

## **IMPACT OF CORPORATE GOVERNANCE ON DISCRETIONARY EARNINGS MANAGEMENT A CASE OF PAKISTANI FIRMS**

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**Abstract.** The researchers in corporate finance have long recognized the widespread separation of ownership and control in firms that has created the potential agency problem which may be costly for the firms. The managers have substantial freedom to pursue their personal benefits at the expense of shareholders' wealth due to limited incentive of shareholder to monitor the behaviour and performance of agents. In this regard, one of the most significant values enhancing managerial decisions is Discretionary Earnings Management (DEM). Earnings management is the judgmental adjustments/alteration in firm's reported accounting earnings by managers in order to upsurge firm performance temporarily. The present study examines the effect of board structure and audit structure, as a measure of good corporate governance, on the discretionary earnings management behaviour of the firms' managers. Using the sample of 200 listed firms from Pakistani stock market for the period of 2004-2011, the present study concludes that corporate governance mechanisms are essential for

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effective monitoring of managers and to ensure the reliable accounting information disclosures.

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**JEL classification:** G31, G34, L25, M41, N25

## I. INTRODUCTION

The modern corporation structure is based upon the traditional theory of separation of ownership from its managers. Due to this separation, conflict of interests between the managers and shareholders arises, particularly in large organizations. The core objective of the shareholders is return on their invested capital whereas managers are likely to be focused on their own personal goals such as consummation of perquisites of the position (Jensen and Meckling, 1976), power and prestige of running a large organization (Hubbard and Palia, 1995), or their job security by not investing in risky but rewarding projects (Amihud and Lev, 1981). In this regard, managers' superior access and control over the firm's resources give them upper hand and they take decisions which are aligned with their personal objectives instead of those of shareholders.

Due to separation of ownership from corporate control and limited incentive of shareholders to monitor managerial behaviour, agency problem arises in firms as managers peruse their personal benefits at the expense of shareholders' wealth. The principle of shareholders' wealth maximization will not motivate corporate decision making in the absence of effective Corporate Governance (CG) mechanisms (Nazir *et al.*, 2009). Since the publication of *The Modern Corporation and Private Property* by Berle and Means (1932), immense literature has been stimulated on the agency theory of principal and agents. Since then, researchers in finance have tried to explore the potential adverse effects of absence of effective control mechanism and misalignment of shareholders and managers interest.

Along with the agency phenomenon, the global financial catastrophe and investors' desire for companies to have good corporate governance system also amplified its importance. The Asian Financial Crisis of 1997,

which were triggered from Japan in early 1990s, had adversely hindered many corporations in South East Asian countries putting long-lasting effect on their economies (Sachs, 1998). Generally, poor corporate governance structure is assumed to be the source of these crises up to a certain extent (D'Cruz, 1999; Khas, 2002). Moreover, the financial collapse of world's big conglomerates of Enron, Etoys, Adelphia, World Com, Parmalat, Commerce Bank, XL Holidays have ruined the investors' confidence in the capital markets and cautioned the world for the need to have a transparent and fair governance system in corporate firms, despite of the fact that *The Cadbury Report* (1992) put stress on the significance of good corporate governance structure for effective monitoring of managers and enhanced corporate performance.

One of most significant value enhancing managerial decisions is Discretionary Earnings Management (DEM). Earnings management is the judgmental adjustments/alteration in firm's reported accounting earnings by managers in order to upsurge firm performance temporarily (Cornett *et al.*, 2009; García-Meca and Sánchez-Ballesta, 2009). Managing the earnings is a choice of accounting rules, voluntary earnings estimates or information disclosures in order to affect the level or quality of reported earnings deliberately. This intentional alteration and manipulation of accounting earnings emasculate the reliability and trustworthiness of disclosed financial reports, which otherwise may be very beneficial to the stakeholders of capital markets, have underlined earnings management as much important research area.

The fundamental issue of corporate governance is how to ensure accountability of top management to their stakeholders while concurrently providing executives with the autonomy and incentives to exploit wealth producing strategies. Effective corporate governance structure to control the opportunistic behaviour of managers can presumably make accounting earnings more reliable and more informative for the stakeholders and hence, increases firm value. Cheng and Warfield (2005) reported that the propensity for earnings management is lower when management's interests and owners' interests are more closely aligned through effective governance structure. The present study is unique in its nature to investigate the relationship of corporate governance and discretionary earnings management. Audit quality and board structure have been taken as measure of good

governance. The present study is expected to contribute significantly in finance literature regarding corporate governance and earnings management by managers.

## II. LITERATURE REVIEW

The varying nature of accounting accruals provide corporate executives the discretion in the determination of firms' reported earnings during a particular period due the universal fact of information asymmetry between the inside controllers and outside owners of the firm. Inside managers can alter the reported earnings either to maximize their own benefits or to affect the informativeness of reported earnings by signaling private information to the outsiders (Healy, 1985). The reliability and informativeness of reported accounting earnings is dependent on the quality and effectiveness of corporate governance implemented through different monitoring mechanisms in a firm (Dechow *et al.*, 1996). After the world renown corporate collapses of Enron, Xerox, or WorldCom etc., a wave has been initiated to control and mitigate the opportunistic behaviours of managers and to enhance the credibility of the financial reporting through development and implementation of effective corporate governance systems all over the world.

With reference to the empirical studies on corporate governance and discretionary earnings management practices, a study was carried by Abbott *et al.* (2000) by using a variable namely audit committee activity. This study examined the impact of audit committee independence and activity in identifying corporate frauds. A sample of 156 firms listed on New York Stock Exchange was selected and from which 78 firms were sanctioned by the SEC. The study results showed that firm's audit committees which were composed of more independent directors and met twice a year were less likely to be sanctioned by the SEC. Moreover, these firms were less involved in the fraudulent activities and were less prone towards showing misleading financial reports.

Xie *et al.* (2003) examined the role of board structure variables and audit committee in mitigating the opportunistic behaviour of managers to manage reported earnings using 282 firm-year observations for S&P indexed firms. The results stated that board composition and monitoring role performed by the audit committees can significantly related to the earnings management practices of a firm. The firms with qualified and

financially expert directors present on the board and audit committee may tend to have lower level of discretionary accruals. Frequent meetings of board and audit committee can also have a storing monitoring mechanism for lower earnings management. On the other hand, Klein (2002) reported a negative relationship between audit committee independence and earnings management.

Jeong and Rho (2004) investigated the impact of big six auditors on the audit quality in Korea. Sample which is used in this study was 2117 firms listed at Korean Stock Exchange from period of 1994-98. From these firms, 806 were those who were audited by non-big 6 auditors, remaining 1311 were audited by big six auditors. Results of the study revealed that there was no significant difference between both firm's accruals that were audited by big six and from non-big six auditing firms. These study findings were same like other studies carried out in Korea.

Park and Shin (2004) examined the role of board composition and independence in lowering the earnings management practices for a sample of 202 Canadian firms for the period of 1991-1997. They argued that outside directors failed to reduce the earnings management practices in a firm whereas this opportunistic behaviour of managers could be marginally controlled by the presence of nominee directors of financial institutions due to their long term stakes and association with the firm.

On the other hand, Peasnell *et al.* (2005) have confirmed the predictions of agency theory that presence of outside directors on the board and audit committee make sure the integrity of financial reports and income increasing manipulation of earnings tends to lower in these firms. Davidson *et al.* (2005) also found empirical support for the effective role of independent directors in refraining earnings management in Australian firms; however, Yang and Krishnan (2005) and Osma and Noguer (2007) documented no association between audit committee independence and earnings management; Bradbury *et al.* (2006) failed to find any relationship between board independence and discretionary earnings management practices.

One important study in this regard is conducted by Cornett *et al.* (2009) who evaluated the earnings management practices at 46 large US bank holding companies headquartered in US and had been in operation during the period of 1994-2002. The study first established that the

relationship between corporate governance and earnings management was endogenous in nature. Once the endogeneity had been established, the authors used simultaneous equations approach to assess the relationship between board independence, pay-for-performance sensitivity and earnings management practices of bank holding companies. Contrary to earlier studies, the results reported that board independence and pay-for-performance sensitivity were positively associated with higher earnings management practices in US large banks.

García *et al.* (2012) have examined the two corporate governance mechanism impact on quality of earnings namely audit committee and internal audit in the Spanish corporations. Regression results reveal that there is negative association between the size of audit committee and earnings manipulations. Similarly, the number of audit committee meetings has also negative association with the earnings manipulations in the Spanish companies. Further, Gulzar and Zongjun (2011) have found strong association between earnings management and different characteristics of corporate governance like board size, CEO duality, board meetings, and board diversity. However, there was lack of evidence between earnings management and role audit committee and board independence.

González and García-Meca (2013) analyzed this relationship for four Latin American countries of Brazil, Argentine, Chile and Mexico for the period of 2006-2009. The Latin America is characterized as having weak investors' protection and mainly family-oriented businesses. The results have documented the evidence that the role of board composition and independence is limited rather limited in Latin American firms; however, if board meets more frequently, this activity may reduce earnings management in the firms. Recently, Hsu and Wen (2015) have investigated the impact of board composition on real and accrual based discretionary earnings management practices of Chinese listed companies for a period of 2002-2012. The study has pointed out that there is a greater propensity to manipulate earnings by corporate managers in firms where boards have CEO duality which is because of entrenchment effect. The authors have argued that large size of the board gives them an opportunity to better supervise and monitor these activities in Chinese firms.

In the domestic literature, role of corporate governance quality in minimizing earnings management in Pakistani firms is investigated by Shah, Zafar and Durrani (2009). They used board structure, ownership structure and audit committee independence as measures of quality of corporate governance for a small cross sectional sample of 53 KSE-100 index firms for year 2006. Their findings reveal positive relation between corporate governance and earnings management which is unconventional and opposite to the expectation. They give justification of their unconventional results that Pakistan is passing through its transition phase and that's why unusual results have been seen due to small sample for one-year data. Similar findings have also been found by Shah, Javed and Abbas (2009).

In literature, corporate governance and earnings management all over the world produced mixed and inclusive results as well as there is a great dearth of research for Pakistani firms in more generalizable form using further comprehensive measures of variables and on large set of data. Hence, the present study is expected to contribute significantly in the existing literature of role of corporate governance in controlling the opportunistic earnings management behaviour of Pakistani corporate managers.

### **III. RESEARCH METHODOLOGY**

The total population of the study is the listed firms of Pakistan Stock Exchange Limited (PSX). There were total 572 firms listed at PSX as on 31 December 2012 categorized into various industrial industries including financial and non-financial sectors. Among these, there were 432 non-financial firms. Some filtering techniques were applied to obtain the study sample. First of all, firms without complete study period (*i.e.* listed during the study period) were excluded. It was revealed that 54 out of these 432 non-financial firms were new incumbents during the period of study. Second sample filter was to exclude firms which remained non-operational during study window, so 46 firms with zero sales were also omitted from the sample leaving the total 332 non-financial firms in the sample. The last filtering technique was to have firms in the sample with complete governance, accounting and market data for the study period. Most of the textile firms were omitted with this filter and a total of 132 firms were excluded from the sample due to the lack of complete data

throughout the window period of current research. All the above three filters have removed 232 firms leaving with us the initial sample of 200 non-financial firms for the period of 2004-2011. The rationale for taking 2004 as base year is that the code of corporate governance was implemented in Pakistan in late 2002, the effective implementation could be assumed to be from year 2004. The data has been collected from the annual reports of sample firms, respective websites, daily quotations of PSX, daily business recorder, and websites of financial information providers etc. Moreover, after collecting and tabulating the data on different variables of the study, the initial screening has observed some outliers in the data which could disturb generalizability of the results. So data trimming techniques of standardized variables (z-score) was applied and this process eliminated 32 more firms from the sample. The sample was reduced by 27 firms from different sectors.

The impact of corporate governance mechanism on discretionary earnings management practices of firms will be estimated through following empirical models:

$$DEM_{it} = \beta_0 + \beta_1 (AC\ Size_{it}) + \beta_2 (AC\ Ind_{it}) + \beta_3 (AC\ Activity_{it}) + \beta_4 (EAQ_{it}) + \beta_5 (Firm\_Size_{it}) + \beta_6 (LVRG_{it}) + \varepsilon_{it} \quad (1)$$

$$DEM_{it} = \beta_0 + \beta_1 (BoS_{it}) + \beta_2 (BoI_{it}) + \beta_3 (CEO\ Duality_{it}) + \beta_4 (B\_Activity_{it}) + \beta_5 (B\_Part_{it}) + \beta_6 (Firm\_Size_{it}) + \beta_7 (LVRG_{it}) + \varepsilon_{it} \quad (2)$$

Whereas:

- $DEM_{it}$  = Discretionary Earnings Management for firm  $i$  for time  $t$  estimated as residual of any one of the equations 11-16.
- $AC\ Size_{it}$  = Size of internal audit committee for firm  $i$  for time  $t$
- $AC\ Ind_{it}$  = Independence of internal audit committee for firm  $i$  for time  $t$
- $AC\ Activity_{it}$  = Total number of meetings internal audit committee for firm  $i$  for time  $t$
- $EAQ_{it}$  = External auditor quality for firm  $i$  for time  $t$
- $BoS_{it}$  = Size of board of directors for firm  $i$  for time  $t$



$BoI_{it}$	=	Independence of board of directors for firm $i$ for time $t$
$CEO\ Duality_{it}$	=	CEO duality for firm $i$ for time $t$
$B\_Activity_{it}$	=	Total number of board meetings for firm $i$ for time $t$
$B\_Part_{it}$	=	Rate of participation of directors in board meetings for firm $i$ for time $t$
$Firm\_Size_{it}$	=	Size of the company as control variable for firm $i$ for time $t$
$LVRG_{it}$	=	Leverage ratio of firm $i$ for time $t$
$Risk_{it}$	=	Systematic risk faced by firm $i$ for time $t$
$\beta_0$	=	Intercept for firm $i$ for time $t$
$\beta_{1-n}$	=	Estimated parameters of the models
$\varepsilon_{it}$	=	residual

Discretionary accruals are commonly used as a proxy to detect earnings management in a firm. Following Collins and Hribar (2000), the present study uses cash flow approach to measure the Total Accruals (TA) as:

$$TA_{it} = EAT_{it} - OCF_{it}$$

Whereas:

$TA_{it}$	=	Total Accruals for firm $i$ for time $t$
$EAT_{it}$	=	Earnings after tax for firm $i$ for time $t$
$OCF_{it}$	=	Operating Cash flows for firm $i$ for time $t$

In order to estimate the non-discretionary portion of total accruals, Jones (1991) proposed the following model:

$$TA_{it} = \gamma_0 (1/Assets_{it-1}) + \gamma_1 (\Delta REV_{it}) + \gamma_2 (PPE_{it}) + \varepsilon_{it} \quad (3)$$

Whereas:

$TA_{it}$	=	Total Accruals for firm $i$ for time $t$
$Assets_{it-1}$	=	lagged value of total assets for firm $i$ for time $t-1$
$\Delta REV_{it}$	=	Change in revenues ( $REV_{it} - REV_{it-1}$ )
$PPE_{it}$	=	Gross property, plant and equipment for firm $i$ for time $t$

$\gamma_{0-n}$  = Estimated parameters of the models

$\varepsilon_{it}$  = residual

All variables are to be scaled by beginning level of total assets.

However, Dechow *et al.* (1996) argued that simple cross sectional Jones model (1991) is not much effective in its current form and proposed a modified Jones model as:

$$TA_{it} = \gamma_0 (1/Assets_{it-1}) + \gamma_1 (\Delta REV_{it} - \Delta REC_{it}) + \gamma_2 (PPE_{it}) + \varepsilon_{it} \quad (4)$$

Whereas:

$TA_{it}$  = Total Accruals for firm  $i$  for time  $t$

$Assets_{it-1}$  = Lagged value of total assets for firm  $i$  for time  $t-1$

$\Delta REV_{it}$  = Change in revenues ( $REV_{it} - REV_{it-1}$ )

$\Delta REC_{it}$  = Change in receivables ( $REC_{it} - REC_{it-1}$ )

$PPE_{it}$  = Gross property, plant and equipment for firm  $i$  for time  $t$

$\gamma_{0-n}$  = Estimated parameters of the models

$\varepsilon_{it}$  = residual

All variables are to be scaled by beginning level of total assets.

Furthermore, Kasznik (1999) argued that operating cash flows variations might cause misspecifications in estimating the abnormal accruals so he proposed another variation in modified Jones model of Dechow *et al.* (1996) as:

$$TA_{it} = \gamma_0 (1/Assets_{it-1}) + \gamma_1 (\Delta REV_{it} - \Delta REC_{it}) + \gamma_2 (PPE_{it}) + \gamma_3 \Delta OCF_{it} + \varepsilon_{it} \quad (5)$$

Whereas:

$TA_{it}$  = Total Accruals for firm  $i$  for time  $t$

$Assets_{it-1}$  = Lagged value of total assets for firm  $i$  for time  $t-1$

$\Delta REV_{it}$  = Change in revenues ( $REV_{it} - REV_{it-1}$ )

$\Delta REC_{it}$  = Change in receivables ( $REC_{it} - REC_{it-1}$ )

- $PPE_{it}$  = Gross property, plant and equipment for firm  $i$  for time  $t$
- $\Delta OCF_{it}$  = Change in operating cash flows of a firm  $i$  for time  $t$
- $\gamma_{0-n}$  = Estimated parameters of the models
- $\varepsilon_{it}$  = Residual

All variables are to be scaled by beginning level of total assets.

In addition to the above researchers, Kothari *et al.* (2005) have also contended that estimating discretionary accruals without controlling for firm accounting performance may produce biased and unreliable results. In order to alleviate the problematic heteroskedasticity and mis-specified issues which are prevalent in other accruals models and proposed following model to estimate discretionary accruals:

$$TA_{it} = \gamma_0 (1/Assets_{it-1}) + \gamma_1 (\Delta REV_{it} - \Delta REC_{it}) + \gamma_2 (PPE_{it}) + \gamma_3 ROA_{it-1} + \varepsilon_{it} \quad (6)$$

Whereas:

- $TA_{it}$  = Total Accruals for firm  $i$  for time  $t$
- $Assets_{it-1}$  = Lagged value of total assets for firm  $i$  for time  $t-1$
- $\Delta REV_{it}$  = Change in revenues ( $REV_{it} - REV_{it-1}$ )
- $\Delta REC_{it}$  = Change in receivables ( $REC_{it} - REC_{it-1}$ )
- $PPE_{it}$  = Gross property, plant and equipment for firm  $i$  for time  $t$
- $ROA_{it-1}$  = Firm performance measured by ROA for firm  $i$  for time  $t-1$
- $\gamma_{0-n}$  = Estimated parameters of the models
- $\varepsilon_{it}$  = Residual

All variables are to be scaled by beginning level of total assets.

The fitted values of model 3-6 are the non-discretion accruals and residual ( $\varepsilon_{it}$ ) are the discretionary portion of total accruals which will be used as the dependent variables of Discretionary Earnings Management

( $DEM_{it}$ ). The present study will estimate all four equations (3-6) to estimate the discretionary accruals and will prefer the model with greater explanatory power (higher values of adjusted  $R^2$ ) as suggested by Sireger and Utama (2008) to be used as  $DEM_{it}$  in models 1-2.

In order to estimate the residuals of equations 3-6 which could further be used as a measurement of Discretionary Earnings Management (DEM), panel regression have been run and results are reported in Table 1. It is clear from the tabulated results that Adjusted  $R^2$  of Kasznik (1999) model for estimating accruals is 20.65% which is the highest among all four aggregate accrual models along with lowest root mean square error of 10.118. The predictive power of Kasznik (1999) model is even greater than widely used modified Jones model of Dechow *et al.* (1996) and Kothari *et al.* (2005). So, the residuals predicted by Kasznik (1999) model are hereby used in further analysis in next chapter as the proxy of discretionary earnings management.

However, as suggested by Greene (2005), the equations 3-6 for accrual models dynamic panel models due to multiple lag values in variables, particularly in dependent variable and if we estimate Kasznik accrual model, there could arise a problem of autocorrelation between the residual and lagged endogenous variables. This problem makes estimation with the ordinary least square method biased and unreliable. Boujelben and Fedhila (2011) have suggested to use the "Arellano-Bover/Blundell-Bond linear dynamic panel data estimation", which is an estimation procedure with system GMM. This method includes the lagged differences of the dependent variable as instruments in the level equation and resolves the problem misspecification. So, the Kasznik (1999) model, being the best fit model for Pakistan case, has been estimated again using "Arellano-Bover/Blundell-Bond linear dynamic panel data estimation" and its predicted values have been used as discretionary earnings management for onward analysis.

TABLE 1

Estimation of Discretionary Earnings Management (DEM)

Variables	Jones (1991)	Dechow <i>et al.</i> (1996)	Kasznik (1999)	Kothari <i>et al.</i> (2005)
1/Assets <sub><i>t</i>-1</sub>	3035.496 (1.34)	2943.136 (1.30)	3745.193 (1.64)	3925.904 (1.77)*
ΔREV	-0.0036 (-0.67)			
ΔREV – ΔREC		-0.0093 (-1.72)*	0.0025 (0.53)	-0.0110 (-2.05)**
PPE	-0.0256 (-2.72)***	-0.0253 (-2.70)***	0.0471 (5.08)***	-0.0197 (-2.12)**
ΔOCF			-0.2735 (-21.19)***	
ROA <sub><i>t</i>-1</sub>				0.1728 (4.80)***
Wald $\chi^2$	9.96**	12.51***	458.91***	36.66
Adjusted $R^2$	0.0112	0.01331	0.2065	0.0317
RMSE	11.345	11.336	10.118	11.226

z-values are in parentheses; whereas \*, \*\*, and \*\*\* represent the level of significance at 10%, 5%, and 1%, respectively.

## IV. RESULTS AND DISCUSSION

### DESCRIPTIVE STATISTICS

Overall descriptive statistics for scale variables are reported in Table 2 whereas particulars of dichotomous variables are presented in Table 3. The data used for the whole analysis is about 200 firms for seven-year period of 2005-2011. The year 2004 was omitted in analysis as this was lag year used in calculation and measurement of various variables of the study. With respect of Discretionary Earnings Management (DEM) practices, firms are managing their earnings upward with 0.0259 (2.59%) mean value. The sample firms are relatively highly leveraged where the

average leverage ratio is around 60%. Similarly, sample firms are also of moderate size with average total assets of PKR 25 billion. The smallest firm contains assets of 64 million whereas largest firm of the sample have total assets of PKR 653 billion.

TABLE 2  
Overall Descriptive Statistics

Variable	Mean	Median	Std. Deviation	Minimum	Maximum
DEM	0.0259	0.0221	0.0666	-0.1785	0.2265
Leverage	0.5819	0.5969	0.2231	0.0035	1.6158
Total Assets (Million PKR)	25,078	3,634	65,364	64	653,233
AC Size	0.4144	0.43	0.0736	0.2308	0.7500
AC Independence	0.8256	1.0000	0.1906	0	1
AC Activity	4.1380	4	0.6077	2	11
Board Size	8.1765	8	1.5816	7	15
Board Independence	0.4331	0.3571	0.3176	0.0179	0.9333
Board Activity	5.5337	5	2.8396	2	35
Board Participation Rate	0.8016	0.8125	0.1224	0.3344	1.0000
N	1400				

The average size of an internal audit committee in sample firms is 41% of its board of director size. It varies from one-fourth to three-fourth of the total board of director size with lesser variation in it. Independence of the internal audit committee as measured by ratio of non-executive directors on audit committee to total audit committee members is quite high for the sample firm, *i.e.* 82.56%. Mostly, the internal audit committees of sample firms constitute of non-executive directors to oversee the operations of a firm as indicated by its median value which is exactly 1.00. The code of corporate governance issued by Securities and Exchange Commission of Pakistan (SECP) also encourages the participation of non-executive members on audit committee and board of directors. However, there are a few firms which have all the executive

members in its internal audit committee as minimum AC Independence is 0 for some cases. The audit committee meets 4 times a year, on average, which ranges from minimum of 2 audit committee meetings to 11 meetings in a financial year. Moreover, as for as the reputation and quality of external audit is concerned, a total of 61% firms get their annual financial accounts audited by any one of big five external audit firms.

TABLE 3

Overall Descriptive — Frequency Tables for Binary Variables

Variable	Frequency Case = 1	%age	Median	Std. Deviation
External Audit Quality	887	60.9	1	0.488
CEO Duality	393	27.0	0	0.444
<i>N</i>	<i>1400</i>			

The second dimension of corporate governance is structure of its board of directors. The board size ranges from minimum regulatory requirement of 7 members to 15 members of board whereas the average median size of the board is 8 directors. The level of intendance of board of directors is relatively lower in Pakistani firms as compared to other earlier researches conducted in the different economies of the world. The average level of independence of board is just 43.31% indicating the fact that more than half of the directors on the board are executive directors. However, this variable is quite more volatile as standard deviation is 31.76%. With respect to CEO power, 27% of firms have duality of CEO position where CEO holds the office of chairman of the board as well. The board meets, on average, 5 times in a financial year to discuss the operational and strategic issues of firms with the range of 2 to 35 meetings in a year for some sample firms as well. The average attendance rate of board of directors in board meetings is 80.16% pointing out the fact that directors do participate in the meetings of board of directors. There are few occasion when number of directors in meetings is just one-third in order to just fulfill the quorum of board meeting, however, the tendency of attendance is more towards greater participation rate.

TABLE 4  
Pearson Correlation Analysis

S. No.	Variables	1	2	3	4	5	6	7	8	9	10	11
1	DEM	1										
2	LVRG	-0.076**	1									
3	Firm_Size	-0.220**	0.284**	1								
4	AC Size	0.027	-0.019	0.020	1							
5	AC Ind	0.032	0.043	0.149**	-0.102**	1						
6	AC Act	-0.039	0.136**	0.245**	0.141**	0.074**	1					
7	EAQ	-0.082**	-0.035	0.358**	0.033	0.226**	0.122**	1				
8	BoS	-0.093**	0.101**	0.356**	-0.431**	0.266**	0.198**	0.250**	1			
9	BoI	-0.051	0.113**	0.231**	-0.016	0.582**	0.192**	0.267**	0.269**	1		
10	CEO Dual	0.075**	0.015	-0.219**	0.022	-0.192**	-0.118**	-0.318**	-0.196**	-0.270**	1	
11	B_Activity	0.000	0.094**	0.190**	0.050	-0.173**	0.104**	0.029	0.028	-0.006	-0.001	1
12	B_Part	-0.052*	0.009	-0.018	0.041	-0.043	-0.024	0.016	-0.167**	-0.045	0.027	-0.176**

\* and \*\* represent the level of significance at 5%, and 1%, respectively.



## **EMPIRICAL RESULTS**

All the empirical analyses have been done using STATA® which is considered to be most powerful analysis tool. In order to establish the relationship of corporate governance measures and earnings management, pooled regressions have been applied along with Pearson correlation analysis to check for the multicollinearity between the independent variables of the study. Table 4 reports the results of Pearson correlation analysis and it is evident that there are no proofs of multicollinearity between the independent variables of corporate governance as well as the control variables. It is argued by econometricians that correlation above 0.60 between independent variables to be run in one single regression may cause multicollinearity problem and results of that regression model may be biased and could not be generalized. The correlation coefficients do not cross the threshold level of 0.60; however, the correlation between AC Ind and BoI is 0.582 but it cannot cause multicollinearity because both the independent variables to be estimated in separate regression.<sup>1</sup>

The first panel of Table 5 examines and reports the results of internal audit committee characteristics and external auditor quality on DEM. Only two variables have been found to be statistically significant, *i.e.* AC Ind which is positively and EAQ which is negatively impacting the malpractices of earnings management in the sample data of Pakistani firms. In contradiction to the expectation, the results show that more independent internal audit committees are related to higher earnings management practices in firms. Baxter and Cotter (2009) find that independence of the audit committees is not relevant in reducing the earnings management activity in the firms. The positive results of AC Ind and DEM may be attributed to the lack of real independence in Pakistani firms where even non-executive directors are serving more on the internal audit committees who are affiliated with some other company of the group. Consequently, they involved in income increasing activities which is the ultimate goal of a parent company.

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<sup>1</sup>Multicollinearity has also been checked through VIF and Tolerance scores to be estimated with each regression model run. Both VIF and Tolerance scores are in limit which are considered to have no multicollinearity between the variables of regression model.

TABLE 5  
Corporate Governance and DEM

Variables	Audit		Board	
	Model 1	Model 2	Model 1	Model 2
Constant	-0.0114 (-4.08)***	0.0109 (3.24)***	0.0049 (1.07)	0.0189 (4.02)***
AC Size	0.0048 (1.18)	0.0043 (1.09)		
AC Ind	0.0083 (5.20)***	0.0095 (6.19)***		
AC Activity	-0.0006 (-1.27)	-0.0005 (-1.08)		
EAQ	-0.0002 (-0.30)	0.0019 (-3.06)***		
BoS			-0.0052 (-2.86)***	0.0004 (0.24)
BoI			0.0038 (3.83)***	0.0049 (5.14)***
CEO Duality			-0.0001 (-0.12)	-0.0009 (-1.42)
CEO Dom			0.0011 (1.68)*	0.0023 (3.25)***
B_Activity			-0.0002 (-1.69)*	0.0001 (0.55)
B_Part			-0.0002 (-0.11)	-0.0018 (-0.78)
Firm_Size		-0.0018 (-10.10)***		-0.0018 (-9.82)***
LVRG		-0.0009 (-0.68)		-0.0015 (-1.17)
F-Value	7.17***	19.62***	4.23***	15.62***
Adjusted R <sup>2</sup>	0.0167	0.0929	0.0132	0.0829
RMSE	0.0112	0.0108	0.0112	0.01087

t-values are in parentheses; whereas \*, \*\*, and \*\*\* represent the level of significance at 10%, 5%, and 1%, respectively. Model 1 is only for corporate governance related variable whereas model 2 includes control variables as well.

Further, outside non-executive directors have less information about the current operational level activity of the business where earnings management is being occurred and they have to depend on the information given by executives of the company (Paul *et al.*, 2011). Moreover, Xie *et al.* (2003) claim that earnings management can only be reduced if audit committee has independent members with accounting knowledge and financial expertise and this phenomenon is also present in Pakistani firms where qualified and accounting expert directors are rarely found serving as director on the board of firm, particularly on the internal audit committee.

Other significant variable of audit structure is quality of external audit performed for professional audit firms. It is strongly believed that a well-reputed audit firm helps in ensuring the creditable and reliable accounting information disclosures for external stakeholders which is free from errors and frauds. The same expected negative and statistically significant results have been found where EAQ is mitigating the earnings management practices negatively. If the managers are aware of the fact that their firm is being audited by an unbiased and reputable audit firm, they will focus on true performance enhancement instead of judgmental and temporary earnings management practices. These negative results are in accordance with the earlier literature of Jaggi *et al.* (2009) who also find that audit quality is mitigating discretionary earnings management practices. The other two variables of internal audit committee characteristics namely AC Size and Activity are found statistically insignificant. However, the negative sign of AC Activity is supported by García *et al.* (2012) who argue that number of meeting of internal audit committee helps in reducing earnings management practices in firms. On the other hand, Abbott *et al.* (2004) state that AC Size has no significant relationship with DEM.

With respect to board structure and composition, board size and board activity are found negatively impacting the discretionary earnings management practices whereas board independence and CEO dominance on management committees is leading earnings management positively. Larger boards and greater number of meetings conducted by the board are helpful in reducing the earnings management practices. Consistent with stewardship of larger boards, earnings management can be minimized if there are more directors on the board. Moreover, Xie *et al.*

(2003) supported that frequent meetings of board can also have a strong monitoring mechanism for lower earnings management. González and García-Meca (2013) are also contended that effective monitoring can be done by board if board meets more frequently, and this activity may reduce earnings management practices in the firms.

Opposite to the expectations, independence of the board of directors is found to be positively associated with discretionary earnings management practices in sample of study reported in second panel of Table 5. Presence of more non-executive directors to total board members is leading towards increases in malfunctioning of earnings smoothing. The present study again presents the same argument given for positive relationship between audit committee independence and earnings management. There is a lack of real independence in Pakistani corporations where serving non-executive directors are affiliated with some other company of the group and they are not truly independent. Consequently, they are involved in income increasing activities which is the ultimate goal of a parent company. Further, outside non-executive directors have less information about the current operational level activity of the business where earnings management is being occurred and they have to depend on the information given by executives of the company (Paul *et al.*, 2011). Cornett *et al.* (2009) also find a positive association between board independence and DEM and they also attribute this positive link to the lack of real independence. On the other hand, Park and Shin (2004) report that outside directors are failed to reduce the earnings management practices and opportunistic behaviour of managers. Consistent with this, Gulzar and Zongjun (2011) did not find any association between board independence and earnings management practices. González and García-Meca (2013) also documented the evidence that the role of board composition and independence is rather limited in Latin American firms to control the opportunistic behaviour of managers.

Along with these factors, dominance and presence of CEO on the management committees is positively and significantly found impacting the level of earnings quality flattening. As CEO is present on the greater number of working committees of board, his power to influence the operations increases, which ultimately produces negative outcomes with respect to earnings manipulation in the firm. Level of board meeting

participation rate is also mitigating the earnings management towards the lower end; however, this variable is not statistically significant. CEO duality is also found to be a statistically insignificant variable impacting the level of earnings management activity. These results are in accordance with Jaggi *et al.* (2009) who also conclude that there is no significant relationship between CEO duality and the level of earnings quality.

In addition to governance variables, size as control variable is found to be negatively related with discretionary earnings management activity of sample firms. Large size firms are not managing their earnings in either direction as they do not have any motive to manipulate their earnings. Their large size is enough to generate capital from financial markets as well as they are more prone to investor due to their big size and market reputation. Leverage is negatively impacting earnings management while risk is creating incentive for managers to manage earnings, although both these control variables are statistically insignificant.

## V. CONCLUSION

The relationship between corporate governance and managerial choices for value creation is a topic of continuing interest for the academicians. It is believed that the practices of corporate governance are value enhancing and a firm with effective governance system can increase its value by lowering the conflict of interest between dispersed minority shareholders and empowered managers of firms as well as by reducing information asymmetry and increasing management efficiency. The present study is based upon the sample of 200 firms listed at Pakistan Stock Exchange Limited for the period of 2004-2011. The findings of the current study reveal that establishment of internal audit committees as an effective internal audit system is essential for the enriched progress of a firm. Large and independent audit committees which meet more frequently not only mitigate information asymmetry problem between insiders and external stakeholder by ensuring credibility of accounting information but also exterminate the chances of fraudulent activities in the firm.

Moreover, the quality of annual audit by a reputable Chartered Accountant Firm may also be used as external monitoring system and serves the same purpose. However, the role of independent audit

committee in controlling the opportunistic behaviour of managers is rather found limited in present study. The reason may be attributed to the lack of real independence as most of the non-executive directors of firms are affiliated with the firm as directors on other related and associated companies. This reduces the level of real independence and audit committees are unable to control opportunistic behaviour of managers which they show while subjectively managing and altering reported accounting earnings. Further, effective participation of directors in the board makes it sure that decisions of management are discussed in a well manner in board meetings and this effective supervision and participation improve the firm performance. Further, the opportunistic behaviour of the managers is also not being mitigated by the lack of real independence discussed earlier.

The present research also provides some practical implications and suggestions for investor, policy makers and managers. For the corporate strategy formulators, the present study implicates the need and significance of motivating their executives to work in the best interests of stakeholders and not to involve in manipulative activities may destroy the long term value. In this regards, managers must be communicated that their activities are being monitored by effective audit and board structure and they will be held accountable for their managerial actions. Managers can also enhance the productivity and efficiency of board by increasing the board participation rate of directors.

With respect to policy makers and regulators, the present study also presents some practical implications of effectiveness of corporate governance. SECP must consider the effectiveness of audit committee and board independence as an important factor for the active implementation corporate governance in Pakistan. SECP has taken some very significant steps for effectiveness of corporate governance like directors training programs and restriction on the dual role of CEO in its revised code of corporate governance (implemented in 2012). The role of external auditor is of much importance in enhancing firm value and reducing fraudulent activities in firm and SECP should ensure that firms must have audited its accounts from a reputable audit firm. The audit of these audit firms is also the need of the hour and monitoring system on external audit system should be applied by regulators. Moreover, SECP should instruct public limited companies to change their audit firms on

regular basis so that strategic alliance between managers and external auditor should be kept at minimum. Currently, firms reappoint the same external auditor after the contract expiration by proxy contest and voting procedure. Active participation, especially by independent and non-executive directors, should also be included in the code of corporate governance as a tool of effective corporate governance system for Pakistani corporations.

Along with this, SECP should focus on the real independence of the board of directors which emerges as an important issue from the present study. Currently, SECP requires at least one independent unaffiliated director on the board of directors and firms also keep this to the minimum requirement. Remaining non-executive directors are usually affiliated directors from related associated companies with the same objective the firm has. This creates the lack of real independence of board of directors and its subcommittees and this issue must be considered of much significance.

Actual and potential investor may also get benefit from the practical implications of the current study. Role of audit committee, external audit quality, and board participation rate are the important factors for investors which must be evaluated prior to investment activity. Audit and board structure can supervise and monitor the activity of the managers in which investors are investing.

The study also has some implications for academic researchers and opens few new research horizons for future research as it also has certain limitations. The study has conducted a detailed analysis of corporate governance mechanism and discretionary earnings management. However, due to lack of time and availability of data for research, this research is only limited to 200 firms for eight-years research window. In future, more firms from various other industrial sectors with longer time series data and application of advance econometric techniques can be conducted to more generalize the results of current study. Future studies can also be conducted to evaluate this corporate governance and firm value relationship in the light of global financial crunch which also hit Pakistani economy as well. Due to unavailability of the data, the present study has also omitted some other corporate governance variables which were difficult to obtain for sample firms. Academic researchers can use

these variables for future research to have a deeper insight into corporate governance structure of Pakistan. These alternative prospects may include pay for performance sensitivity, financial expertise of directors, tenure and experience of board members, non-executive directors' participation rate, board diversity, committees on board, and identity of block of shares along with more control variables. The similar research on corporate governance can be conducted to have a cross-country comparison of Pakistani alike economies, particularly South Asian countries. Finally, future research on corporate governance focused on the separate analysis of service and manufacturing sector as well as separate analysis of mandatory and voluntary corporate governance practices may be conducted.



**REFERENCES**

- Abbott, L. J., S. Parker and G. F. Peters (2004), Audit committee characteristics and restatements. *Auditing: A Journal of Practice and Theory*, Volume 23(1), pp. 69-87. <http://dx.doi.org/10.2308/aud.2004.23.1.69>
- Abbott, L. J., Y. Park and S. Parker (2000), The effects of audit committee activity and independence on corporate fraud. *Managerial Finance*, Volume 26(11), pp. 55-68. <http://dx.doi.org/10.1108/03074350010766990>
- Amihud, Y. and B. Lev (1981), Risk reduction as a managerial motive for conglomerate mergers. *The Bell Journal of Economics*, Volume 12(2), pp. 605-617. <http://dx.doi.org/10.2307/3003575>
- Baxter, P. and J. Cotter (2009), Audit committees and earnings quality. *Accounting and Finance*, Volume 49(2), pp. 267-290. <http://dx.doi.org/10.1111/j.1467-629X.2008.00290.x>
- Berle, A. A. and G. G. C. Means (1932), *The Modern Corporation and Private Property*. Transaction Books.
- Boujelben, S. and H. Fedhila (2011), The effects of intangible investments on future OCF. *Journal of Intellectual Capital*, Volume 12(4), pp. 480-494. <http://dx.doi.org/10.1108/14691931111181689>
- Bradbury, M., Y. T. Mak and S. Tan (2006), Board characteristics, audit committee characteristics and abnormal accruals. *Pacific Accounting Review*, Volume 18(2), pp. 47-68. <http://dx.doi.org/10.1108/01140580610732813>
- Cadbury Committee Report (1992), *Report of the Committee on the Financial Aspects of Corporate Governance: The Code of Best Practice*. London, UK: Gee and Company Ltd.
- Cheng, Q. and T. D. Warfield (2005), Equity incentives and earnings management. *The Accounting Review*, Volume 80(2), pp. 441-476.
- Collins, D. W. and P. Hribar (2000), Earnings-based and accrual-based market anomalies: One effect or two? *Journal of Accounting and Economics*, Volume 29(1), pp. 101-123.
- Cornett, M. M., J. J. McNutt and H. Tehranian (2009), Corporate governance and earnings management at large U.S. bank holding companies. *Journal of Corporate Finance*, Volume 15(4), pp. 412-430.
- D'Cruz, N. (1999), *Corporate Governance under Threat, Says a Business Leader*. Bernama: Malaysia National News Agency.

- Davidson, R., J. Goodwin-Stewart and P. Kent (2005), Internal governance structures and earnings management. *Accounting and Finance*, Volume 45(2), pp. 241-267. <http://dx.doi.org/10.1111/j.1467-629x.2004.00132.x>
- Dechow, P. M., R. G. Sloan and A. P. Sweeney (1996), Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, Volume 13(1), pp. 1-36. <http://dx.doi.org/10.1111/j.1911-3846.1996.tb00489.x>
- García, L. S., E. R. Barbadillo and M. O. Pérez (2012), Audit committee and internal audit and the quality of earnings: Empirical evidence from Spanish companies. *Journal of Management and Governance*, Volume 16(2), pp. 305-331. <http://dx.doi.org/10.1007/s10997-010-9152-3>
- García-Meca, E. and J. P. Sánchez-Ballesta (2009), Corporate governance and earnings management: A meta-analysis. *Corporate Governance: An International Review*, Volume 17(5), pp. 594-610. <http://dx.doi.org/10.1111/j.1467-8683.2009.00753.x>
- González, J. S. and E. García-Meca (2013), Does corporate governance influence earnings management in Latin American markets? *Journal of Business Ethics*, Volume 121(3), pp. 419-440. <http://dx.doi.org/10.1007/s10551-013-1700-8>
- Greene, W. (2005), Reconsidering heterogeneity in panel data estimators of the stochastic frontier model. *Journal of Econometrics*, Volume 126(2), pp. 269-303. <http://dx.doi.org/10.1016/j.jeconom.2004.05.003>
- Gulzar, M. A. and W. Zongjun (2011), Corporate governance characteristics and earnings management: Empirical evidence from Chinese listed firms. *International Journal of Accounting and Financial Reporting*, Volume 1(1), pp. 133-151. <http://dx.doi.org/10.5296/ijafr.v1i1.854>
- Healy, P. M. (1985), The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics*, Volume 7(1-3), pp. 85-107. [http://dx.doi.org/10.1016/0165-4101\(85\)90029-1](http://dx.doi.org/10.1016/0165-4101(85)90029-1)
- Hsu, M. F. and S. Y. Wen (2015), The influence of corporate governance in Chinese companies on discretionary accruals and real earnings management. *Asian Economic and Financial Review*, Volume 5(3), pp. 391-406.
- Hubbard, R. G. and D. Palia (1995), Executive pay and performance: Evidence from the U.S. banking industry. *Journal of Financial Economics*, Volume 39(1), pp. 105-130. [http://dx.doi.org/10.1016/0304-405X\(94\)00816-J](http://dx.doi.org/10.1016/0304-405X(94)00816-J)

- Jaggi, B., S. Leung and F. Gul (2009), Family control, board independence and earnings management: Evidence based on Hong Kong firms. *Journal of Accounting and Public Policy*, Volume 28(4), pp. 281-300. <http://dx.doi.org/10.1016/j.jaccpubpol.2009.06.002>
- Jensen, M. C. and W. H. Meckling (1976), Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, Volume 3(4), pp. 305-360. [http://dx.doi.org/10.1016/0304-405X\(76\)90026-X](http://dx.doi.org/10.1016/0304-405X(76)90026-X)
- Jeong, S. W. and J. Rho (2004), Big Six auditors and audit quality: The Korean evidence. *The International Journal of Accounting*, Volume 39(2), pp. 175-196. <http://dx.doi.org/10.1016/j.intacc.2004.02.001>
- Jones, J. J. (1991), Earnings management during import relief investigations. *Journal of Accounting Research*, Volume 29(2), pp. 193-228. <http://dx.doi.org/10.2307/2491047>
- Kaszniak, R. (1999), On the association between voluntary disclosure and earnings management. *Journal of Accounting Research*, Volume 37(1), pp. 57-82. <http://dx.doi.org/10.2307/2491396>
- Khas, M. N. (2002), *Corporate Governance in Malaysia: Issues and Challenges*. Shah Alam, Malaysia: UiTM-MICG Corporate Governance Research Centre.
- Klein, A. (2002), Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, Volume 33(3), pp. 375-400. [http://dx.doi.org/10.1016/S0165-4101\(02\)00059-9](http://dx.doi.org/10.1016/S0165-4101(02)00059-9)
- Kothari, S. P., A. J. Leone and C. E. Wasley (2005), Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, Volume 39(1), pp. 163-197. <http://dx.doi.org/10.1016/j.jacceco.2004.11.002>
- Nazir, M. S., A. Haque and S. Ali (2009), Can board mechanism affect the firm value in Pakistan. *Corporate Ownership and Control*, Volume 6(3), pp. 308-317.
- Osma, B. G. and B. G. de A. Noguer (2007), The effect of the board composition and its monitoring committees on earnings management: Evidence from Spain. *Corporate Governance: An International Review*, Volume 15(6), pp. 1413-1428. <http://dx.doi.org/10.1111/j.1467-8683.2007.00654.x>

- Park, Y. W. and H. H. Shin (2004), Board composition and earnings management in Canada. *Journal of Corporate Finance*, Volume 10(3), pp. 431-457.  
[http://dx.doi.org/10.1016/s0929-1199\(03\)00025-7](http://dx.doi.org/10.1016/s0929-1199(03)00025-7)
- Paul, A., O. Friday and O. Godwin (2011), Board composition and corporate performance: An analysis of evidence from Nigeria. *Research Journal of Finance and Accounting*, Volume 2(4), pp. 64-73.
- Peasnell, K. V., P. F. Pope and S. Young (2005), Board monitoring and earnings management: Do outside directors influence abnormal accruals? *Journal of Business Finance and Accounting*, Volume 32(7/8), pp. 1311-1346.  
<http://dx.doi.org/10.1111/j.0306-686X.2005.00630.x>
- Sachs, J. (1998), The post-bubble Japanese economy and prospects for East Asia. *Journal of Applied Corporate Finance*, Volume 11(3), p. 16.  
<http://dx.doi.org/10.1111/j.1745-6622.1998.tb00499.x>
- Shah, S. Z. A., N. Zafar and T. K. Durrani (2009), Board composition and earnings management: An empirical evidence from Pakistani listed companies. *Middle Eastern Finance and Economics*, Issue 3, pp. 28-38.
- Shah, S. Z. A., T. Javed and M. Abbas (2009), Determinants of CEO compensation: Empirical evidence from Pakistani listed companies. *International Research Journal of Finance and Economics*, Issue 32, pp. 148-159.
- Siregar, S. V. and S. Utama (2008), Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. *The International Journal of Accounting*, Volume 43(1), pp. 1-27.
- Xie, B., W. N. Davidson and P. J. DaDalt (2003), Earnings management and corporate governance: the role of the board and the audit committee. *Journal of Corporate Finance*, Volume 9(3), pp. 295-316.
- Yang, J. S. and J. Krishnan (2005), Audit committees and quarterly earnings management. *International Journal of Auditing*, Volume 9(3), pp. 201-21