



EFFECT OF FIRM PERFORMANCE ON CORPORATE GOVERNANCE A PANEL DATA ANALYSIS

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ABSTRACT

The purpose of this study is to investigate the impact of prior year firm's performance on subsequent year firm's corporate governance mechanism. We used board size, CEO–Chairman combined structure and audit expenditure as a firm level corporate governance mechanism. The panel data of fifty two companies listed on Karachi Stock Exchange covering the period from 2006 to 2010 was used for this study. Hypotheses were tested by using fixed effect model and random effect model. Our results revealed that prior year firm's performance has positive relationship with board size but negative relationship with audit expenditure. Furthermore, any change in prior year firm's performance causes change in CEO duality.

Key Words: Firm Performance, Duality, Audit Expenditures, Board Size

Jell Classification: G 30, G 34.

INTRODUCTION

The advocates of corporate governance asserts, if a company is paying more attention to safeguard the interests of its owners, then resources of the firm will be employed in such a manner that maximize shareholders' return (Gompers et al. 2003). In the past, a few studies were conducted in Pakistan to investigate the effect of corporate governance on firm's performance. These studies showed a positive relationship between corporate governance and firm performance. But according to our limited review of literature we could not find a single study conducted in case of Pakistan to assess the relationship between prior year firm's performance and subsequent year firm's specific corporate governance mechanism. In order to observe the effect of prior year firm's

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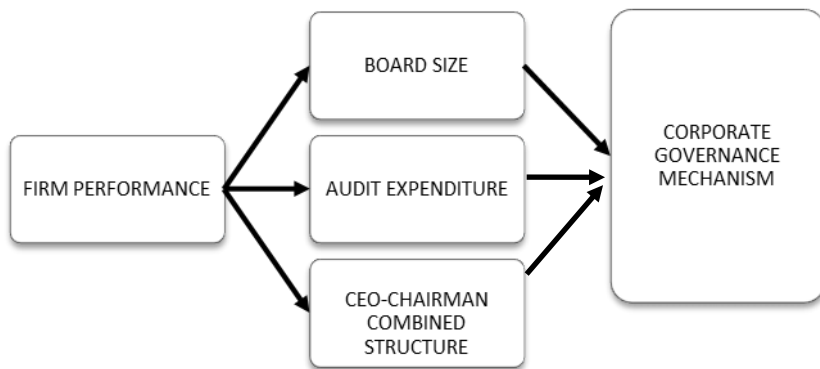
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performance on corporate governance mechanism, this study captured firm level corporate governance mechanism in terms of board size, Chief Executive Officer (CEO) duality and audit expenditure.

CONCEPTUAL FRAME WORK

Following is the conceptual frame work of the study which illustrates how the prior year firm's performance affects the firm's level corporate governance mechanism i.e. CEO chairman combined structure, board size and audit expenditure.



Impact of Firm Performance on Board Size

Previous studies conducted to investigate the impact of board size on firm performance observed inconsistent relationship between prior year firm's performance and board size and hence not concluding. For example, Alexander et al. (1993) asserted that larger boards are preferable for smaller firms. Yermack, (1996) suggested that decline in prior year firm's performance will reduce the board members in coming years, because the outside director are expected to be removed from board, due to their high salaries. Similarly; Pearce and Zahra, (1992) and D' Aveni, (1990) observed that prior year firm's performance is positively linked with few insiders and smaller boards. Their inconsistent results indicated that there is still need of further research to study the impact of prior year firm's performance on board size of firm in subsequent years. So, following hypothesis is developed to capture the impact of prior year's firm performance on board size of subsequent years.

H₀. Period of increased performance of firm does not increase the board size in subsequent years.

H₁. Period of increased performance of firm increase the board size in subsequent years.

Impact of Firm Performance on CEO Duality

Finkelstein and D' Aveni, (1994) affirmed that there are several reasons that watchful board will choose to keep the chairperson and CEO separate in the period of good performance. First, good

performance increases CEO power and creates organizational lobby which leads to opportunistic behavior of CEO; second in period of good performance, there is no need of managerial efficiency through duality; finally, the board is less likely to remove CEO after a period of good performance. Rechner and Dalton, (1991) confirmed that firm with separate CEO and chairperson outperforms as compare to the firm with CEO-Chairperson combined structure. On contrary; Harris and Helfat, (1998) argued that in the period of distress and bankruptcy it makes sense for the firm to combine the role of chairperson and CEO to make more effective decision for firm. This discrepancy of CEO-Chairperson combined structure and firm performance is explained by Boyd, (1995) arguing that impact of duality depends upon prior year's firm performance. Elsayed, (2007) reported that as the performance of firm gets better CEO-Chairperson combined structure likelihood decreases. Bhagat et al. (1999); Weisbach, (1998) founds that in case of poor performance of firm the board has different options regarding the status of CEO. The board can either remove him or demote him as a penalty of poor firm performance. The existing literature shows that results of prior studies are quite inconsistent due to which further persuasion is required. Thus the second hypothesis of the study is as following:

H₀: The period of increase in firm performance will not separate the CEO-chair combined structure of firm in subsequent periods.

H₁: The period of improved firm performance will separate the CEO-chair combined structure of firm in subsequent periods

Impact of Firm Performance on Audit Expenditure

The external audit is an important component of corporate governance which holds management liable to the shareholders for its stewardship. Mintz, (2005) argued that agency problem among the shareholders and management cannot be completely resolved, but in practice there are many actions which have been taken to reduce the agency cost. Like assessing the internal control and quality of financial reporting through external auditing. In order to assess the reduction in agency cost, the prior studies of Clarkson et al. (2006); DeAngelo, (1981) and Francis et al. (2003) used the size of auditing firm as a corporate governance mechanism. Similarly; Overhue and Cotter, (2010) used the proportion of audit fee as a mechanism of corporate governance. These studies just focused on the relationship between corporate governance and firm performance. This study extended by considering the audit expenditure as a mechanism of corporate governance and will observe whether change in firm's performance over the years brings the change in audit expenditure or not. Due to which this study seems to be a contribution in the existing literature, thus third hypothesis of study is given below:

H₀: The period of improved firm performance will not increase audit expenditure in subsequent years.

H₁: The period of improved firm performance will increase audit expenditure in subsequent years.

METHODOLOGY

Data and Data Sources

In order to assess the impact of firm performance on firm specific corporate governance mechanism, first we developed the sample of 180 listed firms on Karachi stock exchange over the period of 2006-2009. Then for homogeneity purpose and to get the robust results we removed firms of financial and service sectors from sample of the study and finally sample of the study is comprised of 52 firms from manufacturing sector of Pakistan.

Models of Study

The following multivariate OLS regression models are used to test the above mentioned three hypothesis of study respectively:

Model 1:

$$BOSZ_{t+1} = \alpha + B_1 FPER_{it-1} + B_2 SIZE_{it-1} + B_3 DR_{it-1} + B_4 FAGE_{it-1} \quad (1)$$

Model 2:

$$CEOCS_{t+1} = \alpha + B_1 FPER_{it-1} + B_2 SIZE_{it-1} + B_3 DR_{it-1} + B_4 FAGE_{it-1} \quad (2)$$

Model 3:

$$AUDTEX_{t+1} = \alpha + B_1 FPER_{it-1} + B_2 SIZE_{it-1} + B_3 DR_{it-1} + B_4 FAGE_{it-1} \quad (3)$$

Variables and their explanation

In model (1) $BOSZ_{t+1}$ is used as a mechanism of corporate governance to assess whether performance of firm affect corporate governance mechanism by compelling the firm to increase or decrease the number of directors in subsequent years. To measure $BOSZ_{t+1}$ we considered the total board members in each subsequent year like the study of Valenti et al. (2008). In model (2) $CEOCS_{t+1}$ is used as a dependent variable to test the hypothesis that firm's performance in prior years brings change in CEO-chairman combined structure of a firm. $CEOCS_{t+1}$ is measured by considering the presence or absence of duality in subsequent years. If duality is observed in the existing year as compare to the previous year the firm is assigned dummy of 0 and in case of its absence the firm is assigned dummy of 1. Similarly in model (3) $AUDTEX_{t+1}$ is also used as a dependent variable to assess whether firm performance in prior years have an impact on firm level corporate governance practices, by increasing or decreasing audit expenditure in upcoming years.

Among independent variables prior year's firm performance is the major variable. In past studies performance of firm has been measured by different ways and according to Cameron (1986) none of the measure of firm's performance is ideal. In this study firm's performance is measured by

calculating ROA (Return on Asset)⁴ consistent with Meharan, (1995). The expected sign of this variable with the dependent variables of all the models of study is positive. While among the other control variable, we included firm size, debt ratio and firm age. Normally firms with the larger size enjoy more profit out of employed assets, due to which they pay more audit fee and increase size of its board (Overhue and Cotter, 2010). Shah et al. (2009) measured it as a log of total sales. But this study used value of total assets for firm's size consistent with Wysocki, (2010). The expected sign of size of firm with all dependent variables of study is positive. The firm age is measured by considering the number of years since the listing of firm at Karachi stock exchange. The expected sign of firm age with all corporate governance variables of study is positive. Moreover, debt ratio is another variable used as a control variable. Debt ratio is measured by dividing total debt with total assets. Jensen, (1989) concluded that high debt ratio left the firm with less cash flow for improving its corporate governance mechanism. The expected sign of Debt Ratio (DR) with dependent variables of all three models is negative.

EMPIRICAL RESULTS

Panel data analyses on the basis of F-statistics amongst fixed effect and random effect which is to be used. If the presence of fixed or random individual effects is understood in F test, Hausman test indicates the model to be used (Greene, 1993). By using F test the presence of fixed effect was tested in both cross section and time section. According to F test results shown in Table-1 the hypothesis "there is no fixed effects" both in cross section and time section was refuted, thus it is determined that in both cross section and time section there are fixed effects.

Table-1: F Test Results:

Effects	Model 1			Model 2			Model 3		
	Statistics	d.f	Prob	Statistics	d.f	Prob	Statistics	d.f	Prob
Cross Section F	37.13469	(51,152)	0.000	2.5791	(48,143)	0.000	53.9534	(51,152)	0.000
Cross section Chi-Square	540.7370	51	0.000	122.2366	48	0.000	613.5655	51	0.000

The results obtained by Hausman test while selecting the fixed effect model or random effect model are shown in Table (2). These results suggest there is a cross section fixed effect in model (1) and (3) while there is cross section random effect in model (2).

Table-2: Hausman Test Results

Test Summary	Model 1			Model 2			Model 3		
	Chi-Sq Stat	Chi-Sq. d.f	Prob	Chi-Sq Stat	Chi-Sq. d.f	Prob	Chi-Sq Stat	Chi-Sq. d.f	Prob
Cross section random	22.77828	4	0.0001	0.384204	4	0.9837	20.596353	4	0.0004

⁴ Return on asset is calculated by dividing the net income to total assets. In total assets we included current assets, noncurrent assets and fixed assets.

Table-3: Panel Data Analysis Estimation Results

Variables	Model 1			Model 2			Model 3		
	Coefficient	t-value	p-value	Coefficient	t-value	p-value	Coefficient	t-value	p-value
FPER	1.2342	1.1133	0.2627	-0.1823	-0.4820	0.6303	-269498.1	-0.3454	0.7302
FSZ	1.1E-11	0.8671	0.3872	-1.8E-12	-1.2680	0.2063	-2.82E-06	-0.2962	0.7674
DR	-0.0593	-0.0797	0.9366	-0.0512	-0.2843	0.7764	-361341.7	-0.6902	0.4911
FAGE	0.0584	1.1847	0.2380	0.00002	0.1507	0.8803	167573.1	4.8312	0.0000
R-Squared	0.945743			0.0092			0.9651		
Adj-R-squared	0.926111			-0.0114			0.9524		
F-Statistic	48.17271			0.4477			76.4390		
Durbin Watson	1.744329			1.54		0.77399	1.84		

The results in Table-3 indicates that in model 1 firm performance in prior years has positive relationship with board size of firm in subsequent years as it was expected. Similarly in model 2 firm performances is negatively related with the CEO-Chairman combined structure as it was expected. Moreover, in model 3 audit expenditure are surprisingly negatively associated with firm performance. The reason of this relationship may be that firm tends to pay low audit cost after getting the reputation of profitable firm.

CONCLUSION

From the results of this study it can be concluded that in subsequent period of firm's good performance, the corporate governance mechanism gets better in term of increased board size, absence of duality. Surprisingly, negative results were observed between prior year firm's improved performance and audit expenditure. Similarly among the control variables in all above three models firm age is significantly and positively related with audit expenditure as it was expected. Though the coefficients signs of almost all variables used in the study are according to expectation, but in future more significant results could be obtained by using alternative measures of firm performance and increasing sample of study.

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