

CORPORATE GOVERNANCE AND REAL EARNINGS MANAGEMENT: EVIDENCE FROM PAKISTAN STOCK EXCHANGE

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Abstract

This paper examines the effect of corporate governance on real earning management among the firms that listed at Pakistan stock exchange for the time period of 2009 to 2014. Corporate governance examined through the attributes of board size, audit committee independence and ownership structure whereas real earning management has been quantified using cash flow from operations. Findings indicate that board attributes and audit committee independence have a significant effect on controlling real earning management. The organization has less involved in earning management due to strong weight from institutions and controlling shareholders. We furthermore found out that the larger the firm in size the more it takes interest in real earning management practices.

Keywords: Corporate Governance, Accrual Earning Management, Real Earnings Management, Ownership Structure.

JEL Classification: G100

Introduction

The earning management has been encouraged to an extending vitality because of the accounting frauds like WorldCom, Enron, One Tel, Tran smile Group, Afribank, Cadbury, Health South and so on. The increasing attention to the quality of reporting earning makes the study of earning management important (Levitt, 2000). According to Healy and Wahlen (1999), earning management is the mode of changing the reports to make it less straightforward, with the intention to mislead the stakeholders about the organization or to effect firm results. Investors who are concern with stock return examine the earning frequently which leads the management to manipulate the earning in their own favor. McKee (2005) explained the strategies of firm association in earning manipulations that change in resource amount, a measure of stock recorded, depreciation amount, guarantee cost and evaluated Post-Employment benefits.

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After the fall of massive corporations in 2001-2002 because of the accounting frauds and in 2008 the worldwide financial crises transpire, corporate governance component has formed and implemented to control the opportunistic conduct of management. The main reason for using corporate governance attribute to alienate the interest of management with all stakeholders and to enhance the legitimacy of financial data.

Studies have been done to examine the effect of corporate governance on earnings management, particularly on accrual type, for example, forceful income acknowledgment and overstate of inventories or receivable accounts and so on. Organizations involve in accrual-based earnings management as well as utilize another strategy that is real management, for instance, putting off production or giving a deal rebate to accomplish the objective. By utilizing the real earning management, there is miss use of accurate corporate exercises; which leads towards esteem diminishment of the firm.

To test the validity and generalizability, it's basic to ascertain the role of CG in the perspective of REM. Graham, Harvey, and Rajgopal (2005) provided evidence that 80 % of management preferred real earning management over accrual earning management to demonstrate the abnormal state of earning. In distinction to previous studies, concentrate on real earning management is relatively new and scarce. In light of Graham's (2005) significance of REM, this study examines whether certain characteristics of governance restricts the firm to involve in real earnings management.

The study is proposed owing to take after several issues. Initially, the expanding pattern of tight accounting standards and strict rules, regulations, and laws, the vast majority of the organizations move towards real earning methods. Second, real earning influences the firm's worth and increase the information asymmetry amongst management and stakeholders that is to a great degree extreme to see by media, evaluators, and controllers.

The composition of board and ownership structure is vital variables of corporate governance in compelling accrual or real earning management. Past studies concentrated on the creation of board qualities in relation to real earning (Visvanathan 2008). In any case, no study concentrates on whole corporate governance elements. This study combines all variables that are board, audit committee, and ownership structures to explore real earning management.

The study contributes worth added to existing literature within the many aspects. To begin with, most studies concentrate just a single measure that's accrual earning management and overlook the other methodology that's real earning management which might befuddle. Second, the study makes a contribution to the literature of corporate governance through the aspects of institutional possession that assumes a dynamic role in mitigating opportunist real earning management. Third, this study provides proof through which the regulators ought to pay special attention to reinforce the role of management in the firm and financial specialists can likewise increase promote knowledge into

attributes of board members.

This paper has been organized in the following way. Section 2 gives a review of the literature. Section 3 defines the variables used, sample and data source employed and also the methodology which is implemented in this study; Section 4 explains the empirical finding whereas section 5 concludes the study.

Literature Review

In the previous literature, there is no consensus of corporate governance and earning management, but several studies have been done to find out the relationship, most of the studies found out a significant relationship (Healy & Wahlen 1999, Garcia-Meca & Sanchez-Ballesta, 2009; Obid & Demikha 2011, Yasar, 2013, Uwuigbe, Peter, & Oyeniyi, 2014 & Kuo, Ningb, & Song 2014). Chen and Zhang considered the influence of corporate governance code (2002) on controlling earning management. The codes clarified the vigor of minority shareholders over the controlling shareholders in lessening earning management in Chinese listed firms.

In financial literature, earning management has two types, accrual-based earning management and real earning management (Petroni, 1992). Several readings gave confirmation in the engagement of controlling earning through real earning management along with accrual method (Roychowdhury 2006, Zhu & Lu, Visvanathan 2008). Roychowdhury (2006) clarified real earning as the takeoff from typical operational practices, for example, price discounts, lessening of discretionary expenditures and overproduction to meet certain procuring edges. Management involved in earning management because of the adaptability of GAAP. As indicated by Visvanathan (2008), firms endeavored to accomplish benchmark by leaving from ordinary working exercises and proposed that corporate governance factors don't assume a noteworthy part in moderating real earning management.

Real earning management has not violated generally accepted accounting principles GAAP, but the possibility of detection of violation by regulators and auditors is lower due to high concealment and low-risk characteristics. Graham, Harvey, and Rajgopal (2005) gave prove that managers took part in REM in order to attain their goals so they switch from accounting methods towards real earning. Cohen, Dey, and Lys (2008) broke down both accrual and real earning management over the day and age of pre and post-SOX they recommended that level of real management techniques have expanded and declined in the accrual technique after the time of SOX. Dechow, Sloan, and Sweeney (1996) uncovered diverse intentions of management to control the acquiring like fancied to raise outer financing certainly or maintain a strategic distance from obligation advantageous limitations.

Gunny (2010) and Burns and Merchant (1990) clarified the ability of monetary officials to control acquiring through real than accruals. To begin with, ex-post influential accounting decisions concerning accumulations are at higher risk for Securities and Exchange Commission

(SEC) investigation. Second, the firm had constrained adaptability to oversee collections. Third, accrual occurred at the end of the financial year and administrators confronted vulnerability to which accounting medications the reviewer would permit around then, though RM choices must be made preceding financial year-end.

In Pakistan, a little work is executed on the subject of corporate governance (CG) and earning management (EM). Javed and Iqbal (2008) studied that in Pakistan, company ownership is concentrated only by few large stockholders. Ali Shah, Butt and Hassan (2009) observed the relationship between corporate governance and accrual earning management, but still, there is a gap in the study of corporate governance (CG) and real earning management (REM).

Data and Methodology

This paper considers all firms listed on Pakistan stock exchange for which information is available. The financial sector is excluded due to strict rules and regulations and changes in the revenue system. Firms that are not listed or for which all the information is not available also excluded. Consequently, the initial sample reduced to 70 non-financial firms with 420 observations.

Measurement of Variables

Real Earning Management

The study follows Roychowdhury (2006) methodology to estimate the real earning management i.e. Abnormal cash flow from operations, which is the linear function of sales and change in sales within the current period. First, we use regression analysis to establish the normal level of cash flow from operations from equation 1, Second, the abnormal cash flow from operations is considered as the residual which is the distinction between actual level and calculable level (Cohen & Zarowin 2010 & Zang 2011).

The model for the detection of real earning management is as follow

$$CFO_{it} / A_{t-1} = \alpha_0 + \alpha_1(1 / A_{t-1}) + \beta_1 (S_t / A_{t-1}) + \beta_2(\Delta S_t / A_{t-1}) + \mu_t \quad \dots\dots\dots (1)$$

CFO refer to normal cash flow from operations, A_{t-1} is the total assets of the previous period, S_t is the annual sale revenue, ΔS_t is the change in sales compared with the sales amount in the previous period.

*Measures of independent variables**Board characteristics*

Board size represents the ideal quantities of executives within the board (Zhou & Chen 2004 & Uwuigbe, Peter & Oyeniyi 2014). Smaller boards enhance participation, involvement, and cohesiveness than larger boards as a result of they don't face the problem of organizing and coordinating oversized numbers of directors. Then again, larger boards have incredible quantities of experienced directors, they convey the advisory group work and increment the capacity to monitoring (Xie, Davidson, & DaDalt, 2003) so we don't predict the direction of board size (BS) and real earning management (REM).

Board independence supposed to reduce the controlling shareholders to manipulate the earning and improve corporate transparency and accounting quality (Kuo, Ningb, & Song, 2014). Those companies which have a high proportion of independent non-executive directors in their board, they make a more earning forecast and give more accurate, useful information to the financial specialists (Ajinkya, Bhojraj & Sengupta, 2005). Therefore, we foresee that board independence constrains the firm to involve in earning management.

CEO duality implies significant power for the CEO/Chairperson, by the way of allowing that person to set the board meeting agendas which in shape his pursuit and thereby keep away from extreme tracking (Roodposthi & Chashmi, 2011). Few studies proposed that CEO duality can enhance the board's observing and reduce the possibility of earning control (Kuo, Ningb, & Song, 2014). Consequently, we assume that CEO duality is likely too much less powerful in monitoring, which reduces the likelihood of constraining the earning control.

H₀: There is no relationship between board size and real earning management.

H₀: Board independence has no relationship with real earning management.

H₀: CEO duality has no relationship with real earning management.

Audit committee independence

The audit committee considered an important component to reveal the financial report. Trained and financial professional auditors can apprehend accounting earning (Carcello, Hollingsworth, Klein, & Neal, 2006) whilst auditors and regulators are unable to hit upon the real earning due to excessive concealment and occasional risk characteristics (Zang 2011 & Graham, Harvey, & Rajgopal, 2005). So we don't predict the direction of audit committee independence and earning management.

H₀: Audit committee has no relationship with the real earning management of firms.

Ownership structure

Managers have the power and incentive to apply the firm assets in their own favor and thus expropriate shareholders' wealth. Legally, Owners placed a stress on management then they're bound to make use of the resources on the way to maximizes the shareholder's wealth. We predict the negative relationship between managerial ownership and real earning management.

Controlling shareholders have the power to boom their personal wealth by inflating stock price and crash the earning decreasing the company's transparency. Exceptionally focus owners can manipulate earning by the means of putting pressure on management and disguising the expropriation of minority shareholders. The company can switch from accrual to real earning or combine the two types and influence firm value and earning expectations (Kuo, Ningb, & Song, 2014). Thus we hypothesis the negative relation between the concentration of ownership and real earning management.

If a firm faces the loss, then institutional investors pressure the management to keep away from loss via engaging in massive scale promoting, because they want short-term income (myopic investment behavior). On the other hand, the institutional investors don't emphasis on short-term earning they need the long-term benefit, so they don't force to engage in earning management. This will act as a disincentive for the managers to involve in real manipulations which decrease long-term firm value (Roychowdhury, 2006). We hypothesize that institutional investors should constrain real activities of manipulations.

H₀: Managerial investors have no relationship with the real earning management of firms.

H₀: Concentration of ownership has no relationship with real earning management.

H₀: Institutional investors have no relationship with real earning management.

Measures of Control variables

To govern the differences in earning management incentives, we encompass the control variables which totally based on previous studies. First, we include the natural log of total assets for the proxy of firm size (Deesomsak, Paudyal & Pescetto 2004; Roodposthi & Chashmi 2011; & Fan, Titman, & Twite, 2012). In larger firms, investors put capital stress then they engage in earning manipulation but, large firms are scrutinized by the way of funding banks and analyst network (Richardson, Tuna, & Wu, 2002). The variable leverage (Lev) is used to seize the impact of debt, measure through overall debt to total assets (Sweeney, 1994). A better ratio indicates a higher pressure of debt covenant which limits the manager's opportunistic behavior to engage in earning management. This argument might are expecting terrible courting of leverage and real earning management.

Liquidity measured through current ratio (Roodposthi & Chashmi, 2011). Firms which have extra liquid assets use a long-term source of fund to finance their current operations. So liquidity is a critical element to decide the firm overall performance. Firm age is used to seize the effect of young/older firms. Young firms display exceptional characteristics than older firms. Older firms show good performance because of their reputation in the market and that they compete effectively to grip their position (Ericson & Pakes, 1995) they don't involve earning manipulations. In the end, market to book value is used to measure the growth possibilities of the firm, measure through the ratio of market value of equity to book value of equity. (Roychowdhury, 2006).

Regression model

The following regression model examines the relationship between real earnings management (REM) and corporate governance (CG) variables.

$$\begin{aligned}
 ABCFO_{it} = & \alpha_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 CEO_{it} + \beta_4 AUD_{it} + \beta_5 MAGOWN_{it} + \\
 & \beta_6 CONOWN_{it} + \beta_7 INSOWN_{it} + \beta_8 FSIZE_{it} + \beta_9 LEV_{it} + \beta_{10} MB_{it} + \\
 & \beta_{11} FA_{it} + \beta_{12} LIQ_{it} + \mu_{it} \dots\dots\dots (2)
 \end{aligned}$$

$ABCFO_{it}$ is abnormal cash flow from operations of firm i at time period t (real earning management), α_0 is Intercept, β_0 is firm-specific parameters, μ_t is error term, BS are the numbers of board members, BI is board independence, measured as numbers of independent non-executive members in board. CEO_{it} represents dummy variable if CEO is also a chairperson of the firm then 1 otherwise 0 to show the CEO Duality, AUD_{it} represents audit committee independence which is measure through numbers of non-executive directors in the audit committee. $MAGOWN_{it}$ is managerial ownership measure through numbers of outstanding shares held by the management. $CONOWN_{it}$ is concentration of ownership measure as a natural log of number of firms shareholders. $INSOWN_{it}$ is institutional ownership which is measure through numbers of outstanding shares held by the institutions. Size of firm $FSIZE_{it}$ is measure through natural log of total assets. LEV_{it} is leverage, measure through total debt to total assets. Market to book value is denoted by MB_{it} measure by market value of equity to book value of equity. LIQ_{it} is liquidity measure through total assets to total liabilities. Firm age is denoted by FA_{it} shows numbers of years since IPO.

Empirical Result and Discussion

Table I reports the descriptive statistics of explanatory variables and dependent variables. The normal extent of board size (BS) is 8.30, which is closed to the base necessary for the top managerial staff under Clause II, Section 174 of the Companies Ordinance 1984. Round 16% of CEO was additionally the directors of the firm while 84% have isolated the chunk of CEO and executive. The

centralization of ownership is 3.30. A low level of convergence of ownership (diffused possession) demonstrates that firm has low organization control. By and large, the institutional shareholders claim 43.66% of a firm's share. This rate is higher than 38%, 41.9% and 42.8% (Kuo, Ningb, & Song 2014, Ding, Zhang & Zhang 2007 & Gul, Kim, & Qiu 2010). It reflects the expansion in share held by the controlling shareholders. This affirms ownership structure is extremely determined when contrasted with advanced (western) markets.

Table 1
Descriptive statistics

Variables	Maximum	Minimum	Mean	Medium	Std deviation
Ab. CFO	0.884	-1.169	-9.04E-18	-0.015	0.167
BS	16	7	8.30	8.00	1.73
BI	14	0	5.33	5.00	2.39
CEO	1	0	0.16	0.00	0.36
AUD	6.00	1.00	2.91	3.00	0.97
MAGOWN	98.40	0.00	22.05	4.47	27.57
CONOWN	4.58	2.21	3.30	3.21	0.47
INSOWN	99.16	0.21	43.66	37.63	31.22
FSIZE	8.69	4.71	6.77	6.75	0.74
LEV	12.16	0.015	0.66	0.55	0.87
MB	1234.286	-71.64	12.99	5.71	70.69
FA	113.00	12.00	41.44	35.5	19.05
LIQ	65.82	0.08	2.33	1.81	3.77
Observation	350	350	350	350	350

Table 2
Correlation Matrix

	AB.CFO	BS	BI	CEO	AUD	MAG OWN	CON OWN	INSO WN	FSIZE	LEV	MB	FA	LIQ
AB.CFO	1.00												
BS	0.00	1.00											
BI	0.00	0.00	1.00										
CEO	-0.11	-0.10	-0.20	1.00									
AUD	0.11	0.00	0.00	-0.20	1.00								
MAGOWN	-0.009	-0.30	-0.20	0.10	-0.23	1.00							
CONOWN	0.03	0.03	0.00	-0.00	0.00	-0.31	1.00						
INSOWN	0.003	0.20	0.20	-0.20	0.10	-0.01	0.20	1.00					
FSIZE	0.199	0.00	0.29	-0.00	0.39	-0.19	0.00	0.22	1.00				
LEV	-0.10	0.11	0.00	0.23	-0.00	-0.00	0.03	-0.00	-0.20	1.00			
MB	0.00	-0.00	-0.02	-0.00	0.01	0.01	0.03	-0.00	-0.11	-0.00	1.00		
FA	0.00	0.10	0.10	-0.00	0.00	-0.13	0.09	0.10	0.10	-0.00	-0.00	1.00	
LIQ	0.10	-0.09	-0.03	-0.00	0.00	-0.00	0.00	-0.00	-0.03	-0.10	0.00	-0.00	1.00

Table 2 presents correlation coefficients of all factors of the time of 2009-2014. The negative relationship between abnormal cash flow from operations and CEO duality speaks to that individuals, don't assume an imperative part in moderating real earning management. The concentration of ownership is absolutely connected with abnormal cash flow from operations. Profoundly focused possession makes it feasible for the firm to take part in controlling the earning through real technique. They have the motive force to expand their own particular possessions by blowing up stock rate. Board independence is positively related to the board and firm size, which demonstrates that bigger firms require more individuals on their board and typically dole out the extra seats to outside individuals.

Table 3
Regression Analysis

Variable	Co-efficient	p-value
C	-0.213470	0.0197**
BS	-0.000600	0.9371
BI	0.002926	0.5847
CEO	-0.040897	0.1144
AUD	0.001225	0.9149
MAGOWN	-0.000833	0.0463**
CONOW	-0.058354	0.0234**
INSOWN	-0.000688	0.0621***
FSIZE	0.059704	0.0007*
LEV	0.002110	0.8543
MB	-0.000581	0.0357**
FA	0.000254	0.5915
LIQ	0.016499	0.0016***
R square	0.112343	
F-statistics	3.554271	
Pro (F- statistics)	0.0010	

The equation is estimated as follow

$$\begin{aligned}
 ABCFO_{it} = & \alpha_0 + \beta_2 BS_{it} + \beta_3 BI_{it} + \beta_4 CEO_{it} + \beta_5 AUD_{it} + \beta_6 MAGOWN_{it} \\
 & + \beta_7 CONOWN_{it} + \beta_8 INSOWN_{it} + \beta_9 FSIZE_{it} + \beta_{10} LEV_{it} + \beta_{11} MB_{it} \\
 & + \beta_{12} FA_{it} + \beta_{13} LIQ_{it} + \mu_{it} \dots\dots\dots (3)
 \end{aligned}$$

Where $ABCFO_{it}$ is abnormal cash flow from operation, our dependent variable of firm I the at time period t . while α_0 is the intercept of the equation. BS_{it} , BI_{it} , CEO_{it} and AUD_{it} are board size, board independence, CEO duality, and audit committee independence respectively, measure the board structure of the firm. $MAGOWN_{it}$, $CONOWN_{it}$ and $INSOWN_{it}$ are managerial ownership, concentration of ownership and institutional ownership respectively, are the variables of ownership structure of the firm. $FSIZE_{it}$ the firm size used to show the effect of size of the firm. LEV_{it} represents the leverage of firm to found out the effect of earning. MB_{it} is market to book ratio to control the firm growth rate. FA_{it} firm age to control the effect of young / older firm. LIQ_{it} is the control variable of liquidity. μ_{it} is error term.

* Significant at 1 %. ** Significant at 5 . *** Significant at 10 %.

The results of regression analysis are demonstrated in Table III, abnormal cash flow from operations is regressed towards several explanatory variables and control variables. The explanatory power of the model ranges from 11.23% as denoted with the aid of R square. The low value of r square shows that a small part of the variation in abnormal cash flow from operations is explained with the aid of variability of independent variables.

The consequence of our model depicts that managerial ownership negatively affects abnormal cash flow from operations, indicates that manager's interest is possible to be aligned with controlling shareholder in preference to minority shareholders. As controlling shareholders have a strong pressure on firms, so they're much less concerned about earning manipulations. The essential finding is that there is a negative relationship between the concentration of ownership and abnormal cash flow from operations. In Pakistan, there is less grouping of financial specialists in the firm; they don't permit the organizations to take part in real earning management. Incredibly concentrated ownership makes it feasible for the firm to participate in manipulations. They have the incentive to build their own wealth by blowing up the stock cost.

We find that institutional possession has statistically critical and negative identified with abnormal cash flow from operations. The reason is that because of the financial conditions if the supervisors find a way to maintain a strategic distance from the misfortunes that happen in the firm in form of real activities then the sophisticated investors confines these exercises. That why institutions assume a vital part in constraining the controls of real activities.

The coefficient of other variables board measure (BS), board independence (BI), CEO duality (CEO) and audit committee independence (AUD) are all irrelevant. This may identify with the supervisor's control over the choice of board individuals and choices, thus prompting to powerful checking or absence of reasonable exposure by the firm (Visvanathan, 2008).

Among the control factors, the market to book value has a statistically significant impact on abnormal cash flow from operations. It might be because of the conceivable reason that market to book value is used to meet or beat yearly expert forecast. The firms which have more prominent development opportunities more comprise in real earning management (Roychowdhury 2006). The larger firm is believed to embrace real activities to show high gaining as a contrast with smaller firms.

Conclusion

This paper experimentally examines the impact of corporate governance on real earning management for non-financial firms listed on Pakistan stock exchange for the time period of 2009 to 2014. This study reveals that general board attributes and audit committee independence has an insignificant impact in restricting the real earning management, demonstrates that most firms concentrate on the accrual method. Media, researchers, and investigators have less concentration on

the techniques of real earning methods. Ownership structure (managerial ownership, the concentration of ownership and institutional ownership) has a negative relationship with real earning management, which indicates that manager's interest is possible to be aligned with controlling shareholder in preference to minority shareholders. When the firm has controlling shareholders then it becomes difficult to involve in real activities. Institutional ownership plays a significant role in controlling real earning management, illustrates that institutional investors adopt a vital share in keeping the managers not to take part in real methods by adjusting the interest of management with controlling shareholders.

This analysis can be stretched out for future research in a few ways. It utilizes just a single intermediary for distinguishing real earning management that is abnormal cash flow from operations, future research could be continued by taking the other two proxies that are abnormal production and abnormal discretionary expenses, furthermore, the aggregate real earning management. Firm size can be increment by taking more budgetary years so that the variables which demonstrate irrelevant in the study gets to be significant.

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