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Corporate governance and firm performance in Pakistan: The case of Karachi Stock Exchange (KSE)-30

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This paper examine the relationship between four important corporate governance mechanisms (board size, board composition, CEO/chairman duality and audit committee) and two firm performance measures (return on equity, ROE, and profit margin, PM), for a sample of 30 Pakistani listed firms between 2008 and 2009. The results provide evidence of a positive significant relationship between ROE and PM and three corporate governance mechanisms (board size, board composition and audit committee). The implication of this is that, the board size should be limited to a sizeable limit and board must be a right mixture of executive and non-executive directors. The study, however, could not provide a significant relationship between the two performance measures (ROE and PM) and CEO/Chairman duality. These results are consistent with prior empirical studies.

Key words: Corporate governance, firm performance, Pakistan.

INTRODUCTION

Different views present on an explicit definition of corporate governance, however in a plain way, "Corporate Governance is the mode through which entities are managed and governed."

According to the report of Weil et al. (2004), the term 'corporate governance' is susceptible to both broad and narrow definitions. The majority of the definitions articulated in the codes relate corporate governance to 'control' – of the company, of corporate management, or of company or managerial conduct. Another related theme common to the definitions of corporate governance found in these codes concerns 'supervision' of the company or of management. In addition, a number of definitions relate corporate governance to legal framework, rules and procedures and private sector conduct. Finally some of the codes speak of governance encompassing relationships between shareholders, boards and managers.

Corporate performance is an important concept that relates to the way and manner in which financial resources available to an organization are judiciously used to achieve the overall corporate objective of an organization;

it keeps the organization in business and creates a greater prospect for future opportunities.

In global context, all countries have their own set of rules and regulations in their particular region according to their social, political and religious needs. Some take the form of laws, some as guidelines while some are social norms. According to Black et al. (2003), these rules are pre-defined in black and white to guarantee that all the entities adhere to the same set of rules and regulations to ensure a level playing field for all and protecting the rights of all stakeholders.

A large number of countries have issued their own set of corporate governance codes or guidelines from early 2000 or later. These are generally in the form of binding regulations applicable to the companies listed on the stock exchanges of the respective countries ensuing safeguarding of stakeholders' rights.

In Pakistan, the codes of corporate governance introduced by Security and Exchange Commission of Pakistan (SECP) in early 2002 are the major step towards corporate governance reforms in Pakistan. These codes include many recommendations in line with international best practice. The major areas of enforcement include reforms of board of directors in order to make it accountable to all shareholders and better disclosure including improved internal and external audits

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for listed companies.

Karachi Stock Exchange (KSE) is the oldest, biggest and most liquid exchange of Pakistan. It has been declared as the "Best performing stock market of the world for the year 2002". On 31st December 2007, 654 companies were listed with the market capitalization of Rs. 4,329,909 billion (US \$ 70.177) having listed capital of Rs. 671.27 billion (US \$ 10.880 billion).

The Karachi Stock Exchange is maintaining three indices, which are in place, that is, KSE 30, KSE 100 Index and KSE all share index. These said indices are market capitalization-based indices. The KSE 100 Index was introduced in 1991 and comprises of 100 companies selected on the basis of sector representation and highest market capitalization, which captures over 80% of the total market capitalization of the companies listed on the Exchange (According to KSE website www.kse.com.pk).

KSE-30 Index is to have a benchmark by which the stock price performance can be compared to over a period of time. In particular, the KSE-30 Index is designed to provide investors with a sense of how large company's scripts of the Pakistan's equity market are performing (www.kse.com.pk). Thus, the KSE-30 Index will be similar to other indicators that track various sectors of country's economic activity such as the gross national product, consumer price index, etc.

KSE-30 index is calculated using the "Free-Float Market Capitalization" methodology. In accordance with methodology, the level of index at any point of time reflects the free-float market value of 30 companies in relation to the base period. The free-float methodology refers to an index construction methodology that takes into account only the market capitalization of free-float shares of a company for the purpose of index calculation. Free-float methodology improves index flexibility in terms of inclusion of any stock from all the listed stocks. This improves market coverage and sector coverage of the index.

For example, under a full-market capitalization methodology, companies with large market capitalization and low free-float can be included in the Index. However, under the free-float methodology, since only the free-float market capitalization of each company is considered for index calculation, it becomes difficult to include closely held companies in the index while at the same time preventing their undue influence on the index movement.

This study is a contribution to the ongoing debate on the examination of the relationship that exists between corporate governance mechanisms and firm performance. They have observed mixed and tenuous findings from previous studies especially those ones that were conducted in the developed countries, particularly United States, UK, Japan, Germany and France.

More so, few studies (Iftikhar, 2009; Attiya et al., 2008) have been conducted so far on the Pakistani Business environment; hence this study tries to reduce the knowledge

gap. This work is empirical in nature and will utilize data of 30 top firms listed on the Karachi Stock Exchange between 2008 and 2009. This represents 60 firms -year observations.

LITERATURE REVIEW

Corporate governance measures in Pakistan

The literature regarding corporate governance in Pakistan is enormously thin, given the lack of research culture in Pakistani academic and institutional areas. International literature, reviewed in the earlier subsections has focused on East Asian countries like China, Malaysia, Thailand, Korea, and Japan to name a few. Among the South Asian countries, there is relatively much more literature on India than any other country (Khanna et al., 1996, 1997, 1998, 1999; Pankaj, 1996; Goswami et al., 1996; Singh et al., 2000, 2002, 2003).

Cheema et al. (2003) sum up the corporate growth history of Pakistan, providing an overview of the ownership structures, state of financial market, and market dynamics. Cheema et al. (2003) contribute to the sparse literature in Pakistan by studying the various determinants of corporate structure in the same pattern that important corporate governance studies (Claessens et al., 1999; LaPorta et al., 1999) have. These researchers observed the concentration of ownership and control to determine the ownership structure and capital market structure of Pakistan.

Culture may change as corporate structures change, however if a particular set of cultural traits is too deeply embedded in the society, that it fits many institutions, then it will not change if it is impeding the objectives of one institution (Roe, 2002). In Pakistan, a change in cultural traits cannot occur if the regulatory institutions desire the change only.

Corporate governance and performance

Numerous studies have investigated the connection between corporate governance and firm performance (Yermack, 1996; Claessens et al., 2000; Klapper and Love, 2002; Gompers et al., 2003; Black et al., 2003; Anda et al., 2005), with mixed results. Adjaoud et al. (2007) concluded that there is little evidence of a systematic relationship between the characteristics of the board. Bhagat et al. (2000) and Weir et al. (1999) observed a positive relationship between corporate governance and firm performance but Albeit et al. (1998) observed a negative relationship between them.

Corporate governance contains various aspects of complex regimes as Zingales (1998) also examines it as a comprehensively broad, multifaceted notion that is enormously relevant, while difficult to define, due to the

variety of scope that it encompasses. Friend and Lang (1998) examine that shareholders, having high concentration in firms, play an important role to control and direct the management to take keen interest in benefit of the concentration group. However, corporate governance command also allows shareholders to direct the management for betterment of their investment. Shleifer et al. (1997) urged that concentration groups with large shareholdings; check the manager's activities better. However, only the check and balance not only causes to reduce the agency cost but as well resolves the issues between managers and owners. Furthermore, Williamson (1988) examined the relationship between corporate governance and securities.

Jensen (1986) seems to be quite keen to analyze how corporate governance directly or indirectly influences the capital structure and firm value. Driffield et al. (2007) stated that higher ownership concentration has a positive impact on capital structure and firm value. In the other case, lower ownership concentration, the relationship depends upon the strictness of managerial decision making which enforce to bring change in the capital structure. Gompers et al. (2003) analyzed the relationship between corporate governance, long-term equity returns, firm value and accounting measures of performance, while Rob et al. (2004) found combined relationship between corporate governance, firm value and equity returns.

The Code of Corporate Governance (2002) issued by Securities and Exchange Commission of Pakistan describes the following benchmarks for international best practices.

The roles of the board of directors

1. The business of a firm is managed under the direction and supervision of a board of directors who delegates to the CEO and other management staff for day to day management of the affairs of the firm.
2. The board sees to the appointment, compensation, monitoring and replacing (in worse case) the executives.
3. Oversight of insider conflicts of interest, including misuse of company assets and abuse in related party transactions.
4. The directors, with their vast wealth of experience, provide leadership and direct the affairs of the business with high sense of integrity, commitment to the firm, its business plans and long-term shareholder value.
5. The board provides other fiduciary duties.

The CEO and management

They are responsible for:

1. Operating the firm in an effective and ethical manner.

2. Preparing the strategic plans and annual operating plans and budgets for the board's approval.
3. The integrity of the firm's financial reporting system that fairly presents its financial position. The financial reports are expected to comply with relevant statutory and professional pronouncements.
4. Establishing an effective system of internal controls to give reasonable assurance that the firm's books and records are accurate, its assets safeguarded and applicable laws complied with.

Shareholders rights and privilege

1. The board should have effective communication with shareholders to enable them understand the business, risk profile, financial condition and the operating performance of the firm.
2. Shareholders should be involved in the appointment and removal of directors and auditors.
3. Opportunity should be given to shareholders to ask questions about the direction of the firm and especially on the remuneration policy of key executive members and board members, which should be linked to performance.
4. Shareholders holding at least 10% of the equity of a firm should, as far as possible have a representative on the board, except they are disqualified by SECP to be a director of company.
5. Shareholders should have a right to share profit of firm at the end of financial year.

The role of the audit committee

The audit committee among other things is responsible for recommendation to board of directors; the appointment of external auditor(s) by company's shareholders, their removal and propose their remuneration from the approval of shareholders in AGM.

The committee has the following objectives:

1. Determine the appropriate measures to safeguards company's assets.
2. Review the preliminary announcements of results prior to publication.
3. Review the quarterly and annual financial statements of the Company, prior to their approval by the board of directors.
4. Facilitating external auditors and coordinating internal and external auditors.
5. Review the scope and extent of internal audit and ensuring that the internal audit function has adequate resources.
6. Ascertain the internal control system including financial and operational control, accounting system and reporting structure are adequate and effective.
7. Review the company's statement on internal control

system prior to endorsement by the board of directors.

8. Determination of compliance with relevant statutory requirements.
9. Monitor compliance with the best practice of corporate governance.

Corporate governance mechanisms

There are many dynamics or variables that may constitute benchmarks by which corporate governance can be measured in an organization. Some of these mechanisms are briefly discussed following.

Board size

Corporate Governance Codes recommend boards not to be too big and an ideal size of board is between 5 to 16 depending on the size and diversification of the organization.

Jensen (1993) attributes ineffectiveness of large boards to the rather undue emphasis on courtesy politeness associated with bigger groups rather than being frank and truthful. Some board members are implicitly coerced into agreeing to boardrooms decisions albeit; with some reservations which they fail to voice out. The agency problem also increases with board size as there are more conflicting groups representing their own diverse interests. In addition Free-riding also increases as some directors neglect their monitoring and controlling duties to other colleagues on the board. Most companies also have a representative of minority shareholders on board that is not usually increased with increasing board size (Drobotz et al., 2004b). Brown and Caylor (2004) also suggest that a board size between 6 to 15 members is ideal to enhance the firm performance. Yermack (1996) documented that those firms having small board sizes have higher stock market value. He finds an inverse relationship between firm value and board size by using a sample of large United States corporations. Mishra et al. (2001) stated that smaller boards help to make decision more quickly. Kathuria and Dash (1999) argued that firm's performance increases if the board size increased but the contribution of an additional board member decreases as the size of the board increases.

Studies that find a negative relationship between board size and firm performance include Eisenberg et al. (1998), Carline et al. (2002), and Mak and Yuanto (2002).

Aggarwal et al. (2007) found no relationship on board size and firm valuation.

Board structure

Corporate Governance indices bestow higher rating to firms with independent boards. Hermalin and Weisbach (1991), and Bhagat and Black (2002) found no correlation

between the degree of board independence and four measures of firm performance, controlling for a variety of other governance variables, including ownership characteristics, firm and board size and industry. These researchers found that poorly performing firms were more likely to increase the independence of their board. Dare (1998) state that non-executive directors are effective monitors firm's strategy related issues. They are able to provide independent expert judgment when dealing with the executive directors in areas such as pay awards, executive director appointments and dismissals. O'Sullivan and Wong (1999) recorded that, non-executive directors in the board become less effective if they continue with the same board for many years.

Baysinger and Hoskisson (1990) found that non-executive directors and part-time employed board members which limited their scope in understanding the complexities entailed in making informed decisions. Mac Avoy et al. (1983), Baysinger and Butler (1985) and Klein (1998) found that firm performance is insignificantly related to a higher proportion of outsiders on the board but Forsberg (1989) found no relationship between the proportion of outside directors and various performance measures. Thus, the relation between the proportion of outside directors and firm performance is mixed.

In Pakistan, Code of Corporate Governance has restricted listed companies that executive Directors must not be more than 75% of total board size; also encourage the representation of minority shareholders and independent directors.

CEO/Chairman duality

Different theoretical arguments have been used either to support or to challenge CEO duality. Drawing on agency theory, the opponents (Levy, 1981; Dayton, 1984) suggest that CEO duality diminishes the monitoring role of the board of directors over the executive manager, and this in turn may have a negative effect on corporate performance. On the other hand, the stewardship theory stresses that a unity of command of a CEO leads to an unambiguous leadership over subordinates and, hence, induces effective decision-making (Donaldson and Davis, 1991). Other researchers such as Brickley et al. (1997) suggest that there is no one optimal leadership structure as both duality and separation perspectives have related costs and benefits.

CEO duality causes information problems as he determines the agenda and information to the board (Jensen 1993). Worrell et al. (1997) show that upon the announcement of CEO duality, the stock market adversely reacts to the news, supporting the claim that CEO duality weakens the monitoring role of the board. CEO duality has also been linked to other signs of ineffective governance, such as in the cases of antagonistic takeovers (Morck et al., 1988) or in the cases of the use of "poison pills" (Mallette and Fowler, 1992).

Table 1. Independent variable.

Variable	Definition
BSIZE = Board size	Total members on the board
BCOMP = Board composition	Proportion of non executive directors sitting on the board
CEO = Chief executive status	Value zero (0) for CEO/Chairman duality and one (1) if CEO and Chairman are different head.
AUDCOM = Audit committee	The composition of the audit committee, that is, outside as a proportion of the total directors.

Audit committee

Klein (2002) reports a negative correlation between earnings management and audit committee independence. Anderson et al. (2004) find that entirely independent audit committees have lower debt financing costs.

METHODOLOGY

Sample/ research design

The data used for this study were derived from the audited financial statements of KSE Index 30 of Karachi Stock Exchange (KSE) between 2008 and 2009. The sample of the firms was selected from KSE-30 Index on the basis of re-composition issued on December 31, 2010.

KSE-30 consists of the top 30 companies of Karachi Stock Exchange according to the turnover and index reevaluate after every 6 months. Sample data consists of all major sectors of industries including textile, auto mobile, chemical, banking, insurance, telecommunication and oil and gas.

Model specification

The economic model used in the study is given below:

$$Y = \beta_0 + \beta F_{it} + e_{it} \quad (1)$$

where, Y is the dependent variable. β_0 is constant, β is the coefficient of the explanatory variable (corporate governance mechanisms); fit is the explanatory variable and e_{it} is the error term (assumed to have zero mean and independent across time period).

This study employs two important financial ratios (ROE and PM) to measure the firm's performance in a defined time period. In the empirical literature, Tobin's Q (the market value of equity plus the market value of debt divided by the replacement cost of all assets) has been used extensively as a proxy for measuring firm's performance. It is however intricate to get the required information relating to the market value of debt issued by Pakistani conglomerates, since that is not required to disclosed in their financial statements. In order to mitigate this problem, many scholars (Adenikinju and Ayorinde, 2001; Miyajima et al., 2003; Sanda et al., 2005) used modified form of Tobin's Q. This study does not follow their line of assumption, because the various modifications made on the original Tobin's Q are considered to be subjective, and in line with the dictates of the writers and may influence the outcome of the study.

Unlike Hermalin and Weisbach (1991), Cho (1998), Himmelberg et al. (1999), Palia (2001) Attiya and Rabia (2009) and Demsetz and Villalonga (2001) that use managerial compensation as the only corporate governance mechanism; Kim et al. (2004) that examine leverage only; Bhagat and Black (2002) and Coles, Daniel and Naveen (2008) that examine board characteristics only, this study examines four corporate governance mechanisms together.

By adopting the economic model mentioned in Equation (1) specifically to this study, Equation (2) evolves.

$$PERF = \beta_0 + \beta_1 BSIZE + \beta_2 BCOMPO + \beta_3 CEO + \beta_4 AUDITCO + e_{it} \quad (2)$$

Variable description

There are two types of variables

1. Dependent variable
2. Independent variable

Dependant variable

The dependant variable are:

$$\text{Return on Equity} = \frac{\text{Net Profit Generated During the Year}}{\text{Average Equity of the Firm at Year End}} \%$$

$$\text{Net Profit Margin} = \frac{\text{Net Profit Generated During the Year}}{\text{Total Revenue of the Firm at Year End}} \%$$

Independent variable

The dependant variable are given in Table 1.

RESULTS AND DISCUSSION

Empirical

Descriptive statistics

Table 2 shows the descriptive statistics of all the variables used in the study. The mean ROE of the sampled firms is about 24% and the mean PM is 20%. The results indicate that, on the average, for every Rs. 100 turnover of the sampled firms, Rs. 20.00 was the

Table 2. Descriptive statistics.

	ROE	PM	BSIZE	BCOMP	CEO	AUDCOM
Mean	0.24	0.16	9.33	7.50	0.93	0.91
Median	0.20	0.11	9.00	7.00	1.00	1.00
Mode	-	-0.0046	7.0000	7.0000	1.0000	1.0000
Std. Dev	0.1740	0.1739	2.5020	3.7567	0.2515	0.2515
Skewness	0.5238	1.9255	0.7953	0.1470	-3.5641	-3.5641
Kurtosis	-0.4859	4.7578	-0.2581	-0.5311	11.0711	11.0711
Range	0.6787	0.9058	9.000	14.750	1.000	1.000
Minimum	-0.043	-0.460	6.000	0.250	0.000	0.000
Maximum	67.44	90.12	15.00	15.00	1.00	1.00
Sum	14.22	9.55	560.0	450.04	56.0	54.5
N Valid	60	60	60	60	60	60
Missing	0	0	0	0	0	0

profit earned.

The average board size of the KSE 30 in this study is 9, while the proportion of the outside directors sitting on the board is about 7. The result also indicates that 93% of the sampled firms have separate persons occupying the position of the CEO and the board chair, while mere 7% of the firms have the same person occupying the two positions. A majority of the firms (91%) have audit committees composed by non-executive members of board. The code of corporate governance (2002) required at least 3 members in audit committee and the member are recommended to be non executive directors having accounting qualification or/and experience in accounting discipline. One can therefore infer that majority of the boards of the sampled firms are independent.

Regression

Tables 3a and b present the correlations among the variables. From Table 3a, using the Pearson correlation, ROE is positively correlated with the firm's board size and is significant (sig 0.000). Similar results appear for board composition, chief executive status and audit committee.

Table 3b indicates that PM is positively correlated with three of the corporate governance variables and significant except for CEO/Chairman duality committee that is not significant (sig 0.719).

Tables 4a and b show the analysis of variance (ANOVA) of the variables. With F- values of 0.9384 (sig 0.000) and 0.9821 (sig 0.000) for ROE and PM as performance proxies respectively, it clearly shows that there is a strong relationship between the dependent variables (ROE and PM) and the independent variables (the four corporate governance mechanisms "board size, board composition, CEO/Chairman duality and Audit committee") at 1, 5 and 10% levels.

Table 4a shows the ANOVA of ROE, a dependent variable and Table 4b shows the ANOVA of PM, an

independent variable

Table 5 shows the results of the coefficient estimates. Board size has a coefficient of 0.2192. This indicates a positive relationship between it and ROE and is statistically significant at 5 and 10% levels. The relationship between Board composition, Audit Committee and ROE is positive and statistically significant at 10% level. However, the CEO/Chairman duality shows low significant relationship with ROE at 1, 5 and 10% levels.

There is no relationship between the CEO/Chairman and the PM and it is significant at 1, 5 and 10% levels. The table further reveals that the board size, board composition and audit committee have positive significant relationship with PM.

By analyzing Table 5 together with the descriptive statistics, it is clear that though there is positive relationship between board size and the two performance proxies, it is significant with ROE and with PM. The average board size is about 9, and this is considered small in the Pakistani context. Thus, this result is in agreement with previous empirical studies (Yemack, 1996; Liang and Li, 1999; Yuanto, 2003; Sanda et al., 2005; Bokpin et al., 2006).

The relationship between board composition and the two performance measures has also positive statistical significant. It means that for the sampled firms of KSE 30, there is strong relationship between the firms' financial performances and the presence of non executive directors sitting on the board. The mixed outcome also supported by the study of Forsberg (1989), Weisbach (1988), Bhagat and Black (2002) and Sanda et al. (2005).

The result of the relationship between the CEO/Chairman duality is clear with the two performance proxies negative. It implies that the sampled firms of KSE, in the period under study, demand superstation of persons to occupy the positions of chief executive and the board chair.

This has influence on the financial performance of the sampled firms and in line with the tenet of the code of

Table 3a. Correlations (Pearson) - ROE as a firm performance proxy.

	ROE	BSIZE	BCOMP	CEO	AUDCOM
ROE	1.000	0.229	0.142	0.099	0.155
BSIZE	0.229	1.000	0.585	0.251	0.284
BCOMP	0.142	0.585	1.000	0.161	0.546
CEO	0.099	0.251	0.161	1.000	0.182
AUDCOM	0.155	0.284	0.546	0.182	1.000
Sig (1-tailed) ROE	-	0.000	0.280	0.451	0.238
BSIZE	0.078	-	0.000	0.053	0.028
BCOMP	0.280	0.000	-	0.218	0.000
CEO	0.451	0.053	0.218	-	0.164
AUDCOM	0.238	0.028	0.000	0.164	-
N ROE	60	60	60	60	60
BSIZE	60	60	60	60	60
BCOMP	60	60	60	60	60
CEO	60	60	60	60	60
AUDCOM	60	60	60	60	60

Table 3b. Correlations (Pearson) - PM as a firm performance proxy.

	PM	BSIZE	BCOMP	CEO	AUDCOM
PM	1.000	0.180	0.222	-0.047	0.160
BSIZE	0.180	1.000	0.585	0.251	0.284
BCOMP	0.222	0.585	1.000	0.161	0.546
CEO	-0.047	0.251	0.161	1.000	0.182
AUDCOM	0.160	0.284	0.546	0.182	1.000
Sig (1-tailed) PM	-	0.170	.088	0.719	0.223
BSIZE	0.170	-	0.000	0.053	0.028
BCOMP	0.088	0.000	-	0.218	0.000
CEO	0.719	0.053	0.218	-	0.164
AUDCOM	0.223	0.028	0.000	0.164	-
N PM	60	60	60	60	60
BSIZE	60	60	60	60	60
BCOMP	60	60	60	60	60
CEO	60	60	60	60	60
AUDCOM	60	60	60	60	60

corporate governance of Pakistan, 2002. This outcome is consistent with previous empirical studies (Yermack, 1996; Brown et al., 2004; Bokpin et al., 2006).

Audit committees being occupied by majority of non-executive directors also have positive influence on the firm's performance. This is because this study shows that the strong relationship between the statutory audit committee and the two performance measures is statistically significant. This result is consistent with some previous studies such as Klein (2002) and Mansi and Reeb (2004), they also reported strong positive relationship between audit committee and the performance variables they used in their studies.

Conclusion

There is no doubt that several studies have been conducted so far to examine of the relationship between firm performance measures and corporate governance mechanisms, but startlingly the conclusions of these studies are varied. In this study, the author examine the relationship that exists between firm performance, using two proxies (ROE and PM) and four corporate governance mechanisms (board size, board composition, CEO /Chairman Duality and audit committee). A sample size of 30 firms listed on the Karachi Stock Exchange between 2008 and 2009 is used. Appendix 1. Data has

Table 4a. ANOVA- ROE as a dependent variable.

Model	Sum of square	Df	Mean square	F	Sig
Between group	0.1141	4	0.0285		
Within group	1.6724	55	0.0304	0.9384	0.00
Total	1.7865	59			

Predictors: (Constant) audcom, ceo, bsize, bcomp.

Table 4b. ANOVA- PM as a dependent variable.

Model	Sum of square	Df	Mean square	F	Sig
Between group	0.1189	4	0.0297	0.9821	0.00
Within group	1.6643	55	0.0303		
Total	1.7832	59			

Predictors: (Constant), audcom, ceo, bsize, bcomp.

Table 5. Coefficient estimates dependent variables.

Independent variable	ROE	PM
BSIZE	0.2192[2.0926]{0.0409}	0.1661[2.0151]{0.0486}
BCOMP	0.1418[1.4079]{0.1645}	0.2224[1.1178]{0.2682}
CEO	0.0951[0.5394]{0.5917}	-0.0474[-1.1287]{0.2637}
AUDCOM	0.1487[1.2123]{0.2304}	0.1595[1.0295]{0.3075}
R ²	0.0639	0.0667
Adjusted R ²	-0.0042	-0.0012
F- Statistics	0.9384	0.9821
Number of observation	60	60

t- Statistics are shown in the form [], while p- values are in the form { }.

been selected by KSE 30, list issued on 31st December 2010 by Karachi Stock Exchange; the method of analysis is multiple regressions. The study reveals the following results:

1. There is a positive and significant relationship between ROE and board size.
2. There is a weak significant relationship between ROE and CEO / chairman duality.
3. There is also positive significant relationship between ROE, board composition and audit committee.
4. There is a no significant relationship between PM and CEO / chairman duality.
5. There is positive significant relationship between PM and board size, board composition and audit committee.

Context for future research

Regarding future line of research, efforts should be put at increasing the sample size and the corporate governance

variables, particularly the inclusion of ownership concentration /characteristics.

The need to examine the relationship between firm performance measures when leverage is introduced will make the outcome of the research to be more robust. More importantly, the empirical literature indicates a sample selection bias in favor of very big firms. It is hereby suggested that attention should be devoted to the study of small and medium scale firms due to their volume of at least 90% of the total number of firms in this part of the world belongs to this category.

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APPENDIX

Appendix 1. List of firms used in the study.

S/N	Name of firm	Sector
1	Oil and Gas Development Company Limited	Oil and Gas
2	MCB Bank Limited	Banking
3	Pakistan Petroleum Limited	Oil and Gas
4	Fauji Fertilizer Company Limited	Chemical
5	Pakistan Oilfields Limited	Oil and Gas
6	The Hub Power Company Limited	Oil and Gas
7	Engro Chemical Limited	Chemical
8	National Bank of Pakistan	Banking
9	Pakistan State Oil Company Limited	Oil and Gas
10	United Bank Limited	Banking
11	Bank AL Habib Limited	Banking
12	Habib Bank Limited	Banking
13	Fauji Fertilizer Bin Qasim Limited	Chemical
14	Pakistan Telecommunication Co. Ltd	Telecommunication
15	Nishat Mills Limited	Textile
16	Millat Tractors Limited	Automobile
17	Lucky Cement Limited	Cement
18	Bank Alfalah Limited	Banking
19	Kot Addu Power Company Limited	Oil and Gas
20	National Refinery Limited	Oil and Gas
21	Adamjee Insurance Company Limited	Insurance
22	D.G. Khan Cement Company Limited	Cement
23	Lotte Pakistan PTA Limited	Chemical
24	Jahangir Siddiqui & Co. Limited	Financial
25	Attock Petroleum Limited	Oil and Gas
26	I. C. I. Pakistan Limited	Chemical
27	Attock Refinery Limited	Oil and Gas
28	Arif Habib Limited	Financial
29	Mari Gas Company Limited	Oil and Gas
30	Nishat (Chunian) Limited	Textile