P value less than 0.05. The outcomesshows beta value of -0.15 for board independence, -0.17 for institutional ownership and -0.29 for audit committee and t-value -2.11for board independence, -2.07for institutional shareholdings, and -3.79 for audit committee with p-value 0.041 for board independence, 0.043 for institutional ownership and 0.001 for audit committee.The outcomes show that board independence, institutional ownership and audit committee negatively impactsCS.

Table 3

Regression Analysis: CG and CS

Capital Structure	β	t	p-value
Board Independence	-0.15	-2.11	0.041
Institutional Shareholdings	-0.17	-2.07	0.043
Audit Committee	-0.29	-3.79	0.001
Number of observations	=	200	
F Value	=	39.8	
P Value	=	0.001	
R-squared	=	0.51	

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

CG and Risk The equation 2is projected and outcomes are established in Table 4, which shows the influence of CG on risk. The outcomes in given table revealed that R^2= 0.61, which indicates that facets of CG described 61% of CS. The outcomes also confirm that F-value =41.7 at P value less than 0.05. The outcomes shows beta value of -0.29 for board independence, -0.32 for institutional ownership and -0.41 for audit committee and t-value -4.51 for board independence, -4.61 for institutional shareholdings, and -6.71 for audit committee with p-value 0.000 for board independence, 0.000 for institutional ownership and 0.001 for audit committee.The outcomes show that board independence, institutional ownership and audit committee negatively impacts risk. This confirms hypothesis 2 that examines the direct negative impact of CG on risk.

Table 4
Regression Analysis: CG and Risk

Solvency Risk	β	t	p-value
Board Independence	-0.29	-4.51	0.000
Institutional Shareholdings	-0.32	-4.61	0.000
Audit Committee	-0.41	-6.71	0.001
Number of observations	=	200	
F Value	=	41.7	
P Value	=	0.000	
R-squared	=	0.61	

CS and Risk The equation 3is estimated and outcomes are established in Table 5, which shows the influence of CS on risk. The outcomes in given table revealed that R^2= 0.55, which indicates that CS described 55% of risk. The outcomes also confirm that F value =43.9 at P value less than 0.001. The outcomes show beta value of 0.29 and t value 5.41 with p-value 0.000 for CS.The outcomes show that CSpositively impacts risk. This confirms hypothesis 3 that examines the direct positive impact of CS on risk.

Table 5
Regression Analysis: CS and Risk

Solvency Risk		β	t	p-value
Capital Structure		0.29	5.41	0.000
Number of observations	=	200		
F Value	=	43.9		
P Value	=	0.001		
R-squared	=	0.55		

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

Risk as DV, CS as MV and CG as IV The outcomes documented significant values for the direct effect and Indirect Effect. The Sobel tests also indicates significant values demonstrating that CS partially mediates the association between CG and risk by getting the significant direct beta values of -0.31, -0.27 and -0.39 respectively (see Table 6). The results in given table also shows significant indirect beta values of -0.13, -0.11 and -0.12, respectively at p<0.05.

Table 6
Mediation Analysis: Risk as DV, CS as MV and CG as IV

Variable Relationship	Indirect Effect		Sobel Test	
	β	p	β	p
Risk as DV, CS as MV and Brd Ind as IV	0.31	0.00	-0.13	0.02
Risk as DV, CS as MV and Inst Owr as IV	-0.27	0.00	-0.11	0.02
Risk as DV, CS as MV and AC as IV	-0.39	0.00	-0.12	0.02

Note. DV= Dependent Variable, CS= CS, MV= Mediating Variable, IV= Independent Variable

Discussions

The first hypothesis of this study was to check the negative influence of CG with CS. The outcomes proved the first hypothesis of the study which is supported by prior research (Gaaniyu & Abiodun 2012; Bokpin & Arko, 2009). The second hypothesis of this study was to examine the negative impact of CG on risk. The results also proved the hypothesis and provide evidence of earlier studies that have indicated negative association between CG and risk (Reddy et al., 2010). The third hypothesis of current study was also supported the results that shows a positive relation between CS and risk. As the level of debt augments in CS, the risk also increases and vice versa. The last hypothesis of present study was to evaluate the mediating role of CS between CG and risk. The result of this study backed the hypothesis revealed that CS mediates between CG and risk.

Conclusion

The fundamental objective of this study was to analyze the direct impact of CG on CS and risk as well as test the mediating role of CS between CG and risk in cement companies listed in PSX, Pakistan. This study has proved that good practices of CG reduces debt level in CS and hence the risk, therefore the present study supported the existing literature. This study provided evidences for the preceding research that have shown a negative impact of CG on CS and risk, whereas a positive association of CS and risk. The result also confirmed that CS mediates the association between CG and risk of cement firms listed on PSX from 2005-2014.

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