Corporate Governance Leadership Structure Impact on Firm Performance: A Panel Data Analysis

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Abstract

Corporate governance practices are allied with structures and processes by which members are concerned with the overall well being of the corporation and take hold of gauges to shield the interests and benefits of the stakeholders which leads to improvement of market performance of a firm. This study investigated the relationship between a firm's corporate governance structure and its impact on firm performance. Panel data regression model was applied to analyze publically available data of 102 firms listed in Karachi stock exchange covering a period of four years 2009-2012. The results showed that there is a significant relationship between the corporate governance structure and performance calculated as return on equity, return on assets and Tobin's Q ratio. Negative strong relationship is evident between CEO duality and firm performance. The CEO compensation is significantly and positively associated affects the performance of the firm. This study is important for the firms as it give insights about which composition of board can be effective for successful performance of manufacturing firms in the context of Pakistan.

Keywords : Corporate Governance, Karachi Stock Exchange, Leadership, Pakistan.

Introduction

It is believed that a good corporate governance structure is necessary to align the interest of agents and owner of corporations, to enhance the performance of companies, to minimize the misuse of powers by insiders and to monitor the managers' behavior towards investors' protection. Prime objective of corporate governance is to bring accountability, fairness,

transparency and independence in corporations in order to enhance the efficiency along with shareholders' wealth maximization. It evaluates the effectiveness of coordination mechanisms among board of directors and stock holders to avoid the corporate failure (Bynes, Paula, David, & Emily, 2003; M.C Jensen & Meckling, 1976). Existing literature reveals that firms with good corporate governance have higher performance, high valuation & low risk of bankruptcy (Ehikioya, 2009), he farther stated that there is a significant relationship between firm performance and ownership concentration (Chen, Kao, Tsao, & Wu, 2007; Demsetz & Lehn, 1985; McConnell & Servaes, 1990; Sarkar & Sarkar, 2000). Leadership structure of corporate governance takes into account the composition of management. It focuses on decision making role of management. It comprises of the number of members in board of directors, board composition, minority representation, CEO duality, CEO position and CEO tenure. For instance, one of the most important variables of leadership structure is board size used by (Wen, Rwegasira, & Bilderbeek, 2002). Some empirical evidence indicates that small board size (7 to 8 members) is effective in decision making because of ease in communication and decision making (Michael C Jensen, 1993). Further, the duality of CEO (CEO is also the chairman of board of directors) reduces conflicts between management and owners of a corporation due to effective monitoring. The ownership and leadership structure reveals that different corporate governance models can be formulated according to the objectives to be achieved. For instance, to analyze impact of corporate governance on firm performance, some of the researchers use ownership structure models that comprise of variables like fraction of shares owned by board of directors, employees, shareholders and financial institutions (Boubakri, Cosset, & Guedhami, 2005; Bozec, 2008; Ehikioya, 2009; Lemmon & Lins, 2003; Singh & Davidson III, 2003; Xu & Wang, 1999). Whereas leadership structure models include board size, board composition, CEO tenure, CEO duality, CEO compensation and executives' remuneration etc (Brickley, Coles, & Jarrell, 1997; Ehikioya, 2009; Lin, 2005; Wen *et al.,* 2002). The present study is based on leadership model of corporate governance. It investigates the impact of leadership aspects of corporate governance on firm performance for randomly selected 102 companies working in Pakistan taken from KSE for the period from 2009 to 2012.

Literature Review

Existing literature classifies corporate governance into two group's external and internal governance mechanisms. External mechanism which comprises of outside monitoring by debt holders and market for corporate control (Agrawal & Knoeber, 1996). Second is internal mechanism about which Chen *et al.* (2007) argued that internal governance mechanism is further based on two structures (a) ownership structure which describes the impact of ownership structure (insiders' ownership stake in firm and the impact of ownership concentration) on firm performance (b) leadership structure investigates that how internal structure (Board size & composition, CEO tenure & duality & compensation packages) influences the firm value (Fama, 1980). Literature reveals that relationship between firm performance and corporate governance structure might either be negative (Lehmann & Weigand, 2000), positive (Morck, Shleifer, & Vishny, 1988) or none (Bolton & Von Thadden, 1996; Burkart, Gromb, & Panunzi, 1997). Most of the empirical evidence demonstrates the impact of ownership structure on firm performance. For example Lemmon and Lins (2003) studied the impact of ownership structure covering a sample of 800 firms in eight East Asian countries on firm's value during the region's financial crisis. Singh and Davidson (2003) widen the work of Ang, Cole, and Lin (1999) to a large number of firms. They found that management ownership has a positive relationship with asset utilization but do not serve as a significant prevention to unnecessary discretionary expenses. Xu and Wang (1999) investigated the effect of ownership structure on the performance of public listed companies in China within the corporate governance mechanism. They found that the concentration and mix stock ownership of a firm do certainly significantly influence a company's performance. However, a little evidence and small literature exist regarding the impact of leadership structure on firm performance. Brickley *et al.* (1997) investigated the impact of separation in CEO duality, Chief executive officer and chairman of the board under the aspect of leadership structure on the performance of US firms. They, on the basis of previous empirical work stated that the costs of separation are greater than the benefits for the majority of large firms. Wen *et al.* (2002) studied the link between a few characteristics of the firm's capital structure and the corporate board of Chinese listed firms. Ever since, pioneer study by Berle and Means (1932) the implication for the impact of separation and control in large public corporations has gained recognition in corporate finance literature. They advocate that the

investors in corporation surrender their money to the controllers of corporations with the expectation of effective utilization of these resources in their best interests. They point out the resulting disparity of agency costs as, "the owners most emphatically will not be served by a profit seeking controlling group" (Berle & Means, 1932, p. 114). Their study, therefore, conveys the idea of different governance structures with respect to ownership concentration and their impact on firm performance.

Allen and Gale (2002) argue that effective corporate governance mechanism leads to effective corporate control over resources in organization. It makes managers accountable to stakeholder for allocation of organizational recourses. Such mechanism influences the managerial actions towards corporate value maximization. Among various, the prime objective of corporate governance is to restrict the opportunistic managerial behavior. It moderates agency problems and facilitates strategic decision making process. It is an internal instrument that bridges the gap between the interests of management and various stakeholders. Internal corporate governance mechanism comprises of ownership structure and leadership structure. The leadership structure comprises of role of board of directors and chief executive in formulating financial decisions. Further, it takes into account how board size, board composition, CEO tenure, duality and compensation affect financial structure decisions. Since, it is the management that controls the organizational resources, formulates operating and financial strategies and protects interests of scattered shareholder's therefore leadership structure of a firm is of great enormity in corporate strategy formulation (Baysinger & Butler, 1985; Friend & Lang, 1988).

Board Size

Board of directors' act as agents of the corporations and trustees of scattered shareholders. They are guardians of shareholders' wealth. Several studies investigated the impact of board size on firms' performance. Existing literature reveals mixed results on the issue. There is no consensus among researchers on ideal board size in a firm. For instance Ehikioya (2009) found 11 number of directors in board of 107 Nigerian companies covering 17 sectors listed in NSE.Wen *et al*. (2002) obtained 10 number of board directors of 60 Chinese listed firms covering a period of 1996-1998. J Pfeffer (1973) and Jeffrey Pfeffer and Salancik (2007)

reported a positive relationship between leverage and board size on the ground that more the number of board of directors in board of a corporation are, more will be their political, social and technical skills. Therefore, a firm can easily access the financial markets which will enhance the firm performance. The study of Anderson, Mansi, and Reeb (2004) reports that large board size tends to motivate the managers to smaller portion of debt which eliminates the cost and enhances firm performance. Yermack (1996) investigated the impact of board size on firm value. He argued that a large board size adversely affects the firm performance because of complex communication and delayed decision making process. Empirical results of their study showed that standard deviation from mean for board size should be less than two. Lipton and Lorsch (1992) supported the fact that large board size is a cause of high monitoring expenses which adversely impact the firm performance.

Hypothesis 1: Firm performance is negatively related to the board size.

Board Composition

It is believed that outside directors possess more managerial skills and endow with an independent sight on financial and non-financial matters. Existing literature enlightens mixed results about the impact of board composition on firm performance. Fama (1980) and Fama and Jensen (1983) argued that representation of outside directors in board of directors enhances monitoring capability. This monitoring capability positively influences managerial actions of both opportunistic executive directors and other managers who make strategic decisions. It is believed that outside directors put more pressure on managers to enhance firm performance in order to protect the stakeholders' interest. Firm with large number of outside directors tend to have low financial leverage which consequently causes the market value of equity to be high (Baysinger & Butler, 1985). Wen *et al.* (2002) argued that presence of more outside directors in board composition results in active monitoring of managerial actions which causes managers to enhance firm performance. Therefore, managers of such firms prefer low leverage. Firm with larger proportion of outside directors perform well (Brickley, Coles, & Terry, 1994). If it is assumed that larger proportion of outside directors puts more pressure to pursue more performance, we propose that:

Hypothesis 2: Firm performance is positively related to the percentage of outside directors on the board.

CEO Compensation

Existing literature reveals a positive relationship between firm performance and managerial compensation. Murphy and Jensen (1998) find that compensation packages bring alignment in managers' and shareholders' interests. Their results indicate that against every $1,000 increase in shareholders' wealth, chief executive officer's (CEO) compensation increases by $ 3.25. They argue that the results are significant but not strong. Hence, compensation policy seems to be inconsistent with principal-agent model. Dow and Raposo (2005) argued that CEO compensation is positively related to complex and challenging tasks. High compensation influences CEO decision making potentials. It has been observed that firm with highly paid CEO performs well. Matsumura and Shin (2005) argued that handsome compensation to CEO enhances short term value maximization but it is at the cost of stakeholders' resources. Core, Holthausen, and Larcker (1999) found a negative relationship between firm performance and chief executive officer salary.

Hypothesis 3: Firm performance is negatively related with CEO compensation.

CEO Duality

Chief executive officer of a corporation is responsible for all strategic decisions in organization. CEO is usually accountable to board of directors. CEO duality means whether CEO is also the chairman of board of directors. The research question arises about impact on strategic decisions and CEO monitoring when CEO also acts as chairmen of the board of directors. Fama and Jensen (1983) create a difference in the role of board of directors and CEO. They argue that CEO is vested with the authority of decision management where he or she makes proposals for allocation of resources. The board of directors is vested with the authority to control those decisions, that is, they approve and monitor CEO's strategic decision. They are of the opinion that separation in decision and control management is positively related to firm performance. Mir and Nishat (2004) empirically test the impact of corporate governance on firm performance in Pakistan. Their study comprises of a sample of 248 listed corporations from non-

financial sector for the period 2003. The empirical results reveal a negative impact of CEO duality on firm performance. They conclude that expected leverage has negative impact on firm performance which supports the proposition that firms with CEO duality tend to have more leverage where CEO behaves opportunistically. Hence, firms where CEO duality exists prefer more leverage to expand business beyond optimal size so that CEO may make use more perks and benefits. Since most of the existing literature reveals the positive impact of separation between the position of CEO and chairman of board of directors on firm performance because such separation in two key positions enable board of directors to monitor CEO actions effectively and restrict the opportunistic behavior of CEO, Ehikioya (2009) investigated the impact of corporate governance practices on Nigerian firms. The study sample comprises of 107 firms for the period from 1998 to 2002. The empirical tests support the hypothesis that CEO duality has adverse impact on firm performance. CEO duality may cause chief executive officer to get involve in opportunistic behavior therefore, it is hypothesized that:

Hypothesis 4: Firm performance is negatively related to CEO duality.

Control Variables

Firm age, firm debt, firm size and director's shareholding and outside directors are taken as control variables (Hall, Hutchinson, & Michaelas, 2004; Jordan, Lowe, & Taylor, 1998). Ehikioya (2009) tested the corporate governance structure and firm performance of Nigerian companies and he found negative relationship between directors shareholding and firm performance. Corporate governance structure is studied in many developed and in few developing countries by considering different variables of governance. Little research is conducted with the perspective of Pakistan by considering the leadership structure and focusing on panel data fixed and random model technique by considering recent years.

Methodology

This research is conducted to find the relationship between the performance and corporate governance structure of Pakistani companies. The study focused only on the companies listed in Karachi Stock exchange because it is the largest and authentic source of data collection. The sample size for this study is 102 firms covering a period of 4 years from 2009-

2012.The study is conducted only on listed companies because it is assumed that the listed companies follow and adhere all the standards of corporate governance set by the SECP according to the Companies Ordinance, 1984. In this study, our dependent variable is performance of the firm and independent variables used for the measurement of corporate governance characteristics. The performance of the company is measured by the return on equity, return on assets and Tobin's q. The analysis of the study is based on the information taken from the annual reports of companies over the four years from 2009-2012. Information of board composition, CEO compensation, CEO duality, outside directors, board composition director's shareholding and board size is taken from the annual reports of the companies. Due to the unavailability of data on CEO tenure, this variable is excluded from the study.

Table 3.1. Variables, Their Description and Expected Signs

Variables		Description	Major Studies
BC	Board composition	It is the percentage of outside directors in board and this is taken in log specifications	Wen *et al*. (2002)
BS	Board Size	Total number of board members.	Ehikioya (2009)
OD	Outside Directors	Number of outside/independent Directors at board	
CEOD	CEO Duality	CEO also performing the role of chairperson on the board than this variable is equal to 1, otherwise 0.	
DS	Director's share	It is calculated as the total number of shares held by the directors of a firm divided by the number of outstanding shares.	
FD	Firm Debt	This shows leverage of firm, calculated as ratio of total debt and total assets.	
FS	Firm Size	It is the total assets possess by a firm and measured as the natural logarithm of total assets.	
FA	Firm age	In this paper firm age is described as the number of years since its incorporation, measured as, observation year-incorporation year.	
CEOC	CEO Compensation	It represents salary and bonus payments to the CEO and this proxy is also taken in log specifications.	Core, Holthausen, and Larcker (1999)
ROE	Return on equity	Calculated as dividing net income by common equity.	Ehikioya (2009)
ROA	Return on Assets	Calculated as dividing net income by total assets.	
Q	Tobin's Q	The market value of equity capital and the book value of firm's debt divided by the book value of total assets	

Population and Sampling Technique

Food, Cement, Chemical, oil and Gas, Automobile, Cables and Electric Goods, and paper and board industries are covered as a population. As at December 30, 2015, a total of 165 companies are include in the targeted industries and enjoying the first tier listing on Karachi Stock Exchange. Table 2 below shows the classification of strata and the number of firms in each strata, also the computation of final sample from AL (2006) and ALIU (2010) formula as classified by Karachi Stock Exchange, 2015.

Table 3.1.2 Number of firms Computation from each Strata

Strata	Number of companies from KSE, (Population)	Computation for sample after applying formula	Firms from each Strata for final analysis, (Sample)
Food	53	(53/165)*103	33
Cement	36	(36/165)*103	22
Chemical	33	(33/165)*103	21
Oil and Gas	12	(12/165) *103	7
Automobile Assembler	12	(12/165)*103	7
Cables and Electric Goods	9	(09/165)*103	6
Paper and Board	10	(10/165)*103	6
Total	165		102

Source: Compiled by researcher from KSE Website, 2015

Sample selection

There are many types of sampling techniques such as stratified sampling technique (SST), multi-stage sampling, quota sampling, random sampling and cluster sampling. Kumar (2005) stated that in stratified and simple random sampling techniques the researchers are able to identify each and every element of a sampling population. It is easy to do this if the total sampling population is small but in case of a city, country or state where the sampling population

is large, it becomes expensive and difficult to choose each unit of sampling. In such cases the choice of cluster sampling becomes more appropriate. In addition Stratified sampling technique considered the sartorial grouping of firms in the stock market so that stratified sampling technique is used for the present study. A stratified sampling technique broadens the initiatives of simple random sampling to guarantee that a heterogeneous population has its defined strata taken account of in the sample. One advantage of this technique is that there is no biased sample selection. The selection of strata is subjective and it increases cost due to the extra time and labour necessary for the organization and implementation of the sample.

Slovin's sampling method formula is used in calculating sample size of this study as adopted by AL (2006) and ALIU (2010), formula is written as:

$$n = N / (1 + Ne^2)$$

Where n = Number of samples, N = Total population, e = Error tolerance

Based on above sectors the n = 165, if sample drawing at 6 % level of significance

[165/ {1 + 165 (0.06^2)}]

N = 103

Now we used proportional sampling techniques to determine the sample size from each strata included in the population. As there are 165 quoted manufacturing firms listed in KSE which are included in the targeted population.

Finally, ultimate sample size of this study is 102 manufacturing firms as against the 103 table 2. It is relevant to state that all computation was done on approximate to the nearest whole number. 102 out of 165 manufacturing firms are selected as our sample representative. This sample was chosen using stratified random sampling technique.

Experimental procedure

In this research, panel data will be used as sample data that consists of observations from a number of companies in time series manner. As panel data include observations for the same

cross sectional units at a specific point of time, there may be cross sectional influence of companies on other country or group of countries. There are numerous techniques to control these problems. The two key tools suggested are fixed effect model and random effect model. Authors use these methods on the basis of decision making criteria. If random sample is taken from a whole population then it is compulsory for the researchers that they should apply panel data method of fixed effects model and random effects model. If the finding of this test discards the null hypothesis ("difference in coefficients is not systematic") then the researchers use the Housman's specification test. After this, researchers apply fixed effects model or else they use random effects model. But if the researcher basis has to go with random effects model then author further requires testing the reliability of random effects model by using Breusch Pagan Lagrange Multiplier test and be supposed to employ random effect model while rejecting null hypothesis of ("no random effects"). Otherwise authors apply pooled Ordinary Least Square (OLS) regression equation. In this work we have taken a random sample of Pakistani companies for four years. According to the decision making criteria, we will employ panel data methods of both fixed effects and random effects models, and then we will use the test to choose suitable model for the study (Dougherty, 2011). Fixed effect model deals with uniqueness of each cross sectional component of sample and permits intercept to vary for every unit. In addition, the random effect model supposes that variables included in the study are not correlated at all.

From the above discussion, we are able to create the following simple mode

Performance

(ROE,ROA,Tobin'sQ)= 0+ BS+ BC+ CEOD+ CEOC+ DS+ FDit+ FSit+ FAit + e

Performance (ROEit1,ROA it1,Tobin'sQ

it1)= 0i+ $_1$BSit+ $_2$BCit+ $_3$CEODit+ $_4$CEOCit+ $_5$DSit+ $_6$FDit+ $_7$FSit+ FA+ uit

Performance (ROEit2,

ROAit2,Tobin'sQit2)= 0+ $_1$BSit+ $_2$BCit+ $_3$CEODit+ $_4$CEOSit+ $_5$DSit+ $_6$FDit+ $_7$FSit+ FAit+ui+ it

ROE= Return on equity of each company i at time t

ROA=Return on Asset of each company i at time t

Tobin'sQ= Tobin's Q of each company i at time t

BS=Board size of each company i at time t

BC=Board composition of each company i at time t

OD=Independent Directors at the board of each company I at time t

CEOD= CEO dualityof each company i at time t

CEOC=CEO compensation of each company i at time t

Dshare=Director's shareholding of each company i at time t

FD=Liquidity of each company i at time t

FS=Size of the firm of each company i at time t

FA= Firm age of each company i at time t

4. Results

Table 4.3. Descriptive Statistics and correlation

	Mean	SD	VIF	1/VIF	ROE	ROA	Q	DS	BS	BC	CEOS	OD	CEOD	FD	FA	FS
ROE	.225036	1.15011			1.0000											
ROA	.128679	1.45948			0.0295 (0.5534)	1.0000										
Tobin's	0.76055	7.95736			-0.0044 (0.9288)	0.9751 (0.0000)	1.0000									
DS	.455111	2.25065	1.05	0.951	0.0858 (0.0881)	-0.0141 (0.7802)	-0.0178 (0.7243)	1.0000								
BS	8.45588	1.65976	1.49	0.6721	0.0360 (0.4686)	-0.0289 (0.5617)	-0.0433 (0.3843)	-0.0012 (0.9809)	1.0000							
BC	.668424	.697604	1.33	0.751	0.1194 (0.0158)	-0.0281 (0.5727)	-0.0294 (0.5554)	0.0311 (0.5378)	-0.0607 (0.2211)	1.0000						
CEOS	6.78468	.572782	1.26	0.793	-0.0228 (0.6568)	0.0116 (0.8226)	0.0322 (0.5318)	0.0528 (0.3088)	0.1751 (0.0006)	-0.059 (0.245)	1.0000					
OD	4.45588	2.61972	1.89	0.5302	0.0205 (0.6798)	-0.0376 (0.4494)	-0.0447 (0.3687)	-0.1094 (0.0294)	0.4669 (0.0000)	0.3733 (0.0000)	0.1125 (0.0282)	1.0000				
CEOD	.401961	.490896	1.29	0.774	0.1382 (0.0052)	-0.0466 (0.3491)	-0.0280 (0.5734)	0.1290 (0.0102)	-0.0204 (0.6812)	-0.0100 (0.8401)	-0.1589 (0.0019)	-0.2575 (0.0000)	1.0000			
FD	2.33171	19.9741	1.08	0.926	-0.0153 (0.7607)	-0.0324 (0.5174)	0.0680 (0.1744)	0.0003 (0.9958)	-0.0164 (0.7433)	-0.0292 (0.5593)	0.0119 (0.8187)	-0.0567 (0.2571)	0.0753 (0.1324)	1.0000		
FA	3.47402	.543629	1.19	0.838	0.0307 (0.5359)	0.0317 (0.5248)	-0.0185 (0.7099)	0.0765 (0.1285)	0.0907 (0.0673)	-0.1132 (0.0222)	-0.0926 (0.0710)	-0.0045 (0.9280)	0.2736 (0.0000)	-0.1769 (0.0004)	1.0000	
FS	9.57688	.724151	1.32	0.759	-0.0700 (0.1592)	-0.1037 (0.0367)	-0.1136 (0.0220)	-0.0635 (0.2084)	0.1843 (0.0002)	-0.0096 (0.8468)	0.4037 (0.0000)	0.1994 (0.0001)	-0.1840 (0.0002)	-0.1616 (0.0012)	0.0460 (0.3550)	1.0000
Mean vif			1.32													

Table 4.4 Pooled Regression, Fixed Effects and Random Effects

	Pooled OLS			Fixed Effects			Random Effects		
	Model1	Model2	Model3	Model4	Model5	Model6	Model7	Model8	Model9
Variables	ROE	ROA	Tobin's Q	ROE	ROA	Tobin's Q	ROE	ROA	Tobin's Q
DS	.0302621	-.0018462	-.00876	-.1183797	-.0224723	-.0222873	.0302621	-.0026462	-.0145612
	(0.270)	(0.692)	(0.721)	(0.650)	(0.524)	(0.889)	(0.269)	(0.684)	(0.677)
BS	.0271739	0118758	-.04501	-.0626262	-.0044107	-.0472491	.0271739	.0104355	-.0342045
	(0.546)	(0.121)	(0.263)	(0.625)	(0.799)	(0.548)	(0.546)	(0.278)	(0.491)
BC	.1961384	.0055445	-.0871758	.336531	.0297575	-.0037729	.1961384**	.0079194	-.0693204
	(0.048)**	(0.741)	(0.323)	(0.123)	(0.311)	(0.977)	(0.047)	(0.676)	(0.464)
CEOD	.3116918	-.0449637	.3130506	-.2414775	-.3015377*	1.450829**	.3116918**	-.0551118 *	-.2405203**
	(0.030)**	(0.066)*	(0.010)	(0.843)	(0.068)	(0.050)	(0.030)	(0.097)	(0.048)
CEOC	.0460628	-.0147606	.198314*	.7606257	.0069393	.2125585	.0460628	-.0172298	.2405203**
	(0.705)	(0.475)	(0.069)	(0.003)	(0.837)	(0.167)	(0.705)	(0.474)	(0.048)
OD	.0053703	-.0024587	.050804 *	.0795674	.0008144	-.0209414	.0053703	-.0025867	.0404513
	(0.868)	(0.654)	(0.079)	(0.402)	(0.949)	(0.719)	(0.868)	(0.703)	(0.248)
FD	-.0018934	-.0017268	.0270899	.0018141	.0015616	.0084039	-.0018934	-.0002936	.0178536
	(0.543)		(0.000)	(0.654)	(.0004885)	(0.001)	(0.542)	(0.549)	(0.000)
		(0.001)							
FS	-.1202892	-.004944	.0416444	-.474125	-.0655936	-.938261	-.1202892	-.0130521	-.1518809
	(0.221)	(0.767)	(0.635)	(0.129)	(0.120)	(0.000)	(0.220)	(0.541)	(0.171)
FA	.006569	.0741429	-.2586624**	-1.797078	-	3.302329	.006569	.0833748	-.2325783
	(0.958)	(0.001)	(0.021)	(0.217)	.5650237	(0.000)	(0.958)	(0.003)	(0.126)
					(0.004)				
Constant	.5340093	-.1203906	-.4254534	5.964586	2.746669	-3.666151	.5340093	-.0433136	.9994677
	(0.614)	(0.504)	(0.653)	(0.274)	(0.000)	(0.272)	(0.614)	(0.847)	(0.389)
F-Statistic	1.77*	3.95	14.34	1.49	2.59	8.40			
	(0.0719)	(0.0001)	(0.000)	(0.1528)	(0.0070)	(0.000)			
Wald Chi							15.96*	12.65	74.46
							(0.0677)	(0.1792)	(0.0000)
R squared	0.0427		0.2649						
Within				0.0486	0.0818	0.2239	0.0111	0.0000	0.1160
Between				0.0108	0.0586	0.0083	0.1372	0.1037	0.3268
Overall				0.0002	0.0256	0.0037	0.0427	0.0692	0.2436
Hausman Test							13.31	126.05	8.53
							(0.1489)	(0.000)	(0.4813)
Breusch LM Test							0.00		70.79
							(1.0000)		(0.0000)
N	368	368	368	368	368	368	368	368	368

Significant at 1 ✝, 5** and 10* % level of Significance (two tailed)

Table 4.3 posits the descriptive statistics and correlations, The mean age of the whole sample is 3.47402 with the (.543629) standard deviation. The table 4.3 shows that CEO is also acting as chairperson of the board in most of the firms as the mean value is .401961 (.490896) as comparison to the study of Ehikioya (2009) of study the mean of CEOD was (0.08) very low, high average of CEOD shows most of firm's CEO are performing two responsibilities-CEO and chairperson. In the board average proportion of outside directors is 4.45588 (2.61972). The average CEO salary being paid to the whole sample is 6.78468 (.572782), may be because CEO duality in most of the firm's board. The table 4.4 shows the results of pooled regression, fixed effect and random effects models, the CEO duality (measured as CEO also performing the role of chairperson on the board than this variable is equal to 1) is negative in five models out of nine (positive in model 1 and negative in model 5 and 9) which is an evidence of CEO is also performing as chairperson at board and negatively related with firm performance, but as discussed by Ehikioya (2009) that the separate role of CEO from chairperson is essential to ensure the independence of the board for optimal firm performance. CEO duality is significantly related in all the models except model 4, according to Ehikioya (2009) findings the CEO duality is negatively associated with firm performance. Mir and Nishat (2004) empirically test the impact of corporate governance on firm performance in Pakistan; they concluded negative impact of CEO duality on firm performance. Board composition is positively associated with firm performance at 0.05. The CEO compensation is significantly and positively related with firm performance which means that high compensation for CEO will lead to his/her internal motivation and satisfaction results in effective participation. Another important finding is that outside directors are also significantly positively related with firm performance but at 0.10. On the other side board size is not related with performance of firms in Pakistan not even in a single model, this finding may be the cause of CEO two fold role-CEO and Chairperson, at the board, the reason may be that the CEO acting also as chairperson may reduce or eliminate the influence and authority of the overall board, this further suggest that for firms working in Pakistan BS may be not important in overall board efficiency, or may be most of the firms are family owned decreasing the importance of board in overall control of decision made by CEO. FD and FA are significantly related with firm performance. The Hausman test is insignificant for the model

7 and 9 suggest to provisionally use random effect model whereas significant for model 8 at 1% level of significance suggesting the use of fixed effect model 5. As the authors provisionally accept the model 7 and model 9 on the basis of Hausman test so they need to further test for Breusch-Pagan Lagrange multiplier (LM) test to make decision between the random effect model 7 and 9 or simple pooled regression model 1 and 3 respectively, for model 7 and 9 whereas the Breusch-Pagan Lagrange multiplier (LM) test is significant for Tobin's Q for model 9 the authors will prefer random effect model 9. Breusch –Pagan Lanrange Multiplier (LM) test in Table 5 is not significant at 0.05 for model 7, which shows variance across entities, is zero and there is no need to use fixed and random effect on panel data for the relationship between ROE and corporate governance leadership structure, so that for performance measures final models in this study are model 1, model 5 and model 9.

Conclusion

The collapse of Enron and other corporate scandals-2001 are the main boomers of decreasing investor's faith only on capital markets and internal managerial structure. Government bodies and regulators took steps to control such issues and consequently imposed corporate governance principals to enhance the accountability and transparency of organization's workings. Corporate governance practices are allied with structures and processes by which members are concerned with the overall well being of the corporation and take hold of gauges to shield the interests and benefits of the stakeholders which leads to improvement of market performance of a firm. Organizations can follow the standards of corporate governance in order to enhance the firm transparency for the interest of investors and stakeholders. In addition corporate governance helps in controlling information asymmetry which is the trigger to reduce agency problem. Corporate governance structure implementation is essential for the protection of stakeholders and investors interests. Ehikioya (2009) used data of 107 listed firms in Nigerian stock exchange; it was evidenced that good corporate governance structure results lower bankruptcy risk, higher valuation and higher performance. On the other side, firms with poor corporate governance structure have to face higher bankruptcy risk, lower valuation and lower performance. In addition corporate governance structure varies from country to country and even

industry to industry as Ehikioya (2009) further took industry dummy in his analysis. So that, it is important to know which factors of corporate governance are essential and important determinants of good corporate structure for the firms in Pakistan were needed to be study. Corporate governance structure is studied in many developed and in few developing countries by considering different variables of governance. Little research is conducted with the perspective of Pakistan by considering the leadership structure and focusing on panel data fixed and random model technique. This study covered a period of four years with a sample size of 102 randomly selected companies listed in Karachi Stock Exchange from the seven sectors (food, cement, chemical, oil & gas, Automobile, Cables and Electrical Goods and Paper and Board) and fixed and random effects were applied to obtain the results of the study. Analyzing of the results described that Hausman test and Bruech Pagan LM test reject the null hypothesis of fixed effect and random effect models for ROE as a performance measure because there founded no heterogeneity within and among the companies across time and ultimately we have to choose simple pooled regression model 1. Other final models were 5 and 9 for this study; the interesting finding was BC is the proportion of independent directors on board significantly related with ROE. Independent directors in organization are more likely to provide impartial views and estimations; they pick up a company's performance through their objective opinions which in turns improves a company's performance and operations. CEO duality is statistically highly significant and has negative relationship with the firm performance. Owing to this need to separate two titles into two personnel's according to the Pakistan Code of Corporate Governance (CCG) 2014, a CEO cannot hold the position of chairman at the same time, in addition, CCG further stated that a listed company should have at least one independent director in the board. There is no relationship found between the board size and firm performance in the model. CEO compensation has a positive significant relationship with firm performance consistent with previous study by Dow and Raposo (2005). According to the study of Ramaswamy, Veliyath, and Gomes (2000) , unlike previous research, his study found a negative relationship between family ownership in firm with the CEO compensation. Other variables of corporate governance leadership structure can also be included for further research. Leadership structure of corporate governance and ownership structure can jointly be studied in order to know the role of ownership

in duality of CEO titles. More than four years and all the sectors can also be studied to generalize the results, in addition to increasing the sample size sector wise analysis is important. Event study can be very helpful for measuring the changes in structure of corporate governance. This study is important for the firms as it give insights about which composition of board can be effective for successful performance of manufacturing firms.

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