Impact of Corporate Governance on Cost of Capital: Moderating Role of Foreign Ownership

S. Gul[*1], & K. Saeed[2]

[1,2] *Capital University of Science and Technology, Pakistan*

Abstract. Abstract. The purpose of this study is to examine the impact of Corporate Governance (CoGo) mech- anism with moderating role of foreign ownership on the COC. The 108 listed non- financial firm's annual data, ranging from 2011 to 2017, is extracted from annual reports. The ordinary least square method has been used with different techniques such as common, fixed, and random effect models but most variables were significant in the common effect model. The statistical findings of the study indicate that there is a significant relationship between CoGo mechanisms and the COC in non-financial firms of Pakistan. To some extent foreign ownership moderates, the relationship between the Audit Committee (AuCo), board of directors' managerial ownership, and COC and leverage (debt to asset ratio) plays a control- ling role among these variables. All non-financial firms should increase the en- vironment of foreign ownership in their firms for the profit maximization and development of the economy.

Key words: Cost of Capital, Corporate Governance Mechanisms, Foreign Ownership, Leverage

1   Introduction

In a recent era, non-financial firms maximizing a fast trap of profit with the latest tools and techniques such as the manufacturing and service sector in emerging economies like Pakistan. In the global industrial sector, every firm mostly engaged in financial integration with respect to globalization and advancement in information technology. Therefore, various challenges for every company to manage the capital to sustain and grow in the market, so how company's top management like board of director handle the Cost of Capital (COC). Previously many scandals, frauds, and scams happened inside and outside of the firm therefore, firms-controlled capital related issues through formation of Audit Committee (AuCo). This study also discusses the foreign ownership moderation impact on firm COC in the modern era. In the previous, several firms allow the rights of ownership to foreign investors but in the present time prospect of emerg- ing economy of Pakistan, numerous firms try partnerships with foreign investors. According to these challenges, purpose of present research is to explore the influence of corporate gover- nance dimensions such as managerial ownership, board of directors and (AuCo) on COC. The major objective of the research is to examine the moderation role of foreign owner- ship between CoGo mechanism and COC in non-financial firms. According to Modigliani and

---

[*]Corresponding author.
Email: furqaan_ahmad@ymail.com

Miller (1958), how much COC is required for any com- pany in the world and which financial resources are used to get assets in which revenues are uncertain and which fund could be acquired by many different investors, pure equity, pure debt source. Therefore, very fewer interest of foreign investors in for investment due to the instable economy, security risk and political risk. The domestic firms are mostly focusing on family own- ership and do not focus on foreign ownership. Due to the minor quantity of foreign shareholder in non-manufacturing industries country moves shortage of foreign reserves.

How the firm board members and (AuCo) members handles the foreign investors and management shareholders. Foreign investors can reduce the issues between COC and governance practices. The importance of this paper is to provide theoretical beneficial way to decision makers for increase or adapt the scope and wisdom of CoGo determinates, supporting the expansion of a suitable CoGo environment in the non-financial firms. The non-financial firms can play a vital role for improving the foreign re- serves with increasing the foreign ownership in their pattern of shareholding. The study will provide the multi theoretic concepts for improving the COC and policies about corpo- rate governance practices. This is practical beneficial for the following players: stock exchange, government, practitioner, Academia and also non-financial industries regarding to the data anal- ysis. The research paper addresses the question; is foreign ownership moderate the association between CoGo mechanism and COC? Section two discuss about lit- erature review, section three talks about methodology of research, section four outcomes and discussion, section five focus on findings and recommendations.

1.1   Gap Analysis

Therefore, no significant research has been done in respect of Pakistan such as foreign ownership as moderator among COC and CoGo. Previously many investiga- tions found that significant role of (AuCo) size with COC or firm performance (Zraiq and Fadzil, 2018). But in the past studies some missing findings regarding to the audit committee so now this research work adding two new proxies such as independent committee and committee meetings for the im- provement of clear findings. García Martín and Herrero (2020), found that board size significant relation with firm capital, these findings provide an incomplete information about board of director significant role with cost of capital. So, in this study added a board meetings and board independency for fairness and clear relationship of board of director and cost of capital.

1.2   Problem Statement

Due to the globalization, various challenges and issues are facing to the smaller and larger size firms in the modern world. So according to the new policies regarding interest rate and tax rates however, the company's board of directors' and audit committee members handle these specific challenges and its influence on cost of capital of the company in Pakistan such as developing country. In the sense of audit committee members, the significance of the efficiency of audit committees members has raised in the wake of the economic scandals that happened in the last two eras and can be discussed in further by (Zraiq and Fadzil, 2018). The use of the firm's financial statements and corporate governance mechanism is a general issue all over the world. In the emerging market region such in Pakistan, mostly with the increasing number of corporate gossips and defaults, cost of capital availability has create a main concern by (Jamaludin et al., 2015).

1.3   Importance of the Study

The study conclusions may provide a theoretical beneficial way to decision makers to increase or adapt the scope and wisdom of corporate governance to encouraging and supporting the expansion of a suitable corporate governance environment in the non-financial companies. The study also discusses the multi theoretic concepts for improving the capital structure and foreign ownership role in our non-financial firms. This study helpful for stock exchange, government, practitioner, Academia and also non-financial industry about decision making.

2   Literature Review

According to Code (1992), explain corporate governance "it's an arrangement by which firms are directed and controlled". In recent studies, providing the literature on the effect of internal corporate governance mechanisms on cost of capital, cost of equity and cost of debt with the help of two theories such as agency and pecking order theory. According to the Pfeffer and Salancik (1978), stated the board size of firm significantly/positively influence the cost of capital. Board size negatively affect the cost of capital in manufacturing firms by (Ali Shah et al., 2009; Singhal et al., 2017). Board of director size insignificantly influence the cost of capital study supported by (Singhal et al., 2017; Wan Mohammad et al., 2018). Independent directors and minority investors protection have been analyze has an important negative influence on a company's equity financing and capital by (Anderson, 2004; Ashbaugh et al., 2004). According to Sultana et al. (2015), board member of the firm independency significantly/positively affect the cost of capital of the firms. According to the study of Ali Shah et al. (2009); Singhal et al. (2017), independent board negatively linked with cost of capital in manufacturing industry. The association between corporate governance and the performance of firms has been extensively documented in the literature (Guney et al., 2020; Khatib and Nour, 2021). However major purpose of the corporate governance is to defend outside investors, containing both creditors and shareholders, against expropriation by managers or controlling shareholders (Cumming et al., 2019).

According to the research by Hermalin and Weisbach (1991); Rahman and Ali (2006), examined that there was no relation among cost of capital and the independent directors. These results supported to the study findings in developing countries positive association between board meetings and cost of capital by (Gavrea et al., 2012; Liao et al., 2018). Past studies examined the board characteristics significantly influence the cost of capital by (Johl et al., 2015; Shukeri et al., 2012). According to the study McMullen (1996), of analyzed that audit committee member size significant positive affect on the company cost of capital. The research examined by the Alzeban (2015); Arens (2013), analyzed that audit committee significantly/positively influence the cost of capital of the firms. According to Al-Mamun et al. (2014); Kipkoech and Rono (2016), there was no association between audit committee member size and cost of capital. According to Al-Mamun et al. (2014), there was a significant connection between independent committee members and cost of capital and also find out no insignificant association between audit committee independence and cost of capital in non-financial industry. According to the study of Ali Shah et al. (2009); Wan Mohammad et al. (2018), independent committee members insignificantly positive influence on equity financing in non-financial manufacturing industry. According to the study outcome of Xie et al. (2003), analyzed that the number of audit committee meetings were negatively influence the performance of the firm. Audit committee meetings significantly influence the cost of capital in non-financing sector by (Kajananthan, 2012). In-

significant association among board meetings & cost of capital found by (Abbott et al., 2004; Beasley et al., 2000; Hsu et al., 2007; Kajananthan, 2012; Menon and Williams, 1994; Raghunandan et al., 1998a). Jensen and Meckling (2019), in their similar study have the initial working to measure the ownership shareholder and cost of capital of the firms with the support of agency theory model. Finalize the significant positive relationship among managerial ownership and cost of capital of the companies (Ali Shah et al., 2009; Berger et al., 1999; Kim and Sorensen, 1986). The managerial ownership significant influence on the cost of capital in manufacturing firms with negative consequences (Ali Shah et al., 2009; Bokpin and Arko, 2009; Elsayed and Wahba, 2013; Moh'd et al., 1998). According to Gedajlovic et al. (2005), previous studies findings significantly and negatively affected the cost of capital by the foreign ownership of the firms. According to the Indian study by Khanna and Palepu (1999), reported that a positive effect of foreign ownership on cost of capital of the non-manufacturing firms. To determine the more institutions of foreign ownership were effect on local companies, study also determining the effect of foreign ownership managers on equity cost and debt cost on the non-financial firm in Pakistan. In Pakistani markets, the association between foreign ownership and company level of cost of debt has not recognized. Previous negative theoretical perceptions and the empirical literature, the present research also was trying to found a significant positive connection between corporate governance and cost of capital with moderating role of foreign ownership in the non-financing manufacturing firms were recognized on Stock Exchange. According to the different past empirical evidence corporate governance is weak in Pakistan, so foreign owners want to improvement in corporate governance of non-financial firms, its best tool for gaining the interest of foreign owners and then they will make the most potential advantages for corporate governance and cost of capital stability. Leverage has a negatively/significantly effect on cost of capital, highlighting the companies that are capable to adopted more borrowings to get benefit of the debt financing tax pattern and minimize their cost of capital (Bozec et al., 2010; Pham et al., 2011). Financial leverage has a significantly/negatively related with cost of capital in non-financing area of Pakistan by (Al-Mamun et al., 2014; Pham et al., 2011).

2.1 Hypotheses of the Study

H_1. *The Board of director has an impact on cost of capital in non-financial firms.*

H_1. *Foreign ownership alters the relationship between board of director and cost of capital in non-financial firms.*

H_3. *Audit committee has an impact on cost of capital in non-financial firms.*

H_4. *Foreign ownership alters the association between audit committee and cost of capital in non-financial firms.*

H_5. *Managerial ownership has a significant impact on cost of capital in non-financial firms.*

H_6. *Foreign ownership alters the association between managerial ownership and cost of capital in non-financial firms.*

2.2   Research Model

The model of study in given below shows that mechanism of corporate governance: board of director, audit committee and managerial ownership are recognized as independent variables, cost of capital is dependent variable, includes foreign ownership as moderator and Leverage of firm used as control variable.
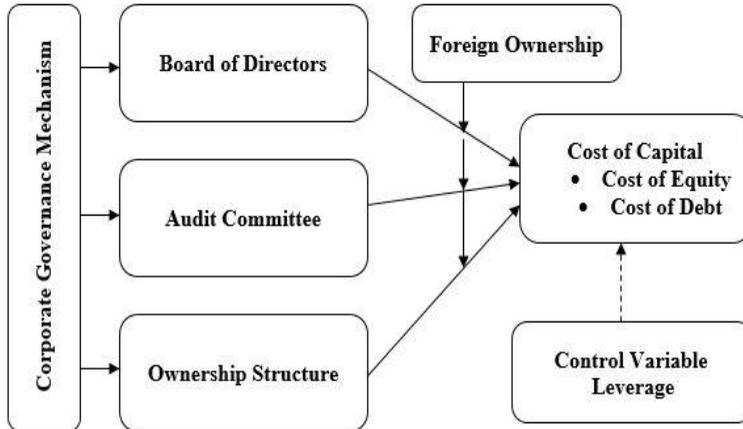

Figure 1: Research Model

2.3   Pecking Order and Agency Theory

It can be analyzed that cost of equity (COE) is the outcome predicted from the shareholders by depositing finance in the firm. The shareholder maybe concern that returns of shares can be collected from the dividends or in the shape of value increasing in their own share and it return of shareholders are considered as cost of equity for the company. However, the form of debt a company shows that sign of requirement for external financing. Pecking order theory has been promoted by Myers (1984), when he gave arguments that concept of equity is a less preferable its means for increasing the cost of capital.

Agency theory recommends that knowledge asymmetry and moral hazard will be higher for medium companies (Chittenden et al., 1996). Conflict among investors and creditors may arise because they perform diverse claims on the company debt finance policy. According to the concepts of agency theory, the sources of expert management format, in such a departure of ownership and management maybe final agency differences that are produced with inadequate work struggle of management treating in advantages choosing contributions with the help of one preference.

3   Research Methodology

This chapter contains research methodology that is used to explore the impact of corporate governance practices on cost of capital and highlighted the sources of data. The purpose of

this research is to examine the impact of corporate governance determinants on firms cost of capital. The population of the study was non-financial sector of Pakistan. The sample is of 108 listed non-financial firm on Pakistan Stock Exchange from the period covering 2011 to 2017. The data collected is secondary in nature and collected from the firm's annual reports and published statements of PSX. Different estimation techniques have been used in the study for analysis. Panel regression approaches were used in this study; ordinary least square test with different techniques (fixed effect, random effect model and common effect model were used to find out the strength of the study hypotheses. Model selection is on the basis of two criterions; likelihood ratio and Hausman test and significant level of variables.

3.1 Measurement of Variables

According to Massari et al. (2008), still Weighted average cost of capital approach were widely used in previous investigations. Weight of equity were considered as ratio of equity to debt plus equity. TC represent rate of tax on company income. Standard treatment is (1-Tax Rate) in this equation to which shows interest payments deductibility. However, cost of debt were minimize (Afkhami Rad, 2014).

$$WACC = Kd\ Rd + Ke\ Re\ (1\text{-}Tax\ Rate)$$

The study have three characteristics of board of directors; the 1st one proxy is board size which was dignified as the number of directors on the board, is the 2nd type of board independence was developed as independent directors divided on the total number of directors dignified by (Ali Shah et al., 2009; Gavrea et al., 2012). The 3rd dimension board meetings develop as the number of meetings present in a year (Qadorah and Fadzil, 2018). Variable has three proxies of audit committee the first proxy is measured as number of independent directors on the audit committee divided by the total number of directors on the audit committee developed and managerial ownership were measured as logarithm of the percentage of total shares held by executive directors divided by the total number of shares (Ali Shah et al., 2009). The 2nd dimension was measured as number of meetings held by audit committee members (Al-Matari et al., 2012). Third proxy were measured as the number of members held in audit committee measured by (Al-Mamun et al., 2014). Moderating variable foreign ownership has been measured with logarithm of the percentage of foreign ownership to the foreign investors measured by Tamimi and Al-Fayoumi (2011), and control variable leverage were measured as debt to asset ratio (Total Liabilities/Total Assets) by Pham et al. (2011).

3.2 Econometric Model

$$
\begin{aligned}
WACC_{(i,t)} = \beta_o &+ \beta_1 BOD_{(i,t)} + \beta_2\, AC_{(i,t)} + \beta_3\, OS_{(i,t)} + \beta_4 LEV_{(i,t)} + \\
&\beta_5 BOD_{(i,t)} \times FO + \beta_6 AC_{(i,t)} \times FO + \beta_7 OS_{(i,t)} \times FO + \varepsilon_{(i,t)}
\end{aligned}
\tag{1}
$$

WACC(i,t) = weighted average cost of capital, COE= Cost of Equity, COD=Cost of Debt, BOD=Board of Director, AC= Audit Committee, OS= Ownership Structure, LEV=Leverage, i= Represent Time Period, t= Sample Size.

According to Haussman test and likelihood test recommended the random effect model were more appropriate but their coefficients were mostly insignificant and unaccepted range

then model was not finalized for further analysis but the coefficients of common effect model were mostly significant so common effect model were applied for final interpretations.

4   Result and Discussion

The descriptive statistics test examines the summary of data that include average value (mean), lower value in the data set (minimum), higher value in data set (maximum), measurement of dispersion (standard deviation. The mean value talks about average of data, standard deviation tells about spread and measure of dispersion in the value of the data from the mean, standard deviation and mean are low due to the used as separately. Minimum and maximum tells about current series of data. Table 3, correlation analysis indicates that cost of equity, positively linked with weighted average cost of capital (WACC). The high correlation determines that both indicators are dependent variables and measurement of these both mostly similar data so these were highly correlated each other. The coefficient value of cost of equity and cost of debt (COD) shows negative correlation among cost of debt, cost of equity and weighted average cost of capital, due to the lower debt financing in non-financial firms and more inclusion of equity shares in weighted average cost of capital. The board of director independence (BODI), described that board independent director positively correlated with weighted average cost of capital, cost of equity cost of debt, board of director independence. In the next section board of director size (BODS) described that board of director size positively correlated with weighted average cost of capital. The board of director size shows that negative correlation between board of director size and cost of equity, cost of debt. In the next section board of director meetings (BODM) which shows that positive correlation among board meetings and weighted average cost of capital, cost of debt, board size and board meetings negatively linked with cost of equity. In the next section audit committee independence (ACI) which explains that negative correlation among audit committee independence and weighted average cost of capital, cost of equity, board size. The audit committee independence positively correlated with cost of debt, board independence, board meetings, board independence. In this next section audit committee size (ACS) positive correlation with weighted average cost of capital, cost of equity, board size, board meetings. The audit committee size negatively correlated with cost of debt, audit committee independence. Audit committee meetings positively correlated with cost of capital, cost of equity, board size, independent board, board meetings, audit committee size, audit committee independent and audit committee meetings negatively correlated with cost of debt. Managerial ownership positively correlated with cost of debt, board meetings, and board independence. Managerial ownership negatively correlated with cost of capital, cost of equity, board independence, board size, audit committee meetings and audit committee size. Foreign ownership positively correlated with cost of capital, cost of equity, board independence, board meetings, committee size, and committee meetings. Foreign ownership negatively correlated with cost of debt, board size, committee independence and managerial ownership.

Table 4.1: Description of Variable

Variable Name	Abbreviation	Measurement	Source
Cost of capital	COC	Weighted average cost of capital.	(Massari et al., 2008).
Cost of equity	COE	Total cost of shareholder equity	(Massari et al., 2008).

Cost of debt	COD	The total cost of debt.	
Board size	BS	A number of members on the board.	(Singhal, 2014; Sultana, 2015; Wan Mohammad et al., 2018).
Board independence	BI	Independent directors/ total number of Directors	(Abdul Rahman & Haneem Mohamed Ali, 2006; Ahmed Sheikh & Wang, 2011; Hermalin & Weisbach, 1991).
Board meetings	BM	Number of meetings	(Gavrea & Stegerean, 2012; Liao et al., 2018).
Audit committee size	ACS	Total member of the audit committee.	(Kipkoech & Rono, 2016; Wan Mohammad et al., 2018).
Audit committee independence	ACI	A number of independent directors/total number of audit committee members.	(Al-Mamun et al., 2014; Kipkoech & Rono, 2016).
Audit committee meeting	ACM	"Number of general meetings in a year"	(Abbott et al., 2004; Al-Mamun et al., 2014; Beasley et al., 2000; Hsu, 2007; Menon & Williams, 1994; Raghunandan et al., 1998).
Foreign ownership	FO	Percentage of foreign owners in the company.	(Gedajlovic et al., 2005).
Managerial Ownership	MO	Percentage of managerial ownership in the company.	(Moh'd et al., 1998) and (Bokpin & Arko, 2009).
Leverage	LEV	(TL/TA) is used to control for the effect of leverage.	

The above table shows that column one consists of variables in which dependent, independent, moderator, and control variable has been mentioned. In the second column abbreviation refers to the proxies of every variable: COC, COE, and COD are shown as the dependent variable, BS, BI, BM, ACS, ACI, ACM, MO are the independent variables, FO is moderating variable and LEV is control variable. In the third column shows that measurement of these proxies of variables and column fourth refers to the sources of past researchers about these variables.

In above Table 4.1, description about study variables has been explained. The mean value of WACC (weighted average cost of capital) is (0.11815) it describes the average non-financial

Table 4.2: Descriptive Statistics

Variable	Mean	Maximum	Minimum	Std. Dev.
WACC	0.11815	0.92500	-0.95300	0.23855
COE	0.57090	0.99500	-0.95800	0.33741
COD	0.32289	0.99100	-0.96700	0.30314
BODI	0.17745	0.71400	0.06700	0.10378
BODS	8.20238	16.00000	3.00000	1.71555
BODM	5.25529	19.00000	2.00000	1.83047
ACI	0.31894	1.00000	0.14300	0.12672
ACS	3.50265	7.00000	2.00000	0.77630
ACM	4.17989	8.00000	2.00000	0.56795
MO	27.55453	97.76000	0.00001	26.76798
FO	8.79501	77.39000	0.00100	18.43103
LEV	0.52359	1.49060	0.00011	0.23086

firms having 11.81% weighted average cost of capital with 23.85% of standard deviation. The minimum value is (-0.95300) and maximum value (0.92500). The reason of higher fluctuation in minimum and maximum value of WACC is up and down in equity financing and debt financing in non-financing firm of Pakistan. The mean value of cost of equity (COE) is (0.57090) it describes the average non-financial firms having 57.09% cost of equity with 33.74% of standard deviation. The minimum value is (-0.95800) and maximum value (0.99500). The reason of higher fluctuation in minimum and maximum value in cost of equity is difference capital structure of every firm some firms having greater equity financing and some low equity financing. The mean value of cost of debt (COD) is (0.32289) it describes the average non-financial firms having 32.28% cost of debt with 30.31% of standard deviation. The minimum value is (-0.96700) and maximum value (0.99100). The reason of higher fluctuation in minimum and maximum value in cost of debt is difference in capital structure of every firm some firms having greater debt cost and some lower debt cost. The average range of board of director independence (BODI) is 0.17745 which mean average non-financial firms having 17.74% independent directors in the board and standard deviation is 0.1037., minimum value 0.0670 and maximum value 0.7140. The board of director size average value is 8.20 which mean average non-financial firms having 8 members in board and standard deviation is 1.715, minimum value 3 and maximum 16. The board of director meeting average value is 5.25 which mean average non-financial firms having 5% members in board and standard deviation is 1.83, minimum value 2 and maximum 19. The sample mean value of audit committee independence (ACI) is 0.3189 which means average non-financial firms having 31% independent director in the board and standard deviation is 0.1267, minimum value 0.1430 and maximum 1.0. The average range of audit committee size (ACS) is 3.50 which means that average value of non-financial firms having 3% total audit committee members in the board and standard deviation is 0.7764, minimum value 2 and maximum value 7. The average range of audit committee meetings (ACM) is 4.17 which means that average

value of non-financial firms having 4% independent directors in the board and standard deviation is 0.5669, minimum value 2 and maximum value 8. The sample mean value of managerial ownership (MO) is 27.55 which means that average value of non-financial firms having 1% management ownership in the ownership structure and standard deviation is 26.73, minimum value 0.00001 and maximum value is 97.76. The fluctuation in management ownership is due the mostly firms in Pakistan owns by family ownership so less concern to give ownership to management or employees. The sample mean value of foreign ownership (FO) is -8.79 which means that average value of non-financial firms having 8% foreign owners in the ownership structure and standard deviation is 17.43, minimum value 0.001 and maximum value is 77.73. The higher fluctuation in the foreign ownership is depend on country because in Pakistan mostly family own firms and they less concern on foreign owners but higher value represents some multinational firms owned by under the mostly foreign ownership. The sample mean value of leverage (LEV) is 0.5235 which show that average range of non-financial firms having 52% firm growth in the firm's assets and standard deviation is 0.2308, minimum value is 0.00011 and maximum value is 1.490. The greater fluctuation in the leverage depends on firm financial strategies how they manage the debt ratio. Some firm concern debt to equity ratio but some focus on debt to asset ratio same as this study.

Table 4.3: Correlation Matrix

Variable	WACC	COE	COD	BODI	BODS	BODM	ACI	ACS	ACM	MO	FO	LEV
WACC	1.00											
COE	0.64	1.00										
COD	-0.32	-0.37	1.00									
BODI	0.12	0.18	0.25	1.00								
BODS	0.01	-0.24	-0.03	0.06	1.00							
BODM	0.01	-0.16	0.25	0.16	0.14	1.00						
ACI	-0.01	-0.05	0.21	0.23	-0.10	0.34	1.00					
ACS	0.07	-0.02	-0.06	0.16	0.60	0.01	-0.46	1.00				
ACM	0.10	0.15	-0.07	0.15	0.34	0.02	0.05	0.15	1.00			
MO	-0.29	-0.32	0.36	-0.20	-0.21	0.20	0.09	-0.04	-0.30	1.00		
FO	0.21	0.09	-0.05	0.02	-0.08	0.14	-0.04	0.01	0.00	-0.05	1.00	
LEV	-0.30	-0.57	0.53	-0.03	0.37	0.33	-0.03	0.17	0.10	0.13	-0.08	1.00

In above Table 3, correlation analysis analyzed no multi-collinearity issues in panel data of 7 years non-financial sector because values relay below the 0.7 correlation outcomes described the significant correlations all the values are below 0.7.

Table: 4.2, explored the correlation analysis among all CoGo practices and dependent variables. To evaluate strength and direction correlation was assessed. The results of correlation count between minus one and plus. The link between the model's variables is explained by the correlation. It's a typical technique for expressing basic connections without explicitly stating cause and response. If value below 0 then value shows that negative association and if positive

then shows that positive relationship among variables. (+1, -1) shows the perfect correlation among variables.

The board of director independence (BODI), described that board independent director positively correlated with weighted average COC, cost of equity cost of debt, board of director independence. In the next section board of director size (BODS) described that board of director size positively correlated with weighted average COC. The board of director size shows that negative correlation between board of director size and cost of equity, cost of debt. In the next section board of director meetings (BODM) which shows that positive corre- lation among board meetings and weighted average COC, cost of debt, board size and board meetings negatively linked with cost of equity. In the next section (AuCo) inde- pendence (ACI) which explains that negative correlation among (AuCo) independence and weighted average COC, cost of equity, board size. The (AuCo) indepen- dence positively correlated with cost of debt, board independence, board meetings, board inde- pendence. In this next section (AuCo) size (ACS) positive correlation with weighted average COC, cost of equity, board size, board meetings. The (AuCo) size neg- atively correlated with cost of debt, (AuCo) independence. (AuCo) meetings positively correlated with COC, cost of equity, board size, independent board, board meetings, (AuCo) size, (AuCo) independent and (AuCo) meetings negatively correlated with cost of debt. Managerial ownership positively correlated with cost of debt, board meetings, and board independence. Managerial ownership negatively correlated with COC, cost of equity, board independence, board size, (AuCo) meetings and (AuCo) size. Foreign ownership positively correlated with COC, cost of equity, board independence, board meetings, committee size, and committee meetings. Foreign ownership negatively correlated with cost of debt, board size, committee independence and managerial ownership.

Note: The above table depicts the results for linear panel data regression model with using the firms and 7 years fixed effects. The dependent variable is the WACC (weighted average COC) and the independent variables are mechanisms of CoGo. In further statistically significant level is 1%, 5% and 10 percent respectively.

Board of director has a significant influence on COC in non-financial firms. In above model BODI (board independence) and BODS (board size) found insignificant relation with COC. BODM (Board meetings) found significant relation with the COC. Similar results findings in the previous study Gavrea et al. (2012); Hermalin and Weisbach (1991); Liao et al. (2018); Rahman and Ali (2006); Singhal et al. (2017).

Foreign ownership alters the association among the board of directors and COC in non-financing the sector. In the above model board independence & board meetings found insignificant combined impact on COC. But foreign ownership alters the relationship between board size and COC. Therefore, (AuCo) members have a significant influence on the COC in non-financial firms. In above model ACI ((AuCo) in- dependence), ACS ((AuCo) size) and ACM ((AuCo) meetings) found insignifi- cant impact on COC. So, there is no direct influence of the (AuCo) on the cost of capital in the non-financial sector. In the past studies were found the same results (Abbott et al., 2004; Beasley et al., 2000; Hsu et al., 2007; Kipkoech and Rono, 2016; Menon and Williams, 1994; Raghunandan et al., 1998b). Study explores the foreign ownership moderation role between (AuCo) and COC in non-financial firms. In above model (AuCo) independence with interaction term of foreign ownership found insignificant relation with COC but (AuCo) size and (AuCo) meetings significant relation with COC. According to these values foreign ownership found positive moderation impact and also strengthens the relationship between (AuCo) and COC in non-financial firms. In above model MO (managerial ownership) found significant relation with COC significantly. The study has been found that managerial ownership negative

Table 4.4: Corporate Governance and Cost of Capital

Dependent Variable: WACC				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.306178	0.267649	1.143952	0.2553
BODI	-0.044278	0.284276	-0.15576	0.8765
BODS	0.005542	0.013586	0.407905	0.6842
BODM	0.027563	0.016577	1.662767	0.0994
ACI	-0.030101	0.177601	-0.16949	0.8657
ACS	-0.009099	0.03045	-0.29881	0.7657
ACM	-0.040797	0.061166	-0.66699	0.5063
MO	-0.020709	0.008141	-2.54367	0.0125
LEV	-0.301459	0.104163	-2.89412	0.0047
FO*BODI	-0.145771	0.110208	-1.32268	0.1889
FO*BODS	-0.021642	0.006859	-3.15519	0.0021
FO*BODM	-0.00038	0.005871	-0.06476	0.9485
FO*ACI	0.03545	0.070206	0.504943	0.6147
FO*ACS	0.017644	0.010141	1.739803	0.0849
FO*ACM	0.035677	0.016783	2.125741	0.0359
FO*MO	-0.004723	0.003694	-1.27866	0.2039
R-squared	0.313392	Akaike info criterion		-0.11257
Adjusted R-squared	0.21242	Schwarz criterion		0.263113
Prob(F-statistic)	0.000357			

direct and signif- icant negative affected the COC in non-financing sector of Pakistan. Similar findings in the past studies (Bokpin and Arko, 2009; Moh'd et al., 1998). Foreign ownership alters the connection among management ownership and COC in non-financial firms. In above model interaction term, found statistically insignificant. According to insignificant foreign ownership does not moderate the association between managerial ownership and COC in non-financing sector of Pakistan. The common effect model shows that value of R2 (0.3133) in the model which includes CoGo mechanisms shows only 31.33% COC examined through the independent variables, in other words variation in weighted average COC due to the CoGo mechanisms. In this study model also examined the impact of moderation effect through interaction term foreign ownership. First of all, we applied the moderation effect among board of directors and COC.

5   Conclusion and Recommendation

The study determines the influence of internal corporate governance determinants on cost of capital with moderating role of foreign ownership in non-financial companies of Pakistan as a developing economy during the 2011 to 2017. In this study first purpose were to explore the direct influence of corporate governance practices on dependent variables and the number two purposes main purpose is to explore the moderation impact through interaction term foreign ownership on dependent variable such as cost of capital. Study investigation measures of corporate governance by getting to the extensively accepted variables such as board of director directly influence the cost of capital and foreign ownership also moderate the linkage between board of director and cost of capital. Audit committee did not directly influence the cost of capital but foreign ownership also moderates the relationship between audit committee and cost of capital. Managerial ownership directly influences the cost of capital but foreign ownership did not moderate the relationship among managerial ownership and cost of capital.

The current study encourages for the benefits for the industrial improvement by retaining the best mechanisms in corporate governance. Whereas, all other policy makers, stakeholders, can take guidelines from this study and governmental bodies of also take a beneficial measure in governance sector. Board of governance should create w good workplace environment in order to hold good governance. Although that makes sense in principle, it may be challenging to describe and much more challenging to put abstract concepts like culture into practice. In addition, there is the problem of how to track and gauge company culture. It's hard to change business culture. A corporation's future is safeguarded when boards address culture pro-actively rather than reactively. This is how it also safeguards stakeholders like as vendors, shareholders, and workers.

Regulators examine every aspect of a corporation's activities carefully, including how seriously they treat governance. Authorities are aware that businesses with poor cultures are more likely to have bad behavior among their executives or staff. The perfect recipe for general underperformance and possible catastrophes is a weak business culture combined with poor employee behavior. A company's culture can put it into a downward cycle where it suffers financial loss, staff turnover, and perhaps legal issues. On the other hand, research has demonstrated that a favorable business culture boosts productivity and creates long-term shareholder value. Businesses with a positive corporate culture enhance their reputation and branding. They see that their clients are very devoted to them. These problems directly affect the corporate entity's general strength and profitability.

Including the board of directors, (AuCo) members, shareholders, foreign owners, employees and general public in non-financial firms adopt the reforms and re- structuring the financial tasks regarding to the COC in firm, these CoGo measures showed a significant role for the development of industry growth.

5.1   Limitation and Future Direction

Study model applies only on Pakistani non-financial firms. Future researcher will apply the same model in other regions of different countries with collecting the more years of data from financial or non-financial sector. Researcher can collect data from other two or more countries for conduct a comparative analysis. In the future inclusion of corporate governance mechanism like shareholders, auditors, accountability, transparency and fairness as independent variable.

References

Abbott, L. J., Parker, S., and Peters, G. F. (2004). Audit committee characteristics and restatements. *Auditing: A journal of practice & theory*, 23(1):69–87.

Afkhami Rad, S. (2014). *The relationship between corporate governance practices and cost of capital in large listed companies of New Zealand and Singapore*. PhD thesis, University of Waikato.

Al-Mamun, A., Yasser, Q. R., Rahman, M. A., Wickramasinghe, A., Nathan, T. M., et al. (2014). Relationship between audit committee characteristics, external auditors and economic value added (eva) of public listed firms in malaysia. *Corporate Ownership & Control*, 12(1):899–910.

Al-Matari, Y. A., Al-Swidi, A. K., FADZİL, F. H. B. H., and Al-Matari, E. M. (2012). Board of directors, audit committee characteristics and the performance of saudi arabia listed companies. *International Review of Management and Marketing*, 2(4):241–251.

Ali Shah, S. Z., Butt, S. A., and Hassan, A. (2009). Corporate governance and earnings management an empirical evidence form pakistani listed companies. *European Journal of Scientific Research*, 26(4):624–638.

Alzeban, A. (2015). Influence of audit committees on internal audit conformance with internal audit standards. *Managerial Auditing Journal*.

Anderson, J. C. (2004). *Business market management: Understanding, creating, and delivering value*. Pearson Education India.

Arens, A. (2013). A., randal j. elder, and mark s. beasley.(2013). *Auditing and assurance services*.

Ashbaugh, H., Collins, D. W., and LaFond, R. (2004). Corporate governance and the cost of equity capital. *Emory, University of Iowa. Retrieved on January*, 26:2006.

Beasley, M. S., Carcello, J. V., Hermanson, D. R., and Lapides, P. D. (2000). Fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms. *Accounting horizons*, 14(4):441–454.

Berger, A. N., Demsetz, R. S., and Strahan, P. E. (1999). The consolidation of the financial services industry: Causes, consequences, and implications for the future. *Journal of Banking & Finance*, 23(2-4):135–194.

Bokpin, G. A. and Arko, A. C. (2009). Ownership structure, corporate governance and capital structure decisions of firms: Empirical evidence from ghana. *Studies in Economics and Finance*.

Bozec, Y., Bozec, R., and Dia, M. (2010). Overall governance, firm value and deviation from one share: one vote principle. *International Journal of Managerial Finance*.

Chittenden, F., Hall, G., and Hutchinson, P. (1996). Small firm growth, access to capital markets and financial structure: Review of issues and an empirical investigation. *Small business economics*, 8(1):59–67.

Code, C. (1992). The financial aspects of corporate governance. *London: The Committee on the Financial Aspects of Corporate Governance and Gee and Co. Ltd*.

Cumming, D., Meoli, M., and Vismara, S. (2019). Investors' choices between cash and voting rights: Evidence from dual-class equity crowdfunding. *Research Policy*, 48(8):103740.

Elsayed, K. and Wahba, H. (2013). Reinvestigating the relationship between ownership structure and inventory management: A corporate governanceperspective. *International Journal of Production Economics*, 143(1):207–218.

García Martín, C. J. and Herrero, B. (2020). Do board characteristics affect environmental performance? a study of eu firms. *Corporate Social Responsibility and Environmental Management*, 27(1):74–94.

Gavrea, C., Stegerean, R., and Ilieş, L. (2012). Business strategy, structure and organizational performance. *Studia Universitatis Babes-Bolyai, Negotia*, 57(3).

Gedajlovic, E., Yoshikawa, T., and Hashimoto, M. (2005). Ownership structure, investment behaviour and firm performance in japanese manufacturing industries. *Organization Studies*, 26(1):7–35.

Guney, Y., Karpuz, A., and Komba, G. (2020). The effects of board structure on corporate performance: Evidence from east african frontier markets. *Research in International Business and Finance*, 53:101222.

Hermalin, B. E. and Weisbach, M. S. (1991). The effects of board composition and direct incentives on firm performance. *Financial management*, pages 101–112.

Hsu, M.-H., Ju, T. L., Yen, C.-H., and Chang, C.-M. (2007). Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations. *International journal of human-computer studies*, 65(2):153–169.

Jamaludin, N. D., Sanusi, Z. M., and Kamaluddin, A. (2015). Board structure and earnings management in malaysian government linked companies. *Procedia Economics and Finance*, 28:235–242.

Jensen, M. C. and Meckling, W. H. (2019). Theory of the firm: Managerial behavior, agency costs and ownership structure. In *Corporate Governance*, pages 77–132. Gower.

Johl, S. K., Kaur, S., and Cooper, B. J. (2015). Board characteristics and firm performance: Evidence from malaysian public listed firms. *Journal of Economics, Business and Management*, 3(2):239–243.

Kajananthan, R. (2012). Effect of corporate governance on capital structure: case of the srilankan listed manufacturing companies. *Researchers World*, 3(4):63.

Khanna, T. and Palepu, K. (1999). Policy shocks, market intermediaries, and corporate strategy: The evolution of business groups in chile and india. *Journal of Economics & Management Strategy*, 8(2):271–310.

Khatib, S. F. and Nour, A.-N. I. (2021). The impact of corporate governance on firm performance during the covid-19 pandemic: Evidence from malaysia. *Journal of Asian Finance, Economics and Business*, 8(2):0943–0952.

Kim, W. S. and Sorensen, E. H. (1986). Evidence on the impact of the agency costs of debt on corporate debt policy. *Journal of Financial and quantitative analysis*, 21(2):131–144.

Kipkoech, S. R. and Rono, L. (2016). Audit committee size, experience and firm financial performance. evidence nairobi securities exchange, kenya. *Research Journal of Finance and Accounting*, 7(15).

Liao, L., Lin, T. P., and Zhang, Y. (2018). Corporate board and corporate social responsibility assurance: Evidence from china. *Journal of Business Ethics*, 150(1):211–225.

Massari, M., Roncaglio, F., and Zanetti, L. (2008). On the equivalence between the apv and the wacc approach in a growing leveraged firm. *European Financial Management*, 14(1):152–162.

McMullen, D. A. (1996). Audit committee performance: An investigation of the consequences associated with audit committees. *Auditing*, 15(1):87.

Menon, K. and Williams, J. D. (1994). The use of audit committees for monitoring. *Journal of accounting and public policy*, 13(2):121–139.

Modigliani, F. and Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, 48(3):261–297.

Moh'd, M. A., Perry, L. G., and Rimbey, J. N. (1998). The impact of ownership structure on corporate debt policy: A time-series cross-sectional analysis. *Financial Review*, 33(3):85–98.

Myers, S. C. (1984). Capital structure puzzle.

Pfeffer, J. and Salancik, G. (1978). A resource dependence perspective. In *Intercorporate relations. The structural analysis of business*. Cambridge University Press Cambridge.

Pham, P. K., Suchard, J.-A., and Zein, J. (2011). Corporate governance and alternative performance measures: evidence from australian firms. *Australian Journal of Management*, 36(3):371–386.

Qadorah, A. A. M. and Fadzil, F. H. B. (2018). The relationship between board size and ceo duality and firm performance: Evidence from jordan. *International Journal of Accounting, Finance and Risk Management*, 3(3):16–20.

Raghunandan, K., Rama, D. V., and Scarbrough, D. P. (1998a). Accounting and auditing knowledge level of canadian audit committees: Some empirical evidence. *Journal of International Accounting, Auditing and Taxation*, 7(2):181–194.

Raghunandan, K., Rama, D. V., and Scarbrough, D. P. (1998b). Accounting and auditing knowledge level of canadian audit committees: Some empirical evidence. *Journal of International Accounting, Auditing and Taxation*, 7(2):181–194.

Rahman, R. A. and Ali, F. H. M. (2006). Board, audit committee, culture and earnings management: Malaysian evidence. *Managerial auditing journal*.

Shukeri, S. N., Shin, O. W., and Shaari, M. S. (2012). Does board of director's characteristics affect firm performance? evidence from malaysian public listed companies. *International business research*, 5(9):120.

Singhal, N., Suryawanshi, P., and Mittal, G. (2017). Crafting responsible management practices in business school learning outcomes: an indian case study. *Vision*, 21(1):46–62.

Sultana, N., Singh, H., and Van der Zahn, J.-L. M. (2015). Audit committee characteristics and audit report lag. *International Journal of Auditing*, 19(2):72–87.

Tamimi, A. and Al-Fayoumi, N. (2011). The influence of foreign ownership on capital structure of non-financial firms: Evidence from amman stock exchange. *University of Jordan*, 12(3):87–106.

Wan Mohammad, W. M., Wasiuzzaman, S., Morsali, S. S., and Zaini, R. M. (2018). The effect of audit committee characteristics on financial restatements in malaysia. *Journal of Asia-Pacific Business*, 19(1):4–22.

Xie, B., Davidson III, W. N., and DaDalt, P. J. (2003). Earnings management and corporate governance: the role of the board and the audit committee. *Journal of corporate finance*, 9(3):295–316.

Zraiq, M. and Fadzil, F. (2018). The impact of audit committee characteristics on firm performance: Evidence from jordan. *Scholar Journal of Applied Sciences and Research*, 1(5):39–42.