

A Study on the Investigation of Earnings Manipulation in the Form of Accruals Earnings Management (AEM): Evidence from Bangladeshi Firms

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Abstract

This research investigates the behavior of the managers of the Bangladeshi firms in applying Earnings manipulation through the technique of Accruals Earnings Management (AEM). This study examines whether the firm managers of Bangladesh involve themselves in earnings manipulation in the form of accruals earnings management that whether they beat of meet the earnings benchmarks in the context of Return on Assets, Changes in Return on Assets, Earnings per Shares and Changes in Earnings per Shares. The modified Cross Sectional Jones (1991) model has been applied to estimate the proxy for accruals earnings management (Abnormal Accruals) by using a 1652 firm-years observations of 168 companies of 10 industries (excluding Banking Industry, Financial Institutions, Insurance Industries and Telecommunication industries) over the 15 years from 2002 to 2016. Managers of other variables of accruals earnings management activities, this research reports that there is no evidence of earnings manipulation in the form of accruals earnings management from the evidence from Bangladeshi firms.

Keywords: Earnings Management, Accruals Earnings Management, Abnormal Accruals, Capital Market.

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Introduction

“Earnings occupy a central position in Corporate Organization. It is accounting's summary measure of a firm's performance” (Dechow, Kothari and Watts, p-2). That's why there is a significant evidence that the firm managers involve in earnings manipulation to achieve the earnings target or to meet the zero earnings threshold or to retain the prior year's performance. In case of earnings manipulation, the managers basically use one of the two approaches- Real earnings Management (REM) or Accruals Earnings

Management (AEM). Accrual Manipulation refers to as the manipulation of earning by managing accrual that has no relation to the consequences of direct cash flow of the firm. On the other hand Real earnings Management has the direct relation to the consequences of direct cash flow of the firm. This report is based on finding evidence of the behavior of the managers in the form of earnings management of Bangladeshi companies through approaching the technique of accruals earnings management. The main objective of the report is to find the evidence in whether the managers involve themselves in earnings manipulation to reach the small positive earnings or to retain the performance of the last year. My report is motivated by the recent found evidence in meeting and beating the earnings benchmarks through the use of REM and AEM in the context of Australian Firms (Bhuiyan, 2015), and Evidence from Bangladesh (Bhuiyan, 2015) . To find the evidence in the existence of Accruals Earnings Manipulation, this paper uses one factor named Abnormal Accruals for Accruals Earnings Management (AEM). For Abnormal Accruals, the Cross Sectional Jones Model (1991) has been used.

This research paper consists of seven chapters. In this 1st chapter the objectives of the study is presented. In the next chapter, the understanding of the earnings management and its methods and also summarizes behind the reasons for managing the earnings is outlined. 3rd chapter highlights literature review relating to the measurement of accrual earnings management and also outlines the hypothesis development for the empirical test. Chapter 4 describes the sample selection, parameter estimation, and the descriptive statistics related to the measurement of the factors. Chapter 5 discusses empirical results along with related discussions and also the empirical models for hypothesis testing. And at last chapter 6 outlines the conclusions and implication relating to the study.

Objectives of the Study

The objective of this paper is to find the evidence of the suspect firms that are engaged in Accruals Earnings Management around the zero earning threshold in the form of Return on Assets, Changes in Return on Assets, Earning per Share, Changes in Earnings per Shares.

Understanding Earnings Management

Traditional researcher outlines that accounting earnings have content of key information and a major source of facts used by the shareholders or investors to predict the future earnings (Hayn 1995). Kothari, 2001 suggests that the market responds positively in positive abnormal earning news.

Generally, earning manipulation is referred as managerial or operational approaches to manipulate the earnings of the firm to gain some specific objectives for the sake of the manager himself or for the shareholders by taking advantages of the choice of the accounting policies. According to Bhuiyan(2015), “Earnings management is the managerial action to amend the reported earnings and value of the firm in the short-run with an objective to achieve specific welfare outcomes and to mislead some firm investors, by taking advantage of Opportunistic flexibilities offered by generally accepted accounting principles (GAAP) and through modification of real economic activities.

A popular definition regarding Earning manipulation developed by Healy and Wahlen (1999) is stated as:

“Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting practices.”

The reason behind the motivation of the earnings manipulation is the self-interest of the managers or the shareholders’ interest (DeGeorge, 1999). DeAngelo (1996) documents that the reason behind manipulation of earnings is the firm’s future prospects.

Why Firm Managers Engage Themselves in Earnings Manipulation

Bonus Rewards

Bonus rewards generally designate manager’s incentive on such basis as profits as well as share value. The incentives usually are under the sort of cash, stocks and shares or perhaps options. Nevertheless, alternatively, this approach in some manner stresses managers to control earnings to obtain incentive at the conclusion of fiscal year. Healey (1985) implies that managers’ modification concerning accruals can be influenced by earnings reporting rewards with regards to their bonus deal and as well that accounting types of procedures are linked to adjustment with the bonus approach. Even if getting for one economic year is indeed poor that nothing is possible to satisfy targets, managers probably use “big bath” strategy to enhance the probability of attaining upcoming year’s earnings objective (Healy, 1985)

Debt Covenants

Debt covenant is usually a contract (condition) between businesses as well as, its loan providers through which specific financial percentages are established by lenders as a standard that businesses are not able to break. If company break the agreement, it is known to be regarded as “technical default” and as well, it happens to be subject to undergo expensive impact through which loan providers may demand instant repayment of debt (Palepu et al. 2003, pg. 88) or perhaps enhance rate of interest. Common financial covenants are ROA, Interest Coverage ratio, Equity ratio and so forth. As these ratios are computed by details inside the annual report }, managers may in some manner control the accounting amounts. Sweeney (1994) presents the practically sturdy as well as,

accomplished analysis regarding managers' behavior to debt contract through which it is found out that amongst companies with similar business volumes, managers of companies which might be within the edge of breaking debt agreement usually control earnings in excess compared to managers of companies that happen to be in control

Political Cost

Big firms apparently possess solid pushes to control profits to be able to show up less shady to authorities. Jones (1991) implies that firms are prone to control earnings downwards (applying income-lowering accruals) at the time of import alleviation investigation by the USA. International Trade Commission to be able to earn safeguard when take on other foreign businesses. Taxes accounts intended for a significant explanation this matter, for firms usually record reduced income to be able to lessen volume of tax they need to pay for government.

Motives Related to Stocks

Share performance as well as, revenue disclosure are strongly related. Firms appreciate the raise in their stocks and shares. Therefore, it can be anticipated these firms could have purpose for making their annual report great to probable shareholders. Actually earnings manipulation occurs so commonly at the time of IPO which it happens to be recognized for shareholders to search for a few discount within their valuation method to recompense to get anticipated revenue manipulation

Approaches of Earnings Manipulation

Real Earning Manipulation

Earning manipulation approaches can be categorized in two methods- real earnings manipulation and accruals earnings manipulation. Real Earnings manipulation is related to direct cash flow consequences. According to Roychowdhury (2006),

“Real earnings manipulation as departures from normal operational practices, motivated by managers' desire to mislead at least some stakeholders into believing certain financial reporting goals have been met in the normal course of operations”.

For example, manager offer sales discounts or different credit terms to boost up the sales for a certain period of time to increase the profit, or managers produce more goods to reduce the cost of products per unit or by cutting the discretionary expenditures to meet the small positive earning or reach the level of zero earnings threshold.

Accruals Earnings Manipulation

Accruals Earnings Manipulation has no direct relation to direct cash flow of the firm. It refers shifting the future earning in present period which is not realizable for the present period. The examples relating to AEM includes understatements of the provisioning of bad debts, changing the techniques of depreciating of the assets, selective inventories or marketable securities valuation etc. By varying the primary operational actions of the

firm, Accruals earnings manipulation is not achieved, but because of the variety related with accounting techniques that are employed to characterize those actions. On the other hand, Real Earnings Manipulation entails swapping the firm's initial operational activities in an attempt to improve current-period margin. Both techniques require managers' efforts to maximize or minimize reported income. However, one technique impacts operational activities and the other technique possesses no impact on operational actions. After a big financial scandal in 2000 and also the authorization of Sarbanes-Oxley Act 2002, financial statements get more scrutinized. As a result, instead of undertaking the technique of Accruals earnings management, managers get engaged in real earnings management approaches as REM technique has less probable to detect by auditors and that's why less probable of litigation (Graham et al, 2005) Nevertheless, the implications concerning REM seem to be more distinctive to the firm in financial terms.

Literature Review

Burgstahler and Dichev (1997) suggests that reporting positive earnings and avoiding loss or by making superior performance from the prior years will have a positive influence in valuation by the investors and the investors rely on this assumptions about simple benchmarks of earnings. They also propose that beating zero earnings target facts is likewise disciplined with the anticipation concerning prospect theory. They state that companies are reactive to the approach that market prefers to the particular earnings behavior like zero earnings or vicinity to zero earnings.

As annual report generally will not specifically present details relating to firm's potential performance, investors may employ a recognized income tolerance to assess a firm's potential effectiveness. Investors recompense a company with more significant valuation if the company outstrips an income benchmark and as well reduces the value if it overlooks the standard. Consequently, if managers intentionally manipulate income in the type of Real Earnings Management and Accruals Earnings Management to record a partially positive earnings it's probable that they have rewards for target beating.

Presently, many studies tend to be executed about earnings management in Asia. The outsider countries that possess comparatively dispersed ownership, huge stock markets like UK or USA present reduced levels of earnings manipulation in comparison with insider countries with comparatively centered control, poor investor security, as well as, significantly less formulated stock markets like India (Leuz, Nanda and Wysocki, 2003). With the context of India, Sarker, Sarker and Sen (2006) analyze that there is a significant relationship between earnings manipulation and Board of Directors. They find that diligent boards do lower level of earnings manipulation whereas board with multiple directors do higher level of manipulation in India.

Hayn (1995) presented the initial evidence regarding meeting or beating certain earnings targets. He outlined that there is a use of EPS that deflated by share price has a discontinuity around zero earnings. Burgstahler and Dichev (1997) suggest that managers of the firms indulge in cash flow manipulation and as well take the benefit of opportunistic accrual earnings manipulation to show the increased reported earnings. They discover that eliminating deficits is considerably more prevalent than eliminating income reduction

and uncover that there is a solid break in the circulation concerning firm-years surrounding zero income. DeGeorge et al. (1999) analyze the relative magnitude concerning three earnings management criteria that managers make an effort to attain, and also disclose that management list their earnings criteria stated as: (a) statement of positive earnings (b) avoid earnings reduction; and (c) prevent adverse earnings shock. Therefore, Dechow et al. (2003), assesses those three criteria as recognized by DeGeorge et al. (1999) and demonstrate that averting adverse earnings shock is the most significant criteria managers make an effort to attain. Holland and Ramsay (2003) analyze Australian companies to uncover whether they control earnings to prevent deficits and to prevent earnings reduction.

Before Sarbanes Oxley Act, there occurred many research that identified considerable indications of accrual earnings management. Robb (1998) explains that to manage earnings up bank managers generate loan loss provision when the analysts already reach the consensus of earning predictions. Another study by Payne and Robb (2000) uncover that the difference between pre-determined earnings and analysts' predicted earnings have high level of positive abnormal and discretionary accruals. Moehrl (2002) reviews that firms employ reorganized accrual reversals to control earnings to beat analysts' predictions. Dechow et al. (2003) show that marginal, as well as little, earnings companies possess considerably substantial discretionary accruals as predicted; nevertheless, companies with marginal deficits also possess considerably substantial discretionary accruals and also there is hardly any vital divergence in the unpredicted accruals between minor earnings and minor loss companies.

An amount of research as well uncover scenarios concerning accrual earnings manipulation in several countries. As an illustration, A study by Luez et al. (2006) analyze earnings manipulation techniques on 31 countries as well as uncover that earnings manipulation actions are in low level in countries with considerable stock markets as well as , solid investor coverage regulations. Shuto et al. (2007) take the sample of Japanese firms and find the relationship between earnings manipulation as well as executive reimbursement. They find that managers indulge in earnings manipulation actions to maximize their reimbursement. Burgstahler et al. (2006) show that earnings manipulation is significantly less pervasive in public companies along with in countries with comparatively much better judicial facilities. This evaluation is done by public and private companies of 13 European Union countries. Other research that analyze earnings manipulation actions in worldwide settings consist of Elaine and Negash (2007) and Amat et al. (2005). Considered collectively, the outcomes from these research reveal that earnings manipulation appears to be to be a widespread occurrence and also should get the interest of business specialists, auditors, accountants, regulators and also accounting analysts around the globe. Unlike accrual earnings managing techniques, through which managers adapt assumptions and estimates in the accounting program, real earning manipulation consists of the moment and building of genuine business actions in order to acquire a desired financial reporting consequence. Roychowdhury (2006) suggests that there are three factors works for real activities management- Sales, Production Costs and Discretionary Expenses. These three factors can be measured by abnormal CFO, abnormal production costs and abnormal discretionary expenditures. With the zero earnings criteria, Zang (2012) research the Rerun on Assets perspective of the firms-years

that reaching zero earnings defeating prior earnings in the context of changes in Earning per Share, analysts' predictions and management's prediction and present that accrual and real activities managing both are favorably connected with these actions. She likewise uncover that companies' trade-off applications of earnings manipulation based on their comparative expense of performing so. Cohen et al (2008) as well research adjustments in apply of actual transactions treatment in the times associated with the Sarbanes Oxley Act. The analysis documents a surge in real based earnings manipulation inside the periods of time following Act.

Theoretical Framework for Earnings Manipulation

There is not any specific theory in the earnings manipulation literature that presents a sufficient description intended for earnings managing actions. There are two existing circumstances for income manipulations actions in the significant literature will be information asymmetry and agency theory (Sun and Rath, 2008). Additionally, the Political Cost hypothesis is a very likely justification of earnings managing actions in the literature.

Information Asymmetry

Information asymmetry is regarded as to become a prospective justification for earnings manipulation. Asymmetric information creates it feasible to managers to control income as it may perhaps be tough for shareholders to determine the magnitude concerning earnings modification in companies described by an opaque information conditions (Liu et al., 2010). Whenever information asymmetry is substantial, investors be short of the adequate resources, rewards, as well as gain access to important info to allow them to screen the activities of managers, providing surge to the application of earnings manipulation (Richardson, 2000). Richardson utilizes two actions to identify information asymmetry. The initial action is the ending bid as well as ask prices for the earlier trading day intended for every year from the sample, as information asymmetry triggers an unwillingness to transact as well as raises the cost of capital since shareholders 'price protect' themselves in opposition to probable deficits from trading with market individuals who also happen to be better notified. The other action is the dispersal in analysts' predictions, as there is probably to become a larger opinion amongst fiscal experts regarding the upcoming functionality concerning the company since the volume of information asymmetry reduces. Richardson detects an organized association between information asymmetry and earnings manipulation intended for US firms above the duration 1988-1994.

Agency Theory

Agency theory is usually a distinguished description concerning earnings manipulation actions on the extant literature. Relating to Jensen as well as Meckling (1976), a disagreement of interests between administration as well as shareholders is present in the event that managers look for optimizing their advantage in such a way that is usually not in the ideal interests concerning shareholders. For this kind of disagreement, expense are incurred that are actually regarded as agency costs. Bhundia (2012) clarifies that to be

able to increase their concerns or maintain their status, agents are prepared to display a decent snapshot of the firm's fiscal situation to shareholders. Nevertheless, agency problems occur when the optimization of the agent's assets fails to essentially bring about to the optimization of shareholders' assets. Managers or perhaps agents have a bonus to adjust income to increase their self-concern.

Political Cost Hypothesis

Political as well as governmental policies are recognized in the literature as rewards intended for earnings manipulation. In an attempt to become significantly less noticeable to authorities, substantial as well as large profiled companies may perhaps be encouraged to control their income lower. In that way, companies may prevent government blocking by showing little profitable. As an example, the earnings of USA's oil firms in the 1970s had been perceived as really at high level that Congress enforced a distinctive tax upon all these companies. This might have encouraged these firms to defer earnings or increase costs to lower their stated profits (Mulford and Comiskey, 2002).

Hypothesis Development

There is an empirical research implies that Firm size, growth opportunities, return on assets, dividend payout ratio influence earnings management behavior (Daniel et al., 2008). From the previous sections it can be suggested that there implies a solid discontinuity in zero earning target. In case the firms satisfy or conquer a revenue benchmark, the marginal benefits associated with earnings managing will be elevated carefully. It will be easier to recognize the company which in turn attain the target that is certainly inconsequential and later recorded revenue matters plus the tenacity of earnings highlights tiny importance that depend upon which interested parties real action of use such a heuristic cut-off. The proposition of manipulation of earnings is stated as-

Null Hypothesis

H_0 - *In the context of Earnings per Share, Changes in Earnings per Shares, Return on Assets and Changes in Return on Assets, those firms that highlights positive earnings in the reported income are not involved themselves in Accruals Earnings Manipulations.*

To test the hypothesis on accruals earnings managing one factor regarding AEM named abnormal accruals that is the difference between predicted accruals and actual accruals.

Alternative Hypothesis

The following alternative hypothesis stated as-

- H_{A1} – *In the context of Earning per Shares, there implies an evidence that the firm-years that reports little positive earnings are engaged themselves in accrual earnings manipulation*

- H_{A2} – *In the context of Changes in Earning per Shares, there implies an evidence that the firm-years that reports little positive earnings are engaged themselves in accrual earnings manipulation*
- H_{A3} - *In the context of Return on Assets, there implies an evidence that the firm-years that reports little positive earnings are engaged themselves in accrual earnings manipulation*
- H_{A4} - *In the context of Changes in return on Assets, there implies an evidence that the firm-years that reports little positive earnings are engaged themselves in accrual earnings manipulation*

Research Methodology and Descriptive Statistics

Research Methodology refers to as a science of understanding precisely how study is to be done. Generally, the techniques through which researchers start their function concerning explaining, detailing and forecasting tendency are known as Research methodology. Additionally it is described as study concerning ways through which expertise is usually obtained (S. Rajasekar, 2006). In this section, how the sector wise industries have been selected, how the primary and secondary data have been collected, how the sample is selected from the data, how the analysis is done have been discussed.

Selection of Industries

In this research, considering different aspect, 10 industries of Bangladesh have been selected for analysis purpose (Please see appendix 2 for the name of the Industries). Banking Industry, Financial Institutions, Insurance Industries and Telecommunication industries have not been selected for this research purpose. Because these sectors are regulated by separate rules in addition to IFRS.

Data Collection

Intended for the planning of the study, Annual reports of DSE listed firms of Bangladesh have been used. Then, an organized research strategy has been adopted. Firstly the sample from the research was chosen. With regards to the study, outlined 168 companies are chosen. Annual reports for all the businesses were gathered for the many years movement 2002 to 2016 from DSE library. After that linked accounting data have been categorized in to financing as well as, operating assets and financial obligations. Relations between critical factors were recognized and distinct record actions had been worked out to review on generating management concerning Earnings per Shares, Changes in Earnings per Shares, Return on Assets and Changes in Return on Assets for Accrual Earnings Manipulation. Secondary data with this research was collected from your audited annual reports released by stated 168 companies and also from after that DSE site.

Sample Selection

Preliminary sample consists of 168 firms of Bangladesh with needed info to determine the factor for Earnings Management within the research duration from 2000 to 2016 to assess the above mentioned hypothesis. Most of these firms are listed on the DSE as well as the firms are not really selected arbitrarily. If a company has adequate financial info to calculate the proxy for AEM during the statement period will be included in Sample. Fundamentally this sort of study bases upon earnings managing measures upon cross-sectional regressions applying industry-year info. Industry-year portfolios which usually present lower than five observation have been dropped from the sample. So, an ultimate of 1652 firm-years observations have been taken to satisfy the above requirements. For this study intent all the financial info is gathered from the annual report of DSE outlined companies.

Selection of suspect firm-years observations.

To categorize the companies that beat zero earnings benchmark, firm-years have been clustered into intervals in the context of EPS, Changes in EPS, ROA and Changes in ROA. The earnings per share and changes in earnings per share have been constructed a group of interval width of TK 0.00 to TK 2.00 and regarded as SUS-EPS and SUS-CHA-EPS that firm-years observations in this interval are engaged in earnings manipulation. In the form of ROA and Changes in ROA, the intervals have been constructed width of 0.00% to 2.00% and regarded as SUS-ROA and SUS-CHA-ROA that the firms are engaged in earnings manipulation.

Estimation Parameters

To test the hypotheses, the proxy for accruals earnings management is the fundamental measuring tool. The proxy regarding AEM is stated as Abnormal Discretionary Accruals (AB-ACC). In previous studies, this proxy regarded abnormal discretionary accruals is used for the measurement of the Accruals earnings management. As a result, based on these previous researches, this investigation also use abnormal discretionary accruals to estimate the accruals earnings management. The Cross Sectional Jones Model (1991) has been employed to estimate the proxy of AEM. Normal level of Accruals has been estimated by following the model:

$$\frac{TACC_t}{TA_{t-1}} = \beta_0 + \beta_1 \frac{1}{TA_{t-1}} + \beta_2 \frac{\Delta SA_t}{TA_{t-1}} + \beta_3 \frac{PPE_t}{TA_{t-1}} + \varepsilon_t$$

Variable Description: See Appendix 1

The above OLS model has been employed to estimate the proxy for AEM for every industry and year, minimum 5 observations. Then abnormal accrual has been estimated by measuring the difference between normal and predicted accruals.

Descriptive Statistics

Table-1 represents the descriptive statistic of Abnormal Accruals of the accruals earnings management. Here at the top as well as bottom 1% level, all the continuous

variables have been winsorized. Here the mean of the abnormal discretionary accruals is -0.00009 and median is -0.0073 with the SD of 0.1754 . The 1st and 3rd quartiles are -0.0683 and 0.0627 to explain the distributions of variables and outliers identification. The table also shows the skewness and kurtosis of the abnormal accruals. The skewness is 0.4894 and kurtosis is 35.5468 that indicates the tails of the distribution are heavier than for a normal distribution.

Table 1: Descriptive Statistics of abnormal discretionary accruals

	AB-ACC
Mean	-0.00009
Median	-0.0073
Standard Deviation	0.1754
1 st Quartile	-0.0683
3 rd Quartile	0.0627
Skewness	0.4894
Kurtosis	35.5468

Variable Description: See Appendix 1

Empirical Analysis and Results

Univariate analysis regarding evidence in Accruals Earnings Management

Table 2 highlights the univariate results of the suspects' firm-years and rest of the sample in the context of Return on Assets (SUS-ROA). The firm-years that fall between 0% and 2% have been measured as suspect firm-years and firm-years that is less than 0% or higher than 2% regarded as rest of the sample. The tables implies that the mean of the SUS-ROA firm-years is -0.0322 and rest of the sample is 0.0043 and the differences in mean is close to zero but not significant that does not provide support to the alternative hypothesis.

Table 2. A comparison of mean between Suspect firm-years and the Rest of the Sample

	Mean of SUS-ROA firm-years	Mean of Rest of the Sample	Mean Difference (t statistics)
AB-ACC	-0.0322	0.0043	-0.0365
			(-2.4658)
No. of Observations	159	1195	
	Mean of SUS-CHA-ROA firm-years	Mean of Rest of the Sample	Mean Difference (t statistics)
AB-ACC	-0.0269	0.0062	-0.0331
			(-2.9054)
No. of Observations	311	889	

	Mean of SUS-EPS firm-years	Mean of Rest of the Sample	Mean Difference (t statistics)
AB-ACC	-0.0169	0.0105	-0.0274
			(-2.6819)
No. of Observations	388	953	
	Mean of SUS-CHA- EPS firm-years	Mean of Rest of the Sample	Mean Difference (t statistics)
AB-ACC	0.0031	0.0029	0.0002
			(0.0121)
No. of Observations	359	975	

Variable Description: See Appendix 1

Similarly in this table the result of univariate result of AB-ACC is shown in the context of Changes in Return on Assets (SUS-CHA-ROA). Here the mean of the Suspect firm-years is lower than the rest of the sample and the difference is close to zero but insignificant that provides support to the null hypothesis. However, in the case of the result shown in the context of Earnings per Shares (SUS-EPS). Here the mean of the abnormal accruals in SUS-EPS firm-years is -0.0169 and the rest of the sample is 0.0105 and the mean difference is -0.0274 and it is statistically not significant that does not support the alternative hypothesis. In the last of the univariate results this table shows the mean of the abnormal accruals of the suspect firm years and the rest of the sample in the context of Changes in Earning per Shares (SUS-CHA-EPS). This table highlights that the mean of the SUS-CHA-EPS is 0.0021 and the rest of the sample is 0.0029 which implies that the SUS-CHA-EPS is 0.02% higher than the rest of the sample. But the t statistics highlights the results as not significant that supports the null hypothesis.

Multivariate models

It features the multivariate model applied to assess the presence concerning accrual earnings managing (AEM) during the earlier year they happen to be conquering previous year's earnings limit. Previous analyses recommend that the degree with the AEM actions are remarkably linked to firm functionality indicators, the degree of growth chances, and organization size. Therefore, if there are any detected group differences in the mean as well as median proxy concerning accruals earnings management through the suspect firm-years on the univariate evaluation, they could not always get affiliated with profits management through the years organizations are conquering earnings thresholds. Consequently, the other variety of examination utilizes Ordinary least Squares (OLS) regression evaluation to evaluate the presence of AEM during the year related with conquering profits benchmarks, pursuing controlling the above explanatory factors. This sort of research reports pooled ordinary least square (OLS) regression models as well as estimate the t-statistics employing robust standard errors. Energi, Leone, and Wasley (2007) recommend that, in accounting exploration, OLS presents different distinctive positive aspects the place that the sample dimensions are large, which include being better understood and easier to tool, open to which include additional explanatory factors, and allowing scholars to sort out econometric concerns through the use of methodologies

based upon clustered standard errors. Besides that, this research, presumes which the proxies pertaining to AEM happen to be exogenous parameters, when determining the existence of AEM throughout the numerous years of companies interacting with and/or conquering earnings criteria. To test the hypotheses investigating whether firms engage themselves in earnings manipulation or not in the context of EPS, Changes in EPS, ROA and Changes in ROA, and the following equation is used-

$$AB - ACC_t = \alpha + \beta_0 ROA_t + \beta_1 Growth_t + \beta_2 Size_t + \beta_3 Suspect_t + \varepsilon_t$$

Abnormal discretionary accruals has been regressed by this equation on the indicator variables of suspect firms- SUS-EPS, SUS-CHA-EPS, SUS-ROA and SUS-CHA-ROA along with control variables.

Expected implication of indicator variable on the measure of abnormal accruals

If the managers of the firms engage themselves in earning manipulation in the context of accruals earnings management, making use of the opportunistic benefit of GAAP embark on AEM that negatively impacts as well as soars the discretionary as well as unusual accruals, in that case the coefficient upon the SUS-EPS, SUS-CHA-EPS, SUS-ROA and SUS-CHA_ROA variables are envisioned to be positive.

Control variables

This estimation consists of some control variables that is correlated with the abnormal discretionary accruals. Dechow et al (1995) implies that there is a strong correlation between abnormal accruals and firm performance. So therefore, Market to book ratio or indicated as Growth can be considered as control variables in this estimation. This research also highlights SIZE of the firms as a control variable to measure the regression of abnormal accruals prior to previous studies

Correlation of the Abnormal Accruals and Control Variables

Here table 3 represents the pairwise correlation of the abnormal accruals variable and control variables. This table shows that abnormal accruals is significantly positively correlated with Return on Assets and Size of the firms at 5% significant level. Size of the firms is strongly positively correlated with Return on assets and growth. Market to book ratio or Growth opportunities is significantly correlated with Return on Assets. And there is no significant relationship between abnormal discretionary accruals and Growth opportunities of the firms.

Table 3: Pairwise correlation matrix

	ROA	Growth	Size	AB-ACC
ROA	1.0000			
Growth	0.1966*	1.0000		
Size	0.1660*	0.1539*	1.0000	
AB-ACC	0.3163*	0.0356	0.0745*	1.0000

*Significant at 5% level.

Table 4: Spearman Rank Correlation Matrix

	ROA	Growth	Size	AB-ACC
ROA	1.0000	-	-	-
Growth	0.5001*	1.0000		-
Size	0.1758*	0.2620*	1.0000	-
AB-ACC	0.2727*	0.1582*	0.1747*	1.0000

*Significant at 5% level.

Variable Description: See Appendix 1

Table 4 shows the spearman rank correlation matrix among the dependent and independent variables. Here the tables represents that the correlation among all the variables are positive and significantly related at 5% significance level. Here also shows that abnormal accruals and growth opportunities are significantly related whereas in pairwise correlation matrix it shows insignificant relationship. As the coefficients in correlation matrices are comparatively small, so therefore multicollinearity will not be problematic in the regression analysis.

Multivariate Results

Firm-years that engage in earnings manipulation in the context of Indicator Variables

Table 5 represents the results of the regression analysis for the abnormal accruals of accruals earnings manipulation for testing the hypotheses in the context of Suspect return on assets (SUS-ROA) firm-years. This table highlights the relationship between abnormal accruals and the indicator variable suspect return on assets (SUS-ROA) which implies that the coefficient of SUS-ROA is 0.0014 which is positive and almost equal to zero but the relationship is not significant that suggests that the firm-years are not involved in accruals manipulation in the context of managers of SUS-ROA firm-years. So the null hypothesis is accepted. Rather, there is a positive significant relationship between abnormal accruals and Return on assets at the 1% significant level. In addition, there is a positive relation with lagged size and a negative relation with lagged size but not significant.

Table 5 also highlights the magnitude of the abnormal accruals in the context of Changes Return on Assets (SUS-CHA-ROA) firm-years for testing the hypotheses that firm managers engage themselves in accruals earnings manipulation in SUS-CHA-ROA firm-years. Here the coefficient of SUS-CHA-ROA is negative (-0.0138) but insignificant. So we accept the null hypothesis implying that SUS-CHA-ROA firm year's managers are not involved themselves in accruals earnings manipulation. However, abnormal accruals is strongly associated with the return on assets at 1% significant level. There is also negative association with lagged growth of the firm and positive association with lagged size of the firm but the relation is insignificant. However, in the context of Earnings per Shares (SUS-EPS). This results implies that there is an insignificant negative relationship between SUS-EPS and AB-ACC as the coefficient is -0.0013 which is close to zero but insignificant. Therefore, we accept the null hypothesis highlighting that firm-

years do not involve in accruals earnings manipulation in the context of earnings per shares. However there is significant positive association with ROA and insignificant positive association with lagged size of the firm and a negative insignificant association with lagged growth opportunities. The regression results of abnormal accruals is also shown to test the hypotheses that the firm-years engage in accruals earnings manipulation in the context of Changes in EPS (SUS-CHA-EPS). In the table the coefficient is positive (0.0068) which is almost zero but insignificant and the null hypothesis is accepted suggesting that the firm-year do not involve in accruals earnings manipulation in the context of SUS-CHA-EPS. However the coefficients of other controlling variables is as same as shown in table 5 suggesting a significant positive relationship with ROA and insignificant positive and negative relationship with lagged size and lagged growth opportunities of the firms respectively.

Table 5: Pooled Cross Sectional Regressions regarding Abnormal Accruals in the context of the indicator variables

	AB-ACC	AB-ACC	AB-ACC	AB-ACC
<i>Constant</i>	-0.0727**	-0.0812**	-0.0722**	-0.0735**
	(-2.76)	(-2.85)	(-2.61)	(-2.71)
<i>ROA_t</i>	0.4243***	0.4159***	0.4229***	0.4258***
	(4.99)	(5.67)	(5.03)	(5.06)
<i>Growth_{t-1}</i>	-0.0072	-0.0081	-0.0071	-0.0065
	(-0.57)	(-0.58)	(-0.56)	(-0.52)
<i>Size_{t-1}</i>	0.0047	0.0063	0.0048	0.0046
	(1.38)	(1.81)	(1.38)	(1.35)
<i>SUS-ROA_t</i>	0.0014			
	(0.12)			
<i>SUS-CHA-ROA_t</i>		-0.0138		
		(-1.57)		
<i>SUS-EPS_t</i>			-0.0013	
			(-0.10)	
<i>SUS-CHA-EPS_t</i>				0.0068
				(0.58)
<i>Number of Observation</i>	1268	1129	1263	1256

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level. The *t*-statistics in the parenthesis are measured applying robust standard errors. All continuous variables are winsorized at the top and bottom 1% level to minimize the influence of outliers.

Variables Description: See Appendix 1

Conclusion

This research extents the earnings management behavior of the Bangladeshi firm managers in the form of accruals earnings management. The advantages from controlling earnings will be directly associated with the inspiration behind the earnings managing activity. Extant research associated with prospect theory as well as, psychological theory,

in collaboration with related methodical evidence, claim that managerial bonuses increase once earnings will be near to particular earnings standards, since behavioral theory displays that traders comply with basic assessment or perhaps efficiency heuristics say like, zero earnings, defeating or preserving last year's earnings.

The multivariate results exhibits that there is no evidence of accruals earnings management in the context of Bangladeshi firms. As in this study most of the literature bases on US Capital markets, Bangladeshi evidence is comparatively not in comparison. As Bangladeshi Capital markets is based on different types of hoaxes and other confusing factors, the evidence results in insignificant. The marketplace is still battling to be steady. Market is in recovery mode from its bearish mood but we now have observed nonetheless much misunderstandings, lack of assistance among the government, DSE users, and government bodies. All are awaiting a stable marketplace so that investors get self-confidence to put their particular valued profit this market.

Another Reason for this no evidence in accruals earnings manipulation can be measured as in recent times after the authorization of Sarbanes Oxley Act 2002, there is an increasing review that managers are associated to give up the fiscal value to reach the short run targets. Therefore, firm managers prefer themselves to engage in real earnings manipulations rather than accruals earnings manipulation. Graham et al (2005) identified at least two reasons why executives are more willing to imply Real Earnings Manipulation approaches rather than accruals based to managing their earnings. First accrual based management get more scrutinized by the regulators or auditors rather than manipulation in sales and production. Second, only approaching accrual manipulation is associated with risk. The recognized year-end deficiency between actual income and the preferred tolerance may surpass the total amount by which it's possible to manage accruals. If perhaps that occurs, and reported profits declines under the tolerance, actual actions may not be managed by year-end.

This research is not free from it restrictions. Sample size and sample selection is an important measure for evaluating a study. Different sample size generates different result that might affect the investigation. Though to this limitations, there would be a suggestions for further research that to find out the reasons behind this Earning Manipulation behavior and the factors influencing to the firm managers for employing this type of activities that works as a motivation to the managers.

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Appendices

Appendix 1: Description of the Variables

Variable	Description
$AB-ACC$	Symbolizes the abnormal accruals
$Growth_t$	Symbolizes Market to Book value ratio
TA_t	Symbolizes Total assets
TA_{t-1}	Symbolizes the lagged total assets
ΔSA_t	Symbolizes Changes in sales.
ROA_t	Symbolizes Return on Assets
$Size_{t-1}$	Symbolizes the natural logarithm of lagged market value of equity
$SUS-EPS_t$	Symbolizes an indicator variable coded 1 if the earnings per share (EPS) is in between \$0.00 and \$2.00, and 0 then
$SUS-CHA-EPS_t$	Symbolizes an indicator variable coded 1 if changes in earnings per share (EPS) are higher than or equal to \$0.00 but less than \$0.02, and 0 then
$SUS-ROA_t$	Symbolizes an indicator variable coded 1 if return on assets are higher than 0% but less than 2%, and 0 then
$SUS-CHA-ROA_t$	Symbolizes an indicator variable coded 1 if changes in return on assets are higher than 0% but less than 2%, and 0 then

Appendix 2: Name of the Industries

Industry Name	No of the Companies Selected
Textile	34
Food and Allied	23
Engineering	31
Cement	07
Pharmaceuticals	25
IT	06
Fuel and Power	19
Ceramic	05
Tannery	05
Miscellaneous	13