Audit Quality and Earnings Management: Review and Synthesis of Empirical Evidence

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Abstract

Earnings management (EM) is the choice of accounting policy by a manager to achieve multiple goals. EM activity can be divided into two types: accrual manipulation activity and real manipulation activity. However, both of these have a major difference: the accrual manipulation does not affect cash flow, whereas real manipulation affects cash flow. Whether misleading or not to the users of financial statements, good or bad for the practice, controversy arises when earnings management is associated with morals / ethics. EM practices are suspected to arise due to agency problems arising from a conflict of interest between the principal and the agent. In accordance with agency theory, the function of the independent auditor can reduce agency problems. A qualified auditor, trusted to provide trust to stakeholders about the performance of management. High-quality auditors are more likely to detect dubious accounting practices. Thus, in the context of research, audit quality is often regarded as an antecedent variable and a variable that can reduce the occurrence of EM practice. Furthermore, the practice of Accrual Earnings Management (AEM) and Real Earnings Management (REM) in some empirical results turns out to be a substitution.

Keywords: Earnings management, agency problem, audit quality.


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Introduction

Opportunistic behavior of earnings management (EM) practices can be viewed from two sides, namely financial reporting and contract preparation. The first side is financial reporting, managers can use EM to adjust the estimated income proposed by analysts, and therefore avoid the reaction of negative stock prices that immediately follow the failure to meet investor expectations. The second side is the contract perspective, EM practices can be used as a way to protect the company from the consequences of unexpected events when the contract is rigid or incomplete (Scott, 2009). Management behavior arises due to the agency problem between the principal and the agent. This problem arises from the information asymmetry between principal and agent, where agents have more information about financial transactions than principals (Alzoubi, 2016). Management as an agent, always tries to show good performance before the principal in order to obtain compensation and expected rewards. More information that is owned by the agent, makes management free to manipulate or change the actual picture of economic performance into a report in accordance with management (Healy & Wahlen, 1999). On the other hand, principal or shareholders want to see the real management performance, and want to know whether what the agent is doing can maximize the welfare of the principal. In addition to compensation motives, EM opportunistic behavior is based on several things such as bonus plans; Motivation of debt contracts is not long; political problems; CEO tax change; and initial public offerings (Scott, 2009).

Managers try to manage earnings to achieve one or more contractual goals, and capital markets to increase compensation, avoid violations of debt contracts, and try to adjust or even obtain more earnings from analyst forecasting (Khalil & Ozkan, 2016). To avoid this behavior, a good governance system must be created within the company. Corporate governance in internal and external mechanisms must work well. The effectiveness of internal mechanisms such as an independent board of directors, which carries out supervision, and the structure of work must be improved. External mechanisms such as institutional ownership, credit supervision from third parties, in this case banking, and independent auditors will create controls that can minimize agency problems (Xue & Hong, 2016).

In the empirical domain, there is one factor that determines the company's good governance mechanism for EM practices, namely the audit committee and audit quality (Inaam & Khamoussi, 2016). The audit function is part of the guarantee of trust in stakeholders towards the company that is expected to provide reports / information on nonconformities made by management. The audit process can reduce the information asymmetry that occurs between managers and stakeholders that allows outsiders to verify the validity of the financial statements made by the manager (Becker, DeFond, Jiambalvo, & Subramanyam, 1998). Daniel A. Cohen and Zarowin (2010) states that experienced auditors will most likely be able to detect the real activity of EM. Experienced, high-quality auditors may be more careful in detecting dubious accounting practices, compared to low-quality auditors. Thus audits that have high quality can effectively prevent EM practices (Daniel A. Cohen & Zarowin, 2010; Yasar, 2013).
The results of research on the relationship of audit quality and EM show inconclusive. The research found that there was a positive relationship between audit quality and financial reporting quality (Alzoubi, 2016; Chen, Chen, Lobo, & Wang, 2011). Some studies, especially in Indonesia, show insignificant results (Christiani & Nugrahanti, 2014; Setiawan, 2014). One of the allegations that led to inconsistent research results is the view that high audit quality is always considered to reduce management's behavior in managing earnings. Meanwhile, according to Daniel A. Cohen and Zarowin (2010), not always audit quality can reduce EM practices, precisely when companies are audited by qualified auditors, it will avoid the practice of EM accruals, but they will shift to practice EM real activities. Based on this explanation, this article will try to review theoretically the relationship between audit quality and earnings management.

**Earnings Management**

Earnings management practices arise due to agency problems caused by information asymmetry in the relationship between agent and principal. Information asymmetry can be adverse selection and moral hazard. Management that has information about companies that are more than shareholders, makes them behave opportunistically to maximize their utility, and not act to prioritize the principal interests / welfare of shareholders (Jensen & Meckling, 1976). The management's interests, may not benefit the company as a whole which in the long run can harm the company's objectives. EM practices occur when managers use valuations in financial reporting and structured transactions to change financial statements to mislead some stakeholders about the company's economic performance.

Scott (2009) states that there are several factors that can motivate managers to make earnings management, namely: (1) Bonus Scheme - Manager with bonus plans will avoid accounting methods that might report lower net income, and tend to choose profit-maximizing accounting policies; (2) Debt Covenant - Violations of the covenant result in high costs to the company. Therefore, managers try to avoid violations of contracts; (3) Political Motivation - Companies engaged in providing facilities for the public interest, will receive political attention from the government and society. Companies like this tend to reduce profits to reduce their visibility, especially during the high prosperity period; (4) Motivation Taxation - Motivation of tax savings is the most tangible profit management motivation. Tax savings are an incentive for managers to accelerate recognition of costs and delay revenue recognition; (5) Chief Executive Officer - Earnings management occurs around the time of CEO turnover. Managers when they approach the CEO's resignation the action taken is to maximize profits to increase their bonuses; and (6) Initial Public Offering / IPO - There is a possibility that the manager of a publicly listed company will manage the prospectus in hopes of raising the stock price.

There are two types of opportunistic behavior of earnings management, namely real earnings management (REM) and accrual earnings management (AEM). Both types are alternative ways to manage earnings (Daniel A Cohen, Dey, & Lys, 2008; Roychowdhury, 2006). These two types both involve the manager's efforts to increase or decrease earnings, however, the main difference is determined by the impact of cash flow for the company. The type of AEM that is often carried out by management is in the form
of discretion over the selection of accounting methods that have an impact on earnings through certain accounts related to the selection of the method, but does not directly affect cash flow (Dechow, Ge, & Schrand, 2010; Jones, 1991). Conversely, for the type of REM is a real management manipulation activity through a strategy of determining the timing of operating decisions, financing, and investment so that it can directly affect the cash flow (Gunny, 2010; Roychowdhury, 2006).

The real form of REM practice is when the end of the year, managers try to increase sales by giving massive discounts with the aim of obtaining high sales turnover. The second example is the manager decides to increase production, so that when the ending inventory is high, the cost of goods sold (COGS) will be low and the profits earned by the company will be high. The third example is that managers deliberately reduce / reduce investment in research and development costs (R & D) so that earnings for the current period will increase, and reduce general administration costs (Daniel A. Cohen & Zarowin, 2010; Gunny, 2010; Roychowdhury, 2006).

Audit Quality

Audit quality is market-probable probability that financial statements contain material errors in accounting reports and systems, and auditors will find and report material errors(DeAngelo, 1981). The probability that the auditor will find a violation depends on the ability of the auditor's technology, the audit procedures used during the audit, the sampling rate, and others. Quality auditors will not report audit reports with unqualified opinions for financial statements that contain material errors(Watkins, Hillison, & Morecroft, 2004).

Proxies in research to determine audit quality vary, ranging from the size of a public accounting firm, industry auditor specialization, and PCAOB reports related to audit deficiencies conducted by KAP. According to DeAngelo (1981), large KAPs are considered to be auditing with more quality than small (non Big 4) KAPs, because large KAPs have more resources and more clients so they are not dependent on one or more clients only (Behn, Choi, & Kang, 2008; DeAngelo, 1981; DeFond, Francis, & Wong, 2000). Secondly, audit quality is determined from KAP specialization which is seen from the market share in a group of industry clients (DeFond et al., 2000; Gul, Fung, & Jaggi, 2009). Specialization is determined by making a Big N auditor rating based on the percentage of total assets of the company audited in certain industry groups. If KAP has the largest market share (of total assets) it is identified as a specialist in the industry (Gul et al., 2009). Finally, audit quality is determined by the results of the Public Company Accounting Oversight Board (PCAOB) report, the body that is responsible for conducting audits on paper documents and procedures applied by KAP in audit assignments. Low quality accounting firms will have deficiencies in working papers or procedures that are made and carried out during field assignments (Kang, Farag, Hurt, & Wyrick, 2014).

Audit Quality and Earnings Management

There are certain conditions that can also encourage EM such as IPO plans or additional stock offerings (SEO). These conditions tend to trigger opportunistic actions
by conducting EM so that the company's performance is considered good / positive by investors. some studies prove that there is earnings management around the year of SEO (Daniel A. Cohen & Zarowin, 2010; Dewi & Sujana, 2015). However, EM cannot be done in the long run, and management must immediately re-adjust the accrual reversal engineering / manipulation that they have done so that investors are not immediately known.

Conditions that arise due to EM conducted by management, will certainly harm investors. This happens because of the information asymmetry, which raises agency problems. Agency issues like this can be minimized by the supervision and control of outsiders. Auditors as independent parties can be considered as possible ways to detect / disclose violations in financial statements (Jensen & Meckling, 1976). Some research shows that large audit firms have more ability to find management manipulation (Alzoubi, 2016). The study states that audit quality measured by firm size and audit fees is negatively related to EM. A qualified auditor can reduce EM practices in the company (Chen et al., 2011; Khalil & Ozkan, 2016; Soliman & Ragab, 2014), so that the Big Four auditors will provide higher audit quality and reliability to clients' financial statements than non-big four auditors.

Table 1. Illustrative Studies in Audit Quality and Earnings Management

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<tr>
<th>Study</th>
<th>Sample</th>
<th>Methods</th>
<th>Key Findings</th>
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<tr>
<td>Yasser and Soliman (2018)</td>
<td>350 firm-year observations from all firms listed on the Egyptian stock exchange (EBX) for the years 2011 – 2016.</td>
<td>AEM; discretionary accruals - Modified Jones model&lt;br&gt; Auditor firm size; dummy variable, big 4 firms and non big 4 firms.&lt;br&gt; Industry Specialization; % number of audit client&lt;br&gt; Auditor tenure; cumulative number of years the auditor has been employed by the firm</td>
<td>Audit firm size and Auditor industry specialization fail to support the argument that auditor can play a role in constraining earnings management practice.&lt;br&gt; Auditor tenure has a significant effect on earnings management. The retention period increases the amount of discretionary accruals reported by auditors tend to increase.</td>
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<td>Alzoubi (2018)</td>
<td>504 firm-years observation form 72 industrial companies listed on the ASE from 2006 – 2012.</td>
<td>AEM; Modified cross-sectional Jones model&lt;br&gt; Auditor tenure; the period (number of years) that the company is maintained by an auditor.&lt;br&gt; Auditor size; dummy variable, big 4 and non big 4 firms.&lt;br&gt; Industry Specialization; % number of audit client</td>
<td>Audit quality measured by auditor tenure, size, specialization, and independence diminish the potential of earnings management and enhance the financial reporting quality.</td>
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<td>Muttakin, Khan, and Mihret (2017)</td>
<td>917 firm-year observations from nonfinancial sector firms listed on the Dhaka Stock Exchange (DSE) from 2005 to 2013.</td>
<td>AEM - Absolute discretionary accruals.</td>
<td>Audit quality is negatively associated with the level of discretionary accruals. The large and specialist audit firms act as an effective deterrent to earnings management.</td>
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<td>Astami, Rusmin, Hartadi, and Evans (2017)</td>
<td>6,554 firm-year observations from listed companies in nine countries in the Asia-Pacific region from 2005 to 2010. (Malaysia, Hong Kong, Singapore, New Zealand, Australia, Taiwan, Indonesia, China, Thailand).</td>
<td>AEM - Modified cross-sectional Jones model.</td>
<td>High-quality auditors mitigate earnings management practices. The firms audited by Big 4 accounting firms have lower discretionary accruals.</td>
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<tr>
<td>Habbash and Alghamdi (2017)</td>
<td>337 firm-year observations from non-financial Saudi listed firms from 2006 to 2009.</td>
<td>AEM - Modified cross-sectional Kothari model.</td>
<td>Auditor opinion is the only variable that constrains earnings management practice while the other proxies for auditor quality fail to support hypothesis.</td>
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<td>Houqe, Ahmed, and van Zijl (2017)</td>
<td>7,303 firm-year observations on Indian companies listed on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) for the years 1998–2009.</td>
<td>Auditor opinion; dummy variable, auditor issued unqualified report.</td>
<td>High audit quality reduces earnings management and lower the cost of equity capital.</td>
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<td>Alzoubi (2016)</td>
<td>344 firm-year observations from industrial sector firms listed on the Amman Stock Exchange (ASE) ranges form 2007 – 2010.</td>
<td>AEM; Modified cross-sectional Jones model. Audit Quality; dummy variable, big 4 firms and non big 4 firms.</td>
<td>There is a significant negative relationship between audit quality and EM, both with firm size audit quality proxies and audit fees. Or in other words the EM level is lower in companies that use the services of an independent auditor.</td>
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<td>Khalil and Ozkan (2016)</td>
<td>1,005 non-financial listed Egyptian firm-year observations over the period 2005-2012</td>
<td>AEM; Discretionary Accruals. Audit quality; dummy variable, big 4 firms and non big 4 firms.</td>
<td>The high quality auditors are effective in reducing earnings management</td>
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<td>Soliman and Ragab (2014)</td>
<td>50 Egyptian companies listed on the Egyptian Stock Exchange of the non-financial sector during the period 2007-2010.</td>
<td>AEM; Discretionary Accruals – Modified Jones model Audit quality; dummy variable, big 4 firms and non big 4 firms.</td>
<td>Audit quality have significant negative association with earnings management.</td>
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<td>Yasar (2013)</td>
<td>160 firm-year observations from Manufacturing industry firms listed on Istanbul Stock Exchange</td>
<td>AEM; Discretionary Accruals - Modified cross sectional Jones model Audit quality; dummy variable, big 4 firms and non big 4 firms.</td>
<td>Audit firm size as proxy for audit quality, does not have an impact on discretionary accruals. There is no difference in audit quality between Big Four and non-Big Four audit firms.</td>
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### Study Details

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| **Chi, Lisic, and Pevzner (2011)** | (ISE) for the years 2003-2007 | **REM**: Real Earnings management *(REM_Index, Abn_CFO, Abn_Production, Abn_DiscretionaryExpenses)*.  
**Audit Quality**: dummy variable, BigN vs Non-BigN, audit fee market share. | Auditor industry expertise and audit fees are associated with higher levels of real earnings management.  
The higher quality auditors constraining accrual earnings management, and the longer auditor tenure is associated with greater real earnings management. |
| **Chen et al. (2011)**        | 925 firm-year observations on nonfinancial and nonutilities firms ranges form 2001 – 2008. | **AEM**: absolute discretionary accruals and income-increasing discretionary accruals.  
**Audit quality**: Big 8 and non-big 8 audit firms | Significantly lower level of earnings management for NSOEs audited by Top 8 auditors than for NSOEs audited by non–Top 8 auditors.  
Additionally, we find a significantly greater reduction in earnings management from hiring Top 8 versus non–Top 8 auditors for NSOEs than for SOEs. |

The high quality provided by the auditor, will be able to limit or reduce the ability of clients to conduct EM through accruals (Soliman & Ragab, 2014). On the other hand, when audit quality is higher, it will also increase real earnings management activities. This is due to the fear of top management because accrual manipulation will soon be detected by the auditor (Chi et al., 2011). This shows also the shift from accrual activity manipulation to switch to real activity manipulation.

### Real Earnings Management and Accrual Earnings Management are Substitutions

AEM and REM activities have different consequences for cash flow. The choice of management to manage earnings by using these two things is a substitution strategy (Zang, 2012). When accrual earnings management is limited, companies will tend to make real earnings management to manage earnings (Daniel A. Cohen & Zarowin, 2010). Real manipulation is positively related to the costs of accrual manipulation, while the relationship between accrual manipulation and real manipulation is negatively correlated. If the company manipulates high real activity, then they will reduce the amount of accrual activity manipulation, and vice versa (Zang, 2012).
As an illustration, in the condition of companies that do SEO, the tendency will be EM activities. Kothari, Mizik, and Roychowdhury (2016) which states that management will increase profits at the time of SEO, which aims to attract investors by showing good performance and high profits. Roychowdhury (2006) states that management does not only conduct EM with accrual activities but also through manipulation of real activities. Research by Kothari et al. (2016) shows that SEO overvaluation is caused by the main because managers do overstate earnings through real activities.

Roychowdhury (2006) states that the shift from accrual earnings management to REM is due to several factors. The first accrual earnings management is likely to attract the attention of auditors and regulators compared to manipulation of real activities such as pricing and production. Second, managers who rely on accrual earnings management will be at risk if the realization of the end of the year deficit between un manipulated earnings and desired profit targets exceeds the amount that is possible to be achieved by accrual earnings management.

The choice of manager to do real activity manipulation or accrual manipulation also relates to the characteristics of the auditor (Daniel A. Cohen & Zarowin, 2010). Chi et al. (2011) stated that a qualified auditor indicated by industry expertise will inhibit / reduce managers from manipulating accrual activities (Alzoubi, 2016; Soliman & Ragab, 2014), and turn to real activity manipulation (Kothari et al., 2016). Daniel A, Cohen and Zarowin (2010) also states that the manipulation of real activities has a small probability of being an auditor's attention compared to the manipulation of accrual activities. Thus, the manager's decision to manage earnings when conducting SEO, relates to the characteristics of the auditor in this case the quality of the auditor. When auditor quality is high, managers will use real activity manipulation, on the contrary when auditor quality is low, managers will tend to use accrual activity manipulation.

Based on several previous exposures, it can be illustrated the relationship between audit quality and earnings management as in Figure 1:
Conclusion

Practice earnings management is a choice of accounting policy by a manager to achieve various objectives, with various motives behind it. Manipulation of real activities and accrual activities carried out by management, both have an impact on company performance. For investors, of course this will reduce his trust in management as an agent. To overcome this, the mechanism of good governance (corporate governance) in the form of an audit process, can be done to increase investor confidence in management. This is because empirically shows that quality audits can reduce EM practices (Chen et al., 2011; Khalil & Ozkan, 2016; Soliman & Ragab, 2014).

The perception that quality audits can reduce EM seems to be captured incorrectly by several researchers. This is due to not paying attention to the type of manipulation activities carried out by the company. Zang (2012) states that real activity manipulation is positively related to the costs of accrual activity manipulation, while the relationship between accrual activity manipulation and real activity manipulation is negatively correlated. In other words, the two types of EM are substitutions. The management shift from AEM to REM is also driven by quality audits. A qualified auditor, will inhibit/reduce managers to manipulate accrual activities, and switch to real activity manipulation (Alzoubi, 2016; Kothari et al., 2016; Soliman & Ragab, 2014).

References


