Impact of Corporate Governance Practices on Earnings Management: Case Study of Cement Industry in Pakistan

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Abstract: This study shows the impact of corporate governance practice on earnings management in Pakistan. Using a panel data set of Cement industries listed on Pakistan Stock Exchange (PSX) from 2006-2017. Simple regression analysis was carried out and the results evidenced that corporate governance practices are positively related with earnings management in Pakistan. Furthermore, the results suggest that corporate governance quality has increased with the passage of time.

Key Words: Earnings Management, Corporate Governance, Managerial ownership, Board size

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1. Introduction

Through the development of the modern business, families are controlling most of the organizations and the significant agency problem is present not only between the owners and management, but it also exists between small scale investors and the management. In order to ensure best reporting practices and best governance in all matters of a company the Securities and Exchange Commission of Pakistan offered code of Corporate Governance in 2002 with revisions made subsequently up to 2017. The basic aim of Good governance is to bring an improved corporate ability by guiding investors and to affirm a sincere leadership in a company. Corporate governance also encompasses transparency in financial reporting according to standards set by IFRS and IASB. Such transparency in financial reporting and auditing has remained in literature since long including earnings management. The issue of EM and CG both created concerns for management, auditors, accounting regulatory bodies and investors especially after the demise of ENRON and WorldCom. As of the disappointment of the board, the integrity, execution and trustworthiness of financial reporting framework were being questioned. Saleh et al

(2005) [1] asserted that the consequence of corporate collapse has restored the importance of monitoring role of corporate governance. Moreover, the controller/regulators believe the ability of boards and their committees can be enhanced by good corporate governance control and manage things in a better way and to the greatest benefit of shareholders and stakeholders, whose hope and assurance is added [2].

Earning management is essentially distinction among reported and genuine income of a company [3]. It is an organization cost because managers present false reports for their own advantages and misdirect stakeholders. It is a dishonest practice and a monetary fraud. It is further believed that stakeholder's rights must be ensured by giving them clear knowledge of the firm budgetary position so that they can safeguard their claims in the firm. In the earning management, there must be legitimate requirement to protect the stakeholders and also minority investors and other key stakeholders since in Pakistan the greater part of the organizations are claimed by families with minority stakeholder. This study is helpful to practitioners and regulators by suggesting the factors of corporate governance and reporting in mitigating the earning management practices, increasing investor's protection and hence developing firm's standard. This study potentially contributes in two ways. The first and important contribution is to the literature can that it added to study collectively corporate governance and earning management, secondly it provides variable contribution and empirical contribution because as per my knowledge this is the first study in cements sectors which investigations the outcome of Corporate governance and earning management in Pakistan. So the objective of the current is study is to examine the influence of board size, audit committee and managerial ownership on earnings management in cement sector of Pakistan.

2. Literature Review

2.1 Earnings Management

Earning management has turned into an extremely prevalent subject of discussion among financial regulatory bodies, investors and management. Earning management is the act of accounting strategies to make a company financial reports extremely positive, various methods in this respect are used to understate or overstate accounting income. According to Davidson (2005) [5] agency model holds that, in the existence of information irregularities, set of decisions will be taken by directors that make best use of their usefulness. Board of director is a key decision-making unit in any firm, and its structure has important impact on the reported of earnings quality. Corporate governance is the procedures, processes and control mechanism that guides the corporation for their better performance and value enhancement [6].It is a procedure used to shield speculator's rights from abuses by insiders of the firm [7]. Corporate Governance has caught incredible consideration however it's not anything new, is developed with the need to take care of agency issue excited by partition of the management from ownership control [8].

Earning management is control of money related reports, which can be wiped out by corporate administration because corporate governance is the executive's supervision in the firm basic leadership

process [9]. Great corporate administration results in solid investors security as demonstrated exactly by Eisenhardt (1989) [10], which in turn diminishes the organization issue since abuse by directors (managers) is fundamentally an agency issue [2]. Abed et al (2012) [11] empirically discovers that board qualities have no critical Role in controlling manipulation and cheats in opposition to this. Jaggi (2009) [12] demonstrates that independent audit committee assumes a positive job in expanding firm financial performance. Abbot et al (2000) [13] examined the relationship among earnings management, fraud detection and audit committee. They included 156 firms listed in NewYork Stock Exchange as a sample having 78 firms sanctioned with charges from Securities and Exchange Commission. It was found that audit committee with more independent directors were less likely to be sanctioned by Securities and Exchange Commission. Also they were not involved in any financial embezzlement, fraudulent activity and issuing misleading financial statements. Xie et al (2003) [14] studied the impact of audit committee and board structure variables on mitigation of manager's opportunistic behavior to manage earnings. They used 282 firms listed in S & P index. It was discovered that earning manipulation is related with audit committee monitoring and board composition. It was further concluded that frequency of audit committee and financial expertise of board members was more likely to minimize discretionary accruals. Peasnell et al (2005) [15] argued that audit committee independence and board meetings enhances integrity of financial statements and lowers earnings manipulation. Garcia et al (2012) [17] studied the impact of governance structure on earnings quality in Spain. It was documented that audit committee independence and meetings have negative impact on quality of earnings in Spain. Uwuigbe (2011) [18] examined a negative relationship between board size, board composition and earnings management. Pravet (2009) [19] asserted that institutional ownership on board is important for better surveillance of management at all levels as it controls resources and ensures better corporate performance. The studies of Hadi (2012) [20], Goal (2012) [21] and Buniamin et al (2012) [22] all asserted a negative relationship between earnings manipulation and managerial ownership.

2.2 Research Hypotheses

The following hypotheses have been developed:

H1: Board size has association with earnings management.

H2: Independence of audit committee has association earnings with management.

H3: Managerial Ownership has association with earnings management.

3. Research Methodology

3.1 Data Collection

This study is based on secondary data. The population of the current study is the entire firms (a total of 26) listed in cement sector of Pakistan in Pakistan Stock Exchange (PSX). Out of these 26 firms only 19 firms are taken as sample for this study based on the availability of data. Data for this study is

collected form published annual reports of these nineteen firms from 2006 to 2017. Data for earnings management is extracted from annual reports of these firms using discretionary accruals by following Jone's modified model.

$$E.M (TA) = \Delta CA - \Delta Cash - \Delta CL + \Delta DCL - DEP \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots. (1)$$

3.2 Variables

Earning management is a dependent variable and independent variables are corporate governance, Board size, Audit committee, managerial ownership and control variables used in this study are firm size, profitability and leverage.

3.2.1 Corporate Governance

Corporate governance is a kind of dealings among organization's management, its board, investors, shareholders, and other stakeholders. It provides the system through which the functions of the enterprise are properly maintained.

3.2.2 Audit Committee Independence

It is the presence of independent director in the audit committee and is measured on the basis of independent directors in the audit committee.

3.2.3 Managerial Ownership

Refer to the proportion of share held by executive directors of an enterprise and is measured as stocks held by executive directors divided by total amount of shares.

3.2.4 Board Size:

It is usually the entire number of directors on the board and is measured by taking natural logarithm of all members on the board.

3.2.5 Measurement of earning management

In literature, accruals used as proxy for earning management. Two different approaches are normally used for measuring these accruals.

- ➤ Balance Sheet Approach
- ➤ Cash flows statements Approach

3.2.5.1 Balance Sheet Approach

On the basis of Balance Method total accruals can remain find through expending the subsequent formula (Healley, 1986; Jonnes, 1992).

$$E.M (TA) = \Delta CA - \Delta Cash - \Delta CL + \Delta DCL - DEP\ldots\ldots\ldots\ldots\ldots\ldots\ldots. (1)$$

Total accruals, the accrual idea in accounting means that costs and sales are recorded within the duration they occur, whether or not cash is involved. The advantage of the accrual approach is that economic statements reflect all of the charges related to the mentioned revenues for an accounting period.

Current asset refers to an item on a firm's balance sheet which can be either in form of cash, a cash equivalent, or something that can be change to cash in one year of time.

ΔCA Change in current asset means the difference between previous period current asset and running period current asset.

A *current liability* is an obligation that must be paid in a single year.

ΔCL change in current liabilities means the difference between previous liabilities and current year liabilities.

ΔDCL is the change in debt included in the current liabilities in year,

Debts or responsibility which must be cleared in one year, that seems proceeding the balance sheet of company and short term debt, accrued liabilities, accounts payable and other debts remain also included in it.

DEP is depreciation and amortization expense in year,

Amortization is used for intangible assets, while depreciation is used for tangible assets.

3.2.6 Control Variables

3.2.6.1 Firm Size

Firm size as control variable is measured by taking log of total assets. Firms with large board size respond differently relative to small firms as far as earnings manipulations is concerned.

3.2.6.2 Profitability

Return on Assets (ROA) is used as measurement of profitability in this study and it is calculated by dividing net profit on total assets of firm.

3.2.6.3 Leverage

The present study uses debt to equity ratio as a proxy for leverage. It is calculated by

Leverage $_{it}$ = Total Debt / Total Assets

3.3 Model Estimation

For testing hypotheses generalized least square method will be used. GLS is more efficient than OLS in this case, and panel data face problems of heteroscedasticity and autocorrelations that need to be fixed as well.

MODEL:

$$EM = \beta_0 + \beta_1 BOD + \beta_2 AI + \beta_3 MO + \beta_4 FS + \beta_5 LVG + \beta_6 Pro + \epsilon_{it}$$

Where EM is for earning management, BOD is for Board size, AI is for Independent Audit Committee MO is managerial ownership, LVG is leverage and Pro is for firm Profitability, FS is for firm size.

4. **Results and Analysis**

4.1. Descriptive Statistics

Descriptive statistic is one of the most Significant techniques of financial analysis where it find out the behavior of the data. When first looking at a data set it is wise to use descriptive statistics to get an idea of what the data look like. Here is a simple data set, showing three variables in these descriptive statistic techniques.

Table 1: Descriptive Statistics

Variable	Mean	St Dev	Minimum	Median	Maximum
EM	-8859136	8204322	-40136398	-7581149	19217837
B size	2.0408	0.2677	0.3026	2.0794	2.3026
In Audit	0.7716	0.1797	0.3333	0.6667	1.0000
Managerial	23.14	24.64	0.00	17.28	92.89
Firm Size	7.1908	0.4379	5.3707	7.3231	8.0912
Leverage	0.3684	0.3008	0.0136	0.2647	1.7008
ROA()	0.05003	0.12744	-0.25488	0.03059	0.34921

This table gives us the value of mean and standard deviation for variables. From the given table debt percentage is 36% and when the under observation companies use 100% of assets the resultant value and the board size mean value is 2.040 the stander deviation is .2677 the independent audit committee mean value is 0.7716 and standard deviation is 0.1797 and similarly the average value of managerial ownership is 23.16 the deviation value is 24.64. FP has the average value of .0500, and standard deviation value is .127. FS has the average value of 7.19, and standard deviation value is .4379. LEV has the average value of 0.3684, and standard deviation value is .3008.

4.2. Correlations

Correlation is another technique to dig out the association among the variables that may be seen by plotting on a group. If a relationship between two variables exists and plotted points show a tendency around a straight line then the correlation exists otherwise nonlinear correlation and it may be positive as well as negative.

Table 2: Correlation Analysis

Variables	Firm Size	ROA()	Leverage	Managerial	In Audit	B size_1
Firm profitably	0.005					
P-Value	0.942					

Leverage	-0.469	0.543				
P-Value	0.000	0.000				
Managerial	0.064	0.031	-0.096			
P-Value	0.339	0.643	0.149			
In Audit	0.071	-0.018	0.100	-0.212		
P-Value	0.285	0.792	0.134	0.001		
B size_1	-0.119	-0.052	0.043	-0.081	0.327	
P-Value	0.073	0.431	0.513	0.225	0.000	
EM	-0.028	0.137	-0.113	0.124	0.075	0.110
P-Value	00.679	00.038	00.090	00.062	00.260	00.098

Table # 4.3, shows correlation b/w variables and for sample period 2006-17

Pearson correlation

P-Value

The Pearson correlation between leverage and firm size is -0.469 and represent a negative relationship between these variables its mean that as firm size increases the leverage become decline. The p-value is -0.000 is less than 0.05 which indicate the significant linkamong these variables.

Similarly, the correlation among managerial ownership and firm size is 0.064 consequently it shows insignificant. It means that there is no association between managerial ownership and firm size. The relationship of independent audit committee with firm size is 0.071 and p value is 0.285 which is greater than .05 is show that there is insignificant it's mean that no association between independent audit committee and firm size. Similarly relationship of firm size with Board size and earning management are insignificant because of p value which greater than 0.05.

ROA (Firm Profitability) relationship with leverage is 0.543 which mean that firm profitability increase the leverage also increase and the value of p is significant which 0.000 is. And with the rest of the remaining variables Managerial ownership, In Audit, B size and EM is insignificant because of p value which more than 0.05.

Leverage relationship with managerial ownership and EM is -0.096, 0.113 respectively which is show that the increase in leverage will decrease in managerial ownership and EM the p value is 0.149, 0.09 respectively which more than 0.05 that show insignificant. Now the relation of Managerial ownership with in audit committee is -0.212 which show the increase in managerial ownership decrease In Audit committee and the p value is 0.001 which is significant. Managerial ownership with board size is inverse relationship but the p value is 0.225 which more that is why its show insignificant. And same with EM relation is positive and p value is insignificant. Similarly the relation of independent audit committee with board size is 0.327 which is direct relation and p value is 0.000 that is significant.

4.3. Regression

Technique of data analysis and it involves the relation between random variables and non-random variables. It is necessary to differentiate among the two variables that are IV and DV. Moreover, the regression is a process of estimating the dependent variable on the basis of another variable. It gives the average probable change I variable

Table 3: Model summary

Model	R	R-squared	Adjusted R-squared	S.E. of regression
1	.5161898875	0.296452	0.253721	6671989

Table # 4.4, shows diversification b/w independent variable and dependent variables.

Model summary table gives the information about the variable is independent variable due to independent variable and also the model significance. As the R-squared value is 0.2964 that means that 29.60% disparity in dependent variable EM (Earning Management) remains owing to model. The adjusted R-square value is .2537 which means that our relationship is 25.37% error free.

Table 4: ANOVA

F-statistic	7.23556

ANOVA is the test of analysis of variance which tells about the relationship with variable; here the F Column shows significance. The F value is 7.235 which is greater than 4; it means that our model is significant.

4.4. Coefficients

Table 5: Coefficients

Term	Co ef	SE Coef	T-Value	P-Value
Constant	11706574	12142401	0.96	0.336
B size_1	3405158	2714426	1.25	0.211

In Audit	6445180	3152705	2.04	0.042
Managerial	40625	21360	1.90	0.058
Firm Size	-4558124	1449594	-3.14	0.002
Leverage	-4136332	866447	-4.77	0.000
ROA()	17009847	3587017	4.74	0.000

In the above table of coefficient, the constant value for coefficient is 11706576 represent that when all other variable are become give us zero response then the earning management having some output which is the intercept term of the regression model. In the above table the first independent variable is board size and its coefficient is 3405158 which indicate that when the board size is increase by one unit the slop term makes a change of 3405158 times when other all variables are held constant. We also similarly interpret the other variables by looking it coefficient value. For comparing the different t value for individual independent variables with its p-value resulting show that the variable audit committee, leverage, firm size and ROA show us a significant association in the model because of their lower significant value form 0.05. Which indicate that AC, leverage, firm size and ROA significantly related with earning management? The other remaining variables such managerial proprietorship and board size are not contributed in the model because of their high value from the significant level 0.05.

The main findings of the study are summarized as the descriptive statistics of the data shows that data is normal, with debt 36% and when the under observation companies use 100% of assets the resultant value. FP has the average value of .0644, and Stander deviation value is .122. FS has the average value of 7.09, and standard deviation value is .404.LEV has the average value is 0.360, and standard deviation value is .2733.The coefficient of determination as the R-squared value is 0.2966 that means that 29.60% deviation in dependent variable EM (Earning Management) is due to independent variables. And adjusted R-square value is .2537 which means that our relationship is 25.37% error free. The F value of 7.235 which is above 4, shows the model significance. The P value of AC is 0.042, BS 0.211, MO 0.058, LEV 0.000, FS 0.002, FP 0.000 these shows that when the value of P is less than 0.05 the result is significant. In this value the result with AC, and BS, is insignificant due to significance value which is more than 00.05.

5. Conclusion

The main findings are summarized in the above discussion, and the results are similar with Abed et al (2012) [11] specified that good corporate governance alleviates agency problems, particularly agency problems. In this way rights of minority shareholders and large shareholders are safeguarded. Moreover, companies with developed system of corporate governance may decrease earning management and thereby ensure transparency in their financial reporting system. Result show that audit committee independence has insignificant impact on earning management in cement sector of Pakistan. While board size and managerial ownership have significant positive impact on earning management in Pakistan. Further studies can be carried out to include more corporate governance variables like board

structure, women on board and CEO duality to further explore their relationship on earning management in Pakistan.

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