The Impact of Corporate Governance on Financial Performance of the Pharmaceutical Industry in Pakistan

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Abstract

The main purpose of this paper is to investigate the relationship between corporate governance and financial performance of the pharmaceutical industry in Pakistan. The study examined corporate governance dimensions in terms of board composition, board size, board education, board experience and CEO duality, while financial performance is measured in terms of ROA, ROS. The findings of this study indicate that composition of board, size of the board, board education and board experience is strongly associated with firm financial performance. Moreover, it is also found that duality of the chief executive officer is negatively linked with return on sales and return on asset of the firms. Hence, duality of the chief executive officer has negatively affected the financial performance of the pharmaceutical firm in Pakistan. Whereas, composition of board, size of the board and board experience have positive impact on the financial performance of the pharmaceutical firm in Pakistan.

Keywords: Corporate Governance, financial performance, ROA, ROS, pharmaceutical firms

During the last two decades, Corporate Governance (CG) has been the focus of attention to the public. Moreover, it is vigorously debatable area for academicians, financial analyst, researchers, policy makers, managers, corporate professional and practitioners due to the financial failure of big corporations such as Barings Bank, Enron, Adelphia, Daiwa Bank, WorldCom, Sumitomo Corporation of Japan and other high profile scandals. Sifuna, Anazett Pacy (2012) defined Corporate governance is the system of structures, rights and duties by which firms are controlled and directed. The Corporate Governance structure addresses the rights and duties among different participants in the firms such as managers, shareholders, boards and other stakeholders. In this way, Corporate Governance (GC) refers to the way an organization is administrated, directed and controlled. It also includes the set of policies, regulations and rules that influence the management decision. Thus, Managers are accountable for making decisions to defend the interests of corporations and society.

The Corporate Governance has given emphasized in both practice and academic research. The concept of Corporate Government varies from country to country and from corporation to corporation. The term Corporate Governance in the Continental European countries refers to all the stakeholders of corporations, whereas Corporate Governance concentrates on creating an adequate return for shareholders in the Anglo-American countries. CG is the set of behaviours and structures by which a firm is managed, directed and controlled (New Zealand

Securities Commission, 2003). Over the last fifteen years, attention in CG has developed enormously. Therefore, Stock market has been crashed during 2001 and 2002 and 2007 and 2008, which is directly linked to the lack of Good Corporate Governance practices[1]. Thus, during world financial crises in 2007 and 2008, various financial institutions led to the inquiries about why Corporate Governance cannot capable to curb these financial crises.

Corporate governance is more vital for less developed countries because the Securities and Exchange Commission of Pakistan finalizes the first Code of Corporate Governance (CG) in March 2002. However, the major goal of Corporate Governance is to make sure the safety of the wellbeing of all stakeholders of a corporation. In developed and emerging markets, the relationship among Corporate Governance, financial performance and capital structure has been investigated in many context, but in Pakistan, there is no significant work has been completed in this regard.

Corporate Governance and Firm Performance

Empirical studies have examined the relationship between Corporate Governance and corporate performance. Ibrahim *et al* (2010) has reported that corporate governance has significant affect on the shareholder’s returns in chemical and pharmaceutical industry in Pakistan. Bhagat *et al* (2000) argues that corporate governance and firm performance has a positive relationship. Maria Mahar and Thomas Anderson (2008) have found that there are several weaknesses, strengths and financial implications linked with governance systems. However, good governance is an imperative factor for value creation. Furthermore, the study has found the association between Corporate Governance and firm value differs in developed and developing financial markets due to unlike structures of corporate governance. Satirenjit Kaur Johl, Shireenjit Kaur, and Barry J. Cooper (2015), have examined the affect of board characteristics on the firm performance by getting a sample size of hundred public listed firms in Malaysia. Moreover, they found that board independence is not significantly affected the firm performance, whereas size of the board and financial expertise are significantly associated with performance of the firm. The study has found that board diligence in terms meetings of the board have an unfavourable result on corporate performance. Manini, M.M., and Abdillahi, A.U. (2013), have conducted a study to examine the impact of board mechanisms on profitability by employed multiple regression. The study presents that board mechanisms have no effect on bank profitability. Thus, the study recommends that with efficient board mechanisms may enhance performance.

[1] Good Corporate Governance mechanism can enhance the stipulate for stocks as well as the share price.

Objectives of the Study

The objective of the study is to establish the relationship between Corporate Governance and financial performance of Pharmaceutical Industry in Pakistan. This study is measured the dimensions of Corporate Governance in terms of board composition, size of the board, board education, board experience and duality of the CEO. Generally, this study examines the impact of Corporate Governance (CG) on the financial performance of Pharmaceutical industry in Pakistan. Specifically the study examines the impact of board composition, size of the board, board education, board experience and duality of the CEO on the performances of Pharmaceutical firms in Pakistan.

Literature Review

This section of the paper presents a review of what is found in the related literature review in relation to the study objectives. Relevant literature review is listed below:

Board Composition

Boyle and Jane (2011) argue that greater portion of non-executive directors on boards present more additional skills. Moreover, diversity of board promotes effective problem solving and monitoring. Haniffa and Hudaib (2006) show insignificant relationship between composition of board and performance of the firm. Despite that, various scholars now thought that a raise in board diversity leads to good governance in the organization (Bathula, 2008). According to agency theory, outside non-executive directors are more capable to provide greater performance as they are independence from company management (Dalton *et al.* 1998a). On the other hand, stewardship theory argues that managers are making effort to achieve high levels of profits and returns for shareholders, because they are excellent stewards of the firm (Donaldson & Davis 1994).

Size of the Board

Sanda *et al.*, (2005) has noted a positive relationship between small boards and firm performance. Mak and Yuanto Kusnadi, (2005) argue that board size is positively correlated with the value of the firm. According to David Yermack, (1996) small boards of directors are more successful. Holthausen and Larcker (1993), has not succeed in finding consistence evidence of a relationship between the size of the board and firm performance.

Board Education

Level of education affects the board members in two ways. These two ways are discussed below:

- First, education improves the expertise of the board members and chief executive officer.
- Second, social network is very important parameters in professional life because education plays imperative role in the development of social network.

Bertrand and Schoar (2003), have documented on their study that chief executive officers get degree in management sciences are more aggressive and productive managers as compared to other specialized people. Moreover, they have found significant relationship between education level of the chief executive officers and performance of the firms. Hence, the empirical study of Hambrick *et al*. (1996) report positive association between the level of education and firm competitive strategy. On the other hand, Palia (2001) explores that there is no significant relationship between education and corporate performance measured by Tobin‟s *Q*.

Board Experience

According to restrained resources theory, members on the board with more experience are handling business problems very effectively. In this way, it contributes positively to the firm performance (Wegge *et al.*, 2008). Moreover, it is found that members on the company board with more ages are having more experience than younger board members. This experience plays vital role in improving firm performance. Furthermore, experience board members tackle pressures effectively (Child, 1975). On the other hand, more experience members are forceful when taking business decision (Carlson & Karlsson, 1970).

CEO Duality

Brickley, *et al.* (1997) has revealed in their study that there is a possibility of agency cost, when Chief Excutive Officer of the firm performs dual role. As a result, the separation of the two titles improves shareholder value. Fama and Jensen (1983) show that the control of decision making in one hand reduces board's effectiveness. Duality of CEO may lead to conflict of interests and hence, raise agency costs. Sanda *et al.* (2005) exhibit that firms are more worthy when the CEO and the chairperson of the position of the board is hold by unlike persons.

Leader ship is the imperative method of structure of board, which is revealed in the titles of CEO and chairman. However, mutual leadership structure appears, when the CEO uses two hats, one as the chairman and the other as the CEO. In this way, Cadbury (2002) refers it to the combined leadership. On the other hand, split leadership is such a type of leadership when two individuals held the positions of CEO and chairman**.** Thus**,** parting the position of chairperson & CEO is mostly grounded in the theory of agency (Dalton *et al.* 1998b). As a result, the function of the BoDs is to supervise administration to protect the shareholders interests (Fama & Jensen 1983).

Research Methods

In order to get reliable and valid results, the essential portion of the research is to construct an effective research design to trim down the probability of deriving an invalid result from the collected data.

Source of Data

In Pakistan, corporate governance is a new phenomenon, and there is little research work is done on corporate governance and firm's performance. Much of the existing research is carried out on the advanced economies of the world by applying the secondary data. These secondary data is composed and organized by third parties namely, investment firms and commercial rating agencies. However, in Pakistan there are no such data services agencies and firms are available from which that data has to collected. Thus, this study is based on the data, which is particularly obtained through the analysis of annual reports of the respective pharmaceutical companies as well as from a specially designed questionnaire. Furthermore, Panel data methodology has employed as it can combine cross sectional and time series data.

Sample Size

The following data set has chosen as a convenience sampling technique on the basis of availability of corporate governance data:

- Twenty multinational Pharmaceutical Firms
- Ninety national Pharmaceutical Firms

Econometric Models:

Regression, Correlation and others statistical techniques have been used in this study. The following econometric models are used in the study.

Model 1:

$ROA_{it}= \beta_0+ \beta_1 BComposition_{it}+ \beta_2 BSize_{it}+ \beta_3 BUducation_{it}+ \beta_4 BExperirnce_{it}+ \beta_5 BDuality_{it}+\varepsilon_{it}$

Model 2:

$ROS_{it}= \beta_0+ \beta_1 BComposition_{it}+ \beta_2 BSize_{it}+ \beta_3 BUducation_{it}+ \beta_4 BExperirnce_{it}+ \beta_5 BDuality_{it}+\varepsilon_{it}$

Where;

ROS = Return on Sales i at period t
ROA = Return on Assets i at period t
BoardCom= Board Composition
BSizer = Board Size
BEdu = Board Education
BExp = Board Experience
CEODuality= Duality of the Chief Executive Officer

i = 1 to 110 firms
t = 2003-2013
u it = Error term.

Conceptual Framework

A research framework is presented in Figure below

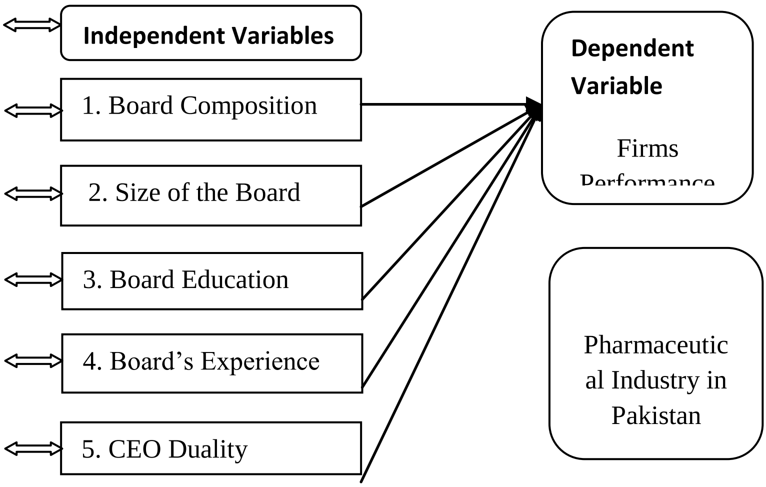

Figure 1: Research Framework

Table 1. *Summary of Variables*

Variables	Definition	Measurement
Dependent Variable		
ROA	Return on Asset	Net Profit Divided by Total Asset
ROS	Return on Sales	Net Profit Divided by Total Sales
Independent Variable		
Board Composition		Coded "1" if the Board Consists of Executive, Non-Executive and Independent Directors Otherwise "0"
Size of Board		Number of Directors on the Board
Board Education		Number of Master Degree Holders
Experience of the Board		Average Years of Experience
CEO Duality		Coded "1"If Duality, Otherwise "0"

Results & Discussions

Table 2. *Descriptive Statistics*

Variables	Obs	Mean	Std. Dev	Min. Value	Max. Value
ROA (%)	1210	06.143	08.230	-20.652	92.592
Return on Sales (%)	1210	17.988	15.301	-33.605	120.092
Board Composition	1210	00.894	02.780	0	1
Size of the Board	1210	01.275	03.091	4	18
Board Education	1210	00.762	01.926	0	1
Board Experience	1210	02.628	06.210	6	30
CEO Duality	1210	12.018	09.816	0	1

Table 2 presents descriptive statistics of dependent and independent variables, which is used in this study. Moreover, it comprises mean, standard deviation, minimum and maximum value of variables. Descriptive statistics are comprehensive techniques to represent the data in a concise ways. It can be seen from above Table 2 that return on assets has a mean value of 6.143 percent with standard deviation value of 8.230 percent, whereas these statistical figures are 17.988 percent and 15.301 percent respectively for return on sales. However, the data gives evidence from the data in the Table 2, the highest mean value among independent variables is 12.018 for CEO duality, whereas, lowest value among independent variables is 0.762 for board education.

Table 3. *Correlation Matrix*

Variables	ROA	ROS	Board Composition	Board Size	Board Education	Board Experience	CEO Duality
ROA	1						
ROS	0.71	1					
Board Composition	0.42	0.04	1				
Board Size	0.12	0.11	-051	1			
Board Education	0.23	0.27	-.32	-.44	1		
Board Experience	0.38	0.13	0.28	1.21	-.62	1	
CEO Duality	-0.08	-.72	-0.49	-.39	-.71	-0.66	1

Table 3 depicts correlation matrix among dependent and independent variables used in the study. In Table 4.2, the analysis reveals that there are positive correlation among board composition, size of the board education and board experience with firm performance. This finding corroborates the ideas of Yuanto Kusnadi (2005), Hambrick *et al* (1996) and Wegge *et al* (2008). On the other hand, board size and CEO duality is negatively correlated with firm performance as measured by return on asset. Hence, the result of this study is consistent with Sand *et al* (2005). However, board composition, board size, board education and board experience are positively correlated with return on sales while CEO duality is negatively correlated with return on sales and ROA.

Table 4. *Variance Inflation Factors*

S.No	Variables	Variance Inflation Factors (VIF)
1	Board Composition	2.01
2	Size of the Board	1.76
3	Board Education	1.52
4	Board Experience	1.29
5	CEO Duality	1.05

Table 4 exhibits variance inflation factors (VIF), which deduct that whether multicolinearity problem is exist in the model or not. The variance inflation factors are less than 10, the highest value of this results is 2.01. Thus, there is no multicollinearity problem in this study.

Table 5. *Regression Results*

Variables	Regression Model 1		Regression Model 1	
	Coeff	P.Value	Coeff	P.Value
Board Composition	0.017	0.001	0.106	0.000
Size of the Board	0.230	0.000	0.260	0.001
Board Education	0.426	0.001	0.865	0.000
Board Experience	0.281	0.000	0.794	0.000
CEO Duality	-0.976	0.621	-0.861	0.806
R-Squared	0.641		0.738	
Adjusted R-Squared	0.627		0.704	
F-Statistic	22.912		18.017	
Prob > F	0.000		0.000	

Table 5 demonstrates the regression results for two models. Therefore, it is clear from the data in the table that board composition, size of the board, board education, and board experience are positively related with firm performance measured by return on asset (Regression Model 1). The findings are seemed to be consistent with Yuanto Kusnadi (2005), Hambrick *et al*. (1996) and Wegge *et al*. (2008). Furthermore, it could be seen that board composition, size of the board, and board experience are positively related with return on sales of the firms (Regression Model 2) at a significance level of 0.05. On the other hand, the analysis reveals that duality of the Chief Executive Officer is negatively related with firm performance and return on sales. Thus, the studies of Jensen (1983) and Sanda *et al.* (2005) have supported these finding, but there is an absence of any significant impact linked with stewardship theory.

Conclusions

The study has been conducted on the impact of corporate governance on financial performance of the pharmaceutical industry in Pakistan. Therefore, it is concluded that the highest mean value among independent variables are CEO duality, whereas, lowest value among independent variables are board education. Furthermore, it is also found that composition of board, size of the board, board education and board experience is strongly associated with firm financial performance measured by return on asset and return on sales of the pharmaceutical firm in Pakistan. Moreover, it is also evidenced that duality of the chief executive officer is negatively linked with return on sales and return on asset of the firms. Hence, composition of board, size of the board, board education and board experience has positive impact on the financial performance of the pharmaceutical firm in Pakistan. On the other hand, duality of the chief executive officer has negatively affected by the financial performance of the pharmaceutical firm in Pakistan.

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