

Does Better Corporate Governance Reduces Cost of Debt: Evidence from Asia

Zeshan Anwar (Corresponding Author)

PhD Scholar, The University of Lahore, Lahore, Pakistan
Email: zeshananwar58@gmail.com

Bilal Aziz

Assistant Professor, IBM,
University of Engineering and Technology (UET) Lahore, Pakistan

Waris Ali

Assistant Professor
Department of Business Administration,
University of Sahiwal, Sahiwal, Pakistan

Abstract:

One of the most contentious issues in the corporate governance debate is the relationship between Corporate Governance (CG) and cost of debt. The study employed 2SLS regression model on a panel data collected from the 24 Asian countries over the period of 2006 to 2015. The cost of debt (COD) has been measured as the annual interest expense divided by the long term debt. The results depict that Quality of Corporate Governance (QCG) index has significant relationship in reducing cost of debt for firms in Asian countries. Moreover, the control variables like; leverage, firm size and share price volatility are also found significantly related with cost of debt for Asian firms. The results also indicate that explicit corporate governance variables like; board independence, audit committee independence, ownership concentration and CEO duality have also significant association with firm's cost of debt in Asian countries which is in accordance with the agency theory.

Keywords: Corporate governance, cost of debt, endogeneity, Asian countries.

JEL Classification Codes: G32, G34, M41, O16

I. Introduction

Current study investigated the relationship of Corporate Governance (CG) with cost of debt by incorporating a sample of large multinationals in Asian countries. There are several theories which point out association of corporate governance with wealth of shareholders; whereas cost of debt is a fundamental factor of wealth creation (Rad, 2014). However, the relationship of governance practices with cost of debt has not sufficiently investigated for Asian countries; therefore, there is need for such kind of research.

This research empirically examines this issue by utilizing data from top multinational firms in Asian countries (e.g. PetroChina, Toyota Motor, Gazprom, Samsung Electronics, China Mobile etc.). This research builds on former research in many ways:

Firstly, majority of studies based on corporate governance focused on large and developed economies like UK, US and European economies. The emerging economies like Asian countries with substantial agricultural based industries may vary from developed economies. This investigation on Asian countries may enhance generalizability and understandability of the corporate governance relationship with cost of debt.

Secondly, this research provides several experiences related to governance activities and cost of debt as Asian countries are extremely different with respect to corporate legislations, capital structures and cost of debt.

The better corporate governance mechanisms will assist in several ways: firstly, it will improve the confidence of local investors; secondly, reduces cost of debt; thirdly, reinforcing the better performance of financial markets and eventually encouraging more stable financing sources (OECD, 2009). The businesses which depend on international financing have accessibility to a larger group of investors. So, if they desire to take benefits of bigger capital markets and want to decrease cost of debt, their governance mechanisms should be reliable, well understood globally and have worldwide agreed standards (Stulz, 2007).

The financial crisis in Asian countries and failure of larger firms acted as a signal for Asian economies to support the market efficiency through employing better corporate governance systems. The matter of Corporate Governance received significant attention internationally specifically by institutions like OECD established in 1999, which published Corporate Governance principles in 1999, afterwards revised in year 2004. The OECD-Asian Roundtable on Corporate Governance operates as a regional forum regarding exchange of experiences, developing corporate governance reforms while promoting awareness level and use of Governance principles. This forum invites experts, practitioners and policy makers on corporate governance from Asian countries, OECD member countries and related international organizations. During 2003, the participants of Roundtable approved a proposal for improvement of governance systems in Asian regions which is called the White Paper on Corporate Governance in Asian countries. After that, the White Paper has continuously encouraged a series of initiatives which include revision of current legislation, adopting international accounting standards, establishing institutes of directors, introducing best practices codes and development of investors associations.

The past studies examined association of governance procedures with firms' cost of debt and majority of these studies depicted negative and significant association of better governance practices with cost of debt. However, a gap exists in empirical literature for impact of governance systems on debt cost. Certainly, there are various studies which analyzed influence of governance mechanisms on capital cost, but most of prior studies have used just few characteristics of governance practices and only few significant studies have used corporate governance score. Moreover, most of the researchers concentrated on developed economies and the analysis of Asian economies with a significant data set have been ignored. Therefore, there is no significant study which has determined relationship of governance mechanisms with firm's cost of debt for Asian multinational firms in general since there are structural difference exist as

compared to western multinational firms. These gaps in existing literature offer strong motivations to conduct analyses as this study has bridge these gaps in empirical literature by utilizing a sample of top multinational firms in 24 Asian countries over the period of 2006 to 2015.

The governance practices are very important for all firms as it strengthens trust of investors, creditors and all stakeholders regarding organizational activities. These practices are even more important for larger and multinational firms as large number of stakeholders have stake in these organizations. Thus, it is crucial to determine relationship of corporate governance with cost of debt for Asian multinational firms. This study aimed to determine whether better corporate governance results in decreasing firm's cost of debt measured as the annual interest expense divided by the long term debt. The findings of this research are significant for policy makers and decision makers due to bigger size, larger capitalization and more resources of the sample multinational firms.

The remaining research has been organized as follows: the literature review has been presented in section 2; research methods: research framework has been provided in section 3. The section 4 presents results for cost of debt and governance practices, whereas, the section 5 provides conclusion and directions regarding future research.

II. Literature Review

Many researchers have examined relationship of corporate governance activities and debt cost e.g. Baganini, Milonas, Saunders, and Travlos (1994) found that increased managerial ownership results in increasing debt cost at lower levels but reduces debt cost at higher levels. By utilizing disclosure scores being proxy of information asymmetry in market, Sengupta (1998) revealed that businesses having higher rating of disclosure quality by financial analysts enjoyed a lesser interest cost for issuance of debt; organizations having higher informative and timely disclosures are considered to have a reduced possibility of concealing bad information. Therefore, they are anticipated to be required a decreased risk premium by debt holders. Fan and Wong (2002) used ownership structure of 977 firms in seven East Asian countries and depicted that concentrated ownership results in lower informativeness of earnings as concentrated ownership prohibits disclosure of organization's proprietary information for protecting their activities.

Furthermore, Amir, Guan, and Livne (2010) stated that information quality is negatively correlated with capital cost. Because of the reason that auditors manipulate reported information, auditor independence has positive relationship with financial reporting. Moreover, the quantity and quality of information communicated by the organization results in increasing transparency and decreasing information asymmetry. Due to these reasons, the organization's risk profile would decrease. Therefore, the investors and creditors will require lesser risk premium on equity and debt. Aslan and Kumar (2012) conducted same kind of research and found that ownership concentration would result in increasing or decreasing the debt cost.

Juniarti and Natalia (2012) examined the benefits of implementation of corporate governance practices on debt cost for Indonesian businesses during 2004-2009. After considering for the relevant controlling variables, findings of this study showed that

there are no benefits for the Indonesian companies in terms of lesser cost of debt for implementation of corporate governance practices. The researchers explained that lower degree of creditors' belief on better corporate governance mechanisms would be the major reason for this kind of relationship. Frantz and Instefjord (2012) examined association of corporate governance and borrowing cost for understanding whether improving governance quality of an organization results in increasing or decreasing debt cost. The researchers found that an improvement in governance practices results in reducing chances of default but may cause a decrease in debt cost. Hajiha and Farhani (2012) investigated the relation of features of board directors and cost of debt for organizations listed in Tehran stock market during the period of 2005-2011. The results depicted that there is significantly negative correlation of board's size and debt cost. The results also depicted that there is a significantly positive relation of board independence with debt cost.

Keshtavar, Moeinaddin, and Dehnavi (2013) determined effect of governance practices on capital cost and financial decisions of businesses listed on Tehran Stock Exchange for 2007-2011. The results depicted that the variables of corporate governance significantly and positively affect cost of debt, equity and WACC. Bradley and Chen (2014) examined relationship of board independence and cost of debt for period of 2002 to 2006 and found that board independence reduces debt cost in presence of stronger credit situations or lower leverage, whereas, it raises debt cost in presence of poor credit situations or higher leverage. The authors also documented that independent board directors set organizational policies which enhance business risk so independent board directors perform in better interest of stockholders and are more costly for bondholders with increase of agency conflicts between these two groups.

Adam, Mukhtaruddin, and Yusrianti (2015) analyzed influence of better corporate governance activities on debt cost for businesses listed on Indonesian stock market from 2010 to 2013. The outcomes of this paper portrayed that factors of better corporate governance practices (Audit Committee, Board of Commissioners, Institutional Ownership and Managerial Ownership) didn't significantly affect debt cost of Indonesian companies. Nikkar and Azar (2015) investigated relation of governance index with capital cost for 110 firms listed on Tehran stock market during 2009 to 2013 through the multivariate regression model. In order to estimate effect of corporate governance index with capital cost, the influence of other related variables have been controlled. The researchers have shown that a negative association exist between corporate governance index and cost of equity, debt and WACC.

It can be concluded from the above mentioned literature that very limited research has been performed regarding relationship of governance practices with cost of debt for Asian firms in general and Asian multinational firms in particular. To the best of author's knowledge, there are very few studies in Asia which determined the association of governance practices with cost of debt, whereas, there is no study which examined affiliation of governance practices with cost of debt for Asian multinationals.

This research anticipates a negative relation of changes in governance practices with cost of debt for Asian multinational firms.

It is observed from literature review that few studies depicted a negative association of governance practices with firm cost of debt, whereas, some other studies depicted a positive and insignificant relationship of corporate governance practices with debt cost. Therefore, major purpose of this research is to bridge this research gap by investigating this relationship on a large sample of Asian multinational firms over the period of 2006 to 2015 as regulatory authorities are trying to encourage better governance practices in organizations. This study anticipates a negative correlation of changes in corporate governance practices with firm's cost of debt measured as the annual interest expense divided by the long term debt.

III. Materials and Methods

The variables for corporate governance practices which past studies and regulators in Asian countries specified as significant principles are; Quality of Corporate Governance (QCG), Board Independence (BI), Ownership Concentration (OWN), Audit Committee Independence (AI) and CEO Duality (DUAL) and the controlled variables are: Firm Leverage (LEV), Firm Size (SIZE) and Firm's volatility (VOLA).

A. Data and Selection of Sample

This research study used quantitative research technique; the sample is selected from World's Largest Public Companies by "Forbes Global 2000". The data covers the period of Year 2006 to Year 2015 and it excludes financial firms (as they are highly monitored), and the firms for which don't have complete dataset. There are 762 Asian multinational firms listed in "Forbes Global 2000", out of which 486 firms are non-financial and 276 firms are financial firms. The required data is collected from annual reports of firms, stock exchanges of concerned countries and organization's web sites. The final sample excludes 123 non-financial multinational firms due to unavailability of complete data over the study period. The remaining 363 non-financial multinational firms (75 % of the sample) are included in the panel dataset of this study as the representatives of largest multinational firms in Asian countries.

The information regarding the total number of multinational firms for Asian countries reported in World's Largest Public Companies by "Forbes Global 2000" has been provided in Appendix I. The Appendix I also provide the information regarding the number of multinational firms included in final sample.

B. Variables

The methods for calculating the costs of debt are quite complex. The debt cost represents the payments a business should pay as the cost of debts amounts. The commonly used measure for cost of debt is yield spread as indicated by the prior studies, which represents average debt yield to maturity above risk free rate (e.g. Bradley and Chen, 2011; Soh, 2011; Blom and Shauten, 2008). The cost of debt can also be measured as interest payments divided by total debt outstanding. This kind of methodology has been applied by Zhu (2014) and Francis et al. (2005). This research calculates the cost of debt as the annual interest expense divided by the long term debt.

The corporate governance variables used in current study are by following past studies which includes; Quality of Corporate Governance, Board Independence, Audit Committee Independence, Ownership Concentration and CEO Duality (Pham et al. 2012;

Bozec & Bozec, 2010; Blom & Schauten, 2008; Ashbaugh et al. 2004; Bradley & Chen, 2014).

This research has developed an index for determining quality of corporate governance practices by Asian multinational firms by following the work of Klapper & Love (2004); Shah & Butt (2009). This variable is named as Quality of Corporate Governance (QCG) and calculated through following equation:

$$QCG = f(BI, AI, OWN, DUAL)$$

Where BI = board independence, OWN = ownership concentration, AI = audit committee independence and DUAL = CEO Duality. The above equation shows the theoretical framework for measurement of quality of corporate governance variable (For details on its calculation, please see Appendix II). These factors have been used collectively for calculating corporate governance scores and forming governance index (QCG) for each organization and also independently to check robustness of results.

Board Independence (BI) is measured as outside board directors to total number of board directors (Singhal, 2014; Shah and Butt, 2009). An outsider director is a board member who is not included in team of executive managers. These directors are not employees of the business and they don't have any other affiliation with the firm. Ownership concentration (OWN) is estimated as shares owned by top five shareholders to total outstanding shares in a firm (Singhal, 2014; Shah and Butt, 2009). Large stockholders hold monitoring role of management and can reduce agency issues.

An independent audit committee is also a significant variable for better governance practices as it is crucial for ensuring correctness and quality of audit activities. The variable of Audit Committee Independent (AI) calculated as independent directors to total Audit Committee directors (Shah and Butt, 2009).

Separation of board chairman and CEO of company is also critical component of governance practices in firm and it has major influence on business performance (Singhal, 2014). This research represents separation of CEO and board chairman as CEO Duality (DUAL) and it takes value of one if chairman and CEO is same person and value of zero if CEO and chairman are different persons.

Table 1: Explanation of Variables

Variables	Measurement Technique
Dependent Variable	
COD	Cost of Debt estimated as the annual interest expense divided by the long term debt.
Independent Variables	
QCG	Quality of Corporate Governance calculated as: $QCG = f(BI, OWN, AI \text{ and } DUAL)$
BI	Ratio of independent directors to total number of board directors
OWN	Ratio of Shares held by five largest shareholders to total outstanding shares
AI	Ratio of independent directors to total directors in Audit committee
DUAL	The firm where one person hold both positions of CEO and Board

Chairman are equal to one; and zero otherwise	
Control Variables	
SIZE	Natural logarithm of firm's total assets
VOLA	One year volatility of firm's share prices
LEV	Ratio of total debt to firm's total assets

The control variables which are having predictive power regarding an organization's cost of capital as shown by the empirical literature are also included in the regression models for controlling their predictive influences. These variables include Firm Size (SIZE), Volatility (VOLA) and Leverage (LEV) (Bradley & Chen, 2014). The explanation and measurement of all variables are provided in table 1.

Panel data regression is estimated. First of all, the regression equation has been estimated with Pooled OLS Regression Model. Secondly, the regression diagnostics has been estimated for checking the problems of Auto Correlation / Serial Correlation and Heteroskedsticity. Thirdly, as the problems of serial correlation or heteroskedasticity are detected from the regression diagnostics which implies that the Fixed Effect or Random Effects Regression Models provide spurious regression results.

Beck & Katz (1995) reported that 'Panel Corrected Standard Error' (PCSE) model provides considerably better results as compared to FGLS model in several situations. Therefore, to overcome this problem, the Panels Corrected Standard Errors (PCSE) Regression Model has been employed to estimate the regression equations.

Fourthly, the Two Stage Least Squares (2SLS) Regression Model has been employed to check endogeneity problem of the independent variables. The independent variables in this case are different variables related to governance practices and the control variables discussed in previous sections. Based on the literature (Firth and Rui, 2012); the variable of board independence has been considered as endogenous variable and board size is considered as instrumental variable for applying the 2SLS regression model. The instrumental variable of Board Size (BSIZE) is calculated as total directors of firm's board.

The base regression model for testing relationship of corporate governance practices with cost of equity for firm is stated below:

$$\text{Cost of Debt}_{i,t} = \beta_0 + \beta_1 \text{QCG}_{it} + \beta_2 \text{LEV}_{it} + \beta_3 \text{SIZE}_{it} + \beta_4 \text{VOL}_{it} + U_{it}$$

IV. Results and Discussion

A. Cost of Debt and Corporate Governance

Panel regression is estimated on model 2 by taking cost of debt (COD) as dependent variable. The Wooldridge test of autocorrelation in panel data has been employed for checking the presence of auto correlation / serial correlation in data of this study. The results of Wooldridge test describes that the probability value of F statistics is less than 0.01 for all models, so this study rejects null hypothesis and accept alternative hypothesis of presence of first order autocorrelation in dataset. So, it is concluded that the dataset of this study incorporates problem of autocorrelation / serial correlation. In order to verify heteroskedasticity issue, the Modified Wald Test for groupwise heteroskedasticity in fixed effects regression models has been utilized. The results

demonstrate that probability value of Chi2 is less than 0.01 for all models, so this study rejects null hypothesis that panel data does not have the problem of heteroskedasticity against the alternative hypothesis that the panel data does have the problem of heteroskedasticity. So, it is being concluded that the dataset of this study suffers with the problem of heteroskedasticity. Therefore, The PCSE regression model has been employed to investigate the association of QCG with firm's debt cost and results have been described in panel I of table 2.

The table 2 reveals that QCG has significant negative effect on cost of debt (COD) which means that improvement in corporate governance practices results in lesser cost of debt for Asian multinational firms. So, it suggests that better governance practices results in reducing debt cost for Asian multinational firms. Therefore, it is extremely beneficial for Asian firms to improve their overall governance systems because it results in lesser external financing cost for these firms. These results are similar with conclusions of Nikkar & Azar, (2015); and Pham et al. (2012). The control variables of leverage and volatility have significant positive influence on COD which means that firms having more leverage and volatility face increased cost of debt, whereas, the variable of firm size has significant negative association with COD which means that larger firms have lesser debt cost. These outcomes are similar to results of Bozec & Bozec, (2010); Bradley & Chen, (2014); Singhal, (2014). So, based on these results; this study concludes that better governance practices results in lowering debt cost for Asian multinational firms.

Table 2: PCSE Regression Model

Prais-Winsten regression, correlated panels corrected standard errors (PCSEs)		
Cost of Debt (COD)		
	Coef.	Std. Err.
PANEL I		
QCG	-.428*	.509
LEV	5.748***	1.152
SIZE	-.471***	.065
VOLA	.421**	.159
_cons	18.781	2.669
PANEL II		
BI	-3.798**	1.530
OWN	1.066	.891
AI	-2.048*	1.065
DUAL	.005*	.580
LEV	6.858***	1.162
SIZE	-.581***	.175
VOLA	.531**	.269
_cons	12.585	3.147

***p-value <1%, ** p-value <5%, *p-value <10%

The relationship of individual corporate governance variables namely BI, AI, OWN and DUAL with cost of debt has been also examined and results have been presented in panel II of table 2 which demonstrate that variables of BI and AI have significant negative influence on COD which means that more independent board directors and audit committee result in decreasing firm's debt cost. These outcomes are consistent with results of Bradley & Chen, (2014); Bozec & Bozec, (2010); Singhal,

(2014); Pham et al. (2012). The variable of DUAL has significant positive relationship with COD which means that firms with CEO duality have higher cost of debt in Asian countries which are similar to results of Singhal, (2014) COD. So based on these findings, this study concludes that better governance practices results in lesser debt cost for Asian multinational firms.

For checking the problem of endogeneity of board independence variable, the 2SLS regression model has been applied. The variable of board independence has been considered as endogenous variable based on the literature, whereas, the variable of board size has been considered as instrumental variable. The results of 2SLS regression model have been presented in panel I of table 3, where quality of corporate governance (QCG) index along-with control variables have been taken as independent variables and COD has been taken as dependent variable in regression model.

The results depict that QCG variable has significant negative relationship with COD which means that better governance practices results in lesser debt cost for Asian multinational firms. So based on the findings of 2SLS regression model also, this study concludes that if Asian firms improve their corporate governance practices, it results in lesser debt cost for these firms. These conclusions are same to results of Nikkar & Azar, (2015); Pham et al. (2012). The control variables of leverage and volatility have significant positive association with COD which means that firms having more leverage and volatility face increased cost of debt, whereas, the variable of firm size has significant negative association with COD which means that larger firms have lesser debt cost. These outcomes are similar to results of Bozec & Bozec, (2010); Bradley & Chen, (2014); Singhal, (2014).

The relationship of individual corporate governance variables namely BI, AI, OWN and DUAL with cost of debt (COD) has been also examined and results have been reported in panel II of table 3. The findings depict that variables of BI and AI have significant negative relationship with COD which means that firms having more independent boards and audit committees also have lesser cost of debt in Asian countries. These findings are similar to results of Bradley & Chen, (2014); Bozec & Bozec, (2010); Singhal, (2014); Pham et al. (2012). The variable of OWN is significantly and positively associated with COD which means that businesses having higher ownership concentration also have higher cost of debt in Asian countries. This result is similar with outcomes of Aslan & Kumar, (2012). So based on these findings, it is being concluded that improvement in corporate governance practices provide benefits to Asian multinationals in reducing debt cost.

The p-values for Durbin and Wu-Hausman test statistics are less than 0.05 for all models, so this study rejects null hypothesis that variables are exogenous and accept the alternate hypothesis that variables are not exogenous. This research concludes that the problem of endogeneity does exist in regression model 2 and board independence is the endogenous variable in this model, therefore, 2SLS regression model is best for estimation. After verifying the endogeneity of the variables, the test for the First Stage Regression Summary Statistics has been employed to determine whether the instrumental variable is weak or not and the results indicate that the Minimum eigenvalue statistic is

187.211 for all models; this value needs to be compared with critical values at 10%, 15%, 20% and 25%.

The minimum eigenvalue is greater than all the critical values, so this research rejects null hypothesis that instrumental variable is weak and accept alternative hypothesis that instrumental variable is not weak. After determining endogeneity of board independence and determining that the instrumental variable of board size is not a weaker instrument, the test of Overidentifying restrictions has been used and the results provides p-value statistics for the Sargan Test and Basman Test which are greater than 0.10 for all regression models, so this research cannot reject null hypothesis that instrument set is valid and model is correctly specified. So, it is being concluded that the instrumental variable included in this model namely board size is a valid instrument and 2SLS regression model which has been employed for the analysis in this study is correctly specified.

Table 3: The 2SLS Regression Model

Instrumental variables (2SLS) regression		
Number of obs = 3618		
Cost of Debt (COD)		
	Coef.	Std. Err.
PANEL I		
QCG	-.530**	.160
LEV	3.408***	.579
SIZE	-.077***	.060
VOLA	.588**	.163
_cons	4.159	3.834
Instrumented	QCG	
Instruments	LEV SIZE VOLA BSIZE	
PANEL II		
BI	-6.518**	3.243
OWN	3.482***	.681
AI	-4.284***	.844
DUAL	.002	.669
LEV	4.518***	.689
SIZE	-.187***	.070
VOLA	.698**	.273
_cons	6.321	1.198
Instrumented	BI	
Instruments	OWN AI DUAL LEV SIZE VOLA BSIZE	

***p-value <1%, ** p-value <5%, *p-value <10%

These results indicate that improvement in corporate governance practices is extremely beneficial for Asian firms as it results in lesser COD which ultimately decreases firm's cost of capital. These findings are also extremely significant for policy makers of Asian firms as empirical evidence has been provided that better governance practices results in lesser cost of capital, while investors and creditors around the world would be more willing to invest in these firms due to lesser cost of capital. Therefore, it is very crucial for Asian firms to strengthen their governance structure because it results in obtaining lesser cost of capital.

V. Discussion and Conclusion

The corporate governance practices are very important for all firms as it strengthens trust of investors, creditors and all stakeholders regarding organizational activities. These practices are even more important for larger and multinational firms as large number of shareholders and stakeholders have involvement in these organizations. The findings of this study suggest that better governance practices results in lesser cost of capital for Asian multinational firms. These results justify most of the past research and corporate governance theories in general and agency cost theory in particular regarding role of corporate governance activities in lowering agency cost and cost of capital. These findings are significant as sample considered in this study comprises of top multinational firms in Asian countries; therefore it is extremely important for policy makers of these firms to further improve and develop their corporate governance activities as they would gain the benefits of decreased cost of debt. It would results in further development and growth of these firms as investors and creditors are more interested to invest in those firms where corporate governance structures are better. Moreover, the size and share capital of these firms is very large; therefore, the results of this study are also very important for investors and creditors around the world as they can forecast the performance of these firms based on their governance systems.

The future research could concentrate on extending this study in various directions. Some of these directions are identified as follow:

Firstly, the analyses for relationship of corporate governance practices with firm's cost of debt in Asian countries should be compared with analyses of this relationship in countries outside of Asian regions. Secondly, the comparison of country specific analyses among different Asian regions should be conducted. Thirdly, the financial multinational firms have been excluded from the analysis; the future studies can also include financial firms in their analyses.

References

- Adam, M., Mukhtaruddin, S. N., & Yusrianti, H. (2015). Good Corporate Governance and Cost of Debt: Listed Companies on Indonesian Institute for Corporate Governance. *Asian Social Science*, 11(25), 58-77.
- Amir, E., Guan, Y., & Livne, G. (2010). Auditor Independence and the Cost of Capital Before and After Sarbanes-Oxley: The Case of Newly Issued Public Debt. *European Accounting Review*, 9(4), 633-664.
- Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2003b). Founding family ownership and the agency cost of debt. *Journal of financial Economics*, 68, 263-285.
- Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting report integrity and the cost of debt. *Journal of accounting and economics*, 37, 315-343.
- Ashbaugh, H., Collins, D.W., & Lafond, R. (2004). Corporate Governance and the Cost of Equity Capital. Working Paper.
- Aslan, H., & Kumar, P. (2012). Strategic Ownership Structure and the Cost of Debt. *Review of Financial Studies*, 25(7), 2257-2299.

- Baganini, E. S., Milonas, N. T., Saunders, A., & Travlos, N.G. (1994). Managers, owners and the pricing of risky debt: an empirical analysis. *Journal of Finance*, 49(2), 453-477.
- Baganini, E. S., Milonas, N. T., Saunders, A., & Travlos, N. G. (1994). Managers, owners and the pricing of risky debt: an empirical analysis. *Journal of Finance*, 49(2), 453-477.
- Beck, N., & Katz, J. N. (1995). What to do (and not to do) with time-series cross-section data. *American Political Science Review*, 89(3), 634-647.
- Beiner, S., Drobetz, W., Schmid, M. M., & Zimmermann, H. (2004). An integrated framework of corporate governance and firm valuation - Evidence from Switzerland. Finance Working Paper No. 34/2004.
- Bhojraj, S., & Sengupta, P. (2003). Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors. *Journal of Business*, 76(3), 455 - 475.
- Blom, S. B., & Schauten, M. B. J. (2008). *Corporate Governance and the Cost of Debt. New Development in Financial Modeling*, Cambridge Scholars Publishing, 116-145.
- Bozec, R., & Bozec, Y. (2010). *Corporate Governance Quality and the Cost of Capital*. Working paper.
- Bradley, M., & Chen, D. (2014). Does Board Independence Reduce the Cost of Debt? *Journal of Financial Management*, 44(1), 15-47.
- Brown, L., & Caylor, M. (2006a). *Corporate Governance and firm operating performance*. Georgia State University. Atlanta.
- Brown, L., & Caylor, M. (2006b). Corporate governance and firm valuation. *Journal of Accounting and Public Policy*, 25(4), 409-434.
- Burton, P. (2000). Antecedents and consequences of corporate governance structures. *Corporate Governance: An International Review*, 8(3), 194-203.
- Byun, H. Y. (2007). The Cost of Debt Capital and Corporate Governance Practices. *Asia-Pacific Journal of Financial Studies*, 36(5), 765-80.
- Castellano, J., Lightle, S., & Baker, B. (2011). The role of board of directors in the Financial Crisis. *The CPA Journal*, LXXXI (9), 54-57.
- Chahine, S. (2004). Corporate governance and firm value for small and medium sized IPOs. *Financial Markets and Portfolio Management*, 8(2), 143-159.
- De Hoyos, R. E. & Sarafidis, V. (2006). Testing for Cross-sectional Dependence in Panel Data Models. Working Paper, University of Cambridge.
- Driscoll, J.C., & A.C. Kraay. (1998). Consistent Covariance Matrix Estimation with Spatially Dependent Panel Data. *Review of Economics and Statistics*, 80(4), 549-560.
- Edwards, M., & Clough, R. (2005). *Corporate governance and performance: An exploration of the connection in a public sector context*. Corporate Governance ARC Project, Issues Series Paper No.1.
- Fan, J. P. H., & Wong, T. J. (2002). Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting Economics*, 33, 401-425.
- Firth, M.A. & Rui, O.M. (2012). Does One Size Fit All: A Study of Simultaneous Relations Among Ownership, Corporate Governance Mechanisms, and the Financial Performance of Firms in China. *Corporate Governance: Recent Developments and New Trends*, XXIV, 29-58

- Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2005). The Market Pricing of Accruals Quality. *Journal of Accounting and Economics*, 39(2), 295-327.
- Frantz, P., & Instefjord, N. (2012). Corporate Governance and the Cost of Borrowing. *Journal of Business Finance & Accounting*, 40(7), 918-948.
- Gompers, P. Ishii, J., & Metrick, A. (2003). Corporate Governance and Equity Prices. *Quarterly Journal of Economics*, 118, 107-155.
- Hajiha, Z., & Farhani, M. G. (2012). Effect of Ownership Structure on Economic Value. *The Journal of Contemporary Hospitality Management*, 24(1), 7-25.
- Hajiha, Z., Abadi, F. F., & Maher, L. G. (2012). Effect of Ownership Structure on Economic Value. *The Journal of Contemporary Hospitality Management*, 24(1), 7-25.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76(2), 323-329.
- Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the Asian financial crisis. *Journal of Financial Economics*, 58(1), 141-186.
- Jönsson, K. (2005). Cross-sectional Dependency and Size Distortion in a Small-sample Homogeneous Panel Data Unit Root Test*. *Oxford Bulletin of Economics and Statistics*, 67(3), 369-392.
- Juniarti, T., & Natalia, L. (2012). Corporate Governance Perception Index (CGPI) and Cost of Debt. *International Journal of Business and Social Science*, 3(18), 223-232.
- Keshtavar, A., Moeinaddin, M., & Dehnavi, H. D. (2013). Need for Capital Management and Capital Structure in the World Today. *International Journal of Modern Management Sciences*, 2(2), 67-74.
- Klapper, F. L., & Love, I. (2004). Corporate Governance, Investor Protection and Performance in Emerging Markets. *Journal of Corporate Finance*, 10(5), 703-728.
- Klock, M. S., Mansi, S., & Maxwell, W. F. (2005). Does Corporate Governance Matter to Bondholders? *Journal of Financial and Quantitative Analysis*, 40, 693-719.
- MacAvoy, P. W., & Millstein, I. S. (2003). *The recurrent crisis in corporate governance*. New York: Palgrave.
- Mansi, S. A., Maxwell, W. F., & Miller, D. P. (2004). Does auditor quality and tenure matter to investor? Evidence from the bond market. *Journal of Accounting Research*, 42, 755-793.
- Mizuno, M. & Tabner, I. T. (2009). *Corporate Governance in Japan and the UK: Codes, Theory and Practice*. *Pacific Economic Review*, 14(5), 622-638.
- Nikkar, B., Azar, M. N. (2015). An Investigation of the Relationship between Corporate Governance Score and the Cost of Capital in Listed Firms on Tehran Stock Exchange. *SAUSSUREA*, 3(1), 102-119.
- OECD. (2011). *Corporate Governance of Listed Companies in China: Self-Assessment by the China Securities Regulatory Commission*. OECD Publishing.
- Parks, R. (1967). Efficient Estimation of a System of Regression Equations When Disturbances Are Both Serially and Contemporaneously Correlated. *Journal of the American Statistical Association*, 62(318), 500-509.
- Pham, P. K., Suchard, J. O., & Zein, J. (2012). Corporate Governance, Cost of Capital and Performance: Evidence from Australian Firms. *Journal of Applied Corporate Finance*, 24(3), 84-93.

- Rad, S. A. (2014). The relationship between corporate governance practices and cost of capital in large listed companies of New Zealand and Singapore. The University of Waikato.
- Sengupta, P. (1998). Corporate Disclosure Quality and the Cost of Debt. *The Accounting Review*, 73(4), 459 – 474.
- Shah, Z. A., Butt, S. A. (2009). The Impact of Corporate Governance on the Cost of Equity: Empirical Evidence from Pakistani Listed Companies. *The Lahore Journal of Economics*, 14(1), 139-171.
- Singhal, A. (2014). Corporate Governance, Cost of Capital and Value Creation: Evidence from Indian Firms. *Journal of Economics and Finance*, 4(6), 36-54.
- Soh, T. M. (2011). Corporate Governance and the Cost of Capital. *International Journal of Governance*. Retrieved from: <http://www.ijgovernance.com/index.php/ijg>
- Stulz, R., Doidge, C., & Karolyi, A. (2007). Why do countries matter so much for corporate governance? *Journal of Financial Economics*, 86(1), 1-39.
- Teti, E., Dell'Acqua, A., Etro, L., Resmini, F. (2016). Corporate governance and cost of equity: Empirical evidence from Latin American companies. *Corporate Governance: The International Journal of Business in Society*, 16(5), 831-848.
- Zhu, F. (2014). Corporate Governance and the Cost of Capital: An International Study. *International Review of Finance*, 14(3), 393-429.

Appendix I: Multinational Firms of Asian Countries Reported in FORBES Global 2000

Region	Country	Total Firms	Financial Firms	Non-Financial Firms	Firms Included in Final Sample
East Asia	China	149	50	99	51
	Japan	226	70	156	126
	South Korea	61	15	46	37
	Taiwan	47	17	30	19
	Hong Kong	58	25	33	25
South Asia	India	54	22	32	25
ASEAN	Thailand	17	7	10	10
	Singapore	17	6	11	10
Eurasia	Russia	28	3	25	20
Middle East	Saudi Arabia	20	10	10	10
Others		85	51	34	30
Total Sample		762	276	486	363

Appendix II: Scoring Criteria and their Weights for QCG**1. Number of INEDs in Board of Directors: (Weight 25%)**

Range	Score
0%-----20%	1
21%----- 40%	2
41%-----60%	3
61%-----80%	4
81% and above	5

2. No. Of INEDs in Audit Committee: (Weight 25%)

Range	Score
0%-----20%	1
21%----- 40%	2
41%-----60%	3
61%-----80%	4
81% and above	5

3. Ownership Concentration: (Weight 25%)

Range	Score
0%-----20%	5
21%----- 40%	4
41%-----60%	3
61%-----80%	2
81% and above	1

4. CEO Duality: (Weight 25%)

Value of 0	2
Value of 1	1