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The Moderating Role of Corporate Governance on the Relationship between Capital Structure and Financial Performance: Evidence from Manufacturing Sector of Pakistan

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Abstract

The key purpose of this research paper is to explore the moderating effect of Corporate Governance on the relationship between accounting base financial performance i.e. ROA, and ROE and Capital Structure of 173 Manufacturing firms listed in KSE of Pakistan for the period of 2009 to 2014. In this study multiple regression method is used under fixed effect regression model approach on panel data. The empirical results show that the inclusion of Corporate Governance Index (CGI) as moderating variable has influenced the interaction between Capital Structure and Financial Performance, which is positively significant. The result is generally found that the most of Pakistani manufacturing listed firms pursue good corporate governance mechanism and use good and optimal level of Capital Mix to get the better and high financial performance. Furthermore, the corporate governance sub-indices i.e. board structure (BOD-I) and transparency & disclosure (DISC-III) both also have positive and statistically significant association with both firms performance variables: ROA and ROE. Moreover, the ownership structure sub-index (OWS-II) has not significant influence on financial performance. In last, the capital structure also has positive relationship with financial performance, interestingly about 70 per cent of Capital is financed by Equity capital and the Debt capital signifies 30 per cent only. The core significance of this paper is to investigate the impact of Corporate Governance practices on financial decisions from the Pakistani perspective.

Key words: *Corporate Governance Index, Capital Structure, Financial performance, Manufacturing Sector.*

JEL classification: *C51, M15, M31*

Introduction

Corporate governance is basically involves in fare balancing of interests of the corporate investors and stakeholders in a corporation. It is a method of leading the firms to cut down their principal and agent conflict, escalate the investor's confidence, firm goodwill, shareholders wealth and investment opportunities. It also provides the right direction to the firms that how the firms should work and be supervised.

Heretofore, most of studies have been explored the effect of Capital Structure on firm performance but the effect of Corporate Governance (CG) on financial decisions and firm Performance has received slight consideration in Pakistan. The purpose of this research is to scrutinize the relationship between leverage levels and firm performance with moderating impact of corporate governance practices of listed manufacturing firms of Pakistan. Mostly, the previous literature shows the positive association between corporate governance characteristics and capital mix. (Abor 2007) Stated the significant and positive connection between Corporate Governance practices (CG) and financial decisions. Furthermore, the firms having a good corporate Governance Practices has more chances to get debt financing then those have not implement the good corporate governance practices, such firm are able to pay off their dues, interest and debt on time. On the other hand, (Butt and Hasan 2009) found the negative association between Corporate Governance Indicators i.e. board size & managerial shareholding and capital structure.

Corporate Governance & its Importance

The main task of the Corporate Governance (CG) is to handle all the stakeholders those have controlling influence in a firm such as shareholders, suppliers, and creditors (Johnson, Boone et al. 2000). Moreover, sound and effective corporate governance (CG) practices brings imperative growth in the financial market by increasing shareholders self-confidence and appropriate administration of the portfolio investments. (Mitton 2004) Mentioned that good Corporate Governance (CG) practices have greater dividend payout (DPS) ratio and better for rights protection for all stakeholders.

Corporate Governance helpful for society welfare since it is not only relevant to the business activities. It is also grateful for the development of economy of any country. Nowadays, firms have established a new concept / approach such as Corporate Social Responsibility (CSR). Corporate Governance has substantial and positive impact on Corporate Social Responsibility (CSR) reporting (Khan 2010) & (Sharif and Rashid 2014). Moreover the results also found that corporate social responsibility (CSR) has significant and negative association with the corporate governance element: Foreign Directors (Sharif and Rashid 2014).

Capital Structure & its Importance

Financial Decisions are crucial, fundamental and much important for any business in all around the world. Capital Structure is the mixture of short term and long term debt. Financial decision about capital structure provides the clear direction to firm financies for overall operations and growth to achieve the organizational goals by using numerous financial resources. (Bokpin and Arko 2009) indicate that the financial decision is important because such decision has organizational power to deal with competitive environment. (Saeed, Gull et al. 2013) mentioned that it is very hard to made a decision about capital structure of the firm. Financial managers are challenging many complications for setting the best possible and optimal capital structure to maximize the organization value and minimize the cost of investment. Financial decisions are affected due to different factors such as Financial Planning, Trade Risk, Company's Tax Exposure, condition of stock market, Cost of Debt, political environment, Business Operational risk, Financial Risk and regulatory and governing framework.

Corporate Governance & Financial Performance

Corporate Governance rules, regulations, policies and mechanism have great impact on the company performance. It also takes the perfection in the firm cash flows that is shared among stakeholders (Black, Jang et al. 2006). The results display significant and positive relationship between index of CG characteristics and firm performance and negative association between the market valuation and index of corporate governance practices. Moreover, the results also point out that audit committee and board of directors were positively linked with firm performance but negative relationship between audit committee and market valuation (Munisi and Randøy 2013). The internal corporate governance practices index have negative impact on the bank financial performance (Dedu and Chitan 2013).

An Overview of Corporate Governance In Pakistan.

Currently, the understanding about the significance of Corporate Governance practices is growing in Pakistan. A lot of work has been done by Securities and Exchange Commission of Pakistan (SECP) for the development of Corporate Governance code 2012. The SECP make the regulatory framework and build the rules, regulations and standards for firms. In Pakistan the Securities and Exchange Commission of Pakistan is the main regulator while the state bank of Pakistan (SBP) is the secondary. Moreover, "Pakistan Institute of Corporate Governance (PICG)" an institute of Corporate Governance has formed by the Government of Pakistan for the implementation of good Corporate Governance practices, accountability standards and balance demonstration through code of Corporate Governance 2012.

The Key components of Corporate Governance described in Corporate Governance Code 2012 are:

- Board Size
- Audit related committee
- Disclosure of financial statements
- Ownership structure
- CEO Duality
- Directors' remuneration
- CEO Remuneration

Importance of Manufacturing Sector of Pakistan

Unquestionably, manufacturing sector is most important and key sector of Pakistan with multi-dimensional activities of several sub sectors, surprisingly, its contribution to Pakistan exports is about 75%. It provides a vital contribution to the Pakistan Gross Domestic product (GDP), accounts for 13.4 percent of Gross Domestic Product. Moreover, large scale manufacturing leading to the whole sector with 10.6 percent of GDP. According to Pakistan economic survey 2014-2015 the major buyers of textile products include UK, Hong Kong, USA, France China, South Korea, Japan, Turkey and Bangladesh. But due to competitive pressure there is much need to improve our policies, strategies for reformation and growth in manufacturing sector. All Pakistan Textile Mills Association (APTMA) is working as a trade association of firms.

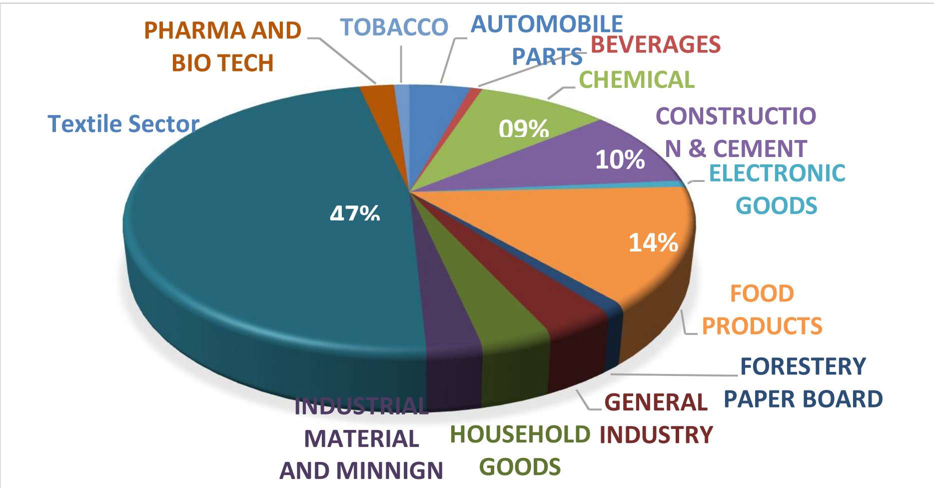


Figure 1: Pie Chart of Listed Manufacturing Sector of Pakistan

Total number of listed firms in manufacturing sectors are 378 with 14 sub-sectors, food product and construction & cement have 14% &10% contribution to manufacturing respectively, while the remaining other sub sectors having slight contribution about less then 10% each, with the exception of textile sectors having 180 firms (47% of total manufacturing sector).

Research Problem

Corporate Governance practices effectiveness level in developing countries is under discussion since last fifteen years and these developing and emerging countries markets are looking for appropriate Corporate Governance Mechanism. Poor Corporate Governance does not only lead to the risky financing, poor performance, but also cause for macroeconomics crises (Claessens, Djankov et al. 2002), like as1997 East Asia Crises. The relative poor performance of the corporate governance in the Asian market made the corporate governance a slogan in the development planning for developing countries, of which Pakistan is no exception (Berglof and von Thadden, 1999). In Pakistan large shareholders have the majority of control over the financials decisions such dominance of large shareholders effect the financials decisions of firms. The present study is to providing better grounds in this respect. In order to examine the moderating role of Corporate Governance Practices on the interaction between Firm Performance and Capital Structure multiple regression model is used. This study tries to explore the importance of Corporate Governance in Pakistan and how the good corporate governance practices effect the financial performance and financing decisions of manufacturing firms of pakistan.

Literature Review

Plenty of research has been conducted to measure the effect of Capital Structure on Financial Performance and impact of Corporate Governance (CG) Practices on company performance. Results of various studies show the different outcomes. (Abor 2007) indicate the positive relationship between Corporate Governance (CG) and leverage. Furthermore, the firms having a good Corporate Governance Practices has more chances to get debt financing then those have not implement the good corporate governance practices, such firm are able to pay off their dues, interest and debt on time.

(Mitton 2004) mentioned that good Corporate Governance (CG) practices have greater dividend payout (DPS) ratio and better for rights protection all stakeholders. Corporate Governance has significant and positive influence on CSR reporting. Moreover the results also found that corporate social responsibility (CSR) has significant and negative association with the corporate governance element: Foreign Directors (Sharif and Rashid 2014). Furthermore (Munisi and Randøy 2013) found that a significant and positive link between CGI and financial performance.

It was mentioned by (Liu 2006) that board is the vital element of corporate governance which has the power to effect on the management planning. Board size have positive influence on firm performance measures. It has positive and significant association with debt ratios (Kyereboah-coleman and Biekpe 2006). The board of director (BOD) is the top decision making authority of an organization. Board size and capital structure have positive and significant association and such relationship lead to better financial decision (Bokpin and Arko 2009). Board is an important indicator of corporate governance in term meaning of performance and boad size has positive association with the corporation performacne (Cheng 2008) while (Lee and Lee 2009) argue that board size has negative association with the value of corporation. According to (Gill and Biger 2013) large board size have not positively linked with manufacturing firms and not helpful to improve the efficiency of working capital management.

The outside directors have more insight knowledge and experience as compare to dependent director in any organization so they do not only lead to any organization, they also can influence the corporate governance practices, mechanism and system. (Peasnell, Pope et al. 2005) indicate that firms which hire independent outside directors and Non-Executive director have greater benefit in the market as compared to firms that don't employ Non Executive or independent outside directors. (Dunn 2004) found a positive and statistically significant link between independent directors and financial performance. The appointment of outside directors increase the firm financial performance as board members are not well known to the corporate governance mechanism (Bokpin and Arko 2009). The firms which have large percentage of independent director are more beneficial (Su and He 2012). Firms those have less number of outside directors have less proportion of leverage (Abor 2007).

A firm have different types of employees: Executive and non-Executive employees. The executive employees are those employees which have gross salary more than five lac rupees in the year. The corporate governance code 2012 put the restriction on the proportion of the Executive Directors, according to this the size of Executive Director must not be more than the 75% of the total board members. Moreover, the Executive members also retain the shares of the firm that should be reported in the categories of shareholdings in the annual report. (Khan 2010) mentioned the negative relationship between the existence of executive directors and CSR (Corporate Social Responsivity).

Duality means dual characteristics of a person, when a same person is working as chairman and Chief Executive officer of a company this is known as CEO duality. The CEO duality also effecting the financial decisions and lead to the agency problems. So it is advised that dual characteristics of a person should not be in the favor of the firms. But, diverse and mixed outcomes have been reported by various researchers relating to this matter. Firms get a significant financial results and greater share in the financial market if they have not CEO duality (Brown and Caylor 2009). (Abor 2007) indicate the positive and significant association between CEO duality and leverage. On the other hand, it was found that CEO duality is negatively associated with leverage, and CEO duality force to a firm to utilize its equity instead of debt (Bokpin and Arko 2009). (Butt and Hasan 2009) was also described that there is no significant and positive association between CEO duality and corporate financing behavior. Moreover, (Bokpin and Arko 2009) also suggested that CEO duality is not important indicator of corporate governance for the choice of financing Mix. CEO duality is also negatively correlated with capital structure (Ahmed Sheikh and Wang 2012). CEO duality helps in retaining a suitable and significant level of working capital in the firm (Gill, 2012).

(Butt and Hasan 2009) found the negative and insignificant correlation between Managerial shareholding and debt to equity ratio. (Su and He 2012) the state ownership and firm efficiency is negatively correlated while public and employee share ownership is positively correlated with the firm efficiency. There are different kinds of ownership structure due to variances in shareholder's cultural background. These shareholders may be

(1) Financial

(2) Non-financial

(3) Domestic

(4) Foreign

The ownership concentration indicates to the ownership of shares, right power and authority in few hands. Such ownership concentration may be family or specific institutions. Su and He mentioned significant connection between ownership concentration and firm efficiency(Su and He 2012). Moreover, more concentrated companies give their devotion to raising capital and wealth; they do not focus on transparency and disclosure which may lead to the bad corporate governance practices. The influence of ownership concentration has also significant effect on the debt ratio of company. A company ownership is held by the outside shareholders as well as management. Managers work for their own concern and to line up their interest with interest of shareholders.

Family ownership means the shares are held by the minor children, spouse, or any nominated person of the director. Presently, most of studies have mentioned that family firms do well or non-family firms. The family ownership also helpful in controlling of expropriation of shareholders rights but corporation must not be entirely owned by family ownership. Non-family firm s is associated less profitability and performance as compared to active family control firms (Margaritis and Psillaki 2010), while (Barontini and Caprio 2006) explore that non-family-controlled corporations are not statistically different from family firms in terms performance. The ownership of shares held by the other companies, financial institutions and Non-financial institutions creates a positive influence on company ownership structure. Institutional shares holding has positive impact on company performance as declare by (Butt and Hasan 2009). In addition, (Su and He 2012) mention that the ownership structure and financial decision have positive relationship.

(Klein 2002) mentioned that the firm transparency and disclosure lead to the company high performance. The sub index of transparency and disclosure have shown positive link with financial performance (Durnev and Kim 2005). The disclosure of Corporate Governance practices and related rules and regulations are necessary to gain the shareholders confidence. It put the pressure on management through corporate governance mechanism which leads the better investor's relation. So it is necessary by the corporate governance code 2012 that the disclosure of CG practice must be report in the annual report of a firm.

Clash between the managers and shareholders are the reason of agency problems. Obviously, conflict between principal and agent arises when management use its executive powers for their own interests. It is the responsibility of the management to work in the best interest of shareholders (principal) and as well as of firm. (Jensen and Murphy 1989) have found that the significant relationship between the compensation committee and board remuneration. (Ahmed Sheikh and Wang 2012) declared that director remuneration motivates the managers that will work towards the increment of investor's wealth. Moreover, the empirical results show the inverse association between director remuneration and capital structure. (Fahlenbrach and Stulz 2011) mentioned that the positive relationship board compensation and risk-taking during the recent crisis.

The core board of director's of a firm formulates a committee to help in creating transparent and trustworthy financial results. The committee members review the financial statements annually, six-monthly and quarterly basis. The purpose of this committee is to assure's the benefit of investors, banks and stakeholders. Such committee is known as the audit committee. (Lin and Chang 2012) has found the positive association with firm's performance. The empirical results shown that inconclusive relationship between the audits related governance and financial performance (Gill and Biger 2013).

Capital Structure is the mixture of long term debt and short term debt. (Saeed, Gull et al. 2013) indicate that it is very difficult to make capital structure decision of any organization. Capital structure creates the way through which a company makes financial decisions by combining the equity capital and mixture of short and long term debt to control its overall operations (Frank and Goyal 2009). Capital structure size differs from company to company due to different characteristics such as company growth, profitability, company size, asset structure, sales, company risk and working capital management planning (El-Masry, Al-Najjar et al. 2008). (Pratheepkanth 2011) indicate that the capital structure and firm's financial performance has positive relationship, whereas (Frank and Goyal 2009) declare that the capital mix and firm performance has negative and significant relationship.

Financial Performance indicates that how well an organization can use its financial resource and shows its financial health and fitness. It also indicates about the outcomes of a company's works, operations, policies and these outcomes shown in the firm's as return on equity (ROE), return on assets (ROA), return on investment, Dividend per share (DPS) and earnings per share (EPS) etc. Literature shows a strong and significant association between Capital mix and financial performance. (El-Sayed Ebaid 2009) declare the negative and significant affiliation between capital mix and firm performance for Indian firms. While (Pratheepkanth 2011) argue that the capital structure and firm's performance has statistically significant and positive relationship. Corporate Governance practices also have great effect on Financial Performance. (Munisi and Randøy 2013) indicate the progressive relationship between Corporate Governance index and firm performance.

There are four main perspectives have been explored by the scholars, these perceptions and perspectives are known as main approaches of financial performance (Azeem Qureshi 2007).

- Resource based approach
- Financial management approach
- Substantial growth approach
- Capital structure approach

ROA is used to estimate the effectiveness of resources used by the company for the creation of profit. Capital structure and Return on Assets (ROA) have negatively associated with each other (Pratheepkanth, 2011). This measure of accounting base performance indicate the earnings of a firm by using its funds (Bonn, Yoshikawa et al. 2004). The prime objective of a company is to produce profits and increase the shareholders wealth. The return on equity (ROE) is used for the measurement that how much profit is generated by the firm capital (Epps and Cereola 2008). It indicate about the management efficiency by using the shareholders wealth.

The company characteristics i.e. capital structure and corporate governance practices affect a company's financial performance in different ways. However there are different variables like as company size, risk and growth those can affect the company performance. These variables are known as control variables. A company has a number of control variables.The variable sales growth is treated as a proxy for firm growth, because this may affect the firm corporate governance practices and financial performance (Black, 2006a). Abor mentioned that risk is calculated as the variability of EBIT (Abor, 2007). Moreover, that, firm s with more degree of business risk have more probability of financial performance.

Research and Methodology

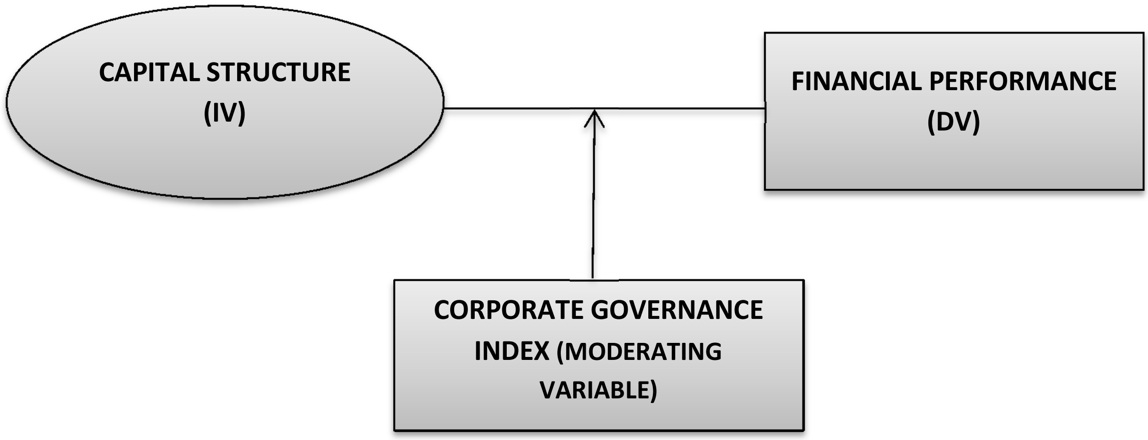
This study is designed to get the empirical evidence on relationship between the Corporate Governance, Capital Structure and Financial performance. Multiple regression method is used under fixed effect model approach on panel data to scrutinize the moderating impact of Corporate Governance (CG) on the association between Capital Structure and Financial Performance.

Sample & Variables

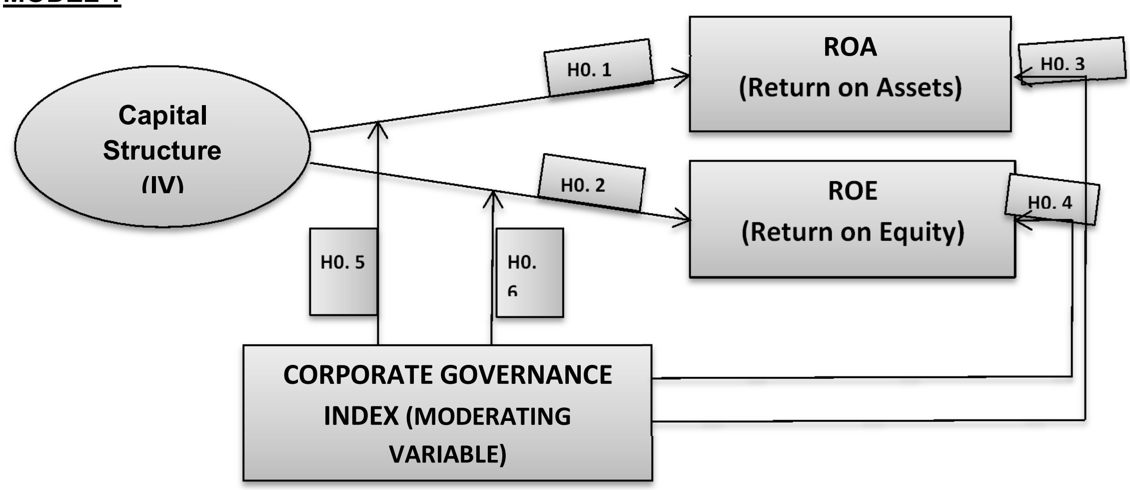
The total number of listed firms in manufacturing sectors are 378 with 14 sub-sectors, varies from 3 to 54 in different sectors, with the exception of textile sectors having 181 firms. Those firms are selected as sample which were doing business during the whole period of study and complete data for the period of 2009-14 which reduced the final sample to 173 manufacturing firms. Moreover, the firms neither have been delisted by the Karachi Stock Exchange (KSE) nor merged with any other firm. So, the required secondary data has acquired from the annual reports of the listed manufacturing firms on the Karachi Stock Exchange (KSE).

Conceptual / Theoretical Framework

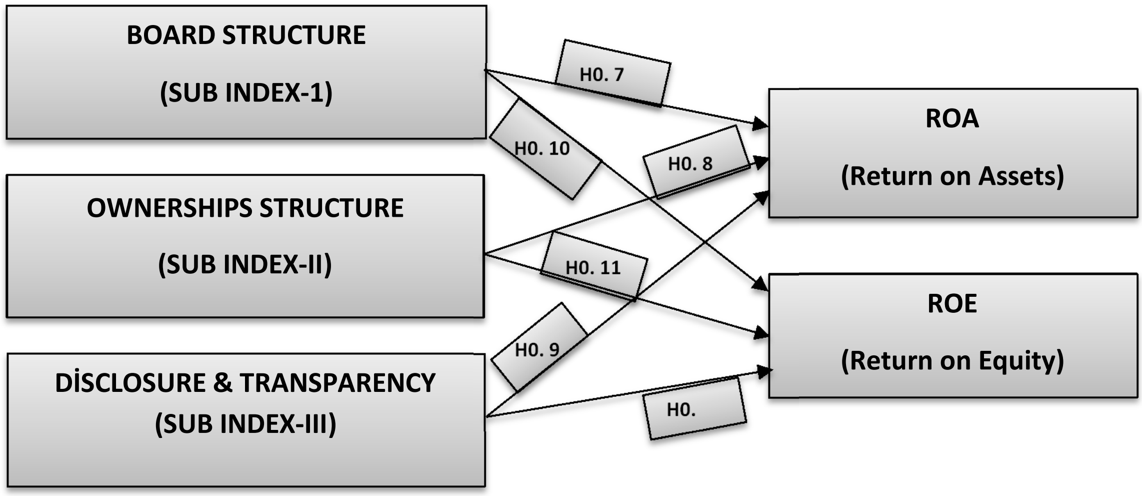
<u>General</u>



<u>MODEL 1</u>



MODEL 2



Research Hypotheses

To scrutinize the moderating influence of Corporate Governance Practices index on the association between firm performance and Capital Structure, following hypotheses are investigate in this study.

Table 1: Research Hypothesis

Sr.No.	Hypothesis
Ho.1	There is no significant and positive association between leverage levels and firm performance ROA
Ho.2	There is no significant and positive association between leverage levels and firm performance ROE
Ho.3	There is no significant and positive association between CGI and firm performance ROA
Ho.4	There is no significant and positive association between CGI and firm performance ROE
Ho.5	There is no significant and positive association between corporate governance characteristics and firm performance ROA and leverage levels.
Ho.6	There is no positive association between corporate governance characteristics and firm performance ROE and leverage levels.
Ho.7	There is no significant and positive association between Board structure index and firm ROA
Ho.8	There is no positive relationship between ownership structure index and firm ROA
Ho.9	There is no significant and positive relationship between Transparency & Disclosure structure index and firm ROA
Ho.10	There is no positive relationship between Board structure index and firm ROE
Ho.11	There is no significant and positive relationship between ownership structure index and firm ROE
Ho.12	There is no positive relationship between Transparency & Disclosure structure index and firm ROE

Operationalization of Variables

Table 2: Operational Definition and Abbreviations of Variables

Variables	Measurements	Abbrevi-ations	References
INDEPENDENT VARIABLES (Capital Structure)			
Capital Structure	LTD / Total Assets	**CAPS**	(Ebaid, 2014) , (Arshad Hasan, 2009), (Abor, 2007), (Godfred A. Bokpin, 2007)
DEPENDENT VARIABLES (Financial Performance)			
Return on Assets	Net Income before tax / Total assets	**ROA**	(Ebaid, 2014), (Shagufta Nasreen and Farida Khanam, 2014), (Gibson Munisi, 2012), (Abor, 2007), (Finkelstein, 1994).
Return on Equity	Net Income before tax/ Total Equity	**ROE**	(Shagufta Nasreen and Farida Khanam, 2014),(Ebaid, 2014) (Gibson Munisi, 2012), (Abor, 2007), (Finkelstein, 1994),
MODERATING VARIABLES (Corporate Governance)			
Corporate Governance Index	Aggregate average score of Corporate Governance index	**CGI**	(Gibson Munisi, 2012), (Balasubramanian, Black, & Khanna, 2010; Metrick, 2003)
Board Structure-I	Aggregate average score of sub index I board structure	**BOD-I**	(Gibson Munisi, 2012), (Balasubramanian, Black, & Khanna, 2010; Metrick, 2003)
Ownership Structure-II	Aggregate average score of sub index II ownership structure	**OWN-II**	(Gibson Munisi, 2012), (Balasubramanian, Black, & Khanna, 2010; Metrick, 2003)
Transparency & Disclosure-III	Aggregate average score of sub index III disclosure & Transparency	**DISCL-III**	(Gibson Munisi, 2012), (Balasubramanian, Black, & Khanna, 2010; Metrick, 2003)
CONTROL VARIABLES			
Firm Size	Size of the firm (log of total assets)	**SIZE**	(Amarjit S. Gill, 2013), (Nadeem Ahmed Sheikh, 2008), (Godfred A. Bokpin, 2007)
Firm Growth	Growth in sales for firm	**GROW**	(Amarjit S. Gill, 2013),(Nadeem Ahmed Sheikh, 2008), (Godfred A. Bokpin, 2007)
Risk	Variability of earnings for firm	**RISK**	(Amarjit S. Gill, 2013),(Nadeem Ahmed Sheikh, 2008), (Godfred A. Bokpin, 2007)

Analysis, Results & Discussion

Descriptive Statistics

Table 3: Descriptive Analysis

Variable	Descriptive Statistics of DV, IND & Moderating Variables						
	Mean	**Std.dev.**	**Minimum**	**Medium**	**Maximum**	**Jarque-Bera**	**Probability**
CGI	0.5478	0.2042	0.4504	0.5702	1.1118	55353.2	0.0000
Bod-I	0.8830	2.1226	5.0000	9.000	14.000	895.232	0.0000
OWN-ii	0.7412	1.1436	18.5710	76.709	89.569	13986.32	0.0000
DISCL-III	0.7627	0.4342	59.0600	69.090	87.345	15142.42	0.0000
INTRM	0.8733	9.7468	1.0000	8.0000	43.000	14352.38	0.0000
CAPM	0.3077	0.1055	-0.1408	0.1506	0.3897	15572.98	0.0000
ROA	07778	4.8354	-21.7185	0.4612	22.322	19139.80	0.0000
ROE	0.7531	0.5156	-0.7400	0.2669	0.4489	54756.70	0.0000
RISK	0.4372	8.0864	1.0320	8.4400	11.455	3999150	0.0000
grwt	0.2736	2.8127	2.3023	4.8154	9.0238	444.385	0.0000
Firm Size	0.1869	1.8641	14.5660	18.217	23.3418	300.023	0.0000

Table 3 Illustrates the summary of the descriptive statistics of the moderating, independent and control variables. The table shows the typical directions of variables used in this model. Descriptive results show that the score of CGI for the manufacturing sector firms of Pakistan ranges from 0.4504 to 1.1118 with mean and median of the firms is 0.5478 and 0.5702. These ratings shows that the manufacturing sector firms of Pakistan have a strong compliance of corporate governance practices and control (about 55%) and corporate governance possibly improves the corporate governance and decision making process. The maximum score for sub index I of board structure is 14.000 with minimum score 05.000 and average score is 88% which shows that Pakistani manufacturing firms have strong and effective board control. The minimum score of sub index II ownership structure is 18.571, maximum score is 89.569 and mean score is 74.12% which indicates that manufacturing companies are describe the greater concentration of ownerships.

The sub index III of transparency and disclosure has range of score from 59 to 87.345 and mean score of 76.270 which indicates that the manufacturing firms do fair disclosure and transparency in the annual reports and do compliance with Corporate Governance Code 2012 and SECP rules.

Regression Analysis

To check the moderating impact of corporate governance mechanism on the relationship between capital structure and financial performance multiple regression model have been used. Control variables i.e. size, growth and risk.

Research for Model (I)

$$ROA = \beta 0 + \beta 1\ (CAPS\ ) + \beta 2\ (CGI\ ) + \beta 3(CAPS * CGI\ ) + \beta 4(CNTL)$$

Three hypotheses (Ho1, Ho2, and Ho3) are framed for this model.

Table 4: Estimation Results for Model (I)

Dependent Variable: ROA Balance Panel Method: 1038 Period: 2009-2014			
Variables	**Regression Model Results**		
	Coefficient	**t-Statistic**	**Prob.**
CAP2	0.291225	2.754028	0.0060
CGI	0.043946	4.684219	0.0000
INTRM	0.360599	3.676545	0.0002
RISK	2.743074	4.069435	0.0001
GRWT	0.076343	4.612779	0.0000
ASTTSIZE	-0.064124	-5.864157	0.0700
R-Squared	0.640293		
Durbin-Watson Stat	1.558058		
Prob (F-Statistic)	0.000000		

The regression results in Table 4. Shows that corporate governance Index and capital structure (debt ratio) has statistically significant and positive influence on ROA with the coefficients 0.0439 & 0.291 respectively. The slop coefficient of interaction term 0.360 indicate that the moderating impact of corporate governance Index is also significant and positive impact on ROA as evident from coefficient and P-value (0.0002). So we reject the null-hypothesis. In addition, the control variables risk and growth both are also significant but one variable firm size is not significant as P-value 0.070 shown in the Table 4.

Furthermore, the value of F-statistics shows that test is appropriate and good as the evident from the p-value (0.000). Coefficient of determination (R-square) value shows that 64% variation in ROA is due to the exploratory variable i.e. good corporate governance practices, capital structue.

Research Model (II)

$$ROA = \beta 0 + \beta 1\ BOD + \beta 2\ OWN + \beta 3\ DISCL + \beta 4\ (CNTL)$$

Three hypotheses (Ho7, Ho8, and Ho9) are framed for this model.

Table 5: Estimation Results for ROA

Dependent Variable: ROA			
Variables	**Regression Model Results**		
	Coefficient	**t-Statistic**	**Prob.**
BOD-I	1.32238	3.46543	0.0001
OWN-II	-0.01121	-1.29322	0.0850
DISCL-III	0.64512	2.32984	0.0006
RISK	2.74307	4.06943	0.0001
GRWT	0.05634	7.61277	0.0001
F.SIZE	0.07335	2.34217	0.0050
R-Squared	0.55049		
Durbin-Watson Stat	1.65709		
Prob(F-Statistic)	0.00004		

It has been found that the model is overall a good fit as R-Square is 0.55049 which suggests that 56% variation in the dependent variable (ROA) has been explain by the change in exploratory variables, while the 44% variation in ROA is due to other factors. Moreover, the F-statistic also shows that the fitness of test is good as evident from P-value .00004.

The fixed effect regression result shows that the sub-indices of Corporate Governance Practices i.e. board structure (BOD-I) and disclosure and transparency (DISCI-III) both has *positive* and statistically significant relationship with ROA as the coefficient values 1.32238 & 0.64512 shown respectively. However, the sub index of ownership structure (OWN-II) has not significant association with the financial performance as P-value of this index is 0.085.

In last, the control variables risk, growth and firm size all are also statistically significant relationship with explained variable's ROA as evident from P-value and t-statistic.

Research Model (I)

$$ROE= \beta 0 + \beta 1\ (CAPS) + \beta 2\ (CGI\ ) + \beta 3(CAPS * CGI\ ) + \beta 4(CNTL)$$

Three hypotheses (Ho2, Ho4, and Ho6) are framed for this model.

Table 6: Empirical Results for Model (I)

Dependent Variable: **ROE** **Balance Panel Method:** **1038** **Period:** **2009-2014**			
Variables	**Regression Model Results**		
	Coefficient	**t-Statistic**	**Prob.**
CAP2	0.43551	3.28914	0.0000
CGI	0.65471	2.09176	0.0000
INTRM	0.01225	3.15832	0.0050
RISK	0.10214	3.34098	0.0051
GRWT	-0.07421	-1.612779	0.0600
ASTTSIZE	0.14221	4.34654	0.0000
R-Squared	0.47093		
Durbin-Watson Stat	1.60202		
Prob(F-Statistic)	0.00020		

The regression results in Table 6 shows that corporate governance Index and capital structure (debt ratio) has *positive* and statistically significant influence on ROA with the coefficients 0.65471 & 0.43551 respectively. The slop coefficient of interaction term 0.01225 indicate that the moderating impact of corporate governance Index is also significant and positive impact on ROA as evident from coefficient and P-value (0.0050). So we reject the null-hypothesis. In addition, the control variables risk and firm size both are also significant but one variable growth firm is not significant as P-value 0.06 shown in the Table 6.

Furthermore, the value of F-statistics indicates that test is appropriate and good. Coefficient of determination (R-square) value shows that 47% variation in dependent variable i.e. firm performance is as a result of the good governance practices, capital structure and intraction of of CGI

Research Model (II)

$$ROE = \beta 0 + \beta 1\ BOD + \beta 2\ OWN + \beta 3\ DISCL + \beta 4\ (CNTL)$$

Three hypotheses (Ho10, Ho11, and Ho12) are framed for this model.

Table 7: Empirical Results for Model (II)

Dependent Variable: ROE			
Variables	**Regression Model Results**		
	Coefficient	**t-Statistic**	**Prob.**
BOD-I	0.253286	3.46543	0.0001
OWN-II	-0.233280	-1.44322	0.0760
DISCL-III	-0.140120	-4.32984	0.0906
RISK	0.102143	2.09220	0.0001
GRWT	0.074212	3.69234	0.0000
ASTTSIZE	0.345221	2.84092	0.0000
R-Squared	0.590931		
Durbin-Watson Stat	1.692051		
Prob(F-Statistic)	0.000001		

The empirical result shoes that the model is overall a good fit as R-Square is 0.590931 which indicate that 59% variation in the dependent variable (ROE) has been explain by the variation in exploratory variables, while about 40% variation in dependent (ROE) is due to other factors. Moreover, the F-statistic also shows that test is appropriate and good as evident from P-value .000001.

The regression result shows that the sub-indices of Corporate Governance Practices, board structure (BOD-I) has statistically significant and positive relationship with ROA as the coefficient values 0.25328 shown in the table. However, the sub index of ownership structure (OWN-II) and disclosure and transparency (DISCL-III) both have not significant association with the financial performance as P-value of this index is 0.0760 and 0.0906 respectively.

In last, the control variables risk, growth and firm size all are also statistically significant relationship with explained variable's ROE as evident from P-value and t-statistic.

Conclusions

The empirical results of this stipulate that, the Corporate Governance Practices Index (CGI) is statistically significant and positively linked with firm accounting base financial performance. The empirical results also specify that the inclusion of Corporate Governance Index (CGI) as moderating variable has influenced the interaction between Capital Structure and financial performance, which is positively significant, that indicate, manufacturing sector firms are performing well due to the implementation and focus on Corporate Governance Practices, which provides the opportunity to firms to use of good and optimal level of capital structure, which leads to the better financial performance.

Moreover, the results also disclose that Pakistani listed manufacturing firms is characterize with large board size, implementation of independent board structure, separation of chairman and CEO, proportion of Executive and non-Executive Director and effectiveness of board with larger size. However, the ownership structure has not positively and significantly associated with firm performance, because, the most of

Pakistani manufacturing firm's ownership is in few hands or describe as family control business that lead to weak law enforcement and inequality in ownership structure and disproportion shareholders controlling power. So the result identify that, there must be a balance between the structures of ownership and shareholders controlling power. The transparency and disclosure is also positively linked to the firm performance but due to lack of resources, awareness and inefficiency of Pakistani manufacturing firms are incapable to show the full and fair disclosure in their financial statements.

So, it is recommended that the SECP (Security Exchange Commission of Pakistan) introduce the new reforms in the Internal and External Mechanism of Corporate Governance Code 2012.

The range and scope of this study is limited to the sample of Pakistan Manufacturing firms. The sample selection is only limited to the non-financial of Pakistan sector while the financial sector is ignored. Furthermore, sample size is small and comprised on 173 firms only. The decision criteria is based on secondary data (past data) while the present and expected data for future has been overlooked.

Finally, the study is based on the development of corporate Governance index which is depend upon internal mechanism. The external mechanism like as laws related to market operations, merger and acquisition and takeover has been ignored.

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