

IMPACT OF FIRM PERFORMANCE ON CORPORATE GOVERNANCE: AN EMPIRICAL INVESTIGATION OF PAKISTANI FIRMS

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ABSTRACT

Purpose – The purpose of this paper is to investigate the impact of prior year firm performance on corporate governance practices

Design/methodology/approach – A random sample of 40 companies listed on Karachi Stock Exchange of Pakistan was taken to test the hypothesis using SEM by using PLS Graph Software.

Findings – The results show that prior change in firm performance is significantly related to the improvement in corporate governance practices.

Research limitations/implications – The sample size used in this study was relatively smaller focusing on six manufacturing sector firms, thus the findings may not apply to all sectors other than those used in the sample.

Originality/value – The study is a pioneering attempt examining the impact of change in prior year firm performance on corporate governance practices in Pakistan

KEYWORDS: Corporate Governance, Performance

INTRODUCTION

In the beginning of this millennium many companies like Enron, worldwide were thought to be collapsed due to absence of good corporate governance. Traditionally, corporate governance focuses on the problems of separation of ownership and control, now it is perceived that firms should consider the all the stakeholders. To create a culture of consciousness, transparency and openness good corporate governance is needed by corporations. Corporate governance results in high customer satisfaction and maximizes the shareholders' wealth. Corporate governance assures that management is acting in the best interest of stakeholders.

Corporate governance is explained by four basic theories. First, Agency Theory explains the relationship between the shareholders (principals) and the management (Agents). It is considered that management would carry out their fiduciary duty but sometimes management deviate from their duty. These agency problems can be mitigated through better governance by fair disclosure of financial data

and independent board of directors. Second, Stewardship Theory describe that manager are trustworthy and they value their personal reputations. Third, Stakeholder Theory emphasizes on the ethics, fiduciary relationship, social contract, property rights, stakeholders as investors, communication ethics etc. Last, Sociological Theory focuses on board composition and distribution of wealth to realize the socio-economic objective of companies.

Corporate governance advocates claim that good governance practices are essential for high performance. Researchers and practitioners argue that if a firm is considering protecting the interests of its shareholders, the assets of the firm will be employed in a way to minimize misuse and maximize profit, resulting in awesome returns to shareholders. Core et al. (1999) find that corporations with weak governance have high agency problems, CEO's at these firms which have more agency problems obtain high rewards. They also find that firms with greater agency problems are unable to outperform. Numerous researches using an overall score of governance have found an association between governance and shareholder gain (Gompers et al., 2003) Companies with good governance are rewarded by better stock performance (Bradley, 2004). According to resource dependence view, directors can mitigate environmental uncertainty due to their relations with stakeholders (Pfeffer and Salancik, 1978).

This particular study is going to add in literature in two ways. First we examine the relationship between prior firm performance and good corporate governance. As it was examined earlier by Baysinger and Butler (1985), they investigated the relationship between prior performance and the board of directors. But they found no relationship between prior year performance and corporate governance. In their study only single characteristic of board, the independence of board of directors from the management of the companies, was considered. This study examines a variety of governance and performance variables to check the impact of prior firm performance on good corporate governance. Secondly, this study is a pioneering attempt focusing on manufacturing firms listed on Karachi Stock Exchange (KSE).

We proceed as follows: second section examines the comprehensive literature review related to the impact of firm performance on corporate governance. Third section includes methodology, hypothesis that is developed to test the link between prior year firm performance and corporate governance, third section also includes model that shows the proposed relationship between variables. Data analysis and results are discussed in section four. Last section contains discussion on results and suggestions for further research on this relationship.

LITERATURE REVIEW

According to agency view, outside directors can monitor management in a better way because they are independent from company's management (Fama and Jensen, 1983). Outsiders are in more preferable on insiders as insider-dominated board's results weak accountability of CEO as CEO has a power to influence the career of insider directors (Zajac and Westphal, 1994). Rechner et al. (1993) find that in contrast to the executive directors, there is little chance that careers of outsiders would be affected by the results of their decisions so they can make more accurate solution. Outside directors can add to

company's performance due to their expertise from their prior experience (Mace, 1986). Outside directors also bring impartiality in evaluation of decision made by management (Baysinger and Hoskisson, 1990). Pfeffer (1973) find that Changes in environment directly affect the composition of board of director. Board includes the independent directors who bring managerial wisdom and external connections that help firm to outperform (Baysinger and Butler, 1985). Hillman et al. (2000) investigated that utility companies made changes in board of directors to make board more responsive to aggressive conditions during industry deregulations. Baysinger and Butler (1985) find a connection between the nature of directors and performance of the firm taking outsider directors into considerations.

CEO duality is a very important issue in corporate governance. Agency theorists advise that that firm should avoid CEO duality in order to avoid managerial entrenchment and limit the CEO's power (Mallete and Fowler, 1992).Goyal and Park (2002) find that it becomes very hard to change CEO for unsatisfactory financial performance if CEO is also the chairman of board of directors. Fama and Jensen (1983) argue that duality means that there is no separation between decision management and decision control. Absence of duality helps in objective evaluation organizational and management performance (Weidenbaum, 1986). Pi and Timme (1993) conducted a research in banking industry and find that cost efficiency and return on assets (ROA) were lower for banks with duality and results were higher for banks that have different CEO and Chairman. Boyd (1995) concludes that there is a weak inverse association between CEO duality and firm performance. Worrell et al. (1997) find that in case of CEO duality firm's stock market performance was unfavorable. Finkelstein and D'aveni (1994) named CEO duality as "double edged sword". They also argue that agency issues relate to CEO duality can be minimized by resource dependence advantages attached with CEO duality.

Mak and Kusnadi (2005) find that there is an inverse relationship between board size and value of firm in Singapore and Malaysia. Yermack (1996) finds consistent results with theories that small boards of directors are extra efficient. This study finds an inverse association between board size and firm value. Eisenberga et al.(1998) find a considerable negative relationship between board size and profit in small and midsize firms. Cheng (2008) provides evidence that firms with large board have less variability of corporate performance. Conyon et. al. (1998) concludes negative impact of board size on firm performance. Belkhir (2009) finds a positive association between board size and firm performance. The author also concludes that change in board size is not affected by prior performance.

Vafeas (1999) finds that board meeting frequency is associated to corporate governance and ownership in a way that is reliable with agency theory. The yearly figure of board meetings is negatively related to firm value. These results suggested board meeting frequency, is a significant measurement of board operations. The association between ownership structure and company performance has been the focus of intense research in recent years. Claessens and Djankov(1999) conclude that firms with more concentrated ownership have high profitability and labor efficiency. Kuznetsov and Muravyev (2001) find that ownership concentration positively affects labor productivity, but has a negative impact on Tobins'q.

Institutional investors consider governance as important as performance while taking investment decision. Duggala and Millar (1999) find out a positive relation between the institutional ownership and corporate performance. Cornetta et al. (2007) suggest that institutional investors with potential business relationships can be considered as monitors of the firm. That's why they can be taken as an element of corporate governance. Brunello (2001) finds evidence that an increase in net profits of firm by 1 billion lire increases the compensation of upper and middle managers by only 31 thousand. Brick (2006) finds that excess compensation of director and CEO are related to firm underperformance.

HYPOTHESIS AND METHODOLOGY

Hypotheses Development

Most of the researchers give emphasis on logical way of developing and testing the hypothesis. Following their view, this study aims to develop a hypotheses which deals with the relationship of financial performance and corporate governance variables

H1: All else being equal, companies with higher performance tend to have better corporate governance

Structural Model

Variables

Latent Exogenous Variables: Corporate Governance is dependent variable for this study. To measure good corporate governance, Percentage of outside directors on board, board size, CEO duality, frequency of board meetings, ownership concentration, Institutional ownership and management compensation are used. Ownership concentration is measured by Herfindahl-Hirschman Index (HHI).

Latent Endogenous Variables: Financial Performance is used as independent variable in this study. While selecting performance variables Literature shows that a number of different measurements of the financial performance are used. Literature uses return on assets (ROA), return on equity (ROE), earning per share (EPS), price to earnings (P/E) ratio, net profit after tax (NPAT) and Tobins'q as measure of financial performance. In this study all these variables are used to measure financial performance

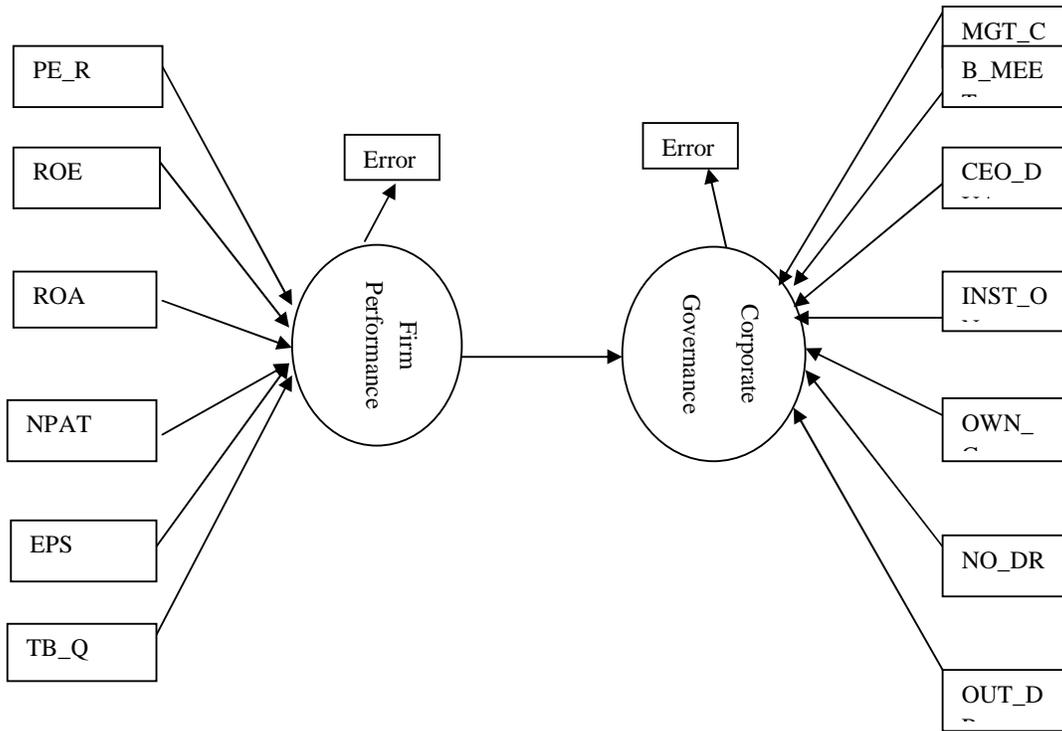


Figure 1: Using PLS Based SEM, the Following Figure Shows Structural Connection among the Variables in this Study

Measurement Model

All indicators (shown in squares) build and influence their respective latent constructs (shown in circles).

The latent constructs can be measured in mathematical terms as:

$$\xi = \gamma_{x1} X 1 + \gamma_{x2} X 2 + \gamma_{x3} X 3 + \gamma_{x4} X 4 + \gamma_{x5} X 5 + \gamma_{x6} X 6 + \zeta$$

$$\eta = \gamma_{y1} Y 1 + \gamma_{y2} Y 2 + \gamma_{y3} Y 3 + \gamma_{y4} Y 4 + \gamma_{y5} Y 5 + \gamma_{y6} Y 6 + \gamma_{y7} Y 7 + \zeta$$

The hypothesis H1 impact of latent exogenous variables, Firm Performance (ξ) on latent endogenous variables, Corporate Governance (η) would be measured through:

$$\eta = \beta\xi + \zeta$$

Table 1: Description of Exogenous and Endogenous Variables and Symbols

No.	Symbol	Abbreviation	Description
1	ξ	FIN_PERF	Latent Exogenous Variable, Financial Performance
3	η	COPR_GOV	Latent Endogenous Variable , Corporate Governance Measures
4	ζ		Random Disturbance Term
5	γ_{x1}	PE_R	Path Coefficient of X1, Price to earnings Ratio
6	γ_{x2}	ROE	Path Coefficient of X2, Return on Equity
7	γ_{x3}	ROA	Path Coefficient of X3, Return on Assets
8	γ_{x4}	NPAT	Path Coefficient of X4, Net Profit after Tax
9	γ_{x5}	EPS	Path Coefficient of X5, Earning per Share
10	γ_{x6}	TB_Q	Path Coefficient of X6, Tobins'q
11	γ_{y1}	MGT_COM	Path Coefficient of Y1, Management Compensation
12	γ_{y2}	B_MEET	Path Coefficient of Y2, Number of Board Meetings
13	γ_{y3}	CEO_DUA	Path Coefficient of Y3, CEO Role Duality
14	γ_{y4}	INST_ON	Path Coefficient of Y4, Institutional Ownership
15	γ_{y5}	OWN_C	Path Coefficient of Y5, Ownership Concentration
16	γ_{y6}	NO_DR	Path Coefficient of Y6, Number of Directors on Board
17	γ_{y7}	OUT_DR	Path Coefficient of Y7, Number of outside Directors

DATA ANALYSIS AND RESULTS

Sample and Data

This study attempts to draw link between prior year firm financial performance and corporate governance based on random sample from manufacturing firms listed at Karachi Stock Exchange (KSE). Data collection from the whole population was impossible so a random sample is selected. The is a quantitative study based on 6 years data collected from audited and published annual reports of the companies covering the period 2005-10. Random covers five manufacturing sectors. The final sample includes sixteen textile companies, twelve companies from food producers, seven cement enterprises, two industrial engineering enterprises, three household enterprises and reaming are from automobile and parts sector.

Table 2: KSE-Sample Sector Wise

No.	Sector	Firms
1	Personal Goods	13
2	Food Producers	12
3	Constructions and metals	7
4	Industrial Engineering	2
5	Automobile and Parts	3
6	Household goods	3
	Total	40

Descriptive Statistics

To better understand the data, basic descriptive statistics applied, even if descriptive do not tell the whole story, but describe minimum, maximum, means and standard deviation of all variables. Table 3 shows descriptive of firm performance for the year 2009 and corporate governance for the year 2010.

Descriptive statistics in 2009 disclose that the average ROA is 6.4610 which indicate that KSE listed firms have normal return on assets. However standard deviation of 18.94721 suggests that there is considerable variation in return. In 2009, Dewan Auto Engineering shows minimum ROA of -42.53 and Pangrio Sugar Mills have maximum ROA of 78.37. The average return on assets during the period 2005-09 remains almost consistent (4.7458, 5.7583, 4.1230, 6.4610, 6.4610).

In 2009 Average ROE is 9.6152 which shows that KSE listed firm are performing well and earning a handsome return on equity investment however standard deviation of 22.523 indicate a notable variation in the ratio. For the year minimum ROE is -45.67 and maximum is 67.88 by Nestle Pakistan. The average ROE shows an improvement which indicate that firms are improving performance over the period (4.0258, 20.4697, 54.8480, 42.2058, 42.20). Average EPS is 11.5265 in the year 2009 which indicate the good performance of the KSE listed firms. Standard deviation in EPS is 25.32275 which show that there is a considerable variation in data. In 2009 Loss per share is -23.70 maximum EPS is 140.43 by Raffhan Maize Product. Five year average figures of EPS shows a normal variation (7.2370, 10.3565, 9.1375, 11.5265, 11.5265).

Average Tobins'q ratio in 2009 is 0.7978, standard deviation is 1.62971. This ratio shows consistency for the period except 2007 which might be due to the boom in stock exchange (0.8418, 0.9213, 5.1913, 0.7978, 0.7978). In 2009 Average price to earnings ratio is 4.6418 and standard deviation 28.64330. This ratio shows ups and downs in the data (8.3727, 16.1152, 12.8985, 4.6418, 4.6418). Average NPAT in 2009 is PKR 301410000 which shows that the KSE listed firms are making reasonable profit however standard deviation of PKR 1006960000 indicates that there is a high variation in the return from firm to firm. The Maximum Net loss is PKR 1960000000 by Shakarganj Mills and maximum NPAT is earned by Lucky Cement Ltd

4600000000 for the year 2009. The NPAT shows a consistency over the period under consideration (315650000, 334110000, 379840000, 234000000, 301410000).

In 2010 average number of directors on board is 7.7250 with a standard deviation of 90547. Minimum number of directors on the board is 7 and maximum 10. These descriptive shows that firms have minimum 7 directors on the board. Average number of directors on board remains consistent over the period (7.7000, 7.7250, 7.7500, 7.7500, 7.7250). Average Number of outside Directors on board is 4.5250 with a standard deviation of 1.88091. Minimum number of outside director on board is 0 and maximum 8. Descriptive indicate that average number of outside director on board remain more than 4 over the period under consideration (4.5250, 4.4500, 4.4500, 4.5500, 4.4750). Average management compensation is PKR 8576045 with a standard deviation of PKR 150178000. The average compensation shows an increase over the period (49263225, 46109175, 57360275, 73363150, 85760450). This increase is due to increase in number of executives.

Average number of board meetings during the year 2010 is 5.1000 with a standard deviation of 1.90546. Minimum number of meeting during 2010 is 4 and maximum 14 meeting were held by Quetta Textile Mills Ltd. Descriptive shows that average number meeting during the period (5.1000, 4.8000, 4.8000, 4.9750, 4.9250). Average for CEO role duality is 0.3250 with a standard deviation of 47434. Descriptive result shows that average remains near 0 which indicates that there is low rule duality in KSE listed firms (0.3250, 0.3750, 0.3750, 0.3750, 0.3750). Average institutional ownership is 48.8557 percent with a standard deviation of 33.33702 percent. Average over the period shows that institutional ownership remains near about 50 percent (48.8557, 51.8933, 51.8933, 45.2115, 44.3950)

Table 3: Descriptive Statistics

		N	Minimum	Maximum	Mean	S.D
Firm Performance	ROA	40	-42.53	78.37	6.461	18.9472
	ROE	40	-45.67	67.88	9.6152	22.523
	EPS	40	-23.7	140.43	11.5265	25.3228
	TOBINS_Q	40	0	8.21	0.7978	1.62971
	PE_RATIO	40	-136.25	66.67	4.6418	28.6433
	NPAT	40	-2E+09	4.6E+09	300000000	1E+09
Corporate Governance	B_SIZE	40	7	10	7.725	0.90547
	OUTSIDE_DIR	40	0	8	4.525	1.88091
	OWN_CONCEN	40	155	7073	1844.75	1893.39
	MGT_COMP	40	696000	920000000	86000000	150000000
	FREQ_BM	40	4	14	5.1	1.90546
	CEO_DUAL	40	0	1	0.325	0.47434
	INST_OWNER	40	0	98.45	48.8557	33.337

The quality of the model is tested on the basis of significance of relationship among latent constructs and goodness of fit (R2). To find the impact of prior year firm performance on corporate governance it is

suitable to use structural equation modeling based on partial least square to investigate the impact of firm performance on corporate governance.

Validity and Reliability Test

To measure the validity of individual indicators in measurement model, Bootstrapping technique through 100 resamples with replacement was applied. Validity test provide evidence that EPS indicator from construct firm performance, two indicators Board Size and Ownership concentration from construct corporate governance remain considerable in all years 2006-10. While, the others indicators showed mixed behavior.

Andreev et al. (2009) recommend that multicollinearity test should be applied to check the construct reliability of formative indicators. So, collinearity test was applied through SPSS and VIF was calculated for each indicator of corporate governance construct. Results prove that VIF score remains below 5 in all years 2006-2010 which point out that none of the CG indicators is considerably explained by other CG indicator.

Analysis of Measurement Model

The SEM based on PLS gives an estimation of the impact of firm performance on corporate governance.

$$\eta = \beta\xi + \zeta$$

Left side of equation specifies the outcome variable corporate governance (η) while the right side (β) specifies the coefficient of latent endogenous variable financial performance. Figure 2 shows the results including weights, loading, path coefficient and coefficient of determination. With the intention of investigating the statistical significance of path coefficients (β) a bootstrapping technique through 100 resamples with replacement was performed using PLS Graph Software 3.0.

Table: 4

Year	Beta Coefficient	t-value	Significance
2009-10	0.575***	6.0408	p<0.01
2008-09	0.575***	3.8908	p<0.01
2007-08	0.615***	3.9159	p<0.01
2006-07	0.651***	12.17	p<0.01
2005-06	0.621***	3.953	p<0.01

* Significance at 10% (1.645) ** Significance at 5% (1.96) *** Significance at 1% (2.576)

Table 4 lists the path coefficients and t values with their level of significance for the period 2005-10. In all the years, we discover strong and significant path coefficients between the variables.

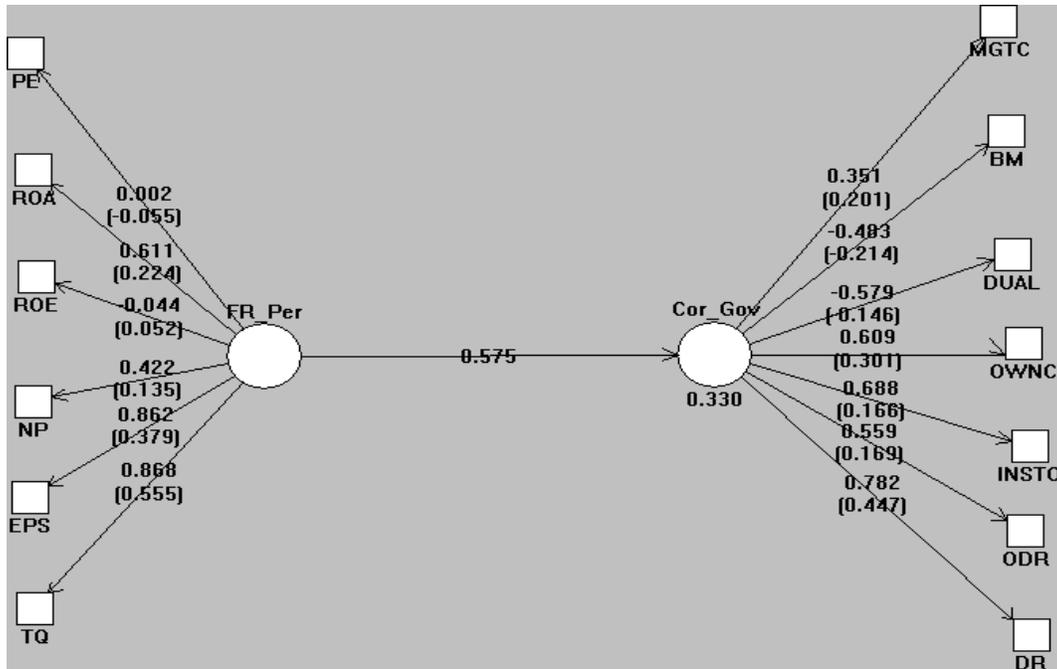


Figure 2: PLS Results for the year 2010

Results in the table 4 confirm that the prior year firm performance has strong and significant effect on corporate governance ($\beta = 0.575$, $t\text{-value} = 6.0408$, $p < 0.01$; $\beta = 0.575$, $t\text{-value} = 3.8908$, $p < 0.01$; $\beta = 0.615$, $t\text{-value} = 3.9159$, $p < 0.01$; $\beta = 0.651$, $t\text{-value} = 12.170$, $p < 0.01$; $\beta = 0.621$, $t\text{-value} = 3.9530$, $p < 0.01$) in all years 2005-10. In this way, it can be concluded that prior year financial performance exerts its positive influence on corporate governance.

R2 measures the total variance in dependent construct that can be explained by independent constructs. R2 values of the corporate governance construct explained by change in firm performance remain satisfactory (33%, 33.1%, 42.4%, 37.8%, 38.5%) over the five year period (table 5).

The above data, analyses and results support the model proposed in the study that financial performance affects the corporate governance practices. Overall results propose that corporate governance practices can be explained successfully through firm performance up to 42%.

Hypothesis Testing

The study tests the hypothesis formulated in the beginning on the bases of strength of beta coefficients by calculating multiple path value. The standardized path coefficient (β) demonstrates the significance of relationship between latent constructs and permit the fulfillment of the proposed hypotheses to be analyzed.

Table 5

Year	Hypothesis	Suggested effect	R-Square	Path coefficient	Significance	Confirmed
2009-10	H1	+	33%	0.575	p<0.01	Yes
2008-09	H1	+	33.1%,	0.575	p<0.01	Yes
2007-08	H1	+	42.4%,	0.615	p<0.01	Yes
2006-07	H1	+	37.8%,	0.651	p<0.01	Yes
2005-06	H1	+	38.50%	0.621	p<0.01	Yes

* Significance at 10% (1.645) ** Significance at 5% (1.96) *** Significance at 1% (2.576)

All (β) values of the impact of firm performance on corporate governance practices (H1) have been significant and fall between 0.575 and 0.651, that is much higher than 0.30 over the five year period. Table 5 shows hypotheses testing for the period 2005-10.

The hypothesis H1 suggests that prior year firm performance has positive impact on corporate governance practices. Above tables demonstrates significant values for the parameter of this relationship (0.575, $p < 0.01$; 0.575, $p < 0.01$; 0.615, $p < 0.01$; 0.651, $p < 0.01$; 0.621, $p < 0.01$) over the period 2005-10. This indicates good support for H1 relating to the impact of prior year firm performance on corporate governance practices. It verifies that firm performance construct is relevant and apply significant impact in improving the corporate governance practices of business organizations, thus H1 is supported.

Given the above analysis and outcome, the study supports acceptance of H1. Furthermore it supports the overall model anticipated in the study that the financial performance positively and significantly impact corporate governance practices.

CONCLUSIONS

The main purpose of this study was to find out the structural link and impact of firm's financial performance on corporate governance practices. The study was conducted to prove Financial Performance-corporate governance connection through empirical research. The path coefficient values (β) confirm the hypothesis that there is a considerable positive correlation between financial performance and CG measures. The hypothesis has also been assessed through coefficient of determination (R²). Enough empirical evidence has been provided to accept the proposed hypothesis H1.

After considering the reliability and validity of measurement model and path coefficients, coefficient of determination, it can be concluded that through our model up to 42.4% variance in corporate governance practices can be explained by financial performance successfully.

Due The relatively small size of the sample and only few sectors this study may not be generalizable at large.

Future studies are needed expanding both the scope of the research as well as tailoring both the performance and governance variables.

This paper helps to determine the role of industry and the environment in which organizations operate on the financial decisions based on previous data. It also contributes to the literature in making successful management decisions. This evidence suggests that management do care about firms' performance and understand how it is translated into future earnings and profitability.

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