Corporate Governance and its Impact on Profitability of the Pharmaceutical Industry in Pakistan

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Abstract

This paper examines the relationship between corporate governance and profitability of the national and multinational pharmaceutical firms in Pakistan. Corporate Governance has extensively debatable topic for researchers, corporate managers, financial analyst, academicians and strategists. This study has measured corporate governance dimensions in terms of board size, independent director, board committees, board remuneration, and firm size. whereas, profitability of the pharmaceutical firms are measured in terms of return on assets, return on equity and return on sales. The result of this study exhibits that board size, independent director, board committees, board remuneration and firm size are positively associated with corporate performance. By and large corporate governance has a strong impact on the corporate performance. Thus, the study has concluded that corporate governance has a strong significant impact on the profitability of the pharmaceutical firms in Pakistan.

Keywords: Corporate governance, Profitability, ROA, ROE, ROS, Pharmaceutical firm

Introduction

In the last few decades, there has been a growing interest in Corporate Governance (CG). Corporate Governance has been extensively debatable issue for researchers, corporate managers, financial analyst, academicians, and strategists. Therefore, in the last decade, there has been failure of many renowned organizations around the world such as Polly Peck in 1990; Nordbanken in 1991; Bre-X in 1997; Equitable Life Assurance Society in 2000; HIH Insurance in 2001; WorldCom in 2001; Enron in 2001; Refco in 2005; Lehman Brothers in 2008; and Banco Espirito Santo in 2014.

The structure of Corporate Governance deals with duties and rights among different stakeholders. The term governance has used in different context such as good governance, bad governance, local governance and corporate governance. However, according to Pacy Sifuna (2012), corporate governance is a mechanism of rights and duties by which firms are controlled and directed. The meaning of corporate governance may be varies from country to country and even from firm to from. Furthermore, New Zealand Securities Commission (2003) has set of structures by which company is directed and managed. On the other

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hand, in the Continental European countries, it refers to all stakeholders while, in the Anglo-American countries, it focuses on stockholders valuation.

Good corporate governance (GCG) practices are necessary in attracting investors; reduce risk, by defending shareholders concern and improving efficiency of the company. A good practice of Corporate Governance leads to better performance and enhance decision-making procedure in the company. Hence, efficient governance means the slight expropriation of company funds by managers, which lead to better utilization of assets and improved financial and operational performance of the firm.

Corporate Governance is indispensable for emergent economies like Pakistan. The code of Corporate Governance has established by Securities and Exchange Commission of Pakistan. These codes are finalized in March 2002, and then it updates in 2012. The fundamental goal of corporate governance is to protect all stakeholders of the firm. In advance countries, the relationship between governance and corporate performance has been examined therefore, fewer studies carrying out

Objectives of the Study

i). To investigate the association between corporate governance and performance of Pharmaceutical Industry in Pakistan.

ii). To measured the dimensions of Corporate Governance in terms of board size, independent directors, board committees, board remuneration and firm size.

Literature Review

Board Size

Jensen (1993) has found that firm having more board members, which could lead to poor performance of the firm. He finds that there are a contradictory relationship between size of board and value of the firm. However, the result has demonstrated that the major portion of failure in firm value occurs due to the inclination of the board size. Moreover, the study also reveals that the firm with lesser board members tends to have better operating productivity. Eisenberg, Sundgren and Wells (1998), have reported negative association between size of board and profitability of the firms. Vafeas (1999), shows that frequency of board meeting is negatively associated with value of the firm. Thus, the board has the responsibility to monitor, discipline, and hold ineffective management.

Independent Directors

Various studies conclude that boards dominated by externals tend to act in the best interest of shareholders. Hermalin and Weisbach (1988), have exhibited that boards with more autonomous directors have higher possibilities to remove poorly presented CEOs. Chen *et al.* (2006), have revealed that corporations with higher proportion of autonomous directors on board are chances of financial fraud. Beasley (1996), conducts a comparative study of seventy five firms that practise fraud and seventy five non-frauds. Moreover, the findings suggest that larger proportions of external directors has selected on the boards of non-fraud firms. On the other hand, Size of board shows significant association with the possibility of financial fraud. Hence, it is concluded that non-fraud firms having more earning as compared to the financially fraud firm. Uzun *et al*. (2004), have documented that more numbers of independent directors on the compensation and auditing committee leads to reduce in the frequency of financial fraud and therefore, profit of the firm is increases. Firth, *et al.* (2006) has concluded that companies with dominate boards by autonomous directors are most excellent quality of accounting. Lai and Tam (2007), signify on their study that board composed by self-governing directors reduces financial scandals, which leads to increase profit.

Board Committees

Many organizations around the world has been criticised due to bad governance. Therefore, various companies have established audit committee, remuneration committee and nominating committee. Significance of these committees has recognized in the modern business world (Petra 2007). Cadbury Committee report in 1992, is suggested that boards should make sub-committees to deal with the following three tasks:

- To supervise the accounting measures and outdoor audits;
- To make a decision about the remuneration of corporate managers;
- To appoint officers and directors.

These committees should be autonomous, have access to information, and members of the committees are financially literate, otherwise these committees will be just like a window dressing (Peters and Bagshaw 2014). These committees could be included independent non-executive directors to strengthen the internal control systems of firms (Davis 2002; Laing & Weir 1999).

Board Remuneration

Lewellen and Huntsman (1970) found strong evidence between corporate managers and board compensation. Their study reveals that board remuneration is dependent upon profits generation. Main *et al.* (1996) analysed the impact of compensation on firm performance by utilise panel data from 1981 to 1989. They concluded that there is a significant association between board compensation and corporate performance.

Kato (1997) investigates the relationship between executive compensation and corporate performance by using panel data from 1986 to 1995. The study shows that compensation is sensitive to the performance of the firm. Aduda, (2011) examines the relationship between compensation and performance of the commercial banks by using a regression model. The study exhibits negative correlation between compensation and firm performance.

Firm Size

The empirical study of Chandler (1990) reveals that large firms are producing product at low cost because of economies of scale, therefore, this stratify incline the profitability of the firm. Yang & Chen (2009) has found that large size of firm could create credit as compared to smaller size firms. Furthermore, they has folded in their same article that large size of firm has more employees that are professional therefore, these firms earn more income than other firms do. Vijayakumar & Tamizhselvan (2010), have reported significant relationship between firm size and corporate performance. Artikis *et al.* (2009), have explored that large firms are more profitable than the smaller firms.

Research Methodology

Source of Data

The data of corporate governance are collected from the annual reports and other documents of the sampled companies in the period of 2003 to 2013.

Sample Size

A total of one hundred and ten national and multinational pharmaceutical firms are selected for the study. Pharmaceutical firms are selected through convenience sampling technique.

Econometric Models

The study uses correlation and regression models to test the relationship of corporate governance and corporate performance. Moreover, the five independent variables are board size, board committees, board remuneration and firm size whereas, return on asset, return on equity and return on sales are dependent variables. Regression models have been developed for return on assets, return on equity and return on sales as below:

Model 1:

$$ROA_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2\ BINDDIRECTOR_{it} + \beta_3 BCOMM_{it} + \beta_4 BREMUNERATION_{it} + \beta_5 FSIZE_{it} + \varepsilon_{it}$$

Model 2:

$$ROE_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2\ BINDDIRECTOR_{it} + \beta_3 BCOMM_{it} + \beta_4 BREMUNERATION_{it} + \beta_5 FSIZE_{it} + \varepsilon_{it}$$

Model 3:

$$ROS_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2\ BINDDIRECTOR_{it} + \beta_3 BCOMM_{it} + \beta_4 BREMUNERATION_{it} + \beta_5 FSIZE_{it} + \varepsilon_{it}$$

Where

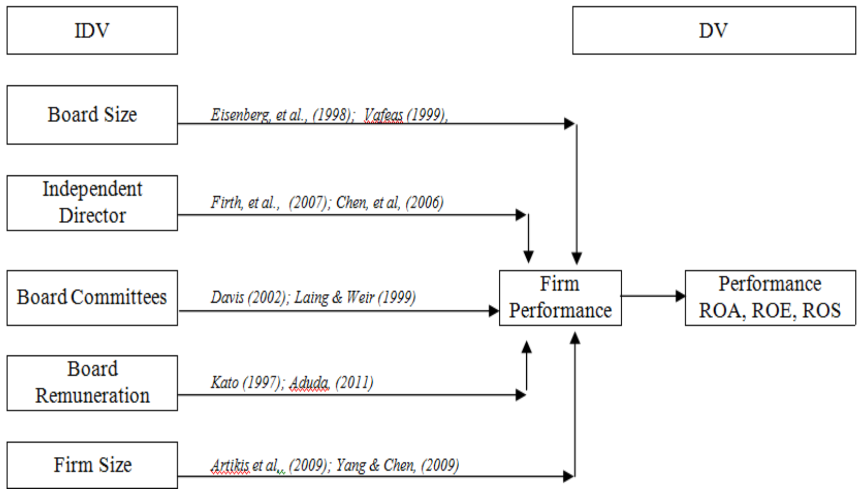
ROA	= Return on Assets i at period t
ROE	= Return on Equity i at period t
ROS	= Return on Sales i at period t
BSIZE	= Board Size
BINDDIRECTOR	= Board Independent Director
BCOMM	= Board Committees
BREMUNERATION	= Board Remuneration
FSIZE	= Firm Size
i	= 1 to 110 firms
t	= 2003-2013
u it	= Error term

Table 1: Notation, Definition and Measurement of Variables

Variables	Notations	Definition	Measurement
Dep.Variables:			
ROA	ROA	Return on Asset	Net Profit/Total Asset
ROE	ROE	Return on Equity	Net Profit/Shareholder Equity
ROS	ROS	Return on Sales	Net Profit/Total Sales
Ind.Variables:			
Board SIZE	BSIZE	Board Size	Number of Members on the Board
Board Independent Director	BINDDIRECTOR	Board Independent Director	Total number of independent director on the board
Board Committees	BCOMM	Board Committees	Dummy Variable: "0" if the Firm have less than three Committees otherwise "1"
Board Remuneration	BREMUNERATION	Board Remuneration	Average salary of the board
Size of the Firm	FSIZE	Firm Size	Total assets of the firm

On a ground of the literature review, this study forms a conceptual framework, which is used for empirical purposes. The conceptual framework is presented in Figure 1 as below:

Figure 1: Conceptual Framework



Results & Discussions

Table 2: Correlation Matrix

Variables								
ROA	1.000							
ROE	0.123	1.000						
ROS	0.543	0.214	1.000					
Board Size	0.214	0.138	0.171	1.000				
Independent Director	0.610	0.186	0.240	0.237	1.000			
Board Committees	0.345	0.312	0.395	0.419	0.187	1.000		
Board Remuneration	0.196	0.221	0.179	0.337	0.384	0.135	1.000	
Firm Size	0.204	0.451	0.175	0.452	0.119	0.174	0.218	1.000

In Table 2, the analysis exhibits the correlation matrix of dependent and independent variables. As presented in above Table there are positive association among board size, board independent directors, board committees, board remuneration and corporate performance. The findings of this study support the findings of Jensen (1993), Vafeas (1999), Beasley (1996), Uzun *et al* (2004), Davis (2000), and Artikis *et al* (2009). Furthermore, firm size is also positively associated with return on asset, return on equity and return on sales. Overall, the empirical findings support the prior studies that corporate governance has a strong effect on the financial performance of the national and multinational pharmaceutical firms working in Pakistan.

Table 3: Variance Inflation Factors

S.No	Variables	Variance Inflation Factors (VIF)

1	Board Size	1.56
2	Independent Director	1.02
3	Board Committees	1.31
4	Board Remuneration	1.01
5	Firm Size	1.04

Table 3 presents variance inflation factors (VIF) that conclude that whether multicolinearity is exist in the model. The correlation among the independent variables should not increase by eight percent. It shows multicolinearity problem, therefore, there is no such problem in the above table of correlation.

Table 4: Regression Results

Variables	Regression Model 1			Regression Model 2			Regression Model 3		
	Coeff	t	P. Value	Coeff	t	P. Value	Coeff	t	P. Value
Board Size	0.217	2.651	0.041	0.516	4.963	0.001	0.764	6.926	0.000
Independent Director	0.126	3.764	0.001	0.641	6.094	0.000	0.812	3.953	0.001
Board Committees	0.541	7.952	0.000	0.169	9.543	0.000	0.474	7.471	0.000
Board Remuneration	0.264	5.645	0.000	0.275	3.875	0.020	0.731	9.473	0.000
Firm Size	0.213	2.296	0.030	0.762	5.831	0.000	0.638	3.853	0.003
R-Squared		0.534			0.604			0.483	
Adjusted R-Squared		0.516			0.583			0.471	
F-Statistic		14.061			11.394			18.153	
Prob>F		0.000			0.001			0.002	

Model 1:

$$ROA_{it}= \beta_0+ \beta_1 0.217_{it}+ \beta_2 0.126_{it}+ \beta_3 0.541_{it}+ \beta_4 0.264_{it}+ \beta_5 0.213_{it}+\varepsilon_{it}$$

Model 2:

$$ROE_{it}= \beta_0+ \beta_1 0.516_{it}+ \beta_2\ 0.641_{it}+ \beta_3 0.169_{it}+ \beta_4 0.275_{it}+ \beta_5 0.762_{it}+\varepsilon_{it}$$

Model 3:

$$ROS_{it}= \beta_0+ \beta_1 0.764_{it}+ \beta_2 0.812_{it}+ \beta_3 0.474_{it}+ \beta_4 0.731_{it}+ \beta_5 0.638_{it}+\varepsilon_{it}$$

Table 4 presents regression results of return on assets (model 1), return on equity (model 2) and return on sales (model 3). As presented in Table board size is positively affecting the firm performance. The coefficient value of board size is 0.217 in regression model 1, 0.516 in regression model 2, and 0.764 in regression model 3. The significant value of board size is < 0.05 which shows that board size positive significantly impact the performance of the firm. The result is consistent with the study of Vafeas (1999). The finding in the above table depicts that board independent directors are significantly affect the return on asset, return on equity and return on sales. The coefficient value of board independent is 0.126 in regression model 1, 0.641 in regression model 2, and 0.812 in regression model 3. The finding is consistent with Beasley (1996), Uzun *et al* (2004). The significant value of board committees is < 0.05, which shows that board committees are positively affect the return on asset, return on equity and return on sales. The coefficient value of board committees is 0.541 in regression model 1, 0.169 in regression model 2, and 0.474 in regression model 3. Hence, study seems to be consistent with Davis (2000) research study. The significant value of board remuneration is < 0.05 in the study. This significant value exhibits that board remuneration has positive impact on the dependent variables. The coefficient value of board remuneration is 0.264 in regression model 1, 0.275 in regression model 2, and 0.731 in regression model 3. The result agrees with the idea of Kato (1997) and Aduda (2011). Furthermore, the t-value of firm size is > 2.00 and its p-value is < 0.05. This positive significant relationship shows that firm size is positively related with ROA, ROE and ROS. The coefficient value of firm size is 0.213 in regression model 1, 0.762 in regression model 2, and 0.638 in regression model 3. These findings are supporting prior research studies of Vafeas (1999) and Artikis *et al* (2009). By and large, board independent directors, board committees, board size, board remuneration and firm size are positively affect the performance of pharmaceutical firms in Pakistan.

Conclusion

It is concluded that that board size, independent director, board committees, board remuneration, and firm size are positively associated with corporate performance. The study agrees with the idea of Beasley (1996) and Uzun *et al* (2009), Vafeas (1999) and Artikis (2009). Independent directors, board committees, board size and board remuneration are positively link with return on asset, return on equity and return on sales. By and large corporate governance has a strong impact on the corporate performance. It is recommended to policymakers to make sure that members of the board should be more qualified and professional.

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