

By Appearance and/or by Amount: The Impact of Presence and Size of Audit Committees on Real Earnings Management in Bangladesh

Nitai Chandra Debnath, B.C.M.Patnaik, Ipseeta Satpathy

Abstract: *In this study, we analyze how the presence and size of audit committees are interrelated to real earnings management empirically in the context of Bangladesh. To accomplish our study, we utilize a sample of 2191 firm year observations listed on the Dhaka Stock Exchange throughout the period of 2000-2017. Our study ascertains that the size of audit committees is negatively associated with real earnings management. Results also demonstrate that all three composite measures of real earnings management are negatively associated with the size of audit committees. More specifically, large audit committees are more capable of restraining managers from real earnings management practices through changing discretionary expenses. On the other hand, presence of audit committees is also negatively associated with real earnings management. Though this association is not statistically significant. It indicates that the presence of audit committees will not improve the situation considerably; rather, experience, diversification, size, and independence may offer opportunities for positive changes. Regulators may be aware of this and change the provision of audit committee formation accordingly.*

Index Terms: Audit committee, Audit committee size, Real earnings management, Corporate governance

I. INTRODUCTION

Standard and Poor's (2011) stated that many companies are managing earnings either to avoid reporting loss or maintain steady earnings growth. Shareholders give funds to managers to do its optimum use. Management may engage in earnings management to achieve shareholders' expectation. Agency theory argues that shareholders (principal) require protection for their own interest because agents (management) may not always do in the best interests of the principals (Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976). Audit committee primarily supervises the financial reporting process of a firm to ensure transparency and accountability (Treadway Commission, 1987). This committee communicates with the internal financial

Revised Manuscript Received on May 22, 2019.

Nitai Chandra Debnath, B.C.M.Patnaik, Ipseeta Satpathy

Research Scholar, Kalinga Institute of Industrial Technology (KIIT) and Associate Professor, Bangladesh Institute of Capital Market, Dhaka, Bangladesh, Associate Professor, School of Management, KIIT, Bhubaneswar, India, Professor, School of Management, KIIT, Bhubaneswar, India

managers and outside auditors to review and monitor financial reporting system, audit process, and internal accounting control system of the firms. Thus, active and vibrant audit committee is likely to monitor effectively.

Emerging management is characterized with features of poorly defined property rights and weak rule of law (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 1999), virtual absence of financial transparency (Fan, Wei, & Xu, 2011), weak investor protection and governments with low-levels of administrative efficiency (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 2000), and lack of freedom of the press (Azmat & Coghill, 2005). Khan (2003) documents that Bangladesh has many characteristics of an emerging economy, including insufficient rule of law, lack of accountability transparency and widespread corruption and low-capacity in terms of public governance. Farooque, Ziji, Dunstan, & Karim (2007) and World Bank (2007) note that there is a dominant presence of family ownership or inside ownership in Bangladesh. The presence of inside or concentrated ownership (Farooque et al., 2007) may try to expropriate the interest of minority shareholder(s).

Our study utilizes 18 years of data (2000-2017). To ensure the robustness of our result; we divide our sample into two time frames. For the first time in its history, Bangladesh Securities and Exchange Commission (BSEC) issued corporate governance guideline in 2006. This guideline was put into action in a "conform or explain basis".

II. EARNINGS MANAGEMENT

Previous studies state different definitions of Earnings Management. Ronen & Yaari (2008) classify previous definitions of earnings management in three ways, namely white, gray and black. In a positive way, Earnings management is taking benefit of the elasticity in the choice of accounting policy or estimate to hint the management's private information on future cash flows (Beneish, 2001; Sankaraguruswamy & Sweeney, 2005). From a neutral point of view, Earnings Management is choosing an accounting treatment from different alternatives that is either economically efficient or



By Appearance and/or by Amount: The Impact of Presence and Size of Audit Committees on Real Earnings Management in Bangladesh

opportunistic (Scott, 2000). In a negative sense, Earnings management is the practice to distort or reduce transparency or accountability of the financial reports (Miller & Le Breton-Miller, 2006; Schipper, 1989). Earnings management can be classified into accrual earnings management and real earnings management (REM). In accrual earnings management, managers apply their judgment or discretion over different accounting methods and estimates to affect reported earnings, which has no direct effect on firm's cash flows (Dechow & Dichev, 2002; Healy & Wahlen, 1999; Jones, 1991). On the other hand, REM is a manipulation process, through strategic timing of operating, investing and financing decision, which will directly affect operating cash flows of the firms (Gunny, 2010; Lenard & Yu, 2012; Roychowdhury, 2006).

A. Real earnings management

Many previous studies use discretionary accrual to manage earnings, but manager may also apply real decision to manipulate earnings. García-meca & Sánchez-ballesta (2009) document that more independent board manipulate earnings through research and development expenditure. So, Firms' management can do manipulation by different real activity decisions. Different studies conducted to examine the real earnings management, and have concentrated mostly on investment activities (Bartov, 1993; Bens, Nagar, & Wong, 2002; Bushee, 1998; Dechow & Sloan, 1991). Roychowdhury (2006) defined real earnings management as "management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings thresholds". His study concentrated on operational activities of management to identify real earnings management. Previous studies found that Roychowdhury (2006) model has an extensive explanatory power to detect real earnings management (Cohen, Dey, & Lys, 2008; Cohen & Zarowin, 2010; Graham, Harvey, & Rajgopal, 2005). Graham, Harvey, & Rajgopal (2005) and Bruns & Merchant, (1990) conducted a survey where they find top financial executives prefer to manipulate earnings through real activities rather than accrual management because management achieves more flexibility in REMs compares to accrual earnings management. At any given period of the year, management can apply REMs whereas accruals management techniques are amenable to be applied only at the end of the respective fiscal year. Our study also employs similar real earnings management model to detect earnings management.

B. Audit committee and real earnings management

B.1 Presence of audit committee and real earnings management

For effectiveness of audit committee, hold three or four audit meeting in a year and at least one meeting in a quarter (Price Waterhouse, 1993).

H1: The level of the real earnings management is lower if the firms have audit committee.

To test H1, the study used the following regression model:

$$REM_{it} = \alpha_0 + \alpha_1 AUD_COM + \alpha_2 CONT + \sum \text{Industry Year Fixed Effect} + \varepsilon_{it}$$

Where REM_{it} is real earnings management, measured by management's real activities for firms i at time t . AUD_COM means a firms which has a audit committee. $CONT$ depicts control variables and ε_{it} is the usual error term. Similar to Razzaque et al. (2016) all models of our study have been estimated via a two-dimensional industry year fixed effect to account for the unobserved group level heterogeneity.

B.2 Audit committee size and real earnings management

Kent, Routledge, & Stewart (2010) argue that size of the audit committee and big audit firms are the first governance mechanisms associated with earnings management quality. Lin & Hwang, (2010) and García-meca & Sánchez-ballesta (2009), in meta-analysis, suggested that the size, financial expertise, independence and frequency of audit committee meeting are significantly associated with lower earnings management. Earnings management is lesser for companies with more directors on the audit committee (Yang & Krishnan, 2005). However, (Jerry Sun, Liu, Lan, & Sun, 2016) suggested that larger audit committee is less effective to reduce real earnings management. On the other hand, Xie, Davidson, & DaDalt (2003) find no significant association between earnings management and audit committee size. Considering above discussion, I hypothesize the following:

H2: The level of the real earnings management is negatively associated with the size of audit committee.

To test H2, the study used the following regression model:

$$REM_{it} = \alpha_0 + \alpha_1 AUD_SIZ + \alpha_2 CONT + \sum \text{Industry Year Fixed Effect} + \varepsilon_{it}$$

Where AUD_SIZE means number of audit committee member(s). All other variables are explained previously.

III. RESEARCH METHODOLOGY

A. Data and methodology

BSEC issued revised corporate governance guideline for public listed companies to follow (BSEC, 2012). Revised corporate governance guidelines mention that every firms should have an audit committee. Prior to that, it was not mandatory for the firms. Our study utilizes a large data set ranging over an eighteen-year period from 2000 to 2017 and sample



size is 1991 firm years. First, we use a dummy variable for audit committee for our first hypothesis. This dummy variable coded with the value one if the firms have an audit committee, zero otherwise. Second, we employ number of members in audit committee to test our second hypothesis. We perform panel data analysis for this study for of its capability to separate the effects of specific interventions and treatments both across cross-sections and time (Hsiao, 2003). Moreover it provides valid control over unobserved effects due to omitted variable bias. (Munnik & Schotman, 1994). Table 1 and 2 charts the number of observation conferring to each year and each industry respectively.

B. Research Design

B.1 Dependent Variable: Real earnings management

Similar to Roychowdhury's (2006) proxies, to measure real activities manipulations, we choose abnormal cash flows from the operation, production costs and discretionary expenses.

We apply three methods to examine the impact on the three variables mentioned above:

1. Accelerating sales value through more lenient or increased price discount
2. Reducing cost of goods sold through increased production
3. Reporting lower discretionary expenses

We apply Dechow, Kothari, & Watts (1998) model as implemented by Roychowdhury (2006) to get a normal level of cash flow from operation (CFO), production cost and discretionary expenses. We measure normal CFO, production cost and discretionary expenses by following three cross-sectional regression model. These models are employed for each industry and each year.

$$\frac{CFO_{it}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{Sales_{it}}{Assets_{i,t-1}} + k_3 \frac{\Delta Sales_{it}}{Assets_{i,t-1}} + \epsilon_{it} \quad (I)$$

$$\frac{Prod_{it}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{Sales_{it}}{Assets_{i,t-1}} + k_3 \frac{\Delta Sales_{it}}{Assets_{i,t-1}} + k_4 \frac{\Delta Sales_{it-1}}{Assets_{i,t-1}} + \epsilon_{it} \quad (II)$$

$$\frac{Disexp_{it}}{Assets_{i,t-1}} = k_{1t} \frac{1}{Assets_{i,t-1}} + k_2 \frac{Sales_{it-1}}{Assets_{i,t-1}} + \epsilon_{it} \quad (III)$$

Where: CFO_{it} = Cash flow from operation during the period for firms i and time t ; $Assets_t$ = Value of total asset at the end of year t ; $Sales_t$ = value of total sales during the period of t ; and $\Delta Sales_t$ = change in sales between $Sales_t - Sales_{t-1}$. Where: $Prod_t$ = Production cost for the year t . We compute that by adding changes in inventory with the cost of goods sold. All other variables are defined as in the previous setting. Where: $Disexp_t$ = discretionary expense for the period of t . Combined value of research and development, advertising, and selling and administrative expenses are considered to measure discretionary expenses. Other variables are defined as in the previous setting. To control for heteroscedasticity, all variables are scaled by prior year asset ($Assets_{i,t-1}$) in all three previous equations.

The abnormal CFO, abnormal discretionary expenses and abnormal production costs are measured as the difference between the normal levels predicted from the above equations and actual values. As proxies of REMs, we use these three variables in our study. If a company wants to show a higher profit by real earnings management for a specific level of sales, they will try to act upon one or all of these: lower cash from operation, and/or less discretionary expenses, and/or higher production cost. For the sake of simplicity, we multiply abnormal cash flow and discretionary expenses by negative one to reorganize all three variables in the same direction. A positive value indicates earnings management through lowering cash flow and discretionary expense, and overproduction. In order to measure Real earnings management proxies (REM_PROXY), we take sum of the values of AB_CFO, AB_DIS and AB_PROD

Sample of firm-years, by year and industry

Table 1: by Year

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Number of listed firms	92	97	91	105	110	101	106	117	123	123	129	131	138	133	137	137	116	118	2104
annual reports are not available	10	18	9	16	7	7	6	7	17	16	15	16	5	14	5	13		3	190
Final sample	82	79	82	89	103	94	100	110	106	107	114	115	133	119	132	124	112	115	1914

X



By Appearance and/or by Amount: The Impact of Presence and Size of Audit Committees on Real Earnings Management in Bangladesh

Table 2: by Industry

Industry	Engineering	Food	Fuel & Power	Jute	Tex-file	Pharmaceutical	Paper & Printing	Service & Real estate	Travel and leisure	Cement	IT-Sector	Tannery	Ceramic	Telecommunication	Miscellaneous	Total
Number of listed firms	341	226	166	51	434	305	19	47	30	99	86	88	67	14	131	2
annual reports are not available	36	35	18	2	37	26	1	3	2	15	5	3	2	0	5	1
Final sample	305	191	148	49	397	279	18	44	28	84	81	85	65	14	126	4

C. Independent variable

We plan to examine the impact of audit committee and its size on REM. We take two explanatory variables such as presence of audit committee and number of audit committee members. In our study, we test two hypotheses. Firstly, we see the association between presence of audit committee and REM. We employ a dummy variable to accomplish this. If the firm has an audit committee, coded with one, zero otherwise. Secondly, we test the association between number of audit committee member(s) and REM.

D. Control variable

Previous REM and corporate governance studies employ several control variables. We use several control variables in our model for analyzing firm-specific attributes that may affect the level of REM. Following existing literature, we include LEV and LOSS as control variables for risk of bankruptcy (Dyreg, Hillegeist, & Penalva, 2011). This study also includes SIZE, AGE and GROW as a control variable (Becker, Defond, & California, 1998; Cohen & Zarowin, 2008; Deng & Wang, 2006; Roychowdhury, 2006). GROW is measured as the positive change of sales. LEV is measured as the ratio of total debts to total asset, LOSS is a dummy variable coded with one if the firm report loss, zero otherwise. SIZE is measured as natural logarithm of total asset of the firms and AGE is measured by natural logarithm of total age of the firms.

IV. RESULT

A. Descriptive statistics

Table 3 reports descriptive statistics of all the relevant variable of this study. On average, the sample firms possess a negative REM. It indicates that on average Bangladeshi firms tend to be conservative and they are involved in income decreasing real earnings management indeed. Table shows that 63% firms have audit committee and average number of audit committee are more than 2. Among the control variables, LEV is 59 percent which is near to what is reported by Hsu & Koh (2005), near about 54 percent. In comparison to other developing countries, it is 36 percent in Jordan (see, Al-fayoumi, Abuzayed, & Alexander, 2010) and 34 percent in China (see, Wei, Xie, & Zhang, 2005).

B. Correlation matrix

Table 4 reports the correlation among different variables of this study. We find a negative correlation of REMs proxies with audit committee size and this relationship is statistically significant ($p < 0.05$). On the other hand, we do not find any statistically significant relationship between the presence of audit committee and REM proxies. REMs proxies are negatively associated with three control variables (AGE, SIZE and GROW).

Moreover, this study finds that REM proxies are positively associated with other two control variable (LEV and LOSS). Table 4 shows that the highest level of correlation was reported to exist between the presence of audit committee and number of audit committee members



with a coefficient of 78% and significant at 1% level. This association is expected. Since the value of the coefficient is less than 80%, therefore, in our analysis,

the multicollinearity problem is not prevalent between the independent variables (Gujarati, 2003, p.359)

Table: 3 Descriptive statistics

Variable	N	Mean	S.D.	Quantiles				
				Min	.25	Mdn	.75	Max
REM	1991	-0.00	0.21	-1.11	-0.12	-0.00	0.12	0.84
REM1	1991	0.00	0.11	-0.50	-0.05	0.00	0.06	0.39
REM2	1991	-0.01	0.18	-0.84	-0.07	0.00	0.07	0.71
AB_CFO	1991	0.00	0.08	-0.26	-0.04	0.00	0.04	0.24
AB_DIS	1991	-0.00	0.07	-0.24	-0.02	0.00	0.03	0.19
AB_PROD	1991	-0.01	0.15	-0.61	-0.05	0.00	0.04	0.52
AUD_COM	1991	0.63	0.48	0.00	0.00	1.00	1.00	1.00
AUD_SIZE	1991	2.04	1.79	0.00	0.00	3.00	3.00	8
GROW	1991	0.14	0.48	-0.93	-0.05	0.07	0.22	3.01
LEV	1991	0.59	0.42	0.04	0.36	0.55	0.73	3.40
SIZE	1991	20.91	1.68	17.28	19.76	20.78	22.04	25.41
AGE	1991	2.48	0.89	0.00	1.95	2.77	3.14	3.66
LOSS	1991	0.13	0.33	0.00	0.00	0.00	0.00	1

Where REM is real earning management; REM_1 is the aggregate of AB_CFO and AB_DIS; REM_2 is the aggregate of AB_PROD and AB_DIS; AB_CFO is the abnormal cash flows from operations; AB_DIS is the abnormal discretionary expenses; AB_PROD is the abnormal production costs; AUD_COM is a dummy variable coded with the value one if the firm has an audit committee, zero otherwise; AUD_SIZE means number of audit committee members; GROW measures the sales growth; LEV is the ratio of total debt to total asset of the current period; LOSS is a dummy variable coded with the value one if the firm incurred a loss in the previous period, zero otherwise; SIZE is the natural logarithm of total assets of the current period; AGE is the natural logarithm of years since the firm is incorporated.

Table: 4 Pearson correlation

Variable	REM	REM1	REM2	AB_CFO	AB_DIS	AB_PROD	AUD_COM	AUD_SIZE	GROW	LEV	SIZE	AGE	LOSS
REM	1.00												
REM1	0.72**	1.00											
REM2	0.93***	0.49***	1.00										
AB_CFO	0.52**	0.79***	0.16***	1.00									
AB_DIS	0.55***	0.67***	0.60***	0.08***	1.00								
AB_PROD	0.87***	0.29***	0.93***	0.16***	0.28***	1.00							
AUD_COM	-0.017	-0.03	-0.01	-0.02	-0.02	0.00	1						
AUD_SIZE	-0.04*	-0.05**	-0.04*	-0.03	-0.06**	-0.01	0.78***	1					
GROW	-0.02	-0.06**	-0.03	-0.00	-0.10***	0.00	0.01	0.01	1				
LEV	0.11***	0.13***	0.04	0.20***	-0.02	0.05*	-0.0362	-0.11***	-0.04*	1.00			
SIZE	-0.02	-0.00	-0.01	-0.02	0.012	-0.02	0.31***	0.01	0.24***	-0.15***	1.00		
AGE	-0.04	-0.04	-0.06**	0.03	-0.11***	-0.02	0.04*	-0.04	-0.02	0.19***	-0.11***	1.00	
LOSS	0.09***	0.12***	0.03	0.16***	-0.00	0.04*	-0.11***	-0.10***	-0.08***	0.38***	-0.18***	0.08***	1.00

Where AUD_COM is a dummy variable coded with the value one if the firm has an audit committee, zero otherwise. *** p<0.01, ** p<0.05, * p<0.10

C. Regression Result

Audit committee communicate with the internal financial managers and outside auditors to review and monitor financial reporting system, audit process, and internal accounting control system of the firms. So, Active and vibrant audit committee is likely to monitor effectively. An inactive audit committee may not be capable to make any significant differences. Agrawal & Chadha (2005), Vafeas (2005), and Larcker et al. (2007) document an immaterial correlation between audit committee or board independence and earnings management. Table 5 shows the association

between audit committee and REM. My result is also consistent with their result. Presence of audit committee is negatively associated with real earnings management. This association is not statistically significant. So, audit committee of Bangladeshi listed firms do not make any significant effect on earnings management practice of management. There may be several reason for ineffective audit committee, such as audit committee members are not independent or financially literate. If regulator can confirm that majority of



By Appearance and/or by Amount: The Impact of Presence and Size of Audit Committees on Real Earnings Management in Bangladesh

audit committee member will be independent and financially sophisticated.

Table 5: Audit committee vs REM

VARIABLES	1 REM	2 A_CFO	3 A_DIS	4 REM1	5 A_PROD	6 REM2
AUD_COM	-0.024	-0.011*	-0.009*	-0.020**	-0.004	-0.013
	[-1.32]	[-1.69]	[-1.67]	[-2.27]	[-0.26]	[-0.75]
LEV	0.096***	0.047***	0.002	0.050***	0.046***	0.049***
	[4.97]	[6.70]	[0.54]	[5.45]	[2.91]	[2.79]
OCF	-0.000** *	-0.000***	-0.000	-0.000***	-0.000	-0.000
	[-5.39]	[-12.84]	[-1.47]	[-10.84]	[-1.18]	[-1.42]
SIZE	0.005	0.009***	-0.000	0.009***	-0.003	-0.003
	[1.56]	[6.76]	[-0.07]	[5.36]	[-1.15]	[-1.08]
AGE	-0.017** *	0.002	-0.010***	-0.008***	-0.008*	-0.018***
	[-2.76]	[0.75]	[-6.05]	[-2.86]	[-1.83]	[-3.49]
GROW	-0.015	0.000	-0.016***	-0.015***	0.001	-0.015
	[-1.28]	[0.09]	[-5.16]	[-2.80]	[0.05]	[-1.46]
Constant	-0.132*	-0.208***	0.027	-0.181***	0.049	0.076
	[-1.71]	[-7.05]	[1.31]	[-4.81]	[0.75]	[1.10]
Industry year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,191	2,191	2,191	2,191	2,191	2,191
R-squared	0.06	0.15	0.03	0.11	0.02	0.02
Adj. R-squared	0.05	0.14	0.02	0.09	0.01	0.01
Robust t-statistics in brackets						
*** p<0.01, ** p<0.05, * p<0.10						

Kent et al. (2008) argue that size of the audit committee and big audit firms are the first governance mechanisms associated with earnings management quality. On the other hand, Sun, Liu, & Lan (2011) suggested that larger audit committee is less effective to reduce real earnings management and Beasley (1996) argue that smaller audit committee may be more effective to limit management from earnings management practice. On the other hand, Xie et al. (2003) find no significant association between earnings management and audit committee size. Table 6 present regression result between audit committee size and REM. This study finds that audit committee of Bangladeshi listed firms are negatively associated with real earnings management. Firms with more members of audit committee are more capable to restrain earnings management and delivering better financial report. REM is significant at p<0.05 and t values are (-2.75). This implies, if the audit

committee formed by more member, there is more possibility that financially literate and independence members includes in audit committee. Moreover, they will be more capable to watch the activities of management.

This result also shows that all individual measures of real earnings management are negatively associated audit committee size. This indicates that firms with larger audit committee are restraining management from earnings management attitude in all aspect of activities particularly in case of discretionary expenses. LEV and LOSS are positively associated with real earnings management. On the other hand, AGE, GROW and OCF are negatively correlated with real earnings management.

Table 6: Audit committee size vs REM

VARIABLES	1 REM	2 A_CFO	3 A_DIS	4 REM1	5 A_PROD	6 REM2
AUD_SIZE	-0.012***	-0.001	-0.005***	-0.006***	-0.006*	-0.011***
	[-2.75]	[-0.60]	[-3.62]	[-2.63]	[-1.67]	[-2.71]
LEV	0.085***	0.041***	-0.001	0.040***	0.044***	0.044**
	[4.43]	[5.75]	[-0.13]	[4.47]	[2.80]	[2.52]
AGE	-0.016***	0.001	-0.009***	-0.008***	-0.008*	-0.017***
	[-2.64]	[0.67]	[-5.62]	[-2.69]	[-1.77]	[-3.29]



LOSS	0.028**	0.024***	0.004	0.028***	0.000	0.004
	[2.09]	[4.58]	[1.11]	[4.41]	[0.03]	[0.36]
OCF	-0.000***	-0.000***	-0.000	-0.000***	-0.000	-0.000
	[-5.32]	[-12.71]	[-1.52]	[-10.87]	[-1.14]	[-1.40]
SIZE	0.007*	0.009***	0.000	0.009***	-0.003	-0.003
	[1.88]	[6.98]	[0.08]	[5.66]	[-0.96]	[-0.85]
Constant	-0.157**	-0.214***	0.019	-0.194***	0.037	0.057
	[-2.03]	[-7.17]	[0.92]	[-5.10]	[0.57]	[0.81]
Industry year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,188	2,188	2,188	2,188	2,188	2,188
R-squared	0.07	0.16	0.03	0.11	0.02	0.03
Adj. R-squared	0.05	0.14	0.01	0.10	0.01	0.01
Robust t-statistics in brackets						
*** p<0.01, ** p<0.05, * p<0.10						

V. CONCLUSION

In this study, we investigate the impact of audit committee and its size on REM employing a sample of Bangladeshi firms listed on the Dhaka Stock Exchange during the period 2000-2017. In our analysis, we find that presence audit committee are negatively associated REM, but, this association is not statistically significant. These findings indicate that only the audit committee of listed firms are not capable to restrain managers from earnings management practices; rather, size of the audit committee can play an important role to limit REM. Our study finds that large size of audit committee are more capable to reduce REM and ensure good governance. It indicates that a large audit committee is more efficient to ensure earnings quality through apply their diversified knowledge and experience. So, our study suggest that regulator may increase the minimum number of audit committee member to enhance its capability. If experience, knowledge and independence of audit committee has been insured through appointing different individual in audit committee, interest of minority shareholders could be protected. More specifically, we see that firms with large audit committee are restraining managers from manipulating discretionary expenses. Results also shows that both composite measures (REM1 and REM2) are negatively associated with audit committee size. In future, in the context of Bangladesh, researchers may examine the impact of audit committee independence on REM.

REFERENCES

- [1] Agrawal, A., & Chadha, S. (2005a). Corporate governance and accounting scandals. *The Journal of Law and Economics*, 48(2), 371–406.
- [2] Agrawal, A., & Chadha, S. (2005b). Corporate governance and accounting scandals. *The Journal of Law and Economics*, 48(2), 371–406.
- [3] Al-fayoumi, N., Abuzayed, B., & Alexander, D. (2010). Ownership Structure and Earnings Management in Emerging Markets: The Case of Jordan. *International Research Journal of Finance and Economics*, 38(1), 28–47.
- [4] Azmat, F., & Coghill, K. (2005). Good governance and market-based reforms: A study of Bangladesh. *International Review of Administrative Sciences*, 71(4), 625–638. <https://doi.org/10.1177/0020852305059602>
- [5] Bartov, E. (1993). The Timing Earnings of Asset Sales and Earnings Manipulation, 68(4), 840–855.
- [6] Beasley, M. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *Accounting Review*, 71(4), 443–465.
- [7] Becker, C. L., Defond, M. L., & California, S. (1998). The Effect of Audit Quality on Earnings Management *, 15(1), 1–24.
- [8] Beneish, M. D. (2001). Earnings management: A perspective. *Accounting Horizons*, 13(4), 365–383, 13(4), 365–383.
- [9] Bens, D. A., Nagar, V., & Wong, M. H. F. (2002). Real Investment Implications of Employee Stock Option Exercises, 40(2), 359–393.
- [10] Bruns, W. J., & Merchant, K. (1990). The dangerous morality of managing earnings. *Management Accounting*, 72(2), 22–25.
- [11] BSEC. (2012). Revised Corporate Governance Guidelines. Retrieved from Http://Www.Sec.Gov.Bd/Slaws/Notification_on_CG-07.8.12-Amended.
- [12] Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behavior. *Accounting Review*, 73(3), 305–333.
- [13] Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and Accrual-Based Earnings Management in the Pre- and Post-Sarbanes-Oxley Periods, 83(3), 757–787.
- [14] Cohen, D. A., & Zarowin, P. (2008). Accrual-Based and Real Earnings Management Activities around Seasoned Equity Offerings Abstract.
- [15] Cohen, D. A., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting and Economics*, 50(1), 2–19. <https://doi.org/10.1016/j.jacceco.2010.01.002>
- [16] Commission, T. (1987). Report of the national commission on fraudulent financial reporting. The Commission.
- [17] Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, 77(2002), 35–59. <https://doi.org/10.2308/accr.2002.77.s-1.61>
- [18] Dechow, P. M., Kothari, S. P., & Watts, R. L. (1998). The relation between earnings and cash flows. *Journal of Accounting and Economics*, 25(2), 133–168.
- [19] Dechow, P. M., & Sloan, R. G. (1991). Executive incentives and the horizon problem: An empirical investigation, 14(1), 51–89.
- [20] Deng, X., & Wang, Z. (2006). Ownership structure and financial distress: evidence from public-listed companies in China. *International Journal of Management*, 23(3).
- [21] DeZoort, F. T., Hermanson, D. R., Archambeault, D. S., & Reed, S. A.



By Appearance and/or by Amount: The Impact of Presence and Size of Audit Committees on Real Earnings Management in Bangladesh

- (2002). Audit committee effectiveness: A synthesis of the empirical audit committee literature. *Audit Committee Effectiveness: A Synthesis of the Empirical Audit Committee Literature*, 21(38).
- [22] Dyreng, S., Hillegeist, S. A., & Penalva, F. (2011). Earnings management to avoid debt covenant violations and future performance. In Working Paper, Duke University, Arizona State University. <https://doi.org/10.1002/mde.1181>
- [23] Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, 88(2), 288–307.
- [24] Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301–325.
- [25] Fan, J. P. H., Wei, K. C. J., & Xu, X. (2011). Corporate finance and governance in emerging markets : A selective review and an agenda for future research. *Journal of Corporate Finance*, 17(2), 207–214. <https://doi.org/10.1016/j.jcorpfin.2010.12.001>
- [26] Farooque, O. Al, Zijl, T. van, Dunstan, K., & Karim, A. W. (2007). Corporate Governance in Bangladesh: Link between Ownership and Financial Performance. *Corporate Governance: An International Review*, 15(6), 1453–1468. <https://doi.org/10.1111/j.1467-8683.2007.00657.x>
- [27] García-meca, E., & Sánchez-ballesta, J. P. (2009). Corporate Governance and Earnings Management : A Meta-Analysis, 17(5), 594–610. <https://doi.org/10.1111/j.1467-8683.2009.00753.x>
- [28] Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The Economic Implications of Corporate Financial Reporting. *Journal of Accounting and Economics*, 40(1–3), 3–73.
- [29] Gujarati, D. (2003). *Basic econometrics*, 4th edn., McGraw Hill.
- [30] Gunny, K. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary Accounting Research*, 27(3), 855–888.
- [31] Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13(4)(November), 365–383.
- [32] Hsiao, C. (2003). *Analysis of panel data*. 2nd. Cambridge: Cambridge University Press. Kose, Ma, Es Prasad, & Me.
- [33] Hsu, G. C., & Koh, P. (2005). Does the Presence of Institutional Investors Influence Accruals Management ? Evidence from Australia. *Corporate Governance*, 13(6), 809–823.
- [34] Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm : Managerial Behavior , Agency Costs and Ownership Structure Theory of the Firm : Managerial Behavior , Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305–360.
- [35] Jones, J. J. (1991). Earnings Management During Import Relief Investigations. *Journal of Accounting Research*, 29(2), 193–228. <https://doi.org/10.2307/2491047>
- [36] Kent, P., Routledge, J., & Stewart, J. (2010). Innate and discretionary accruals quality and corporate governance. *Accounting and Finance*, 50(171–195).
- [37] Kesner, I. F. (1988). Directors' characteristics and committee membership: An investigation of type, occupation, tenure, and gender. *Academy of Management Journal*, 33(1), 66–84.
- [38] Khan, M. M. (2003). State of governance in Bangladesh. *The Round Table*, 92(370), 391–405.
- [39] La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (1999). The quality of government. *The Journal of Law, Economics, and Organization*, 15(1), 222–279.
- [40] La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Agency Problems and Dividend Policies around the World. *The Journal of Finance*, 55(1), 1–33.
- [41] Larcker, D. F., Richardson, S. A., & Tuna, I. (2007). Corporate governance, accounting outcomes, and organizational performance. *The Accounting Review*, 82(4), 963–1008.
- [42] Lenard, M. J., & Yu, B. (2012). Do earnings management and audit quality influence over-investment by Chinese companies. *International Journal of Economics and Finance*, 4(2), 21–30.
- [43] Lin, J. W., & Hwang, M. I. (2010). Audit Quality , Corporate Governance , and Earnings Management : A Meta-Analysis, 77, 57–77. <https://doi.org/10.1111/j.1099-1123.2009.00403.x>
- [44] McMullen, D. A. (1996). Audit committee performance: An investigation of the consequences associated with audit committees. *Auditing*, 15(1), 87.
- [45] Miller, D., & Le Breton-Miller, I. (2006). Family governance and firm performance: Agency, stewardship, and capabilities. *Family Business Review*, 19(1), 73–87.
- [46] Mitchell, V. Z., Singh, H., & Singh, I. (2008). “Association between independent audit committee members’ human-resource features and underpricing. The case of Singapore IPOs from 1997-2006”. *Journal of Human Resource Costing & Accounting*, 12(2), 179–212.
- [47] Munnik, J. F. J. De, & Schotman, P. C. (1994). Cross-sectional versus time series estimation of term structure models : empirical results for the Dutch bond market, 18, 997–1025.
- [48] Razzaque, R. M. R., Ali, M. J., & Mather, P. R. (2016). Real earnings management in family firms: Evidence from an emerging economy. *Pacific Basin Finance Journal*, 40, 237–250. <https://doi.org/10.1016/j.pacfin.2015.12.005>
- [49] Ronen, J., & Yaari, V. (2008). Earnings management, 372 Spring.
- [50] Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, 42(3), 335–370. <https://doi.org/10.1016/j.jacceco.2006.01.002>
- [51] Sankaraguruswamy, S., & Sweeney, R. J. (2005). Earnings Management and Expectations Management: Implications for Analyst Rationality. *Ssrn*, (65), 1–41. <https://doi.org/10.2139/ssrn.683041>
- [52] Schipper, K. (1989). (1989). Earnings management. *Accounting Horizons*, 3(4), 91.
- [53] Scott, R. W. (2000). *Financial accounting theory*. New Jersey: Prentice Hall, 2nd Ed.
- [54] Standard, & Poor’s. (2011). *Corporate ratings criteria*. New York: Standard & Poor’s.
- [55] Sun, J., Liu, G., & Lan, G. (2011). Does female directorship on independent audit committees constrain earnings management? *Journal of Business Ethics*, 99(3), 369–382.
- [56] Sun, Jerry, Liu, G., Lan, G., & Sun, J. (2016). Does Female Directorship on Independent Audit Committees Constrain Earnings Does Female Directorship on Independent Audit Committees Constrain Earnings Guoping Liu, 99(3), 369–382. <https://doi.org/10.1007/S10551-010-0657-0>
- [57] Vafeas, N. (2005). Audit committees, boards, and the quality of reported earnings. *Contemporary accounting research*. *Contemporary Accounting Research*, 22(4), 1093–1122.
- [58] Vance. (1983). *Corporate leadership: Boards, directors, and strategy*. New York: McGrawHill Book Co.
- [59] Waterhouse, P. (1993). *Improving Audit Committee Performance: What Works Best*. Altamonte Springs, FL: Institute of Internal Auditors Research Foundation.
- [60] Wei, Z., Xie, F., & Zhang, S. (2005). Ownership Structure and Firm Value in China ’ s Privatized Firms : 1991 – 2001. *Journal of Financial and Quantitative Analysis*, 40(1), 1991–2001.
- [61] World Bank. (2009). *World Bank, 2009Corporate Governance Country Assessment, Bangladesh Reports on the Observance of Standards and Codes (ROSC)*.
- [62] Xie, B., Davidson, W. N., & DaDalt, P. J. (2003). Earnings Management and Corporate Governance in the UK: the Role of the Board of Directors and Audit Committee. *Journal of Corporate Finance*, 9(1), 295–316.
- [63] Yang, J. S., & Krishnan, J. (2005). Audit Committees and Quarterly, 219, 201–219.

