
Munich Personal RePEc Archive

# Does Corporate Governance Effects Firm Performance in Case of Pakistani Market

Javid, Attiya Yasmin and Iqbal, Robina

Pakistan Institute of Development Economics (PIDE), Pakistan

2008

Online at https://mpra.ub.uni-muenchen.de/37567/
MPRA Paper No. 37567, posted 29 Mar 2012 10:24 UTC

# Does Corporate Governance Effects Firm Performance in Case of Pakistani Market

**Attiya Y. Javid and Robina Iqbal**[1]

## Abstract

We investigated whether differences in quality of firm level corporate governance can explain the firm level performance in cross-section of companies listed at Karachi Stock Exchange. We analyzed relationship between firm-level value and total Corporate Governance Index (CGI) and three sub-indices: board composition, shareholdings and ownership and disclosures and transparency for a sample of 50 firms listed on the Karachi Stock Exchange. The firm value is measured by Tobin's Q, return on asset and return on equity. The results indicate that corporate governance does matter in Pakistan. However not all elements of governance are important. The board composition index and ownership and shareholdings index enhance firm performance, where as disclosure and transparency index has no significant effect on firm performance. However we point out those adequate firm-level governance standards which can not replace the solidity of the firm. The low production and bad management practices can not be covered with transparent disclosures and transparency standards.

JEL Classification: G12 G34 G38
Keywords: Corporate governance, Tobin's Q, return on asset, return on equity, agency problem, board size, share holdings, disclosures, leverage.

## 1 Introduction

Corporate governance is the means by which minority share holders are protected from the expropriation of the managers or controlling shareholders. Good corporate governance contributes to sustainable economic development by enhancing the performance of companies and increasing their access to outside capital. In emerging markets good corporate governance serves a number of public policy objectives. It reduces vulnerability of the financial crises, reinforces property rights; reduces transaction cost and cost of capital and leads to capital market development. Corporate governance concerns the relationship among the management, board of directors, controlling shareholders, minority shareholders and other stakeholders. In Pakistan, the publication of Corporate Governance Code 2002 by the Securities and Exchange Commission of Pakistan (SECP) for publicly listed companies has made it an important area of research of corporate sector.

The better corporate governance leads to better firm performance by protecting the rights of outside investors from the expropriation of controlling shareholders. In Pakistan, with traditionally low dispersion of ownership, the primary methods to solve agency problems are the legal protection of minority investors, the use of boards as monitors of senior management, and an active market for corporate control. In contrast to developed markets in Pakistan corporate governance is characterized by lesser reliance on capital markets and outside investors, but stronger reliance on large inside investors and financial institutions to achieve efficiency in the corporate sector. In this case, outside (smaller)

[1] Attiya Y. Javid is Senior Research Economist at Pakistan Institute of Development Economics and Robina Iqbal is a freelance researcher. The authors wish to thank Dr Nadeem ul Haque, Dr Javed Hamid, Kaiser Naseem, Dr Afra Sajjad and Tariq Mahmood for their valuable comments. Any remaining errors and omissions are the authors' sole responsibility

investors face the risk of expropriation in the form of wealth transfers to larger shareholders.

The main focus of this study is to examine the relationship between corporate governance and firm performance for publicly listed Karachi Stock Exchange (KSE) firms. In the firm level corporate governance characteristics we considered board composition and effectiveness, ownership and shareholding rights, auditing, transparency and disclosure quality. They are summarized in an aggregate corporate governance index (CGI) which is computed as sum of three indices. We not only investigate whether corporate governance broadly defined affect firm performance, but identify whether some corporate governance factors are more important than other corporate governance proxies and firm value which is measured by Tobin Q, return on assets (ROA) return on equity (ROE) and dividend payout (D/P) with corporate governance practices adopted by these firms.

This study extends our earlier work (Javid and Iqbal, 2007) in several ways: by updating the data to 2007, adding more variables and using panel data estimation technique. It contributes to the emerging literature in Pakistan relating indices of corporate governance to firm level performance measured by Tobin Q (which is market performance measure and captures market penetration) and return on assets and return on equity (which are accounting performance measures). This study adds to existing literature by applying the relevance of law for corporate governance in Pakistan and emphasizes that beyond the law on book, law enforcement must be credible (La Porta *et al.*, 1999; Pistor *et al.*, 2000). Like many developing countries corporate ownership is not dispersed in Pakistan (Cheema *et al.*, 2003). Most of the firms are closely held either by family, directors, foreigners and institution owners. La Porta et al (1998) argue that primary conflict in the closely held firms is between majority and minority shareholders. This phenomenon is known as tunneling (Johnson *et al.,* 2001). This study adds to existing literature by investigating whether corporate governance measures effects firm's performance in the same way when ownership is concentrated.

The plan of the study is as follows. The review of empirical findings of previous research is presented in section 2. Section 3 briefly reviews the corporate governance policy framework of Pakistan. Section 4 provides empirical methodological and a description of the data. The results for the relationship between corporate governance and firm valuation are presented in section 5 and last section concludes the study.

## 2. Review of Previous Empirical Findings

There is a large of body of empirical research that has assessed the impact of corporate governance on firm performance for the developed markets (Anderson and Reeb, 2004; Bahjat and Black, 1999 and 2001; Black, 2002; Bradley, 2004; Drobetz *et al.*, 2004; Durnev and Kim, 2005; Roe *et al.,* 1996; *Gompers et al.*, 2003 and numerous others). These studies have shown that good governance practices lead to significant increase in the economic value added of firms, higher productivity and lower risk of systematic financial failure for countries. The studies by Shleifer and Vishny (1997), John and Senbet (1998) and Hermalin and Weisbach (2003) provide an excellent literature review

in this area. It has now become an important area of research in emerging markets as well (Klapper and Love, 2003; Javid and Iqbal, 2007 and Mir and Nishat, 2004).

There are some empirical studies that analyze the impact of different corporate governance practices in the cross-section of countries. A noteworthy study in this regard is done by Mitton (2001) with Korean, Malaysian, Indonesian, Philippines and Thailand firms'level data find that the firm-level differences in variables are related to corporate governance has strong impact on firm performance during East Asian Crisis in 1997 and 1998. The results suggest that better price performance is associated with firms that have indicators of higher disclosure quality, with firms that have higher outside ownership concentration and with firms that are focused rather than diversified.

Most of the empirical work for exploring possible relationship between corporate governance and firm performance is done for single jurisdiction. For US Firms a broad measure of corporate governance, Gov-Score, is prepared by Brown and Caylor (2004) and their findings indicate that better governed firms are relatively more profitable, more valuable and pay more cash to their shareholders. Gompers, *et al* (2003) show that firms with stronger shareholders rights have higher firm value, higher profits, higher sales growth, lowest capital expenditures, and made fewer corporate acquisitions.

It is expected that limiting board size is to improve firm performance because the benefits by larger boards of increased monitoring are outweighed by the poorer communication and decision-making of larger groups (Lipton and Lorsch (1992) and Jensen, 1993). The study by Yermack (1996) provides an inverse relation between board size and profitability, asset utilization, and Tobin's Q which conform this hypothesis. Anderson, *et al*. (2004) document that the cost of debt is lower for larger boards, because creditors view these firms as having more effective monitors of their financial accounting processes. Brown and Caylor (2004) add to this literature by showing that firms with board sizes between six and fifteen have higher returns on equity and higher net profit margins than do firms with other board sizes

The relation between the proportion of outside directors, a proxy for board independence, and firm performance is inconclusive. Fosberg (1989), Weisbach (1991) and Bhagat and Black (2002) find no relation between the proportion of outsider directors and various performance measures. In contrast, Baysinger and Butler (1985) and Rosenstein and Wyatt (1990) show that the market rewards firms for appointing outside directors; Brickley, *et al.* (1994) find a positive relation between the proportion of outsider directors and the stock market reaction to poison pill adoptions; and Anderson *et al.* (2004) show that the cost of debt, as proxied by bond yield spreads, is inversely related to board independence. The studies based on financial statement data and Tobin's Q find no link between board independence and firm performance, while those using stock returns data or bond yield data find a positive link (Hermalin and Weisbach, 1991 and Bhagat and Black, 2002). Brown and Caylor (2004) do not find Tobin's Q to increase in board independence, but they do find that firms with independent boards have higher returns on equity, higher profit margins, larger dividend yields, and larger stock repurchases,

suggesting that board independence is associated with other important measures of firm performance aside from Tobin's Q.

The evidence on the association between audit-related governance factors and firm performance is mixed. Brown and Caylor (2004) show that independent audit committees are positively related to dividend yield, but not to operating performance or firm valuation. Klein (2002) documents a negative relation between earnings management and audit committee independence, and Anderson *et al.* (2004) find that entirely independent audit committees have lower debt financing costs.

The separation of chief executive officer (CEO) and chairman affects firms' performance because the agency problems are higher when the same person holds both positions. Yermack (1996) shows that firms are more valuable, when the CEO and board chair positions are separated. Core, *et al.* (1999) find that CEO compensation is lower when the CEO and board chair positions are separate. Brown and Caylor (2004) conclude that firms are more valuable when the CEO and board chair positions are separate.

In past few years corporate governance has become an important area of research in Pakistan. Mir and Nishat (2004) and Shaheen and Nishat (2004) empirically test the link between corporate governance structure and firm performance for Pakistan using one year cross-firm data and find a positive relation between governance and firm performance measures. Javid and Iqbal use Generalized Method of Moments and document a positive and significant association between the quality of firm-level corporate governance and firm performance for the period 2003 to 2006.

There is an increasing interest in analyzing affect of corporate governance on stock market in Pakistan but many issues in this area are uncovered. In particular, the firm-level corporate governance rating and its affect on the valuation of the firm which is central issue of this area needs in depth research. It is in this perspective this study aims to make contribution in the literature on corporate governance.

## 3. Corporate Governance in Pakistan

The code of corporate governance introduced by Securities and Exchange Commission of Pakistan (SECP) in early 2002 is the major step in corporate governance reforms in Pakistan. The code is initially started as a joint effort of SECP and Institute of Chartered Accountant Pakistan (ICAP). All listed companies are required to comply with most provisions of the code.

The corporate legal framework includes the corporate Ordinance 1984 which sets the rules for the governance and regulations of companies and certain other associations and is based on common law. Banks are regulated by the banking company ordinance (BCO) 1962 and prudential issued by State Bank of Pakistan (SBP). The key legislation of corporate governance includes the Securities and Exchange Ordinance 1969 the Companies Ordinance 1984 and Securities and Exchange Commission Act 1997 that established the SECP as principle regulator of securities markets and non-bank companies and also non-listed companies. The Securities and Exchange Ordinance 1969

is the basic securities law, and provides for investor protection, market regulation, securities delisting and related matters, and the prevention of fraud and insider trading. The Securities and Exchange Ordinance Act 1997 established SECP as regulator of capital marked and controller of corporate entities. The listed Companies (Substantial Acquisition of Voting shares and Takeovers) Ordinance 2002 establishes additional take over and ownership disclosure rules. In addition to listing rules, disclosures, the listing rules include special regulations on transfer pricing. The listed companies must inform the exchanges about dividends, annual general meetings (AGMs), capital increases and change in boards.

The code includes many recommendations in line with international good practice. Several provisions of code were already added to Corporate Ordinance 1984, when it was amended into 2002, in order to strengthen monitory shareholders' rights. The State Bank also mandated the application of code for all listed and non-listed banks and Development Finance Institutes (DFIs). This requirement backed by State Bank considerable enforcement capacity resulted in significant changes within banking system. The SECP issued a separate code for insurance companies.

The basic shareholders rights are protected in Pakistan. The registration is secure and dematerialized through Central Depository Committee (CDC). Shareholders can demand a variety of information directly from the company and have a clear right to participate in Annual General Meetings (AGMs). Directors are elected using a form of cumulative voting and can remove through share holder resolution. The changes in the company articles, increasing authorized capital and sale of major corporate assets are require shareholders approval.

While more effective enforcement contributed to improve compliance, some companies do not hold AGMs or hold in places where it is difficult for shareholders to reach. The law also does not support voting by post or electronically. The concentrated control limits and influence of minority shareholders, and effectively reduce their protection from abuse. When families dominate the shareholders meeting and board, director's accountability to other shareholders become critical and currently in Pakistan this accountability is absent in many companies. The shareholder recording process for share holdings in the CDC works effectively. However, although the registration's role has been reduced by the CDC's operations, some inefficiencies are still there. Some companies do not pay dividend on time, and take longer than 5 days to re-register share in the name of depository. The annual reports of SECP suggest that the percentage of companies paying dividends is 35% and shareholders can complain SECP about non payment of dividends.

The quality of disclosure has improved over last four years due to increasing monitoring role of the SECP and the requirement of code. Shareholders owning 10% or more of voting capital disclose their ownership and the annual report includes the pattern for major shareholdings. However pyramid structure, cross holdings and the absence of joint action make it difficult for outsiders to understand the ownership structure of companies, especially in case of business groups.

The family owned companies are typically managed by owners themselves. In case of state owned enterprises and multinationals there is often direct relationship between state/foreign owners and management again bypassing the boards. Many important corporate decisions are not made on Board AGMs level. The code explicitly mentions director's duties to act with objective of independent judgment and in the best interest of company. In business groups boards are dominated by executive and non-executive members of controlling family and by proxy directors appointed to act on their behalf. Inter-looking directorships are often used to retain majority control. Family dominated boards are less able to protect minority shareholder's rights and risk a loss of competitiveness as other boards become more professional.

The code strengthens the role of non-executive directors by restricting the percentage of executive director to 75% in non-financial firms and recommending that institutional investor in 75% in non-financial firms and recommending institutional investor by representation. However given the dominant ownership structure, this does not prevent controlling families from having disproportionate representation on the board.

The SECP is enforcing corporate governance regulations. It is receiving technical assistance from Asian Development Bank to improve corporate governance enforcement program and also from World Bank is build awareness and training. Other elements of enforcement regime are not so strong. ICAP has some self regulatory function and stock exchanges lack in the resources and expertise to effectively monitor implementation of the code. Karachi Stock Exchange (KSE) has set up a Board Committee on the Code of Corporate Governance and a unit in the Company Affairs Department to monitor compliance with the code.

## 3. Data and Methodological Framework

### 3.1 Data

To assess the relationship corporate governance and firm valuation at firm level, we use data of 50 firms listed at Karachi Stock Exchange[2]. The data set is obtained from the annual reports of these firms for the year 2003 to 2007[3]. Data on rule of law has been taken from World Bank governance indicators. The ranking of rule of law as ranging from 0 to 1 for Pakistan is 0.34 as average of five years. That indicates very poor legal environment for Pakistan in term of enforcement of law[4].

The corporate governance index and disclosure and transparency index are used which are developed by the authors in their study (Javid and Iqbal, 2007). In order to construct corporate governance index for the firms listed on KSE, a broad, multifactor corporate

[2] List of companies is provided in Appendix Table A1.

[3] The list of variable and set of instruments is given in Appendix Table A2.

[4] Although as Pakistan belongs to common law countries legal origin. In view of La Porta et al (1997) common law countries provide strong investor protection in term of law on books. The ranking of rule of law indicate the fact that enforcement of law is very low against high ranking on law on books.

governance rating is done which is based on the data obtained from the annual reports of the firms submitted to SECP. The index construction is as follows: for every firm, twenty-two governance proxies or indicators are selected, these indicators are categorized into three main themes. The three categories or sub-indices consist of: eight factors for the board composition index, seven for ownership and shareholdings index and seven for transparency, disclosure and audit index.

The weighting in the construction of index is based on subjective judgments. The assigned priorities amongst and within each category is guided by empirical literature and financial experts in this area. The maximum score is 100, a score of 100 is assigned if factor is observed, 80 if largely observed, 50 for partially observed and 0 if it is not observed. The average is taken out for all the factors belonging to the sub-index and we arrive at the rating of one sub-index[5]. By taking the average of three sub-indices we obtain the aggregate corporate governance index for each firm in the sample.

The size is defined as natural logarithm of total asset and growth of sales is taken as investment opportunities. The leverage is defined as ratio of book value of long term debt to book value of total asset. The data of all these variables are obtained from the annual reports of the listed firms in the sample.

### 3.2 Empirical Methodology

It is well established that country's laws of corporate governance affect firm value[6]. The objective is to examine whether variation in firm-specific governance is associated with differences in firm value, when they have different characteristics (size, investment opportunities and leverage) and doing business in poor legal environment.[7] To explore the relationship between corporate governance and firm performance we test the hypothesis

*H1: Firms with good corporate governance practices are valued higher.*

$$Perf_i = \alpha + \beta_1 CGI_i + \beta_2 Inv_i + \beta_3 Lev_i + \beta_4 Size + \beta_5 Lw_i * CGI_i + \varepsilon_{it} \qquad (1)$$

Where $Perf_i$ is performance measure Tobin's, $D/P_i$, $ROA_i$ and $ROE_i$ are used to measure firm performance, $CGI_i$ is a vector of corporate governance index, $Inv_i$ is investment opportunities measured by the past growth in sales, $Lw_i$ is rule of law that is used for the proxy of enforcement of law, and $Size_i$ is measured by the log of total asset,. $\varepsilon_i$ is random

[5] Sub-Index include(i)Board composition index,(ii) The ownership and shareholdings Index, (iii) Disclosure and Transparency

[6] La Porta *et al*. (2002) show that firm value is positively associated with the rights of minority shareholders. Daines (2001) finds that firms incorporated in Delaware have higher valuations than other U.S. firms.

[7]As indicated by the ranking of rule of law by World Bank.

error term. It is expected that firms that are adopting better governance practices with better investment opportunities and larger is size should have higher valuation.

In exploring that good corporate governance cause higher firm valuation, an important issue is endogenity (Black *et al.,* 2003; Durnev and Kim, 2003 and others). The firms with higher market value would be more likely to choose better governance structure because the firm's insiders believe that better governance structure will further raise firm value. In addition, the firms adopt good governance to signal that insiders are doing well to raise the firm value. A growing firm with large need of external financing has more incentive to adopt better governance practices in an attempt to lower cost of capital (Klapper and Love, 2003 and Gompers *et al.*, 2003). These investment opportunities are reflected in the valuation of the firm, implying a positive association between governance and firm performance. Therefore, in estimating governance-performance relation we use panel data to control for endogenity applying system GMM estimation procedure.

To deal with issue we also include a set of control variables following Kaplan and Zingales, (1997); Black *et al.*, (2003) and Klein *et al.,* (2005). The firm performance is regressed on corporate governance indices and other control variables. Along with three governance indices, board, shareholdings and disclosure, a set of control variables which include size (ln assets), leverage (debt/total asset ratio) and investment opportunities (growth rate of sales) are used in estimation. Firm size and investment opportunities control for potential advantages of scale and scope, market power and market opportunities. The leverage controls for different risk characteristics of firm.

## 4. Empirical Findings

To investigate whether differences in the quality of firm level corporate governance also help to explain firm level difference in performance, we regress firm performance measures on index of corporate governance ($CGI_i$) and control variables The firm's performance is measured by Tobin Q, ROA, ROE and D/P and the results are reported in Table 1, 2, and 3. The results of association between corporate governance indices and Tobin Q are presented in Table 1. The Tobin Q is regressed on the total corporate governance index $CGI_i$ with each sub-index add one by one along with set of control variables There is positive and significant relationship between $CGI_i$ and Tobin's Q supporting our hypothesis that corporate governance affects firm value. The $CGI_i$ remains positive but significance level reduces with adding more explanatory variables. This shows that the inclusion of firm characteristics have improved the specification of the model. Therefore we find evidence that corporate governance effects firm's performance. This result suggests that a certain level of governance regulations in emerging market like Pakistan has not make the overall level of governance up to a point that governance remain important for investor. The inter-firm differences in firm characteristics are matters to investor in valuing firm. This result is also conformed by several studies for developing markets as well as developed markets (La Porta *et al.*, 2002 and Drobetz *et al.,* 2004). The financial control variables are for the most part statistically significant. Investment opportunities have positive impact both $CGI_i$ and sub-indices. This confirms the theoretical notion that firms with better investment

opportunities perform better corporate governance practice. The firm size has positive and significant association with firm performance. The leverage is positively and significantly related to firm performance. The interaction terms of legal environment with corporate governance show positive and insignificant relationship with Tobin Q which suggests that in legal environment which is less investor friendly, firm specific factors matter more in choice of corporate governance practices.

The results based on total corporate governance suggest that corporate governance does matter in Pakistani stock market. However these findings do not fully reveal the importance of each category of corporate governance to firm performance. The results regarding relationship of firm value with three sub-indices and all control variables. These results indicate that two sub-indices except disclosure have positive and some significant impact on firm performance. The board composition and ownership and shareholdings have some significant influence on firm performance. However investors are not willing to pay a premium for companies that are engaged in open and full disclosure. The results based on sub-indices reveal importance of board composition, ownership and shareholdings with firm performance and this evidence is also supported by other studies (Klein et al (2005)).

The board composition index has a positive and statistically significant effect on firm performance and when entered in model with other sub-indices it remains positive but become insignificant however, the coefficient of determination has improved. The past evidence generally failed to find any clear relation between board composition and firm performance. The survey of literature concludes that the evidence on this matter is at the best ambiguous (Bahjat and Black (1999 and 2000) and Hermalian and Weisbach (2003)). The ownership and shareholdings sub-index has a positive effect on Tobin Q when it is entered into model alone however, when included along with other sub-indices this effect is turned insignificant. These results show that most of the firms have ownership with dominant block holder or have ownership concentration and in block holder firm board independence is not associated with good performance. The assumption of agency theory does not fully apply to these firms where the alignment of ownership and control is tighter thus suggesting the need of outside directors on the board of these firms. As control variables are included specification of model improves.

The results of firm performance including control variables are also consistent with prior research. The coefficient of size is positive and significant in most of the cases. This shows that the listed firms that are likely to grow faster usually have more intangible assets and they adopt better corporate governance practices. The coefficient of investment opportunities is significant and positive because higher growth opportunities are associated with higher firm valuation. The coefficient of leverage is positive and significant, is consistent with the prediction of standard theory of capital structure which says that higher leverage increases firm's value due to the interest tax-shield (Rajan and Zingales (1998). The interaction terms of legal environment with corporate governance sub indices show positive and insignificant relationship with firm performance indicating that in weak legal regime the firm chose to adopt better governance practices.

## Table 1: Evidence on Firm Performance and Corporate Governance:

The table reports the results of relationship between firm valuation and corporate governance estimated by Generalized Method of Moment:

$$Perf_i = \alpha + \beta_1 CGI_i + \beta_2 Inv_i + \beta_3 Lev_i + \beta_4 Size + \beta_5 Lw_i * CGI_i + \beta_6 Lw_i * Inv + \varepsilon_{it}$$

$Perf_i$ is the performance measure Tobin Q of firm $i$ at time t.
$CGI_i$ is the aggregate corporate governance index for firm $i$
$DISC_I$ is audit, disclosure and transparency score for firm $i$
$Board_i$ is score of board composition and independence
$Share_i$ is score of shareholdings
$Inv_i$ is investment opportunities measured by the past growth in sales,
$law_i$ is rule of law that is used for the proxy of enforcement of law, and
$Size_i$ is measured by the log of total asset.
$Lev_i$ is long term debt/total assets
The *, ** and *** indicates the significance levels at 1%, 5%, and 10% respectively. Values in parenthesis are t-statistics.

**Dependent variable is Tobin Q**

| Independent Variables | 1 | 2 | 3 | 3 | 4 |
|---|---|---|---|---|---|
| CGI | 0.03** (1.97) | | | | |
| Board | | 0.01* (5.04) | | | 0.02* (2.06) |
| $Share_1$ | | | 0.04** (3.14) | | 0.01 (1.41) |
| DIS | | | | 0.04 (0.18) | 0.01 (0.18) |
| INV | 0.03** (1.98) | 0.02* (2.04) | 0.003* (3.51) | 0.003 (2.36) | 0.002* (2.15) |
| SIZE | 0.05* (5.27) | 0.04* (4.46) | 0.04* (3.85) | 0.05* (4.20) | 0.04* (3.05) |
| Lev | 0.06* (3.70) | 0.06* (4.00) | 0.04* (2.16) | 0.06 (4.06) | 0.06* (2.09) |
| LAW*CGI | 0.003 (0.06) | 0.05 (0.71) | 0.01 (0.91) | 0.02 (0.99) | 0.001 (0.01) |
| Constant | -0.07 (-0.37) | -0.15 (-0.23) | 0.04 (0.18) | -0.15 (-0.79) | -0.06 (-0.80) |
| R2 | 0.29 | 0.35 | 0.28 | 0.33 | 0.39 |

## Table 2: Evidence on Firm Performance and Corporate Governance:

The table reports the results of relationship between firm valuation and corporate governance estimated by Generalized Method of Moment:

$$Perf_i = \alpha + \beta_1 CGI_i + \beta_2 Inv_i + \beta_3 Lev_i + \beta_4 Size + \beta_5 Lw_i * CGI_i + \varepsilon_{it}$$

$Perf_i$ is the performance measure ROA of firm $i$ at time t.

$CGI_i$ is the aggregate corporate governance index for firm $i$

$DISC_I$ is audit, disclosure and transparency score for firm $i$

$Board_i$ is score of board composition and independence

$Share_i$ is score of shareholdings

$Inv_i$ is investment opportunities measured by the past growth in sales,

$law_i$ is rule of law that is used for the proxy of enforcement of law, and

$Size_i$ is measured by the log of total asset.

$Lev_i$ is long term debt/total assets

The *, ** and *** indicates the significance levels at 1%, 5%, and 10% respectively. Values in parenthesis are t-statistics.

**Dependent variable is ROA**

| Independent Variables | 1 | 2 | 3 | 3 | 4 |
|---|---|---|---|---|---|
| CGI | 0.39**<br>(1.52) | | | | |
| Board | | 0.13*<br>(2.00) | | | 0.21**<br>(1.84) |
| $Share_1$ | | | 0.01<br>(1.23) | | 0.13***<br>(1.52) |
| DIS | | | | 0.23*<br>(2.71) | 0.06<br>(1.26) |
| INV | 0.02**<br>(1.39) | 0.02***<br>(1.46) | 0.01**<br>(1.32) | 0.03*<br>(2.36) | 0.0***<br>(1.38) |
| SIZE | 0.26*<br>(6.62) | 0.29*<br>(6.29) | 0.27*<br>(5.26) | 0.28*<br>(2.85) | 0.28***<br>(1.69) |
| Lev | 0.33*<br>(5.31) | 0.33*<br>(4.26) | 0.33*<br>(3.26) | 0.31*<br>(4.88) | 0.06*<br>(2.09) |
| LAW*CGI | -0.11<br>(-0.51) | -0.42*<br>(-1.11) | -0.03<br>(-0.08) | 0.44*<br>(1.26) | -0.10<br>(0.46) |
| Constant | 0.26<br>(0.33) | 0.22<br>(0.29) | 0.31<br>(0.40) | 0.71<br>(0.91) | -0.06<br>(-0.80) |
| R2 | 0.29 | 0.29 | 0.28 | 0.27 | 0.33 |

## Table 3: Evidence on Firm Performance and Corporate Governance:

The table reports the results of relationship between firm valuation and corporate governance estimated by Generalized Method of Moment:

$$D/P_i = \alpha + \beta_1 CGI_i + \beta_2 Inv_i + \beta_3 Lev_i + \beta_4 Size + \beta_5 Lw_i * CGI_i + \varepsilon_{it}$$

$Perf_i$ is the performance measure is Dividend Payout of firm $i$ at time t.

$CGI_i$ is the aggregate corporate governance index for firm $i$

$DISC_I$ is audit, disclosure and transparency score for firm $i$

$Board_i$ is score of board composition and independence

$Share_i$ is score of shareholdings

$Inv_i$ is investment opportunities measured by the past growth in sales,

$law_i$ is rule of law that is used for the proxy of enforcement of law, and

$Size_i$ is measured by the log of total asset.

$Lev_i$ is long term debt/total assets

The *, ** and *** indicates the significance levels at 1%, 5%, and 10% respectively. Values in parenthesis are t-statistics.

**Dependent variable is D/P**

| Independent Variables | | | | | |
|---|---|---|---|---|---|
| CGI | 0.01**<br>(1.64) | | | | |
| Board | | 0.02*<br>(2.06) | | | 0.01<br>(1.13) |
| $Share_1$ | | | 0.01<br>(1.41) | | 0.01<br>(1.37) |
| DIS | | | | 0.01*<br>(2.44) | 0.02<br>(0.51) |
| INV | 0.22**<br>(1.96) | 0.22**<br>(1.88) | 0.17***<br>(1.65) | 0.12***<br>(1.59) | 0.01**<br>(1.84) |
| SIZE | 0.03*<br>(2.02) | 0.04***<br>(1.38) | 0.02***<br>(1.40) | 0.02<br>(0.91) | 0.01*<br>(2.05) |
| Lev | 0.02**<br>(1.90) | 0.06*<br>(2.02) | 0.03**<br>(1.83) | 0.01**<br>(1.84) | 0.02*<br>(2.72) |
| LAW*CGI | 0.16<br>(0.81) | 0.26<br>(1.17) | 0.04<br>(1.02) | 0.05<br>(1.21) | 0.13<br>(1.11) |
| Constant | -0.62<br>(-0.71) | -2.13<br>(-1.50) | -0.77<br>(-0.81) | -0.80<br>(-0.38) | 1.65<br>(0.94) |
| R2 | 0.32 | 0.28 | 0.29 | 0.29 | 0.37 |

The results based on association between ROA and corporate governance and ROE and corporate governance are almost same. In Table 2 and we present results regarding relationship of firm value using return on assets with aggregate corporate index and three

sub-indices and all control variables. The evidence suggests that corporate governance affects corporate valuation in Pakistani stock market. However, these findings suggest that the importance of each category of corporate governance is not important in explaining firm performance. These results indicate that two sub-indices: board composition and disclosures have positive and some significant impact on firm performance. The ownership and shareholdings have no significant influence on firm performance. These results show that most of the firms have ownership with dominant block holder or have ownership concentration and in these firms the return on assets are not associated with good performance. The large sized firms with more investment opportunities and are levered have high return on asset. As regards the quality of legal environment the interaction terms of rule of law with corporate governance show no relationship with return on asset which suggests that in weak legal environment the law does not matter in firm valuation. (La Porta *et al.,* 2000)

To investigate the relation between firm value measured by dividend pay-out ratio and corporate governance D/P is regressed on corporate governance and firm attributes: investment opportunities, size, leverage and size. Positive and significant coefficient of CGI reveals the fact that firms with higher-quality corporate governance are valued higher. When we regress D/P on sub-indices of corporate governance, we get positive and significant results for board composition and disclosure and transparency index but positive and insignificant for shareholder and ownership indices. In general the ownership and shareholders rights that align the managers and shareholders interest are significantly valued by investors. This is also true for board composition and independence index. Both sub-indices board and disclosures have positive association with firm performance. These results are consistent with agency theory which focuses on monitoring of managers whose interests are assumed to diverge from those of other share holders. However the assumptions of agency theory are not applied to block holder owned firms. Most of the firms listed on KSE are family owned or institution owned. In these firms the alignment of ownership and control is tight and thus suggesting the need of outside directors on the board. Interaction term for CGI with law has the expected positive sign for Pakistan with poor legal environment is consisted with notion that positive relationship between corporate governance and valuation is stronger in weak legal regime**.** The study by Dernev and Kim (2003) also concludes that high class corporate governance is valued higher in case of US market.

Investment opportunities have positive and significant impact on corporate valuation measured by the D/P in all specifications. Our results confirm our predictions that firms with better investment opportunities have higher dividend payout ratio. The coefficient of size is positive and significant in most of the cases. This shows that the listed firms that are likely to grow faster usually have more intangible assets and they adopt better corporate governance practices. The coefficient of leverage is positive and insignificant, which is contrary with the prediction of standard theory of capital structure which says that higher leverage increase firm's value due to the interest tax-shield (Rajan and Zingales (1998). The result of interaction term of rule of law with corporate governance and investment opportunities do not have any significant impact on the valuation of the firm. These results indicate that legal framework is not providing relevant information

regarding firm dividend pay-out in case of Pakistan. However, these findings are consistent to some extent with the notion that positive relationship between governance and valuation is stronger in weak legal regimes (La Porta *et al.,* 1997). This explains the reason of mixed relation between firm valuation and corporate governance in US firms which are subject to strongest legal framework worldwide (La Porta *et al.,*1998 and Dunev and Kim, 2003).

When dividend pay-out is used as performance measure the aggregate corporate governance and the board composition and independence has a positive and statistically significant affect on firm's dividend payout and when entered in model with other sub-indices. The ownership and shareholdings sub-index has a positive effect on firm performance when it is entered into model alone and also when is included with other sub-indices but this affect is marginally significant or it remains positive but become insignificant however, the coefficient of determination is improved. These results show that most of the firms have ownership with dominant block holder or have ownership concentration in block holder firm board independence is not associated with good performance. The assumption of agency theory does not fully apply to these firms where the alignment of ownership and control is tighter thus suggesting the need of outside directors on the board of these firms. As control variables are included specification of model improves.

The results of dividend payout regressed on corporate governance including control variables are also consistent with prior research (Arnott and Asness, 2003 and Shaheen and Nishat, 2004). There is positive association between corporate governance and dividend payouts consistent with the theoretical notion that the firms that are better governed payout more. The coefficient of size is positive and significant in most of the cases. This shows that the listed firms that are likely to grow faster usually have more intangible assets and they adopt better corporate governance practices. The coefficient of investment opportunities is significant and positive because higher profitable opportunities are associated with higher firm valuation. The coefficient of leverage is positive and significant, this is consistent with the prediction of standard theory of capital structure which says that higher leverage increases firm's value due to the interest tax-shield (Rajan and Zingales, 1998). The interaction terms of legal regime with investment opportunities show positive and insignificant relationship with CGI, board, shareholdings and disclosure scores which suggests that in legal environment which is less investor friendly, firm specific factors matter more in choice of corporate governance practices. These results are consistent theoretical proposition of La Porta *et al.* (1999) and with empirical findings by Durnev and Kim (2003) and Pistor *et al.* (2003).

## 5 Conclusions

The relationship between corporate governance variables has been widely analyzed for the developed markets but very little work has been done on how a broad range of governance mechanism factors effect the firm performance in thinly traded emerging markets. In this study we fill this gap by analyzing the relationship between corporate governance and firm performance for the Karachi Stock Market. To proxy for firm-level governance we use a rating system to evaluate the stringency of a set of governance

practices and cover various governance categories: such as board composition, ownership and shareholdings and transparency. Our sample consists of 50 firms which are active, representative of all non-financial sectors and comprises more than 80% of market capitalization at Karachi stock market.

Our results document a positive and significant relation between the quality of firm-level corporate governance and various firm performance measures. In general the ownership and shareholders rights that align the managers and shareholders interest are significantly valued by investors. This is also true for board composition and independence index. Both these sub-indices have positive association with firm performance. These results are consistent with agency theory which focuses on monitoring of managers whose interests are assumed to diverge from those of other share holders. However, the assumptions of agency theory are not applied to block holder owned firms. Most of the firms listed on KSE are family owned or institution owned. In these firms the alignment of ownership and control is tight and thus suggesting the need of outside directors on the board. However, the results show that open and transparent disclosure mechanism that reduces the information asymmetry have no affect on firm performance. This is due to the reason that we have used the annual reports as data source and these reports do not reveal all the information required for rating corporate governance. As regards the quality of legal environment the interaction terms of rule of law with corporate governance show no relationship with firm performance; which suggests that even firms in weak legal environment can enjoy high valuation if they adopt better quality governance and disclose practices (La Porta *e tal.*, 2000).

Our results show that Corporate Governance Code 2002 improves the governance and decision making process of firms listed at KSE. Large shareholders still have a tight grip of companies. However, we point out that adequate firm-level governance standard can not replace the solidity of the firm. The low production and bad management practices can not be covered with transparent disclosures and transparency standards.

## . References


Anderson, R., S. Mansi, and D. Reeb. (2004) Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics* 37 (September): 315-342.

Black, B., Jang, H. and Kim, W. (2003) Does corporate governance affect firm value? *Working Paper 327*, Stanford Law School.

Berle, A. A. and G. C. Means (1932). 'The Modern Corporation and Private Property.' New York.

Baysinger, B., and H. Butler. (1985) Corporate governance and Board of directors: Performance Effects of Changes in Board Composition. *Journal of Law, Economics andOrganization* 1 (Spring): 101-124.

Bebchuk, L., and A. Cohen. (2004) The Costs of Entrenched Boards. *NBER Working Paper.10587.*

Bebchuk, L., A. Cohen, and A. Ferrell. 2004 What matters in corporate governance? *Working Paper, Harvard Law School*.

Bahjat, s. and Black B. (1999) The uncertain Relation between Board Composition and Firm Performance. *Business Law*, 54, 921-963.

Bhagat, S., and B. Black.(2002) The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law* 27 (Winter): 231-274.

Brickley, J., J. Coles, and R. Terry. (1994) Outside directors and the adoption of poison Pills. *Journal of Financial Economics* 35 (June): 371-390.

Black, B., Jang, H. and Kim, W. (2003) Does corporate governance affect firm value? *Working Paper 327*, Stanford Law School.

Brown, L. D. and Claylor, M. L. (2004), 'Corporate Governance and Firm Performance. *Working Paper, Gorgia State University, USA*.

Cheema, A. (2003). 'Corporate Governance in Pakistan: Issues and concerns.' *The Journal,* June, NIPA Karachi, vol. 8, No. 2..

Core, J., R. Holthausen, and D. Larcker. (19990. 'Corporate governance, chief executive compensation, and firm performance'. *Journal of Financial Economics* 51 (March): 371-406

Drobetz, W. Schillhofer A. and Zimmerman H. (2004), 'Corporate Governance and Expected stock return: Evidence from Germany', *European Financial Management*, 10(4), 267-293.

Durnev, Art and E. Han Kim (2003) To Steal or Not to Steal: Firm Attributes, Legal Environment, and Valuation, Journal of Finance, vol LX (3), 1461-1493.

Fama, E. F. and M. Jensen (1983), 'Separation of ownership and control.' *Journal of Law and Economics,* No. 26, 301-325.

Fosberg, R. (1989). 'Outside directors and managerial monitoring'. *Akron Business and Economic Review* 20 (Summer): 24-32.

Gompers, P., Ishii, L. and Metrick, A. (2003). 'Corporate governance and equity prices.' *Quarterly Journal of Economics*, pp. 107–55.

.Javid, Attiya Y. and Robina Iqbal (2007) The Relationship between Corporate Governance Indicators and Firm Value: A Case Study of Karachi Stock Exchange. *PIDE Working Paper 14*.

Jensen, M. (1993). 'The modern industrial revolution, exit, and the failure of internal control systems'. *Journal of Finance* 48 (July): 831-880.

Jensen, M. and W. Meckling (1976), 'Theory of the firm: Managerial behavior, agency costs, and ownership structure.' *Journal of Financial Economics* No. 3, 305-360.

John, K., and L. W. Senbet. (1998). 'Corporate governance and board effectiveness.' *Journalof Banking & Finance* 22 (May): 371-403.

Klein, A. (2002). 'Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics* 33 (August): 375-400.

Klein, P., D. Shapiro and J. Young (2005), Corporate Governance, Family Ownership and Firm Value, *Corporate Governance*, vol 13, No.

Klapper, L. F. and Love, I. (2003), 'Corporate governance, investor protection, and performance in emerging markets', *Journal of Corporate Finance*, Vol. 195, pp. 1–26.

Kaplan, Steven N., and Luigi Zingales, 'Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints?' *Quarterly Journal of Economics*, CXII (1997), 169-216.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. W. Vishny, 1997, Legal determinants of external finance, *Journal of Finance* 52, 1131-1149.

La Porta, R., F. Lopez-de-Silanes, et al. (1998). 'Law and finance.' *Journal of Political Economy* No. 106 (6): 1113-1155.

La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny R. (1999) Corporate Ownership Around the World. *Journal of Finance* 54**:** 471-517

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (2000), 'Investor Protection and Corporate Governance', *Journal of Financial Economics*, Vol. 58, pp. 3–27.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (2002), 'Investor protection and corporate valuation', *Journal of Finance*, Vol. 57, 2002, pp. 1147–70.

Larcker, D., S. Richardson, and I. Tuna. (2004). 'How important is corporate

Lipton, M., and J. Lorsch. (1992). A modest proposal for improved corporate overnance.'*Business Lawyer* 59 (November): 59-77.

Lombardo, D. and Pagano, M. (2000), 'Legal determinants of the return on equity', *Working Paper No. 193* , Stanford Law School.

Mitton, Todd (2001). 'A Cross-firm analysis of Corporate governance on East-asian Crisis.' Journal of Financial Economics, (May), 5-50.

Pistor, K., M. Raiser, and S. Gelfer, 2000, Law and finance in transition economies, *The Economics of Transition* 8, 325-368.

Rajan, R. and Zingales, L. (1998), 'Financial dependence and growth', *American Economic Review*, Vol. 88, pp. 559–87.

Rosenstein, S., and J. Wyatt. (1990). 'Outside directors: Board independence and shareholder wealth'. *Journal of Financial Economics* 26 (August): 175-191. 38.

Shleifer, A., and R. Vishny. (1997). 'A survey of corporate governance'. *Journal of Finance* 52 (June): 737-783.

Shleifer, A. and Wolfenzon, D. (2002), 'Investor protection and equity markets', *Journal of Financial Economics*, Vol. 66, pp. 3–27.

Yermack, D. (1996).' Higher market valuation for firms with a small board of directors'. *Journal of Financial Economics* 40 (February): 185-211.

**Appendix**
**Appendix**
A1: **Corporate Governance Index (CGI) Components**

**Sub-Index 1: The board of directors**
i). Board Size (number of directors)
ii). Board Composition (Clear cut job description of all board members).
iii). Chairman CEO separation (if not any lead director).
iv). Outside directors available to board (independent directors, nominee directors)
v). Board attendance (board meetings).
vi). Outside director attendance in Meetings.
vii). Existence of the position of CFO.
viii). Directors representing minority shareholders.

**Sub-Index:2 Ownership and Shareholdings**
i). Presence of outside block holder (more than 10 % shareholdings).
ii). Does the CEO own shares.
iii). Directors ownership (block ownership) other than CEO and Chairman.
(iv). Chairman or CEO is Block Holder (10%).
v). Concentration of ownership (Top five).
vi). Dividend Policy
vii). Staff benefits other than wages and salaries

**Sub-Index 3: Transparency, Disclosures and auditing**
i). Does the company have full disclosure of corporate governance practices.
ii). Does the company disclose how much it paid to its auditor for consulting and other work
iii). Does the company disclose full biographies of its board members
iv). Disclosure of internal audit committee
vi). Disclosure of board directors and executive staff members' remuneration
vii). Disclosure in the company's annual report) of share ownership according to the requirement of Code..
viii). Information of the executive management staff members ownership (employees ownership)

**A2: List of Companies**

| Companies | Symbles |
|---|---|
| 1)Aruj Garments | ARUJG |
| 2)Honda Atlas | HONDAA |
| 3)Engro Chmecial | ENGRO |
| 4)Unilever Pakistan | UNIP |
| 5)Pakistan Gum and Chemicals Ltd | PAKGUM |
| 6)Abbot Pakistan | ABBOT |
| 7)Sakrand Sugar Mills | SAKSM |
| 8)Pakistan Hotel development Ltd | PAKH |
| 9)Bata Pakistan | BATA |
| 10)Pakistan Petroleum mtd | PPL |
| 11)Oil and Gas development Corp Ltd | OGDC |
| 12)Agriauto Industries Ltd | AGRI |
| 13)Pakistan PVC Ltd | PAKPVC |
| 14)Pakistan Papaersack Corporation | PAKPAPC |
| 15)Mandviwalla Mauser | MANDM |
| 16)Shahtaj Sugar Mills | SHAHT |
| 17) S.G. Fibre LTd | SGFL |
| 18)Mirza Sugar Mills | MIRGAS |
| 19)Emco Industries limited | EMCOI |
| 20) Metropolitan Steel | METRO |
| 21)Moonlite(Pak) | MOONLITE |
| 22)Merit Packing Ltd | MERITP |
| 23)Pakistan Services | PAKS |
| 24)ICI pakistan | ICIPAK |
| 25)Suzuki Motorcycles | SUZM |
| 26)Mohammad Farooq Textiles | MOHFT |
| 27)Paramount Spinning Mills | PSM |
| 28)Azam Textiles | AZAM |
| 29) Dar Es Salaam | DARES |
| 30)Sindh Abadgar,s | SINDHA |
| 31) Ellcot Spinning Mills | ELLCOTS |
| 32) Ayesha Textile | AYSHAT |
| 33) Brother textiles Ltd | BROTHERT |
| 34)Mitchell's Fruit | MITCH |
| 35) Indus polyester company | INDUSP |
| 36) Mirpurkhas Sugar Mills | MIRS |
| 37) Nestle Pakistan | NESTLE |
| 38)Din Moters | DINM |
| 39) Indus Moters | INDUSM |
| 40) Maple Leaf cement | MAPLEL |
| 41) National refinary | NATR |
| 42) Pakistan Tobaco | PAKTAB |
| 43)Dawod Hericules | DAWOODH |
| 44) Sui Nothern | SUIN |
| 45) Fuji Fertilizer | FFC |
| 46)Fuji Bin Quasim | FBQ |
| 47)PTCL | PTCL |
| 48)Ferozson LTD | FERL |
| 49) Southern Electric | SOUTE |
| 50) Japan Powers | JAPP |

**Table A3: Description of Variables.**

| Variable | Symbol | Definition |
|---|---|---|
| Tobin Q | *Q* | Tobin Q defined as sum of the book value of long term debt and market value of the equity divided by the book value of the total asset. Source: Annual Reports of Corporations. |
| Return on Assets | *ROA* | A performance measure. It is measured by operating profit divided by the book value of total asset. Source: Annual Reports of the Corporations |
| Return on Equity | *ROE* | A performance measure. It is measured by operating profit divided by the equity capital. Source: Annual Reports of the Corporations |
| Investment Opportunities | *Inv* | Average Sales Growth. Source: Annual Reports of Corporations |
| Corporate Governance | *CGI* | Score of Corporate Governance Index. Source: Javid and Robina (2006). |
| Disclosure | *Dis* | Disclosure and Transparency Scores. Source: Javid and Robina (2006). |
| Ownership Concentration | *Own* | Percentage of share ownership of first five largest shareholders. Source: Annual Reports of Corporations. |
| Size of the Firm | *Size* | Ln(Assets). Source: Annual Reports of Corporations. |
| Law | *Lw* | Rule of law. Source World Bank. |
| Leverage | *Lev* | Book value of Long term Debt/Book value of total asset. Source: Annual Reports of Corporations. |