CORPORATE GOVERNANCE AND FIRM PERFORMANCE: A STUDY ON MODERATING EFFECTS OF FIRM SIZE AND LEVERAGE ON THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND FIRM PERFORMANCE IN BANKING SECTOR OF PAKISTAN

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ABSTRACT

The main purpose of this study is to examine the impact of the corporate governance mechanism on firm performance. The variable employed in this study to measure firm performance, is return on assets. The empirical results indicate that firm performance is in positive and significant relation to corporate governance. On the other hand, the relationship between firm performance and corporate governance is moderated by size of the firm where as the leverage does not play its role in moderating the relationship between the variables of interest of this study.

INTRODUCTION

Over time some cases that came before the academic world stunned the world that despite efficient, well qualified and lavishly compensated top management, some of these firms are unable to perform efficiently. In 2001, Enron Xerox, WorldCom had been caught of getting involved in accounting scandals, which leads to the credibility of corporate financial reports under suspicion, furthermore, shaking investors' confidence. The recent economic crises in Asia and the various high profile corporate scandals like Adelphia, Enron and WorldCom have triggered significant attention towards the importance of corporate governance mechanism. Though, this debate is a relatively new one but the associated issues have been around for decades since Berle and Means (1932) and times. Sarbanes-Oxley Act was enacted in 2002 to enhance the corporate governance mechanism which is viewed as the initial stage of financial revolution, in the expectation that governance mechanism may be reinforced, public confidence retrieved, accuracy and reliability of financial information assured. The emergence of corporate governance practices is revealed to have a significant impact in improving the economic dynamism, to build the market confidence and to ensure a consistent pattern of investment flows in the long run; thus, ultimately influencing the overall performance of an organization. Moreover, the revelation of a variety of corporate governance mechanisms ensures that the management is intended to act in the best interests of shareholders. These mechanisms can be internal (board of directors, stock ownership by the managers, and executive compensation) or external to an organization like the existence of market for the corporate control, institutional ownership, and the level of debt financing. The implication extent of these mechanisms is dependent upon the historical development and various legal and institutional features of a particular country where a firm is headquartered in so in order to ensure the success of an organization, the corporate governance practices must be compatible with the national and global standards. Since corporate governance mechanism is a relatively new phenomenon so it is difficult to measure the effectiveness of the corporate governance systems. This study is an attempt to explore major measures of corporate governance employed in Pakistan. Corporate governance is of paramount importance to a company and is almost as important as its primary business plan. If executed effectively it can prevent corporate scandals, fraud and the civil and the criminal liability of the company. It also enhances a company's image in the public eye as a self-policing company that is responsible and worthy of shareholders and debt holder capital. And by adopting proper corporate governance practices we remove agency problems which are faced by insiders and outsiders of the company. The identification of corporate governance indicators/measures in Pakistani corporate sector and their impacts on performance that could lead to putting forward concrete policy guidelines are some of the objectives of this study. To meet the objectives

this study holds an empirical analysis of corporate governance mechanism on firm performance among the banking organizations working in Pakistan. The purpose of this research is to examine the impact of corporate governance mechanism upon firm performance and the role played by size of the firm and the leverage has also been studied as moderators.

The subsequent section of this study briefly reviews the various corporate governance variables and highlights multiple other variables which can have a significant impact on the firms' performance. This is followed by the research methodology and the empirical results of the study. The final section discusses the conclusion with the limitations, implications and avenues for future research.

LITERATURE REVIEW

This section provides a detailed review of literature that advances the importance of selected corporate governance and numerous other variables in understanding their impact on the performance of an organization. Corporate governance is defined as the mechanism that assures the efficient allocation of equity among the inside and outside investors and aims to protect the shareholders' interests through returns on their investments (Shleifer & Vishny, 1997). A similar concept was introduced by John and Senbet (1998) who regard corporate governance practices as a way of exercising control over corporate insiders and management such that the interest of corporate stakeholders are protected. Stakeholders comprise of not only the shareholders of an organization but also the debt holders and even those who have an indirect stake in the organization like employees, suppliers, customers and other concerned parties. Legally, corporate governance is approached as a key mechanism of outside investors' protection (whether shareholders or creditors) against the insider's expropriation through the legal system (Shleifer & Vishny, 1986). Jensen and Meckling (1976) relate the expropriation with the agency problems where the insiders focus on using the company's profits for their own interest rather than distributing them to the outside investors. Complementary to these findings, Hart (1995) disclosed two contributing factors towards the corporate governance issues in an organization. One of those factors was the agency problem or conflict of interest that commonly arises among the members (corporate owners, management of the organization, workers or consumers) of the organization while the second factor was related to the associated transaction costs such that the agency problems could not be managed through a contract. Thus, the corporate governance structure dictates the allocation of the board, managers and the stakeholder's rights and

responsibilities in the corporation, and implies the rules and regulations involved in making important decisions on the corporate affairs. This ultimately sets a base or a structure for developing the organizational objectives and the means involved in attaining those objectives and monitoring the organizational performance. An extensive literature on the determinants of financial performance tends to be qualitative in nature mainly because the result of quantitative comparison is difficult to analyze. One strand of the literature acknowledged ROA and ROE as the two measures for the determinants of bank profitability. Besides that, a comprehensive large number of studies have documented corporate governance, the size of the firm, expenditure on R&D, capital expenditure and the leverage ratio as the various determinants of a firm's performance. The relationship between corporate governance and economic performance has been an issue of special concern for both the academia and the policy makers during the recent years. The central issue of the finance-based corporate governance studies is to understand how economic value such as the capitalists' legal protection, the competitive environment of an organization, the organizational ownership and board structure and the financial policy is being directed by the corporate governance mechanisms. The World Bank, in 1999, states that corporate governance comprises two mechanisms, internal and external corporate governance. Internal corporate governance, giving priority to shareholders' interest, is operated by the board of directors to monitor top management. On the other hand, external corporate governance monitors and controls managers' behaviors by means of external regulations and force, in which many parties are involved, such as suppliers, debtors (stakeholders), accountants, lawyers, providers of credit ratings and investment bank (professional institutions). Veliyath (1999) pinpoints that the board serves as a bridge between owners and managers; its duty is to protect shareholders' interests. Specifically speaking, taking responsibility for managing and supervising, the board should monitor managers' behavior for shareholders' interest, make important decisions, employ management team and superintend firms to obey the law. Jensen (1993) holds the belief that the organizational effectiveness is highly influenced by the size of the board, i.e. small boards are regarded as a more effective tool in monitoring CEO's actions as compared to the large boards that emphasize on "politeness and courtesy"; thus making it easier for CEO to control. This is because the directors in a large board have diverse opinions, hence consensus is difficult to reach, This lowers the efficiency and the situation deteriorates if directors increase in numbers (Lipton & Lorsch, 1992). Yermack (1996); Eisenberg, Sundgren, and Wells (1998); Singh and Davidson (2003)

unveil that board size is negatively related to corporate performance. Nevertheless, Bacon (1973) holds an opposite opinion that larger board implies members with diverse background and viewpoints, which is helpful for the quality of decisions; additionally, a wide range of their interest may neutralize decisions. Zahra and Pearce (1989); Kiel and Nicholson (2003) reveal that board size is positively related to corporate performance.

A board includes internal and external directors. Fama and Jensen (1983) detect that internal directors, by virtue of their positions possess much more information, are likely to collude with managers and make decisions against shareholders. By comparison, external directors in neutral position, acting as supervisor, are good for eliminating the principal-agency problem. Beasley (1996) investigated the relation between board composition and financial scandals, revealed the ratio of independent directors in the firms with no scandals to be higher than in those firms which have been caught manipulating financial reports. Bhagat and Black (2002) take the ratio of independent directors minus the ratio of inside directors as a proxy, and the result discloses that board independence, significantly and negatively correlates with short-term performance, but board independence makes no difference in improving corporate performance. According to Agency Theory, when a chairman assumes the role of CEO, namely acting as a decision maker and supervisor at the same time, the function of the board to minimize agency cost could weaken tremendously; in the end, corporate performance goes down (Jensen & Meckling, 1976; Fama & Jensen, 1983; Patton & Baker, 1987). Empirical studies by Daliy and Dalton (1993); Dahya, Lonie and Power (1996) unveil that CEO's duality could bring about negative affects on corporate performance. However, according to stewardship theory, executive's responsibilities may neutralize self-interest behaviors derived from CEO duality, and they may become more devoted to advancing corporate performance. Boyd (1995) agrees that CEO's duality brings in positive effects on corporate performance. Berle and Means (1932) set forth that ownership dispersion implies management to be distinguished from ownership. Shleifer and Vishny (1986); Morck, Shleifer and Vishny (1988) detect the phenomenon of ownership concentration. La Porta et al. (1999) and Claessens et al. (2000) usher in the conception of ultimate controller; define firm ownership as voting rights, unearthing that many controlling shareholders of listed firms predominate firms by means of pyramid structure and cross holding, which could result in central agency problems. Kao, Chiou and Chen (2004) reveal that firms in financial distress are closely related to high ratio of the shares pledged by directors, causing concern about the agency problem resulting from the

pledge of corporate shares. Chiou, Hsiung and Kao (2002) delineated that directors and supervisors could fund by the collateralized shares and further purchase more firm stocks to manipulate stock price or enhance their power. Directors' and supervisors' financial stress, because of the collateralized shares, is closely related to share price. Share price slumping, the value of then collateralized shares depreciates and even drops below the standard of the required margin; correspondingly, collateralizing shareholders will be requested to collateralize more shares, while debtors fail to afford more shares as collaterals, financial institutions as creditors will close the position of collateralized shares. As a result, collateralizing shareholders, making use of their position, may make a prey of small shareholders or embezzle company funds. The relationship between size and leverage of a firm is discussed in two different contexts. One point of view supports a positive relationship between firm size and leverage. Titman and Wessels (1988) state that large firms do not consider the bankruptcy costs in deciding the level of leverage as these are just a small percentage of the total value of the firm. Therefore large firms may prefer to use a higher level of gearing. Friend and Lang (1988); Marsh (1982) also support the positive relationship between the size of firm and leverage levels. Another group of researchers provides evidence about the existence of a negative relationship between the size of firm and leverage. Rajan and Zingales (1995) find that as large firms are generally well-established and have good performance track record, enabling them to issue equity at fair prices. In turn, this reduces their reliance on debt and therefore there exists a negative relationship between size and leverage of the firm.

THEORETICAL FRAMEWORK

The Boards of directors may have a difficulty communicating with each other in a large size board, which causes great detriment to firm performance. Yermack (1996); Eisenberg et al. (1998); Singh and Davidson (2003) prove that board size has a negative relation with firm performance. As for the relation between board independence and firm performance, if outside directors are independent and have professional ability, they could be more objective to make decisions and monitor managers. Empirical research by Weisbach (1988), Huson et al. (2001) corroborate that the higher ratio of independent directors accounts for boards, the better firm performance could be. As the chairman serves as the executive, playing roles of decision-maker and supervisor simultaneously, the board could lose its independence and monitoring power, consequently performing a weak function as

a bulwark against agency problems. Daliy & Dalton; (1993), Dahya et al. (1996) attest to that CEO duality seems to deteriorate firm performance. In light of the statement above mentioned, this paper proposes the hypotheses as follows. About firm performance, according to convergence of interest hypothesis, higher insider ownership could reconcile managers' and outside shareholders' interests, which would lessen agency problems. Empirical results by Kesner (1987), Oswald and Jahera (1991); Eng and Mak (2003) bear evidence of that insider ownership has a positive relation with firm performance. A large number of researchers also consider that the audit committee meetings are a way to have a check on the directors that whether they are abiding by the procedures set forth by the commissions and that had been laid in the charter of the firm. On the basis of the above discussion it can be written as

Firm performance = f (BS, BI, D, IOP, ACM)

Where BS = Board size
BI = Board independence
D = CEO duality
IOP = Insider ownership
ACM = Frequency of Audit Meetings

The schematic diagram the research could be presented as follows:

FIGURE 1
Conceptual Model of the research

Independent variable   Moderator   Dependent Variable
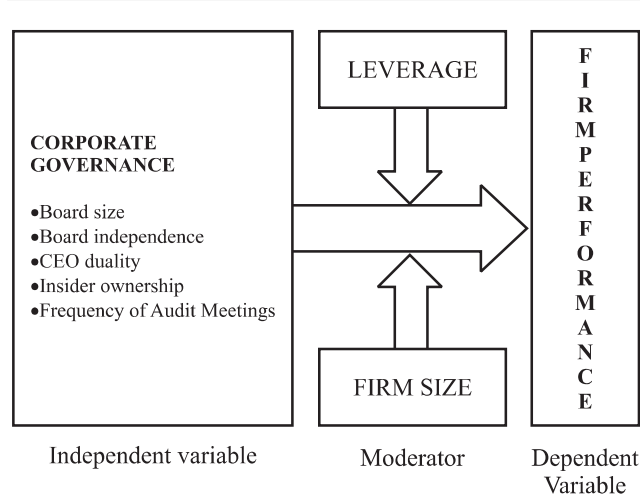
Some studies are also of the view that the Firm Size and Leverage alters the strength of the relationship between firm performance and corporate governance. Another way to look over the relationship is to develop an index of corporate governance by using the five facets described in the above equation as:

Firm performance = f (CGI)

METHODOLOGY

The econometric model of the research could be written as:

$$ROA = \beta_0 + \beta_1 BS + \beta_2 BI + \beta_3 D + \beta_4 IOP + \beta_5 ACM + \mu t \qquad (1)$$

Where "μ" is assumed to be a white noise process. The equation (1) measures whether corporate governance practices determine firm performance.

An index of corporate governance has been developed. This index is developed by using the weights set forth by FTSE for each facet/dimension of corporate governance. Using the firm size and leverage as moderators the econometric models could be written as:

$$ROA = \beta_0 + \beta_1 CGI + \beta_2 FS + \beta_3 CGI \times FS + \mu t \qquad (2a)$$
$$ROA = \beta_0 + \beta_1 CGI + \beta_2 FS + \beta_3 CGI \times FS + \beta_4 (FS)^2 + \beta_5 (CGI \times FS)^2 + \mu t \qquad (2b)$$
$$ROA = \beta_0 + \beta_1 CGI + \beta_2 LEV + \beta_3 CGI \times LEV + \mu t \qquad (3a)$$
$$ROA = \beta_0 + \beta_1 CGI + \beta_2 LEV + \beta_3 CGI \times LEV + \beta_4 (LEV)^2 + \beta_5 (CGI \times LEV)^2 + \mu t \qquad (3b)$$

The stated corporate governance practices will be converted into its index (CGI) to be used as a determinant of ROA along with moderators (firm size: FS and leverage LEV), to capture the effect of moderators in two of their forms (2a,2b, 3a and 3b). Equation (2a and 3a) will capture the effect of moderator in its interactional form if coefficient β_3 happens to be statistically significant; the effect will be measured as:

$$\Delta ROA/\delta CGI = \beta_1 + \beta_3 FS + \mu t \qquad (4a)$$
$$\Delta ROA/\delta CGI = \beta_1 + \beta_3 LEV + \mu t \qquad (5a)$$

The models have been evaluated at three levels (mean of FS or LEV, one-standard deviation–minus, and one-standard deviation–plus). The equations (4b and 5b) capture the effect of moderator in its interactional form as well as in the form of β_5 if the latter coefficient β_5 happens to be statistically significant; the effect will be measured as:

$$\Delta ROA/\delta CGI = \beta_1 + \beta_3 FS + 2\beta_5 FS \qquad (4b)$$
$$\Delta ROA/\delta CGI = \beta_1 + \beta_3 LEV + 2\beta_5 LEV \qquad (5b)$$

The models have been evaluated at three levels (mean of PD or LEV and 1 SD±). Equations 4b and 5b can measure the effect of moderator in one of the four forms, namely:

(i) If β_3 and β_5 are positive, the effect will be increasing

with an increasing rate.

(ii) If β_3 is positive and β_5 negative, the effect will be increasing with a decreasing rate.

(iii) If β_3 is negative β_5 positive, the effect will be decreasing with decreasing rate.

(iv) If β_3 and β_5 are negative, the effect will be decreasing with increasing rate.

The data from 2006 to 2011 of fourteen banks that are working in Pakistan has been used.

RESULTS AND DISCUSSION

First it has been found that whether the corporate governance practices affect the firm performance or not. The results are as follows:

ROA = 7.708 - 0.123BS + 1.102BI - 0.2809D
     (0.422) (0.005)   (0.002)   (0.040)
     + 3.2053IOP + 0.0003ACM
       (0.067)   (0.889)
$R^2 = 0.5886$
F = 14.32 (p-value = 0.000)

It has been found that the model is overall a good fit as $R^2 = 0.6998$ which suggests that 69.98% variation in the dependent variable has been explained by variations in explanatory variables. The board size is statistically significant and bears a negative size, the board independence is also significant with positive sign, the dummy used to capture the CEO duality is significant as well as bear a negative sign, the insider ownership is significant and bears a positive whereas the frequency of audit committee meeting are found to be statistically insignificant in case of banking firms of Pakistan.

An index of CGI has been developed to study the impact of corporate governance on performance of the firm. It is thought that variable CGI determines ROA; the model is specified as follows.

$$ROA = \beta_0 + \beta_1 CGI + \mu t$$

Using data and running regression the following results are found:

ROA = 0.5251 + 0.2241CGI
     (0.124) (0.068)
$R^2 = 0.3478$
F stat = 7.08(p-value=0.000)

The results are fine as it has been found that there exists a relationship between firm's performance and the corporate governance. As one of the objectives of this study is looking at the existence of firm size (FS) and leverage (LEV) as moderators, the relationship between ROA and CGI in the presence of the moderators could be checked by having a look at the results of equations 2a, 2b, 3a and 3b respectively as follows:

ROA = 0.501 + 0.113CGI + 0.202FS + 0.051CGI x FS
     (0.143) (0.084)   (0.002)   (0.049)
$R^2 = 0.3794$
F stat = 9.04 (p-value=0.000)

ROA = 0.410 + 0.101CGI + 0.197FS + 0.024CGI x FS
     (0.105) (0.076)   (0.003)   (0.063)
     $0.1942(FS)^2 + 0.047(CGI \times FS)^2$
     (0.059)   (0.071)
$R^2 = 0.3895$
F stat = 11.22 (p-value=0.000)

ROA = 0.546 + 0.103CGI-0.196LEV + 0.062CGIxLEV
     (0.123) (0.073)   (0.067)   (0.318)
$R^2 = 0.2524$
F stat = 6.02(p-value=0.000)

ROA = 0.399 + 0.09CGI + 0.197LEV+ 0.024CGIxLEV
     (0.125) (0.086)   (0.072)   (0.242)
     $0.202 (LEV)^2 + 0.051(CGI \times LEV)^2$
     (0.127)   (0.214)
$R^2 = 0.2003$
F stat = 5.06 (p-value=0.000)

The results presented in (i) have improved in terms of R^2 and F-statistics; the new variable FS is significant and its interaction term with CGI i.e. CGI x FS is also significant as per the requirement of the effect of the moderating variable. The results can hence be reproduced as follows:

ROA =0.5013+ 0.1126CGI + 0.2021FS + 0.051CGIxFS

Taking the derivative of ROA with respect to CGI (to check the effect of CGI on ROA, in the presence of moderator FS):

$$\delta ROA/\delta CGI = 0.1126 + 0.051FS$$

Putting values of FS, the effect of CGI and FS on ROA could be understood. Estimating 'Descriptive Statistics':

TABLE 1
Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
ROA	84	.00	0.06	0.0297	0.0464
CGI	84	5.12	10.83	3.8995	3.1683
FS	84	17.65	20.47	9.2513	0.3897

One-standard deviation plus-minus range of FS-variable has been used to check the level effect of this variable on CGI − ROA relationship. The respective range (of FS, using one SD±) is estimated, as follows.

For FS variable, range is: = (-0.3897→ 0.000 → 0.3897)

Evaluating the effect of CGI

δROA/δCGI = 0.1126 + 0.051FS(-0.3897) = 0.0927
δROA/δCGI = 0.1126 + 0.051FS(0.0000) = 0.1126
δROA/δCGI = 0.1126 + 0.051FS(0.3897) = 0.1324

The effect of CGI on ROA enhances when FS increases.

The results presented above capture the effect of moderator if the relationship is nonlinear. The effect is measured as follows:

ROA = 0.410 + 0.101CGI + 0.197FS + 0.024CGIxFS
      0.1942(FS)^2 + 0.047(CGI x FS)^2

Taking derivative of ROA with respect to CGI (to check the effect of CGI on ROA, in the presence of moderator FS):

δROA/δCGI = 0.101+ 0.024FS + 20.047FS

Since the values of β^3 and β^5 are positive it can be concluded that the effect of the moderator is increasing at an increasing rate.

The results presented above have not improved in terms of R^2 and F-statistics; the new variable LEV is significant and its interaction term with CGI i.e. CGI x LEV is not significant as per the requirement of the effect of the moderating variable. Hence one can conclude that the leverage does not act as the moderator.

The results presented above also show that the interaction variables are not significant meaning that the leverage does not moderate the relationship between ROA and CGI both in linear as well as nonlinear forms.

By understanding the presented results it can be concluded that the corporate governance practices do possess a relationship with the performance of the firm and the firm size moderates this relationship. However no substantial evidence was found regarding the role of leverage as a moderator in the relationship between performance of the firm and the corporate governance index.

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