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The Relationship in Accrual Earnings Management and Real Earnings Management in Context of Pakistan.

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Abstract: This study focus on trade-off decision between earnings management strategies. For this purpose AEM measured through the modified jones model (1991) and Kathoriet al.,(2005)model and REM is captured through four measurements of Roychowdhury model (2006). The sample is based on non-financial firms that are listed on PSX from 2007 to 2018 that further divided and adopt those firms that suspects to enjoying EM incentives. For analysispurpose we use panel data and our model is Zang (2012) model. The findingsapprove that AEM have no switching relationship with any measurement of earnings management except abnormal production cost. The unexpected REM measurement of production cost showsa substitution effect. But, in this model also IFRS adoption does not play a role to control switching choices between EM strategies. Overall, not all, but a few factors such as; firm status, financial health of company and marginal tax rate show predicted directional relationship in AEM models.

INTRODUCTION

Conclusively, the public discourse regarding financial reporting efficiency has been dominated by the theme of controversies in the early years of the twenty-first century (Camfferman&Wielhouwer, 2019), indicating the need for scrupulous scrutiny. The most contentious accounting scandals of the twenty-first century emerged in 2001, highlighting loopholes used to conceal billions of dollars in bad debt and inflate corporations' earnings[1]. Due to the scandal, Enron's share price fall from 90 $ to less than 1 $ due to this collapsed, corporation lost 74 billion dollars in it (Schilit,2010). Even right before the crash, the Forbes Fortune 500 listing never noticed the fastest rank jumping from 14 to 07 in less than a year (Schilit,2010). After this, a large exposure of financial reporting scandals were revealed such as WorldCom, The American insurance company Tyco, used as an example to trigger the implementation of a regulatory act and research on the incentive of inflated earnings, which is a primary indicator of quality-based information disclosures (Tee &Rassiah, 2019). As a result, a decrease in investor's confidence, declining in stock prices, reputational loss, and high

[1]CFI (Corporate Finance Institute established 2015) added "top Accounting Scandals: A recap of the top scandals in the past" accessed at Oct. 20,20202
https://corporatefinanceinstitute.com/resources/knowledge/other/top-accounting-scandals/

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management turnover become fortune of firms (Pratt &Stice, 1994; Richardson et al., 2002; Wu, 2002).

Earnings management is harmed because it'spreformed through artificial earnings control. Earnings management is described in prior literature as a purposeful intervention to obtain personal benefits in external financial reporting based on management's deliberate discretion about earnings figures (Schipper, 1989). Furthermore, earnings management (EM) includes the manager's discretionary exploitation either due to misleading stakeholders about the firm's financial results or due to disturbing the contractual outcomes that consider firm performance as base (Healy &Wahlen, 1999).

Earnings are handled in two ways: accruals earnings management (AEM) and real earnings management (REM). AEM illustrates managers' decisions to achieve profit targets using widely accepted accounting techniques and budgetary accruals figures (Duong & Evans., 2016). In contrast to AEM, real earnings manipulation focused on the time volatility and systemic change of operating, investing, and financial operations to meet earnings targets (Badertscher, 2011). In determining earnings efficiency, common procedure in the literature focuses on the absolute magnitude or variability of accruals. The accruals are classified into two types: discretionary and non-discretionary. The literature focused on discretionary accrual, which has greater elaboration power in explaining managerial discretion in financial decisions (Francis et al., 2005; Chaney et al., 2011). This feature ensured the opportunistic use of accrual for obtaining private advantages, in the form of executive remuneration, and the concealment of the financial information's a downward graph (Burns &Kedia, 2006). Some researchers are optimistic about accrual and see it as a method for reducing knowledge asymmetry between companies and investors (Franciset al., 2005).

The recent literature proved that corporations could switch between the various practices (AEM/REM) of earnings management on relative expensiveness (Graham et al. 2005; Roychowdhury, 2006; Cohen et al., 2008). Badertscher (2011) claims that accruals management would be a preferred selection for managers due to its less seems to destroy the financial base of firms in long term. In distinction, real transactions manipulation harms future cash flows, which hurts best business operations and ultimately firms face long term financial damages (Roychowdhury, 2006; Cohen et al., 2008). Although real earnings management is prejudicial to investor value within the long haul (Gunny, 2010).The choice of strategy depends upon detectability now-a-day, aside from performance impact.

Recently, manager's trade-off is discovered underneath institutional changes like strict restrictive atmosphere (Cunninggham et al., 2019), robust legal, social control (Li, 2010), improved auditing system (Gunny,2010; Zang, 2012)which compelled the managers to pick the REM practices because of REM measurements are less detectable (Ipino&Parbonetti, 2017). On the other sides, some studies showed that firms used the benefits of both earning management practices simultaneously, specifically in those countries having low shareholder protection (Hsu et al., 2020; Das et al., 2017). Therefore, REM has become additionally widely used than accrual

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management after the Sarbanes-Oxley Act (SOX) of 2002 (Cohen et al., 2008), even once the adoption of IFRS (Graham et al., 2005; Ho et al., 2015).

Along with strict accounting rules, the scrutiny systems play an important role to limit earnings management practices. In those countries having strict audit process are worked as an effective monitoring mechanism for managerial opportunism (Tyokoso et al.,2016) pursued managers toward REM that is tough to differentiate from the normal course of business (Chi et al., 2012). But in presence of high-ranked auditors, it's harder for managers to masking the aggressive manipulation of earnings figures as compared to lower profile auditors firms (Zang,2012). Recent studies viewed audit quality as a reason for shifting between earnings management practices (Mnif&Hamouda, 2020).So, it would require deep analysis, needed to seek out the explanations of manager's behavior regarding the trade-off between earning management ways (Ipino&Parbonetti, 2017; Li, 2019) either to adopt the quality-based earnings reportage or simply amend the manners of practices.

This study expands to the limited literature about the substitution affiliation of different kinds of EM in the presence of a strict legislative and financial environment. This study follows the assumed gap by considering both types of EM at one place to control the partial result (Jie et al., 2017) that clears the whole picture of substitution or complementary relationship between EM categories. Specifically, in Pakistan's case, adopting IFRS pre- and post-period does not affect AEM, and maybe in pre-period, those firms adopt IFRS rules shifts toward other type but only focus on AEM practices (Baig& Khan, 2016). However, recently, the only study of Shah et al., 2020, proved the trade-off of both categories that showed the existence of this relationship in Pakistan. The present study will scrutinize this relationship by applying different methodology and contributing by coving the maximum factors such as; audit security, institutional ownership, the role of IFRS adoption in general, and specific in family firms. This study provides help to policymakers and regulators to design the appropriate rules and policies to increase earnings quality.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

TRADE-OFF RELATIONSHIP IN EM PRACTICES

In the case of EM motivation and decisions on EM method utilization and distribution, firms consider the differences among all EM method costs and benefits under the corporate environment at the time of decisions (Hsu et al., 2020). EM's two basic classifications are famous in the Research zone: accrual based earnings manipulation (AEM) and real based earnings manipulation (REM). Recently, the firm's trend of moving toward REM instead of AEM is observed (Kothari et al., 2016). This may be due to the less detectable property of REM, even though it is costly compared to AEM (Cohen et al., 2008; Zhu et al., 2015; Ipino&Parbonetti, 2017; Cunningham et al., 2019). On the other hand, some studies show that managers preferred AEM over REM (Ho et al., 2015) or complementary (Hsu et al., 2020).

The subsequent studies provide cognizance of the firm's substitution conduct regarding AEM and REM. Let us take a look at Cunningham et al., 2019 study about the trade-off between AEM

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and REM through considering the effect of SEC monitoring in the shape of SEC comment letter. The financial company's shifts in the real incomes management direction from accrual incomes management practices after acquiring the SCE comment letter. The results evidenced that regulatory scrutiny influences the trade-off. So, consistent with this look at SCE, regulatory creates need to give attention to real earnings practices that are unaddressed that are why companies switch towards high use of REM. Cohen et al. (2008) proved that many corporations are preferred to trek towards real transaction management due to restrictions with Sarbanes-Oxley Act of 2002 (SOX) aid. Ewert&Wagenhofer (2005) also grasped this conclusion. So, the firms may adopt alternative EM strategies where reporting standards are tightened.

Moreover, the study of Khunkaew&Qingxiang (2019) also focused on substitution behaviours of EM types in the Thai economy during 2014 -2017. The methodology based on simultaneous equations, ordinary squares and two-stage least square methods by considering control variables based on top management team characteristics. The result showed a negative (substitution link) association between AEM and REM. Similarly, Chan et al., (2015) examination cover the effect of compensation recovery policies (clawbacks) that lead to substitution link. They suggest that while clawbacks may constrain accruals management. In reaction, firms may be encouraging towards REM due to its unintended consequences even though those firms that use real transaction management are also identified by investigating its net operating assets (Cohen &Zarowin, 2010).

The EM types switching due to compensation incentive is observed by (Hsu et al., 2020) in Taiwan by taking OTC firms' sample from 2005 to 2016. This study focuses on three EM methods, such as REM, AEM and classification shifting, and analysis managers used these three methods as substitutes in different financial reporting times to get compensation incentives. The results show that incentive compensation simultaneously increases the use of Accrual related transactions, classification shifting, and real transaction-based EM. The stock-based compensation system decreases real EM use but increases classification shifting and accruals-based EM.

The few mentioned studies showed mixed results by highlighting the movement of EM practices is substitutional or simultaneously adopted. In these studies, reasons are highlighted on the undetectable property of real EM even though the government regulatory authority, audit systems must ensure the overall earnings quality. But the prior researchers mostly focus on one type of EM (AEM) at a time that showed unclear pictures to relevant parties. That's why the studies of Ali & Kamardin,2018 and Talbi et al., 2015 highlighted the gap to working on both types of Earnings practices is a vital need of the present time. Specifically in Pakistan, Shah et al., 2020 take the initiative to analyze this relationship that needs further scrutiny. So, I postulate the following hypothesis

H1: There is a significant trade-off relationship between the REM and AEM in Pakistani firms

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REASONS OF THE TRADE-OFF RELATIONSHIP BETWEEN EM PRACTICES

Some reasons highlighted prior for REM's best preference on AEM, such as aggressive accrual-based EM, may come to the surface even due to future regulatory inspection and lawsuit. Secondly, Reported accrual figures do not provide too much alternation flexibility, and thirdly, real transaction management provides choices elasticity to managers that must cover the main accounting requirement of auditors (Gunny, 2010). The one reason found out in literature is the stick rules and regulation adopted to ensure reporting quality may lead managers towards real EM (Ewert&Wagenhofer, 2005; Cohen et al., 2008). After adopting the Sarbanes-Oxley Act in the US, most firms practice real EM in place of Accrual. However, this is not true always in those countries that have looser legal regimes. The firms still prefer Accrual EM (Durnev et al., 2015).

Specifically, the following studies shed light on IFRS adoption. Doukakis (2014) analyzed the relationship of mandatory adoption of IFRS with both types of EM by covering 2000 to 2010 of 22 European countries. This analysis did not significantly affect Accrual or real EM practices by employing a difference-in-difference design to control the confounding concurrent events. Another study by Ipino&Parbonetti (2017) analyzed 33 countries coving the EU and outside the EU countries in the same pattern. The research findings concluded that those countries have strong legal enforcement, effectively implement the IFRS and show plunging in accrual-based earnings but unintended consequence of increased real earnings management. Nonetheless, the legal enforcement in any countries is supportive of the adoption of IFRS effectively and has effects. The accrual movement toward real earnings management is detected (Daske et al., 2008, Li, 2010).

The manager's behaviour regarding EM is also changed after adopting IFRS (post-period 2007–2011) in China, concluded by (Ho et al., 2015) based on a 4050 firm-year observation sample. This study concluded that the mandatory adoption of IFRS constrained Accrual's practices, but the Chinese firm's turns toward real EM as a substitute for gaining earnings benchmarks. In another study, the Greek firms also show the movement toward real EM after mandatory IFRS adoption. So, the purpose of IFRS adoption is not properly to improve the accounting quality in controlling all kinds of EM, but it has become a reason for shifting from one type to another (Ferentinou&Anagnospoulou, 2016).

All the studies reviewed above provided mixed evidence on movement in practice from AEM to REM due to the adoption of IFRS. Mostly, the decline in one type of EM looks like a response to formal regulatory adoption, but in reality, one method of EM is transfigured into another. These result highlight ambiguity about IFRS adoption that ensures the quality of reporting. Expect few studies mentioned above, most prior studies analyzed the effect of IFRS adoption on both types separately and never analyzed IFRS adoption as a reason of link within EM practices. Even in Pakistan's case, the IFRS adoption effect is analyzed only on AEM and found no significant relationship. This is high possibility companies maybe adopt practices of REM that is less (Baig& Khan, 2016), but REM is not considered in this study (Baig& Khan, 2016). The present

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study fills this gap by analyzing the effect of IFRS adoption in Pakistan's country on shifting or complementary phenomena of EM strategies. So, the hypothesis is as follows

H1a: Mandatory IFRS adoption is associated with a high level of REM compared to AEM.

Along with stick rules adoption, the external watching mechanism is a known reason for shifting the EM practices (Chi et al., 2011; Burnett et al., 2012). Once managers ability to control Accrual is restricted through robust audit process or through then they trend to maneuver toward alternative sort (REM) (Chi et al., 2011) as a result of REM is tough to find in contrast to AEM (Zhao, 2012). The varied reasons found in literature concerning classification shifting of EM.

Haw et al., 2011 investigates monitoring effects on classification shifting in East Asian Countries and provides proof suggesting that stronger legal establishments and large four auditors mitigate classification shifting. In distinction to Haw et al., 2011, theoretical (Ewert&Wagenhofer 2005) and empirical evidence (Cohen and Zarowin 2010; Chi et al. 2011; Zang 2012) of substitution effects and trade-offs between EM mechanisms within the context of the USA is investigated. Another study conjointly highlighting trade-off or substitutes among two EM practices is extraordinary in high monitoring rheostat companies. This study used the Compustat Annual database information from 1988 to 2007 (Zhao, 2012). Recently, the study of Mnif& Ben-Hamouda (2020) proved that Accrual EM switched toward REM in oil and gas companies of Gulf cooperation council countries when industry specialized auditors perform the audit process. The research shows that auditors restricted accrual-based earnings without difficulty.

According to Doukakis (2014) study, the strictness of country ruling and auditor's scrutiny systems decided to adopt EM strategies. Mostly the countries with low investor protection and high corruption encourage managers towards opportunistic decisions. Interestingly, most studies covered developed countries under the strict systems moved towards hidden activities in the form of real EM. The little literature available discussed the substitution phenomena of EM in developing countries with different institutional settings. So, the present study fills this gap by covering Pakistani firms. In this particular country, only one study proved the big five auditors as a reason for a substitutional relationship of EM strategies. In the present study, the external monitoring cowl the effectiveness of auditors as an association mechanism of AEM and REM is covered in Pakistan. So, the hypothesis is as follows

H1b: The external monitoring is associated with a shift from AEM to REM

METHODOLOGY AND SAMPLE:

The population of study based on all listed firms in Pakistan stock exchange on October 2016, which have 560 firms related to financial and non-financial sectors. The financial sectors are excluded by adopting the practices of prior studies relevant to earnings management in Pakistan (Nazir&Afza, 2018a; Shah et al., 2020). Along that the financial sector have different manipulation strategies to smoothing earnings (Turegun, 2016). The time spin is used from 2007 to 2018 because the accounting standards is changed after 2006 in Pakistan (Rehman et al.,2014) that brings uniformity in financial data of firms(Ma et al.,2015). The domestic literature also proved that Pakistan passed through transition phase in 2006 that's why result about EM is unusual in this particular year (Shah et al., 2009a; Shah et al., 2009b). The data is collected from

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annual reports of companies that available on company websites and some variables is get through open door website. For Analyzing the effect of IFRS adoption, 2010 period is used as cut point because the first-time adoption of IFRS was fully implemented by SECP in 2010 (financial standards reports, 2010; Rashid et al.,2012). The data is arranged in panel form in which individual firms' values at a particular period and have powerful ability to explain the variables effects as compare to time series and cross section analysis (Shahzad, 2016).The several test of model specification is performed to select the appropriate panel estimation.at end run the Hausman test that indicate that fixed effect model is suit to selected model.

THE TRADE-OFF BETWEEN REM AND AEM

The model of Zang, 2012 is mostly used to check the relationship between REM and AEM (Pappas, 2015). According to this study, a trade-off decision between two EM approaches is a separate decision of whether a firm is involved in EM or not. So, its need to select those suspect firms that are enjoying the EM benefits. The suspect's firms may get incentives of managing earnings through just above the earnings benchmarks (Burgstahler&Dichev 1997; Bartov et al., 2002). The Zang (2012) study defines those firms as firm-years with earnings that is just beating/meeting: the prior year's earnings, zero earnings, and the analyst consensus forecast. In this study, I used only those suspects firms that meeting/beating just zero earnings benchmarks

As discussed earlier, the sample of suspect firms is given an appropriate foundation to analyze the hypothesis relevant to trade between REM and AEM. When splitting the sample into suspects and non-suspects firms, results develop a non-probability based sample that creates an omitted-variable problem in regression models, leading to biased results of the estimated coefficient of independent variables. The solution is provided in the form of the two-step process of Heckman (1979) that remove endogenous issues between accruals and real based earnings practices (Shah et al., 2020). In the first step, obtain the inverse Mills ratio (IMR) by considering the selection model by considering the whole sample then running the main test with suspect firms in which IMR is used as a control variable. The following probit model is used to explain EM suspect firms in the first step of the Heckman test.

Prob(Suspect=1)=Probit(□$_0$□□□□□□□Hbeater$_t$□□□□□MTB$_{t-1}$□□□□□□Shares$_t$□□□□□□□□ROA$_t$□□Σ_k□□□□ Year indicator$_{,k}$□□)

For tradeoff, with the EMs the following these relationships:

REM = □□ + Σ_K□□$_k$Cost of REM$_{kt}$ + Σ_I□□$_I$Cost of AEM$_{it}$ +□Σ_m□□$_m$Control $_{mt}$ +□□$_t$(1)

AEM = □□ + Σ_K□□$_k$ Cost of AEM$_{kt}$ +Σ_I□□$_I$ Cost of REM$_{it}$ +□□□UnREM$_t$ + Σ_m□□$_m$Control$_{mt}$□□□□□□PredREM$_{it}$□□□□□$_t$ (2)

When the cost associated with REM high, then firms use AEM more and vice versa. Therefore,□□□and □□are both expected to be positive. Each model have negative relation with own cost .that's why □□□and □□ expected to be have negative value. Unexpected RMt is measured as the estimated residual, and PredREM is the predicted value from above equation in the accrual-based EM equation.

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The cost of AEM (as defined by Zang 2012 and Pappas 2015): IFRS, O-cycle, BIG4 variable takes value if auditors are one of the big five auditors To count the number all people who've held the role of auditor for six years or less, add 'Audit' to the attribute, and to count all others, subtract 'Tenure' (Zang, 2012). will be the year after full implementation (Pappas, 2015). that will increase the net operating assets by lagging the total assets. The payables are spread over four months; in inventory for four months is the operating cycle.

A formula to capture the following cost: MShares, and the tax rate. The Z-score reflects the firm's financial health. I have used a modified version of Altman's Z-score (Altman 1968, 2000)

Z-score = 0.3 (NI_t/ $Asset_t$) + 1.0 ($Sales_t$ / $Asset_t$) + 1.4 (Retained $Earnings_t$ / $Asset_t$) + 1.2 (Working $Capital_t$/ $Asset_t$) + 0.6 (stock price * Shares $outstanding_t$/ total $liab_t$)

The lower value of Zscore indicates poor financial health. Finally, I measure the effective tax rate, *Tax* , the ratio of total taxes paid to pre-tax income and constrain it to lie between 0 and 100%.

DEPENDENT VARIABLES:

In this study, I used two measurement of accrual manipulation. One is Modified Jones model that is ;

$$TC_{i,t}/A_{i,t-1} = \beta 0 + \beta 1(1/A_{i,t-1}) + \beta 2(\Delta Sales_{i,t} - \Delta Rec_{i,t})/A_{i,t-1} + \beta 3\, PPE_{i,t}/A_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

The estimation of modified Jones model is further developed by Kothari et al., 2005, after that this model is used by many researchers in their research such as Ferentinou&Anagnostopoulou (2010) and Obeng et al., (2019). The following model is:

$$TC_{i,t}/A_{i,t-1} = \beta 0 + \beta 1(1/A_{i,t-1}) + \beta 2(\Delta Sales_{i,t} - \Delta Rec_{i,t})/A_{i,t-1} + \beta 3\, PPE_{i,t}/A_{i,t-1} + \beta 4\, ROA_{i,t-1} + \varepsilon_{i,t} \quad (4)$$

Where *TC* represent total accrual estimation, *A* is total assets of firm, $\Delta Sales$ represent change in sales; $\Delta Rec_{i,t}$is represent receivable changing of firm, $PPE_{i,t}$is net value of property, plant and equipment; $ROA_{i,t}$ is firm performance defined as net income before interest and taxes over the average total assets for year t and year t−1and ε represent the residuals value that measure discretionary accruals.The total accrual is calculate through cash flow measurement.

The measurement of REM based on real earning management model that is developed by Dechow et al., 1998 after that it's applied by Roychowdhury (2006). A later on its used in many studies such as Cohenet al.(2008), Cohen and Zarowin (2010), and Zang (2012), Shayan-Nia et al., (2017); Dejsakultorn (2017).

According to this model, Abnormal cash flow from operation is used to increase the sale volumes which leads to earnings and cut down the surplus in sales that represent the outflow of current period cash (Sun et al., 2014) by reducing prices inform of more Lenient credit terms (Achleitner et al., 2014). Sales manipulation is also used as proxy to measure abnormal cash flow (Roychowdhury, 2006).

$$CFO_{it}/A_{i,t-1} = \alpha_0 (1/A_{i,t-1}) + \alpha_1 (S_{it}/A_{i,t-1}) + \alpha_2 (\Delta S_{i,t}/A_{i,t-1}) + \varepsilon_{it} \quad (5)$$

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Where CFO represent cash flow from operation at the period t; $A_{i,t-1}$ is total assets at end of period t-1 (lagged total assets), S annual sales; ΔS is change in sale relative to prior period. The abnormal cash flow from operation is residual from equation (1). Smaller (negative) value of residual indicates the more real earning management (Xu et al., 2007; Shayan-Nia et al., 2017).

Another measurement of REM is based on Abnormal discretionary expensesused in many studies such as Roychowdhury, 2006; Achleitner et al., 2014; Shayan-Nia et al., 2017. The normal level of discretionary expense is a linear function of lagged sales. The residual of model serves as proxy for abnormal discretionary expense and interpret more negative values as implying more earning increasing REM.

$$DISEXP_{it}/ A_{it-1} = \alpha_0 + \alpha_1(1/ A_{it-1}) + \alpha_2 (S_{it-1}/ A_{it-1}) + \varepsilon_{it} \quad (6)$$

where: DISEXPi,t= Discretionary expenses of company i for year t, estimated as the sum of advertising expense and selling, general and administrative (SG&A) expenses (Cohen & Zarowib,2010;Achleitner et al., 2014; Alhebri& Al-Duais,2020), provided selling, general and administrative expense is available.

Abnormal levels of production: In an effort to increase earnings, managers can decrease cost of goods sold (COGS) expense in any period by overproducing. Increased production spreads fixed overhead costs over a larger number of units, thus reducing the fixed costs per unit. Since the increase in total production costs is not offset by a proportional increase in sales, positive abnormal production costs are interpreted as evidence of earnings-increasing REM (Xu et al., 2007; Achleitner et al., 2014).

$$PROD_{it}/ A_{it-1} = \alpha_0 + \alpha_1 (1/ A_{it-1}) + \alpha_2 (S_{it}/ A_{it-1}) + \alpha_3 (\Delta S_{i,t}/A_{i,t-1}) + \alpha_4 (\Delta S_{i,t-1}/A_{i,t-1}) + \varepsilon_{it} \quad (7)$$

The normallevel of production (PROD) is sum of cost of goods sold (COGS) and the change in inventory (ΔINV) during the year. The estimating COGS is a linear function of Contemporaneous Sales and change in inventory is a linear function of contemporaneous and lagged changes in sales.

$$COGS_{it}/ A_{it-1} = \alpha_0 + \alpha_1 (1/ A_{it-1}) + \alpha_2 (S_{it}/ A_{it-1})$$

$$\Delta INV_{it}/ A_{it-1} = \alpha_0 + \alpha_1 (1/ A_{it-1}) + \alpha_2 (\Delta S_{i,t}/A_{i,t-1}) + \alpha_3 (\Delta S_{i,t-1}/A_{i,t-1}) + \varepsilon_{it}$$

Furthermore, managers are more likely to use multiple approaches to influence earnings numbers therefore, the combined measures can assist in capturing the total effect of abnormal real activities (Cohen &Zarowin, 2010; Kang & Kim, 2012; Eng et al. 2019) that is in bitterly capture the REM activity than any single measure (Eng et al.,2019). The aggregate measurement (REM_{sum}) is multiplying standardized residuals from the level of cash flow from operation (REM_{cfo}) in Equation (1) and discretionary expense (REM_{disx}) in Equation (2) by −1 and adding them to the standardized residuals of the production cost (REM_{prod}) from Equation (3) (Cohen et al., 2008; Ferentinou&Anagnostopoulou 2016; Eng et al., 2019).

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RESULT:

Table 1, reports the descriptive statistics of dependent and independent variables used in main model of trade-off. The 1764 firm- year observation is identified as suspect during 2007-2018. The earnings management through Kothari et al., 2005 model shows the mean value -0.0251, with a minimum and maximum value -0.291 and 0.0969, respectively and standard deviation is 0.0337. The discretionary accrual through modified jones model is almost show similar result. On average, sample firms have negative earnings management. This may show Pakistani firms are managing their accrual earnings downwardly. These result is consistent with Khunkaew&Qingxiang (2019); Pappas, 2015. The real earnings management show mean value of -0.0836, -0.9711, 0.9607, -0.0941 for operating cash flow, abnormal discretionary expenditures, production cost and overall REM respectively. The mean value (0.9607) of abnormal production cost is opposite as compare to other measurement of earnings that indicate Pakistani firms do production cost adjustment to manipulate the earnings figure.

The IFRS adoption period accounts for 75.0% of the suspects' observation. In term of Big4 show that on average 58% of sampled firms are audited by one of four big audit firms. The sampled firm on average have operating cycle of 98 days with min. and max. range of 32 to 157 days. The means value of Z-score is 337% show that mostly firms in sample on average base is financially healthy. These suspected firms have institutional ownership 12.03%. In those firms, average marginal tax rate is 29.9 % that show consistence with Zang 2012 result that lie on 30 %. The average size of sample (15.74) is biased toward the larger sized firms that is requirement of sample, according to study of Zang, 2012.

Table # 1: Descriptive Statistics

Variables	Obs.	Mean	Std.	Min.	Max.
AEM_k	1764	-0.0251	0.0337	-0.2912	0.0969
AEM_{mj}	1764	-0.0280	0.1176	-0.5677	0.4159
REM_{cfo}	1764	-0.0836	0.3370	-1.0000	0.5000
REM_{disx}	1764	-0.9711	0.1513	-1.4800	-0.1600
REM_{Prod}	1764	0.9607	0.2558	0.0229	2.3659
REM_{Sum}	1764	-0.0941	0.3372	-2.1700	1.4600
IFRS	1764	0.7500	0.4331	0.0000	1.0000
Big4	1763	0.5842	0.4930	0.0000	1.0000

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O-Cycle	1764	98.0584	29.6369	32.0000	157.0000
Mshares	1764	0.0174	0.0222	0.0000	0.1352
Z-Score	1764	3.3746	1.4993	0.0018	10.6669
Inst-Own	1764	0.1203	0.1224	-0.0127	1.7118
MTax	1764	0.2999	0.2182	0.0001	0.9958
F-Size	1764	15.7409	1.6691	11.0806	20.3175
IMR	1762	2.0722	0.3534	0.7724	3.1273

The result of Pearson correlations among the variables used in trade-off model is present in table 2.There is a significant positive correlation between AEM_k and AEM_{mj} (49%) that show partial link of both measurement with each other. The Kothari model have positive correlation with REM_{CFO} (14.29%), REM_{prod} (2.8%) that suggesting the firms use both method of earnings manipulation simultaneously. On other side, the negative correlation of 57% with discretionary expenditure suggesting that the firms do manipulations through discretionary expenditures or accruals. The discretionary expenditure is adopted with combination of cash flow of operating activities because both variables have 46% correlation. The large firms are adopt the accrual based manipulation (57%) that is match with Zang (2012) results. Overall, the firm size have strong bonding with the earnings manipulation activities.

Table # 2: Correlation Results

	AEM_k	AEM_{mj}	REM_{cfo}	REM_{disx}	REM_{prod}	REM_{sum}	BIG4	IFRS	O-Cycle	MShares	Z-Score	Inst-Own	M-Tax	F-Size	IMR
AEM_k	1														
AEM_{mj}	**0.4971**	1													
REM_{cfo}	0.1429	-0.0924	1												
REM_{disx}	**-0.5791**	**-0.4424**	**0.4621**	1											
REM_{prod}	0.0280	0.1811	-0.51	-0.58	1										

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			72	91											
REM_{sum}	-0.0922	-0.1509	0.8118	0.4571	-0.0186	1									
BIG4	0.2558	0.2947	-0.1004	-0.2326	0.0893	-0.1360	1								
IFRS	0.0754	0.0281	0.0191	-0.0419	0.0037	0.0027	-0.0046	1							
O-Cycle	-0.1125	-0.0641	-0.0209	0.0648	-0.0237	-0.0101	0.0251	-0.0098	1						
MShare	-0.1923	-0.1639	-0.0187	0.1250	-0.0123	0.0275	-0.0625	0.0353	0.1432	1					
Z-Score	-0.0826	-0.1097	0.0667	0.1160	-0.0617	0.0713	-0.0018	-0.0583	0.0021	-0.0022	1				
Inst-Own	0.0583	0.0339	0.0197	-0.0380	-0.0138	-0.0073	0.1311	-0.0883	0.0381	0.0008	0.0175	1			
M-Tax	0.0475	-0.1130	-0.0205	-0.0376	-0.0073	-0.0424	-0.0106	-0.0220	0.0117	-0.0118	0.0136	-0.0272	1		
F-Size	**0.5702**	0.3228	0.3618	-0.2875	-0.0330	0.2093	0.2475	0.1515	-0.0471	-0.0145	-0.0009	0.0576	-0.0584	1	
IMR	0.2356	0.7450	-0.1710	-0.3075	0.2199	-0.1403	0.3420	-0.0263	-0.0323	-0.1010	-0.0820	0.0419	-0.2077	0.2640	1

Suspect Firms Just Beating/Meeting Important Earnings Benchmarks

This study is analysis the tradeoff relationship of real earnings management and accrual earnings management. In this situation, selection of only suspect firms increase the power of testing (Zang, 2012). For selection of firms that get the earnings manipulation incentives, suspects those firms that just beating/meeting the zero benchmark defined as firm-years with earnings before extraordinary items over lagged assets between 0 and 0.01.Moreover, also check the suspects

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between 0 and 0.05[2]. These are firm's year 1616 observations just beating/meeting the zero benchmarks for both ranges. To compare the difference between suspect firms sample and non-suspect firms' sample, I estimate the following regressions developed by Roychowdhury (2006):
□□□Y_t=□□□□□□□□□□MVE_{t-1}+□□MTB_{t-1}+□ROA_t+□□$Suspect_t$□□□□□□□Y-dummy□□□

In this equation, the all measurement of REM and AEM is taken as dependent variable. Moreover, I included the log value of market value of equity (MVE), the market-to-book ratio (MTB), and the return on assets (ROA) to control for systematic variation in abnormal operating cash flow, abnormal production costs, discretionary expenditures, and accruals related to firm size, growth opportunities, and firm performance, respectively by following the study of Roychowdhury (2006).Suspect is an indicator variable that equals 1 if the firm-year just beats/meets earnings benchmark, otherwise 0 represent those firms that misses or beats all the benchmark.

Table # 3:Panel A: suspected fir that just beating/Meeting zero earnings banchmark (0-0.01)

Variables	AEM_k	AEM_{mj}	REM_{cfo}	REM_{disx}	REM_{prod}	REM_{sum}
MVE_{t-1}	0.0155***	0.0026**	-0.0173**	-0.0121***	-0.0132*	0.0300***
	0.0009	0.0013	0.0089	0.0032	0.0071	0.0095
MTB_{t-1}	-0.0014***	-0.0148***	-0.0115***	-0.0104***	0.0224***	-0.0241***
	0.0004	0.0045	0.0032	0.0031	0.0033	0.0044
ROA_t	0.0251***	0.9676***	-0.4438***	-0.1849***	0.5295***	-0.4222***
	0.0079	0.1911	0.0649	0.0232	0.0656	0.0873
$Suspect_t$	0.0442***	0.0156**	0.0410**	0.0674***	0.0228**	0.0733**
	0.0130	0.0075	0.0196	0.0270	0.0103	0.0334
Constant	-0.1368***	-0.0995***	0.1144*	-0.8537	0.8308	-0.2460
	0.0065	0.0094	0.0673	0.0240***	0.0533***	0.0708***
Year-D	yes	yes	yes	yes	yes	yes
R-square	0.21	0.28	0.32	0.20	0.12	0.043
F-value	36.83***	28.71***	25.36***	41.63***	22.14***	8.28***

Table # 3: Panel B: suspected fir that just beating/Meeting zero earnings banckmarks(0-0.05)

Variables	AEM_k	AEM_{mj}	REM_{cfo}	REM_{disx}	REM_{prod}	REM_{sum}
MVE_{t-1}	0.0156***	0.0193***	0.0702***	-0.0397***	-0.0534***	0.0313***

[2]Different ranges used by Zang (2012) in which the suspects are lies such as 0 to 2.5 cent,5 cent.

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	0.0009	0.0014	0.0092	0.0040	0.0072	0.0095
MTB $_{t-1}$	-0.0014***	-0.0007	-0.0399***	-0.0052***	0.0219***	-0.0257***
	0.0004	0.0006	0.0043	0.0019	0.0034	0.0044
ROA $_{t}$	0.0268***	1.0083***	-0.6333***	-0.3123***	0.5214***	-0.4317***
	0.0080	0.1264	0.0864	0.0373	0.0674	0.0879
Suspect $_{t}$	0.0035**	0.0046*	0.0368**	0.0024**	0.0121***	0.0268**
	0.0017	0.0027	0.0182	0.0013	0.0042	0.0128
Constant	-0.1388***	-0.2279***	-0.4769***	-0.6301***	0.9228***	-0.2167***
	0.0064	0.0100	0.0686	0.0296	0.0529	0.0709
Year-D	yes	yes	yes	yes	yes	yes
R-square	0.214	0.45	0.1123	0.168	0.098	0.05
F-value	43.00***	23.01***	25.7***	29.49***	19.43***	23.00***
*, **, *** Represent significance of the coefficient at 10 %, 5 %, and 1 %levels, respectively, based on firm-level clustered standard errors.						

Table 3 reports the estimation results for suspected firms. The interest factor of this model is coefficient of suspect variables Consistent with Roychowdhury (2006) and Zang(2012), Panel A shows that, when suspects are firm-years just beating/meeting the zero benchmark between 0-0.01 and panel-B show the result between 0-0.05 rang. The both panels show the coefficients of Suspect are positive for the AEM_k, AEK_{mj}, REM_{cfo}, REM_{disx}, REM_{prod} and REM_{sum}equations that all are significant. The coefficient value (0.4416***) of suspects is higher with in AEM-K equation (significant at the 1%) in Panel-A. This indicates that companies that beat last year's earnings by up to 1% on average have 44% higher accrual management compared to the rest of the sample. The overall results suggest that firms just beating/meeting earnings benchmarks use all the real or accrual-based earnings management methods. The results also suggest that the levels of real and accrual earnings management could be driven by the cross-sectional variations of more economic determinants than those included in Equation (8), as tested shortly. Another caveat for the results in Table 2 is that, as Roychowdhury (2006) points out, firms just beating/meeting benchmarks might not be the only firms managing earnings (Zang,2012). Other firms might manage earnings and still miss these benchmarks, or manage earnings for internal and unobservable targets. It is also possible that some suspect firms might manage earnings downward to just above the benchmarks. Both cases would decrease the power of my tests.

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Table # 4: Reports results for suspects just beating/meeting the zero benchmark, which are firm-years with earnings before extraordinary items over lagged total assets between 0 and 0.1 %(with in 1-3 column) and between 0 and 0.5%(within 4-6 column) With REMcfo.

Variables	Pred. sign: REM(AEM)	REM_{cfo}	AEM_k	AEM_{mj}	REM_{cfo}	AEM_k	AEM_{mj}
IFRS	+(-)	0.0692***	0.5107***	0.5481***	0.0606***	**-0.0778****	**-0.0943****
		0.0192	0.0849	0.1618	0.0200	0.0412	0.0427
BIG4	+(-)	0.1851***	-0.6450**	-0.1571***	0.2123**	**0.4930*****	**0.0339*****
		0.0507	0.3235	0.0634	0.1050	0.2106	0.0033
O-cycle	-(+)	0.4540***	-0.2141**	0.0841***	0.0293**	-0.0202***	0.0661***
		0.1930	0.1017	0.0282	0.0139	0.0058	0.0277
MShare	+(-)	-0.1300***	-0.0642**	-0.0903**	-0.1435*	-0.1045***	-0.1206***
		0.0286	0.0293	0.0422	0.0821	0.0239	0.0406
Z-score	+(-)	0.2299**	-0.1297***	-0.0497***	0.2047***	**0.2524****	-0.0469***
		0.1003	0.0410	0.0051	0.0433	0.1294	0.0148
Inst-own	-(+)	-0.4745***	-0.0752**	-0.1997***	-0.0454***	-0.0140***	-0.0307***
		0.1515	0.0376	0.0832	0.0150	0.0049	0.0075
M-tax	-(+)	-0.0307***	0.0562***	0.5451***	-0.0305***	0.0102***	0.0547***
		0.0093	0.0046	0.1397	0.0122	0.0025	0.0134
ROA		-0.5280***	0.3378***	0.9927***	-0.4761***	**-0.0550****	0.9750***
		0.0908	0.0714	0.0395	0.0676	0.0265	0.1928
MTB		-0.0073**	0.7025***	0.3910**	-0.0060**	**-0.0007***	**-0.0201*****
		0.0036	0.1036	0.1714	0.0030	0.0004	0.0047
F-size		0.1330***	0.4285***	0.2758***	0.1276***	0.0240***	0.0102**
		0.0129	0.1783	0.0997	0.0134	0.0072	0.0048
IMR		0.2439**	-0.0074*	-0.3033***	0.0188**	-0.0011**	-0.0211***
		0.1252	0.0042	0.0503	0.0088	0.0015	0.0065
$UnREM_{cfo}$	(-)		0.0476***	0.3695***		**-0.1156****	**-0.0152****
			0.0135	0.0705		0.0543	0.0073

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PredREM			0.3267**	0.1065***		0.0066***	-0.0066***
			0.1467	0.0283		0.0028	0.0028
constant		-2.1276***	-0.0190*	-0.1217*	-1.9998***	-0.3995***	-0.2417***
		0.2088	0.2862	0.1593	0.2097	0.1123	0.0757
Year-dummy		yes	yes	yes	yes	yes	yes
Obs.							
R-square		0.1951	0.33	0.54	0.19	0.41	0.58
F-stat		23.05***	30.20***	24.71 ***	23.04***	23.0 ***	21.0***
*, **, *** Represent significance of the coefficient at 10 percent, 5 percent, and 1 percent levels, respectively, based on firm-level clustered standard errors.							

In table 4**,** the result of REM_{CFO} is taken as a real earnings manipulation method with the comparison of discretionary accruals. The overall result of this model shows that there is no trade-off relationship between AEM and REM. this result is contradicting from the study of Zang (2012) that proved the substitution relationship between both methods of earning management on basis of their relative cost. So, the result is not consistent with H1.the REM and AEM does not have a substitution relationship based on relative cost analysis. This conclusion is formerly highlighted by Pappas et al., 2015. The direct substitutive relation is predicted through the negative coefficient of $UnREM_{CFO}$ in accrual earnings management. But our sample show positive result with 4.7 % and 36.9% coefficient value of $UnREM_{CFO}$ in AEM_K and AEMmj equation respectively. That also shows that operating manipulation during the years also has no inverse relationship with accrual earnings at end of the year. So, this finding also rejects the H1.

The following variable (IFRS) explain the result relevant to H1a. The IFRS have positive variation in $REM_{CFO,}$ AEM_k and AEM_{mj} with coefficient value of 6.9%, 51%, 54% respectively. These result does not support Ha1 hypothesis that predicts the high regulatory scrutiny of accounting practices increase the real based earnings manipulation because strict regulatory constrained the AEM (Cohen et a.,2008; Cohen & Zarowin,2010; Zang,2012). In the case of our samples, IFRS adoption is not constrained by both earnings manipulation methods. This may be due to less enforcement of law in the Country (Ipino&Parbonetti., 2017).So, the purpose of IFRS adoption is not properly to improve the accounting quality in controlling all kinds of EM along that it has not become a reason for shifting from one type to another (Zang 2012; Ferentinou&Anagnospoulou, 2016).

The next variable relevant to external monitoring through strict auditors show the positive variation in REM_{CFO} with a beta value of 18% and show the negative variation of 64% and 15% with AEM_k and AEM_{mj}.The big 4 auditors firms' effect on both EM practices is inversely that matched with the predicted sign of Zang, 2012 model.These results are supports the prediction of

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H1b hypothesis that is consistent with Zang (2012). The results are consistent with the idea that when AEM is restricted through the auditing process, management turns toward REM via operating cash flow decisions.

The operating cycle represents the accounting flexibility that increases the REM has a parallel result with prior findings (Attig et al., 2020). This variable does not play role in the trade-off relationship of EM techniques as mentioned by Zang (2012) and Pappas (2015). The status of firms in the market competition is represented by MShares that have a negative effect with the value of 13.00%, 6.42%,9.03% on REM_{CFO}, AEM_k, AEM_{mj} respectively. The REM result is consistent with Pappas, 2015 that showed 2.5 % negative variation in REM_{cfo}. The presence of financial institution reduces the overall earnings manipulation in firms because of the significantly negative effect on EM models. The effective tax rate has a significant negative coefficient value (3.0%) with REM_{cfo} and positive coefficient value (5.6%) and 54%) with AEM_K and AEM_{mj} respectively. These results show consistency with (Zang, 2012).

Table # 5: Reports results for suspects just beating/meeting the zero benchmark, which are firm-years with earnings before extraordinary items over lagged total assets between 0 and 0.1 %(with in 1-3 column) and between 0 and 0.5%(within 4-6 column) With REMdisx..

Variables	Pred. sign: REM(AEM)	REM_{disx}	AEM_k	AEM_{mj}	REM_{cfo}	AEM_k	AEM_{mj}
IFRS	+(-)	0.0218***	-0.4712***	0.4629***	0.0795***	**0.1878*** **	0.4758*
		0.0073	0.1606	0.1772	0.0251	0.0766	0.2581
BIG4	+(-)	0.1219***	0.2525**	0.1837***	0.0151***	0.1433***	0.0253***
		0.0476	0.1221	0.0403	0.0049	0.0522	0.0064
O-cycle	-(+)	0.1761***	-0.5111***	0.0995***	**-0.1520** **	-0.0308**	0.0711***
		0.0729	0.1560	0.2800	0.0729	0.0157	0.0277
MShare	+(-)	0.4660***	-0.0906***	-0.1066**	0.1127*	-0.0722***	-0.1291***
		0.1081	0.0267	0.0475	0.1080	0.0247	0.0431
Z-score	+(-)	0.1208***	-0.6840***	-0.5064***	0.1040***	-0.0970***	-0.0535***
		0.0241	0.2942	0.1516	0.0312	0.0277	0.0089
Inst-own	-(+)	0.8181***	-0.0089**	-0.4388***	0.0520***	-0.0098***	-0.0340***
		0.1946	0.0042	0.0751	0.0194	0.0042	0.0073
T-rate	-(+)	-0.0157*	0.0046**	0.5540***	-0.0155**	0.0044**	0.0066*
		0.0084	0.0024	0.1407	0.0084	0.0021	0.0037
ROA		-0.2311***	0.1237***	0.9912***	-0.1849***	0.0030***	0.9871***
		0.0343	0.0234	0.0369	0.0254	0.0012	0.2185

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MTB		-0.2273*	0.3222***	-0.5290***	-0.1258*	0.0834***	-0.0136***
		0.1360	0.1374	0.1607	0.0511	0.0254	0.0045
F-size		0.0754**	0.0092***	0.0708***	0.7268***	0.0066***	0.0096***
		0.0389	0.0010	0.0239	0.1454	0.0013	0.0017
IMR		0.0246**	-0.0548***	-0.0405***	0.0410***	-0.0241***	-0.0227***
		0.0123	0.0236	0.0160	0.0071	0.0055	0.0089
UnREM$_{disx}$	(-)		0.0173*	0.0780**		0.0201***	0.0605***
			0.0097	0.0389		0.0063	0.0279
PredREM			0.0296***	0.1626***		**-0.0334*** **	**-0.0964** **
			0.0041	0.0630		0.0062	0.0256
constant		-1.1098***	-0.1424*	-0.1138*	-1.0733***	-0.1078*	-0.1734*
		0.0789	0.1081	0.1742	0.0718	0.0744	0.1207
Year-dummy		yes	yes	yes	yes	yes	yes
Obs.							
R-square		0.15	0.35	0.54	0.30	0.33	0.59
F-stat		38.89***	23.2***	24.71***	39.04***	29.95***	21.0***
*, **, *** Represent significance of the coefficient at 10 percent, 5 percent, and 1 percent levels, respectively, based on firm-level clustered standard errors.							

In table 5, report the result of AEM with discretionary expenditure measurement of REM. The overall model does not show a substitution relationship between earnings management strategies and UnREM$_{disx}$also support this point of view. So, these model also reject the H1 hypothesis. The result of IFRS with REM$_{disx}$, AEM$_{mj}$ is showing consistency with the result of REM$_{cfo}$model. But the IFRS have changed the result in AEM$_{k}$ model with the negative sign of coefficient (47%). The result REM$_{disx}$ and AEM$_{k}$ are consistent with the predicted sign of the trade-off model of Zang. So, these findings support H1a.

The stick audit process through big 4 auditors firms does not constrain overall earnings management. The significantly coefficient 12%,25%,18% have a positive effect on the earnings management measurement of REM$_{disx}$, AEM$_{k}$, AEM$_{mj}$ respectively. So, these models do not support H1b. The accounting flexibility in form of the operation cycle shows the same result as reported for REM$_{cfo}$. The IMR value is significant in all models to indicate that the right decision is taken about sample selection bias (Zang, 2012).

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Table # 6: Reports results for suspects just beating/meeting the zero benchmark, which are firm-years with earnings before extraordinary items over lagged total assets between 0 and 0.1 %(with in 1-3 column) and between 0 and 0.5%(within 4-6 column) With REMprod.

Variables	Pred. sign: REM(AEM)	REM_{prod}	AEM_k	AEM_{mj}	REM_{cfo}	AEM_k	AEM_{mj}
IFRS	+(-)	0.0972***	-0.1350***	0.1394***	0.0422*	-0.2711***	**-0.3931*** **
		0.0274	0.0419	0.0240	0.0232	0.1021	0.1051
BIG4	+(-)	0.0770***	0.2715***	-0.1182***	-0.0670**	0.5540***	0.2565**
		0.0285	0.0723	0.0391	0.0290	0.2263	0.1187
O-cycle	-(+)	-0.7350***	-0.0685***	0.0999***	-0.0124***	**0.0297***	0.0541***
		0.2169	0.0216	0.0281	0.0042	0.0163	0.0156
MShare	+(-)	0.7084*	-0.0655***	-0.0922**	0.5869*	-0.1147***	-0.0888***
		0.4090	0.0252	0.0435	0.3327	0.0256	0.0233
Z-score	+(-)	0.7400**	-0.2890***	-0.4232***	0.0684***	-0.0530**	-0.3890***
		0.3669	0.0671	0.1478	0.0083	0.0269	0.1268
Inst-own	-(+)	-0.1141*	0.0098***	0.0375***	-0.0793***	**-0.0084** **	0.0086**
		0.0635	0.0042	0.0075	0.0299	0.0041	0.0041
Tax rate	-(+)	-0.1867***	0.0041**	0.0438***	-0.1696***	0.0053***	0.0045***
		0.0731	0.0018	0.0032	0.0595	0.0018	0.0018
ROA		0.5040***	0.0255***	0.9751***	0.4962***	-0.0226**	-0.0488***
		0.1341	0.0108	0.0172	0.0786	0.0120	0.0064
MTB		0.7194***	0.0403***	-0.1913***	0.0423***	-0.0176***	-0.0182***
		0.1487	0.0131	0.0535	0.0054	0.0056	0.0048
F-size		0.0358*	0.0069***	0.0079***	0.0428***	0.0902***	0.0912***
		0.0207	0.0011	0.0019	0.0156	0.0279	0.0075
IMR		-0.0658**	-0.0064***	-0.0222*	0.0631***	-0.0145***	-0.0121***
		0.0326	0.0026	0.0147	0.0219	0.0051	0.0050
$UnREM_{prod}$	(-)		-0.0780***	-0.0396*		-0.1549***	-0.5167***

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			0.0159	0.0216		0.0195	0.1359
PredREM			0.0229**	0.0475***		0.0457**	0.0791***
			0.0108	0.0138		0.0215	0.0270
Constant		0.4318*	-0.1149***	-0.1980***	0.8061***	-0.2051***	-0.1676***
		0.3182	0.0207	0.0362	0.2439	0.0238	0.0148
Year-dummy		yes	yes	yes	yes	yes	yes
Obs.							
R-square		0.17	0.33	0.54	0.38	0.35	0.34
F-stat		21.0***	30.18***	24.69***	21.10***	24.5***	24.00***
*, **, *** Represent significance of the coefficient at 10 percent, 5 percent, and 1 percent levels, respectively, based on firm-level clustered standard errors.							

Table # 7: Reports results for suspects just beating/meeting the zero benchmark, which are firm-years with earnings before extraordinary items over lagged total assets between 0 and 0.1 %(with in 1-3 column) and between 0 and 0.5 %(within 4-6 column) With REMsum.

Variables	Pred. sign: REM(AEM)	REM_{sum}	AEM_k	AEM_{mj}	REM_{sum}	AEM_k	AEM_{mj}
IFRS	+(-)	0.1030***	0.0113***	0.0105***	0.0309**	0.0620***	**-0.0712****
		0.0223	0.0015	0.0025	0.0162	0.0200	0.0322
BIG4	+(-)	-0.0354***	0.0138***	-0.0196***	-0.0728***	0.1228***	0.0459***
		0.0143	0.0020	0.0034	0.0265	0.0305	0.0153
O-cycle	-(+)	-0.0810***	0.0570***	0.0221**	-0.0853***	0.0155***	0.0781***
		0.0264	0.0158	0.0100	0.0257	0.0058	0.0280
MShare	+(-)	0.6178***	-0.1742***	-0.2469***	0.5524***	-0.0843***	-0.1307***
		0.1915	0.0240	0.0423	0.2378	0.0293	0.0525
Z-score	+(-)	0.2308**	-0.4257*	-0.0101**	0.2611**	-0.0726***	-0.0513***
		0.1045	0.2265	0.0047	0.1345	0.0279	0.0100
Inst-own	-(+)	-0.0437***	-0.0329***	0.0503***	-0.2186***	-0.0092**	-0.0271***
		0.0175	0.0042	0.0074	0.0671	0.0042	0.0074
Tax rate	-(+)	-0.0568*	0.0133***	0.0183***	-0.0590**	0.0058**	0.0647***
		0.0305	0.0020	0.0035	0.0304	0.0026	0.0248
ROA		-0.2342*	0.0399***	1.0218***	-	0.0443***	0.9795***

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					0.2188***		
		0.1244	0.0071	0.1252	0.0908	0.0084	0.1526
MTB		-0.3916***	0.0810***	0.0586***	-0.0496***	0.1601**	-0.1015**
		0.1492	0.0288	0.0205	0.0090	0.0792	0.0496
F-size		0.1439***	-0.0013***	-0.0527***	0.0656***	0.0049**	0.0090**
		0.0181	0.0004	0.0064	0.0095	0.0025	0.0041
IMR		0.0362***	-0.0055**	-0.0169***	-0.1321***	-0.0201***	-0.0184**
		0.0145	0.0026	0.0046	0.0244	0.0058	0.0077
$UnREM_{sum}$	(-)		0.1366***	0.2027***		0.0243***	0.0179***
			0.0116	0.0188		0.0070	0.0056
PredREM			0.0037***	0.2801*		-0.0445**	-0.0264**
			0.0014	0.1481		0.0219	0.0116
Constant		-2.3254***	0.0713***	0.2026***	-1.0032***	-0.0992***	-0.2230***
		0.2937	0.0229	0.0622	0.1545	0.0379	0.0633
Year-dummy		yes	yes	yes	yes	yes	yes
Obs.							
R-square		0.18	0.35	0.59	0.16	0.39	0.45
F-stat		10.32***	23.4***	23.1***	19.0***	29.90***	21.4***
*, **, *** Represent significance of the coefficient at 10 percent, 5 percent, and 1 percent levels, respectively, based on firm-level clustered standard errors.							

In table 6, the result of $UnREM_{prod}$ is unique that it find out the abnormal production cost as a substitutive factor of accrual manipulation because this variable shows the same direction that is predicted. It means that when management unexpectedly increase (decrease) the level of production cost than at end of the years, decrease (increase) the discretionary accruals accordingly (Zang,2012). This variable show the direct substitutive relationship of earnings management choices on basis of time. These results are consistent with prior studies such as Zang (2012), Pappas (2015) and Zhu et al., (2015). So, the result supports the H1 hypothesis on basis of this assumption. On the other side, all the variables play a role to support the trade-off relationship on relative cost assumption except IFRS adoption. This result is discovering on accruals based on modified jones model for those suspected firms just beating/meeting zero benchmarks at 0.1% and 0.5% range also show a conclusive result. Most result of this table also supports the H1a hypothesis. The big four auditing firm just controls the discretionary accrual according to the jones measurements. The most result does not support the H1b. The result of REM_{sum} concluded in Table 7 that do not support any hypothesis.

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Conclusion

Overall, there is no trade-off relationship with real earnings management is find out in different combinations except the earnings management through discretionary expenses. Both, the relative cost model of trade-off and unexpected RM behaviour support the exchange relationship in EM strategies. But in this model also IFRS not fully play a role in the movement of choices decision about EM. All the other elements highlighted by Zang 2012 is not play role in the substitution relationship. In the most model, the firm status, financial health of firms and marginal tax rate play the role in the trade-off relationship of accrual earnings management and real earnings management in those suspected firms that enjoy the benefits of earnings manipulation on beating/meeting the just zero earnings benchmarks because these elements show same directional signal. These results show that those firms have good financial indicators and high market share in the particular industry enjoying the competitive advantage in form of feeling more flexibility to take the business decisions. In these decisions, those firms enjoying more benefits of real activities manipulations as compare to accrual manipulation. In this way, a good financial gesture of firms and undetectable properties of REM is helpful for firms. But those firms have higher marginal tax rate feel real operating based manipulation are more costly then accrual accounting management. Only real operation based manipulation through overproducing inventory show a full trade-off movement with accrual accounting manipulation.

The specific focus on IFRS adoption shows the different result when adopting the different measurement of EM. In most models, IFRS adoption is not constrained the earnings management decisions. This is maybe the law enforcement in Pakistan. Because in those countries that are not a powerful implementation of rules in form of IFRS adoption, not get the desired result in form of good earnings quality (Ipino&Parbonetti, 2017; Ghaleb, Kamardin& Al-Qadasi, 2020). Even, those countries are less stable with loser legal regimes have more issue of earnings management (Durnev et al., 2015). Without concentration on the trade-off effect of variables, the study finds out that the financial strict rules system is not helpful to constrain the earnings management practices in Pakistan. Even the auditor scrutiny process that captures through auditing of big four auditing firms of Pakistan not able to constrain the manipulations. The institution ownership in Pakistan can control both types of earnings management through their monitoring roles.

These findings give a new direction to explore the earnings management strategies that imply regulatory authorities and researchers. The regulators must review IFRS rules in point of their implementation and adoption. This study also implies that the researchers must focus on both types of earnings management activities simultaneously. Further investigation is required to explain the difference between EM practices in suspected and non-suspected firms. My study also has some limitation, in prior literature observed that the country-level institutional characteristics in form of legal enforcement (Daske et al., 2008; Li, 2010)that increase the explanatory power of mandatory IFRS adoption, is missing.

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