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Real Earnings Management:

A Review of Literature and Future Research

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Abstract

In recent years, increasing attention has been given to real earnings management (REM) as an alternative method to accrual-based earnings management. This paper reviews the recent studies on REM to provide updated and comprehensive information about this type of earnings management. Specifically, the review focuses on REM definitions, motivations, techniques, consequences, and measurement. In addition, the paper provides a discussion of the theoretical frameworks used by researchers as underpinning theories of earnings management. The review of the literature showed that companies have shifted earnings management practising from accruals-based to real activities based. Useful suggestions for REM research opportunities are also provided.

Keywords: Real earnings management, agency theory, consequences.

1. Introduction

Earnings management is a widespread topic in the global business world. In the recent past, many high profile companies (e.g., Enron, WorldCom, etc.) have gone bankrupt after the announcement of accounting scandals and manipulated reported earnings has been the cornerstone of these scandals (Note 1). These scandals have made earnings management an important issue for different users of accounting information such as scholars, investors and practitioners (Callao, Jarne, & Wroblewski, 2014). Its importance is driven by its significant effect on the financial reporting quality.

Earnings management is a complex issue that has been identified and interpreted in previous studies differently depending on the different perceptions of researchers on this issue (Callao *et al.*, 2014). Some studies view earnings management as a problem that needs an urgent remedy, while others consider it as a purposeful intervention to gain some private benefits (Callao *et al.*, 2014; Dechow & Skinner, 2000; Schipper, 1989). In this context, Beneish (2001) distinguished between opportunistic earnings management (to mislead investors) and informative earnings management (to portray a good image to the stockholders about a company's performance). Such differences may reflect that earnings management is not always a bad behaviour. For example, Siregar and Utama (2008) investigated whether companies in Indonesia practised efficient contracting or opportunistic earnings management. The researchers found that the type of earnings management practised by Indonesian listed companies was efficient contracting.

Evidence on earnings management practices has been empirically documented by numerous studies (Cohen, Dey, & Lys, 2008; Enomoto, Kimura, & Yamaguchi, 2015; Ferentinou & Anagnostopoulou, 2016; Healy & Wahlen, 1999; Roychowdhury, 2006). Overall, debates on the earnings management issue are still ongoing, which underlines the importance of earnings management in the accounting literature (Callao *et al.*, 2014).

Importantly, REM issue has grown in light of recent studies as an alternative for earnings management practices (Chi, Lisic, & Pevzner, 2011; Cohen & Zarowin, 2010; Cohen *et al.*, 2008; Ho, Liao, & Taylor, 2015; Malik, 2015; Roychowdhury, 2006; Zang, 2012). Cohen *et al.* (2008) stated that firms might shift manipulation practices from accrual earnings management (AEM) to REM particularly after the passage of the Sarbanes-Oxley Act 2002. In the same context, Malik (2015) provided evidence that US companies manipulate earnings through real activities to avoid reporting losses or to meet the analysts' predictions.

This switch in earnings management practices has created a need to bring REM into public view. In this regard, Talbi, Omri, Guesmi, and Ftiti (2015) pointed out that previous studies have mostly focused on AEM, whereas REM has remained largely unexplored area. To address this issue, this current paper reviews the recent literature of REM by specifically covering: 2) earnings management definitions and types; 3) the underpinning theories widely used in earnings management literature; 4) important studies on REM; 5) methodology of this paper; and 6) conclusion and suggestions for future research.

2. Earnings Management Definitions, Types and Frauds

Earnings management is considered to be a key indicator of financial reporting quality. From the literature review, a comprehensive definition of earnings management has been provided by (Healy & Wahlen, 1999). According to Healy and Wahlen, "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 numbers" (p. 368). Similarly, Leuz, Nanda, and Wysocki (2003) defined earnings management as insiders' changes that affect economic performance recorded in financial reporting with the intention to influence contractual benefits or to mislead some stakeholders. Callao et al.'s (2014) more recent definition combines many elements covered by previous researchers. This recent definition says that earnings management is "a purposeful intervention in financial reporting, designed to reach earnings targets by varying accounting practices. However, it can take place without necessarily violating accounting regulations by taking advantage of the possibilities of choice in accounting policy. The action may mislead stakeholders, causing them to make decisions on the basis of financial reports that they would not have made otherwise" (p. 137).

Importantly, earnings management has the same objectives of fraud in effecting the reported earnings and financial reporting quality of companies. Yet, earnings management does not violate accounting principles, whereas fraud does violate accounting principles (Dechow & Skinner, 2000; Ronen & Yaari, 2008). Nevertheless, Howe (1999) stated that a possibility exists for companies to turn to fraud when they have already used all opportunities to manage earnings by the accruals-based method. Perols and Lougee (2011) documented that companies that have had major frauds are found to have practised more earnings management in prior years. However, it is not a precondition that a company must begin with earnings management before being involved in fraudulent practices. Figure 1 summarises the effects of different activities on financial reporting quality reported in previous studies.

From the above definitions, the conclusion can be made that there are several perceptions of earnings management. Moreover, no consensus exists among researchers on a unified definition of earnings management. However, most studies share some aspects in common. These aspects include the intention of managers to obtain their own benefits as an initial incentive behind earnings management and the adoption of REM or AEM. Furthermore, previous researchers have paid much attention to earnings management through discretionary accruals (Abdul Rahman & Ali, 2006; Beneish, 2001; Callao *et al.*, 2014). This means that the earnings management literature has concentrated on AEM, while REM remained the area requiring more investigations. In addition, more efforts need to be invested in establishing comprehensive definitions of earnings management considering all types of earnings manipulation.

Previous studies have classified earnings management practices into two broad categories, namely, AEM and REM (e.g., Ewert & Wagenhofer, 2005; Gunny, 2010). This classification is based on the earnings composition, including accruals and operations cash flow (Xu,

Taylor, & Dugan, 2007). Managers may choose either one or both to reach their desired earnings targets. AEM occurs when the manager of a given firm uses his/her judgment based on changing accruals with the intention to alter the reported earnings and mislead stockholders about firm's performance (Dechow & Skinner, 2000; Healy & Wahlen, 1999; Jones, 1991). On the other hand, REM refers to managing earnings through normal activities of manipulation to affect reporting earnings by using techniques such as sales, overproduction, discretionary expenditures and gains from fixed asset sales (Brown, Chen, & Kim, 2015; Graham, Harvey, & Rajgopal, 2005; Roychowdhury, 2006; Zang, 2012).

Previous research also distinguished AEM from the REM based on the following points. First, AEM deals with accounting principles and choices, and therefore, has no strong effect on cash flow operations, whereas REM has arguably more pronounced long-term cash flow implications (Roychowdhury, 2006). Second, AEM has a high risk of the scrutiny of auditors as opposed to REM, which is less likely to be detected by auditors' scrutiny (Gunny, 2010). Third, AEM has a limitation of timing on practices and can be done quarterly or at the end of the year. Thus, managers meet uncertainty in which adjustments will be accepted by the auditor (Barton & Simko, 2002). However, REM must be arranged during the year with operational activities or during the last quarter of the year (Ising, 2013). Fourth, real activities are under a manager's control, whereas the activities of AEM are subject to an auditor's approval (Gunny, 2010).

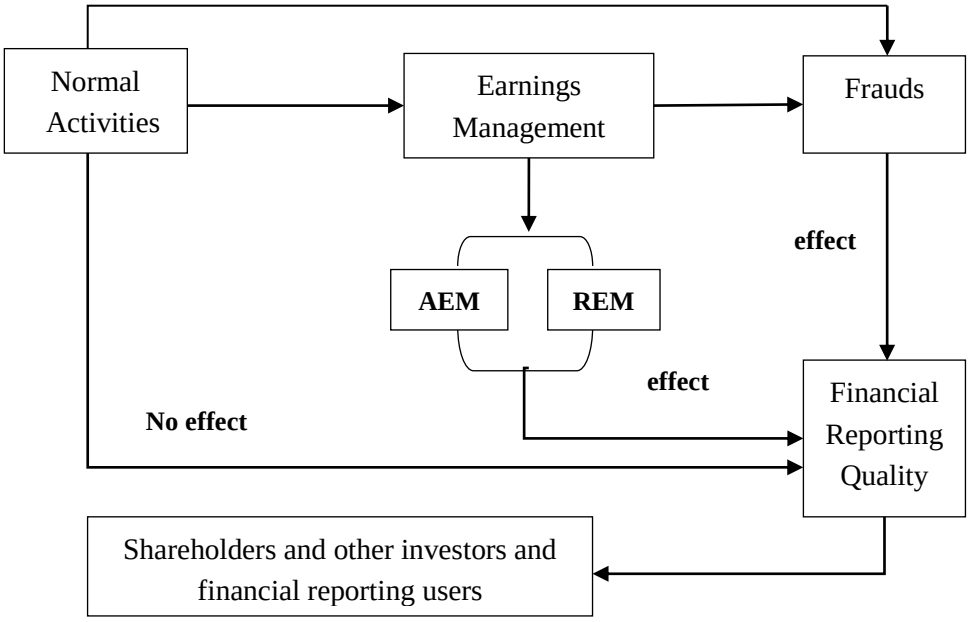

Figure 1. Activities Affecting Financial Reporting Quality

3. Theoretical Framework

Theoretically, the literature on earnings management has shown that agency theory is an underpinning theory that can clearly explain the reasons behind earnings manipulation. An agency relationship arises when one or more than one person (being the owners or principals) delegates some duties to another person (s) (known as the agents/managers) to perform such

services on behalf of the principals under the contract conditions (Fama, 1980; Jensen & Meckling, 1976). According to this theory, large corporations are characterised by the separation of ownership and management. Therefore, owners (principals) appoint agents to manage the affairs of the companies on their behalf. Such a separation creates an agency problem that arises as a result of the self-interests of agents. Furthermore, the agency theory highlights that firms work under conditions of uncertainty, which may result in information asymmetries between managers and investors. Jensen and Meckling (1976) argued that there are good reasons why management will not always consider the interests of shareholders. Additionally, the literature has highlighted another type of agency conflict that can exist, which is that between majority and minority shareholders (Claessens & Fan, 2002; Fan & Wong, 2002).

Company managers may make decisions to serve their interests instead of those of owners (Arnold & de Lange, 2004). For example, the Enron financial scandal was a result of managers' intentions to increase their benefits at the cost of other stakeholders (Arnold & de Lange, 2004). In fact, the flexibility of accounting standards and discretionary expenditures provides managers with the opportunity to manage earnings (Dechow & Skinner, 2000). As a result, managers tend to affect reported earnings that ultimately help them to direct financial reporting in such a way that they reflect their targets instead of shareholders' targets. Such opportunistic behaviour provides a basis for numerous studies to use agency theory as the underpinning concept in the investigation of earnings management (Alexander, 2010). Despite the general acceptability of the agency theory, this theory fails to explain its relationship with the accounting concepts. Walker (2013) stated that the agency theory does not explain how accounting concept alternatives or shareholder funds can be useful for contracting purposes.

4. Literature Review of Real Earnings Management

4.1 Definitions of Real Earnings Management

Several definitions of REM exist. Schipper (1989) defined REM as an alternative type of earnings management that can be achieved by changing the timing of spending in investing or financing operations with the intention to manipulate the reported earnings. Roychowdhury (2006) defined REM 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. These departures do not necessarily contribute to firm value even though they enable managers to meet reporting goals" (p. 337). According to Gunny (2010), REM refers to managing the normal operating activities of companies to adjust earnings according to managers' targets. In contrast, AEM is achieved by using different accounting standards and policies to represent operating activities. Lastly, Xu *et al.* (2007) provided a concise definition saying that REM was a deviation from normal operational activities to affect reported earnings.

4.2. Real Earnings Management Techniques and Measurement

Prior studies have classified REM practices through three categories of activities: 1) operating activities decisions, 2) investment decisions, and 3) financing decisions

(Roychowdhury, 2006; Sellami, 2015; Xu *et al.*, 2007). The manipulation of operating activities refers to increasing sales, reducing discretionary expenses and increasing the production to avoid reporting losses or recording lower earnings (Roychowdhury, 2006). Manipulation through investment decisions refers to manipulating earnings through sales of long-term assets and myopic investments in research and development (R&D) (Gunny, 2005; Herrmann, Inoue, & Thomas, 2003). Managing earnings through financing decisions refers to the process of affecting earnings per shares through stock repurchases and stock option (Burnett, Cripe, Martin, & McAllister, 2012; Hribar, Jenkins, & Johnson, 2006). The following is an explanation of each technique and its measurement as documented by previous researchers.

4.2.1. Sales Manipulation

Sale activities manipulation refers to the decisions of managers to temporarily boost sales by offering easier credit terms or higher discounts on sales prices (Roychowdhury, 2006). Manipulating earnings through this method will temporarily boost sale volumes, which leads to higher earnings and a lower current period cash flow due to surplus in sales (Roychowdhury, 2006; Sun, Lan, & Liu, 2014). Roychowdhury (2006) developed the following model to measure abnormal cash flow from operations (a proxy for sales manipulation) for each year and industry that has been widely used in the literature:

$$\frac{CFO_{it}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{it}}{A_{i,t-1}} + \beta_3 \frac{\Delta S_{it}}{A_{i,t-1}} + \varepsilon_{it} \quad (1)$$

Where, $\boldsymbol{CFO_{it}}$ is the cash flows from operations at the period t; $\boldsymbol{A_{i,t-1}}$ is the total assets at the end of the period t-1; $\boldsymbol{S_{it}}$ is the annual sale of the period t; $\boldsymbol{\Delta S_{it}}$ is the change in the sales relative to the prior period.

4.2.2 Discretionary Expenditures

The deviation of spending discretionary expenses from normal to abnormal activities to influence reported earnings is one technique used by managers in REM. Graham *et al.* (2005) showed that managers could reduce discretionary expenses when they are likely to miss their earning targets. Reducing such expenses will increase the reported earnings during the same period. Empirical evidence by Roychowdhury (2006) indicated that managers use R&D, selling, general, and administrative (SG&A), and advertising discretionary expenses in manipulating earnings to avoid recording losses. The researcher added that companies could reduce discretionary expenses to influence real earnings when these expenses do not have a direct effect on the immediate revenues. Roychowdhury (2006) developed a model to measure abnormal discretionary expenses (DISX) for each year and industry which is widely used in the literature and described as follow:

$$\frac{DISX_{it}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{it-1}}{A_{i,t-1}} + \varepsilon_{it} \quad (2)$$

Where, $\boldsymbol{DISX_{it}}$ is the total discretionary expenditures during the period t (advertising, R&D, & SG&A).

4.2.3. Overproduction

Overproduction refers to increasing production units to more than the expected market demand. Prior studies have documented that managers of manufacturing companies use overproduction as a technique to manage earnings (Graham *et al.*, 2005; Gunny, 2010; Roychowdhury, 2006; Tabassum, Kaleem, & Nazir, 2014). This technique allows managers to spread fixed production overhead costs on more units of production, which results in decreasing the cost of goods sold (Roychowdhury, 2006). Indeed, such reduced cost of goods sold leads to an increase in profit margins based on the assumption that other factors will remain fixed. According to Manowan and Lin (2013), the use of this technique by managers makes detection difficult for other users of accounting information. In addition, Tabassum *et al.* (2014) reported that manufacturing companies in Pakistan practised more REM through the overproduction technique. However, as a consequence of such practices, these companies face lower financial performance in subsequent years. Roychowdhury (2006) identified production costs as the sum of the cost of goods sold and changes in inventory during the year. He developed the following model, which has been employed in previous studies to detect manipulation in production costs (a proxy for overproduction):

$$\frac{\boldsymbol{PROD_{it}}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{it}}{A_{i,t-1}} + \beta_3 \frac{\Delta S_{it}}{A_{i,t-1}} + \beta_4 \frac{\Delta S_{i,t-1}}{A_{i,t-1}} + \varepsilon_{it} \quad (3)$$

Where, $\boldsymbol{PROD_{it}}$ is the sum of the cost of goods sold and changes in inventory during the year.

4.2.4. Selling the Fixed Assets

Selling fixed assets is a flexible technique used by managers to enhance reported earnings when they realise that the targeted earnings may not materialise. The literature on earnings management has shown that managers might sell fixed assets and use the gains from such selling to avoid reporting losses or low earnings or to avoid debt covenant violations (Bartov, 1993). In a study by Herrmann *et al.* (2003), firms in Japan were found to have managed earnings through selling marketable securities or fixed assets and using the gains (or losses) to adjust the actual operating income to meet forecasts. Recently, Gunny (2010) has developed a model for estimating the abnormal gain from assets sales (GAIN) based on

variables documented in the studies of (Bartov, 1993; Herrmann *et al.*, 2003), which is illustrated as follows:

$$\frac{GAIN_{it}}{A_{i,t-1}} = \alpha_0 + \alpha_1 \frac{1}{A_{i,t-1}} + \beta_1 MV_t + \beta_2 Q_t + \beta_3 \frac{INT_{it}}{A_{i,t-1}} + \beta_4 \frac{AS_{it}}{A_{i,t-1}} + \beta_5 \frac{IS_{it}}{A_{i,t-1}} + \varepsilon_{it} \quad (4)$$

Where $GAIN_{it}$ is the gain from asset sales during the period t; MV_t is the natural logarithm of the market value; Q is Tobin's Q; INT is the internal funds; AS is the long-lived assets sales; IS is the long-lived investment sales.

4.2.5. Stock Repurchases

Stock repurchases are considered one of the REM techniques. Previous studies have provided evidence that managers of companies may engage in the stock repurchases to increase earnings per share (Bens, Nagar, Skinner, & Wong, 2003; Hribar *et al.*, 2006). A study by Burnett *et al.* (2012) provided evidence that companies under the pressure of high audit quality may shift earnings management practices from accrual to REM by stock repurchases. This evidence indicates that stock repurchases can be used as a tool for managing earnings per share. Unlike the abovementioned techniques, this method of REM (stock repurchase) does not affect the reported earnings; rather, it is used to shore up the reported earnings per share.

The first three measures developed by Roychowdhury and largely employed in the REM literature (e.g., Chi *et al.*, 2011; Cohen *et al.*, 2008; Ferentinou & Anagnostopoulou, 2016) can be combined into one measurement. According to Ferentinou and Anagnostopoulou (2016), REM measurements can be calculated as one combined measure by multiplying abnormal CFO and DISX values by -1 and adding the abnormal PROD to one equation. This is because the lower values of the abnormal CFO and abnormal DISX indicate higher REM, while higher values of abnormal PROD indicate higher REM. Hence, the following equation is the combined measurement of REM:

$$REM = ABCFO(-1) + ABDISX(-1) + ABPROD \quad (5)$$

Where ABCFO is the abnormal cash flows from operations; ABDISX is the abnormal discretionary expenses; ABPROD is the abnormal production costs.

4.3. Important Studies on the Trade-Off between REM and AEM

REM techniques are concerned with the manipulation of real activities. Managers use these techniques to meet targeted earnings through the timing of spending on investments, expenditures and operational or financing activities. Recently, researchers have turned their attention to REM as another method of earning management. In developed countries, studies have pointed to REM practices in companies (e.g., Alhadab, Clacher, & Keasey, 2015; Cohen

& Zarowin, 2010; Graham *et al*., 2005; Roychowdhury, 2006; Zang, 2012). For example, in a survey by Graham *et al.* (2005) among 401 executives, the results showed that 80% of the participants preferred to take economic decisions such as cutting R&D expenses, maintenance, and advertising that may have negative long-term effects rather than using accruals-based methods to meet their targets on reporting earnings. Gunny (2005) also reported the existence of REM by stating that managers have the intention to meet earnings targets by using techniques that negatively impact the future performance of companies.

Using the models of Dechow, Kothari, and Watts (1998), Roychowdhury (2006) developed new models to measure real activities manipulation. He found that, to avoid reporting losses, managers manipulate earnings by altering real activities such as increasing the sales volume through high discounts on prices or offering lax credit conditions, overproduction to report high earnings resulting from reducing the cost of goods sold and reducing discretionary expenses such as R&D, selling, advertising, administrative, and general expenditure (SG&A). Eldenburg, Gunny, Hee, and Soderstrom (2011) extended the literature on real operating decisions management in non-profit hospitals in California. They found that decreasing non-operating and non-revenue-generating activities expenditures reflects the existence of the practice of REM.

During a seasoned equity offering (SEO), companies look for new investors to raise their capital by offering shares. They may offer their shareholders the idea of buying extra shares with the preference of companies to sell shares at high prices. Thus, it becomes possible for them to manage earnings to improve stock price (Ronen & Yaari, 2008). In the same context, Cohen and Zarowin (2010) examined both managing earnings techniques (real and accruals) by using a sample of SEO companies. The researchers found that companies use REM techniques in managing earnings, which leads to declining performance of companies in subsequent years after the SEO. The study also revealed that selecting one of the both techniques depends on the ability of the company to use accruals-based management and the cost of both methods.

Considerable studies have indicated that managers switch from AEM to REM because of the ease of practising discretionary decisions on activities and being less likely to be detected by regulators and auditors. In other words, the pressure of auditor scrutiny and regulations have made managers shift to another type of earnings management. As reported by Ewert and Wagenhofer (2005), tighter accounting standards result in increasing REM and reducing AEM at the same time. Remarkable empirical evidence of this shift among managers was recorded by Cohen *et al.* (2008), which illustrates the shift of earnings management practices from accruals to real activities under the pressure of the passage of SOX. Consistently, Jungeun, Jaimin, and Jaehong (2012) reported that AEM practices decrease, while REM practices increase after a financial crisis. They attributed this to the pressure of shifting from internal to external markets in financing sources, thus increasing the demand for more transparent financial information by capital market followers.

Other factors have been examined to identify the reasons behind the shift in earnings management practices from AEM to REM. Regarding this, studies have documented that

companies with high audit quality resort to REM when they have limitations in the use accrual techniques (Burnett *et al.*, 2012; Chi *et al.*, 2011). Moreover, Enomoto *et al.* (2015) examined the differences in AEM and REM across countries from the perspective of investor protection. They used data from 38 countries for the period from 1991 to 2010. The results showed that REM is higher in countries with stronger investor protection. The result may reflect that managers of the companies may turn to REM instead of AEM in countries with high levels of investor protection. Baatour and Othman (2016) studied the impact of the legal system and economic freedom on both types of earnings management in selected companies in the Middle East and North African (MENA). Their results suggest that managers under the impact of the legal system tend to practice more REM, whereas no effect of the economic freedom is involved in REM practices.

The adoption of the international financial reporting standards (IFRS) has been found to be a cause behind the movement to the REM alternative. For instance, Ferentinou and Anagnostopoulou (2016) conducted a study on the practices of both types of earnings management (AEM & REM) during pre- and post-IFRS mandatory adoption in Greek companies. Their results indicate that companies shifted to REM after IFRS adoption. Ho *et al*. (2015) carried out a similar study with the aim of investigating the existence of both AEM and REM in pre- and post-IFRS adoption for Chinese A-share firms. They reported that Chinese firms turned to REM as an alternative method for upward earnings manipulations in the period after IFRS adoption. Furthermore, Ipino and Parbonetti (2017) examined whether the use of REM was more than AEM after the adoption of IFRS in companies distributed in 33 countries for the period from 2000 to 2010. Their results showed that companies substituted REM for AEM after IFRS adoption. However, Sellami and Fakhfakh (2013) documented a negative association between IFRS adoption and earnings management (both accrual and real).

In fact, all the studies reviewed above-provided evidence on the movement in practice from AEM to REM. However, such studies do not confirm the total switch from one to another. Thus, REM can be used as a substitute or complementary with AEM. In this context, Zang (2012) questioned whether managers use both methods on earnings manipulation practices. Based on a sample containing more than 6,500 firm-years over the period 1987–2008 to investigate the above question, the researcher found that managers used both techniques on earnings management as substitutes, and this depends on the cost of each one. Furthermore, Matsuura (2008) investigated the relationship between REM (measured by cash flow from operations activities) and AEM to smooth earnings. The results demonstrated that the relationship between both REM and AEM is sequential, and they are both used by managers complementarily. Moreover, Alhadab *et al.* (2015) provided evidence that companies during the IPO year used both earnings management techniques to upward earnings. Figure (2) summarize reasons behind shifting in practice from AEM to REM.

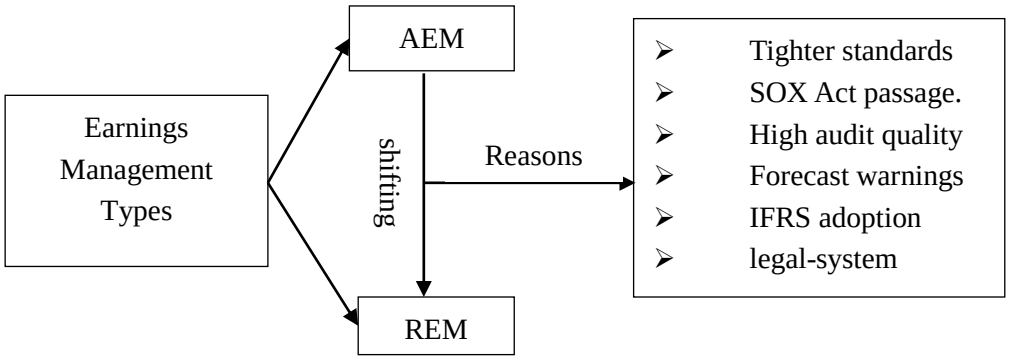

Figure 2. Reasons behind the shifting of practices from AEM to REM

4.3. Consequences of Real Earnings Management

Researchers have argued that earnings management victims are investors, regulators, customers, bankers, unions, suppliers, and competitors (e.g., Lo, 2008). Abad, Cutillas-Gomariz, Sánchez-ballesta, and Yague (2016) documented that REM is positively associated with the level of information asymmetry in Spanish listed firms, which indicate that REM garbles the market. The literature suggests that REM activities affect companies in different aspects because they misrepresent the actual financial position and economic performance (Sellami, 2015). REM is considered a signal of worse financial performance in the future (Cohen & Zarowin, 2010; Gunny, 2005; Tabassum, Kaleem, & Nazir, 2015).

Moreover, REM reflects weaknesses in the internal audit function (IAF). A study conducted by Lenard, Petruska, Alam, and Yu (2016) in the US market demonstrated that internal control weaknesses in companies is positively associated with REM, thus suggesting that companies which practice REM have lower performance in subsequent years. Similarly, Moradi, Salehi, and Zamanirad (2015) reported that REM is negatively associated with the future performance of companies.

Additionally, previous studies have reported that REM affects a company's value. According to Roychowdhury (2006), REM techniques such as price discounts and more lenient credit conditions increase earnings in the current period, but they may negatively affect cash flow in subsequent periods. Researchers also postulate that REM is more costly than AEM due to its negative consequences on cash flows and company value in the long run (Chi *et al.*, 2011; Cohen & Zarowin, 2010; Cohen *et al.*, 2008; Ewert & Wagenhofer, 2005; Roychowdhury, 2006).

Kim and Sohn (2013) investigated the influence of REM on the cost of equity in US companies and provided evidence on the positive relationship. Such a result implies that increasing REM practices leads to increasing the costs of the equity market. Furthermore, Cupertino, Martinez, and Costa Jr (2016) examined the impact of REM on the future return in Brazilian capital market and found a negative impact of REM on return on assets. However, not all studies have documented a negative relationship between REM and the future performance of companies. For instance, Taylor and Xu (2010) found that companies that practice REM do not have a significant decline in operating performance in subsequent years.

Similarly, the evidence provided by Pacheco Paredes and Wheatley (2017) indicates that REM is associated with improved future performance.

5. Methodology

This paper provided a review of previous studies on REM. The literature on REM has grown fast particularly in recent years, which makes it difficult to review all articles. In addition, this paper focused on the points that were initially specified. Therefore, the current review only focused on the most important studies related to the aims of this paper, especially those investigating REM definitions, techniques, consequences, and measurement that are published in good journals.

6. Conclusion and Suggestions for Future Research

The evidence on the movement of practice from accrual to real earnings management has created a need for reviewing and synthesising REM literature. Therefore, this paper reviewed recent studies on REM. The findings of the review hopefully will benefit researchers and enhance the understanding of the financial reporting users about real activities manipulation. The review of the literature showed that there is a shift in earnings management practices from accruals-based practises to real activities management. The literature reported different reasons behind this shift such as tightening accounting standards, development of regulations like SOX Act, a shift in finance sources from internal to external market under the pressure of financial crisis, limitations in using AEM under high audit quality scrutiny, and IFRS mandatory adoption. However, other studies have reported that the managers practise both techniques as a substitute or as complementary methods. Therefore, a need exists for more investigation on such trade-offs to determine whether companies really shift earnings management practices from accruals to REM. Future studies also can investigate why high audit quality and legal reforms have failed to prevent REM practices. Furthermore, studies have provided mixed evidence on the effect of REM on the future performance of companies, and therefore, investigation is required in this area to determine whether REM is just business (good) or a manipulation (bad) to suggest remedies for such behaviour.

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Notes

Note 1. For further information, you can refer the article titled as “the 10 worst corporate accounting scandals of all times” which is available at http://www.accounting-degree.org/scandals/