

Earning Quality in Public Listed Companies: A Study on Malaysia Exchange for Securities Dealing and Automated Quotation

Siti Nor Junita Mohd Radzi

School of Business Innovation and Technopreneurship

Universiti Malaysia Perlis

E-mail: sitijunita@unimap.edu.my

Md. Aminul Islam

School of Business Innovation and Technopreneurship

Universiti Malaysia Perlis

E-mail: amin_shanto@yahoo.com

Suraiya Ibrahim

School of Business Innovation and Technopreneurship

Universiti Malaysia Perlis

E-mail: suraiya@unimap.edu.my

Received: September 30, 2010

Accepted: January 28, 2011

doi:10.5539/ijef.v3n2p233

Abstract

This study attempted to find out whether the size of audit firm, internal audit establishment and former senior auditor as company director have any significant effect on earning management. All data were extracted from the annual reports. The sample firms used in this study were all the companies listed on Bursa Malaysia under Malaysia Exchange for Securities Dealing and Automated Quotation (MESDAQ) technological sector in 2006. There were 128 MESDAQ Companies listed in 2006. However due to unavailability of reports, 113 were used for analysis. Earning Management can be viewed from financial reporting perspective. From a financial reporting perspective, managers may use earning management to meet analysts' earning forecast, thereby avoiding the strong negative share price reaction that quickly follow a failure to meet investor expectations. Too much earning management, however, reduces the earning quality and the ability investor to interpret current net income as well, particularly if the earning management is buried in core earning or otherwise not fully disclosed. The reported net income is useful to investor in evaluating future firm performance but excessive earning management may reduce this usefulness. Findings confirmed that the size of audit firm, internal audit establishment and former senior auditor as company director have no significant effect on earning management. An understanding of the earning management is important to accountants because it enables an improved understanding of the usefulness of the net income, especially for reporting to investor. It also may assist them to avoid some of the serious legal and reputation consequences that arise when firms become financially distress where such distress is often preceded by serious abuse of earnings management.

Keywords: Earnings management, Earnings quality, MESDAQ Company

1. Introduction

Firm value is derived from the market's expectations of firm performance. Accounting provides the necessary information for the market to form these expectations. Book value of equity represents past performance and current earnings are indicative of future performance. Thus these measures are commonly used as the basis for firm valuation (Easton and Harris 1991; Ohlson 1995; Penman 1998; Ou and Sepe 2002). This study is conducted for the purposes that the reliability of accounting information may affect its relevance to the market in determining firm value and reducing the quality of reported earning as well. The earning figure is susceptible to manipulation that may also reduce its reliability and thus its usefulness in the valuation process. This is due to the accrual components of earnings which are in part subject to managerial discretion. This is because according to the GAAP (General Accepted Accounting Principles) allow a degree of freedom; this pliancy may be exploited by management (Levitt 1998). The prospect of exploitation increases when incentives exist for management to manipulate the accruals

components of earnings targets (Beaver and Angel 1996; Dechow 1996; Wu 1997; Teoh et al 1998b; Erickson and Wang 1999; Holland and Ramsay 2003). The rationale for the use of accrual accounting is that it allows management to adjust cash flows to better reflect the performance and position of the firms. In this context, accruals are used as a signal to the market. However when the managers use accruals to opportunistically manage earnings, the earning measure is not a reliable indicator of the firm's financial performance. Accordingly, such opportunistic behavior will reduce the usefulness of the information contained earnings. The difficulty for the market participants is to identify when accruals are used as a credible signal and when they are used opportunistically that is market participants must access whether earnings are reliable.

This study develops a link between valuation research and earning management research where it determines on its quality in financial reporting as well. Earning management literature has primarily focused on the detection of earning management on the value relevance of accounting information. This study will provides the evidence that earning management plays a role as the determinants of the quality of earning itself .It is also very useful to the standards setters and regulators which they will assumed that earning management will decreases the reliability of accounting information. This study presents a method for identifying the components of discretionary accruals through the developments of a model for discretionary accruals. Consequently, standard setters and regulators will be better able to target the area of earning management that has the greater impact on the reliability of information.

2. Literature review

Earnings management research has a long and rich history. Schipper (1989) was one of the first to consider real activity management as part of the "earnings management" literature. A more recent stream examines real activity management in for-profit firms. Most of this research focuses on manipulation of research and development expenditures (Dechow and Sloan 1991, Bushee 1998). Roychowdhury (2006) finds that firms reporting small positive earnings use techniques such as price discounts (to increase sales), overproduction (to spread fixed costs over more units, thus reducing COGS) and reduction of discretionary expenses to avoid reporting annual losses and negative changes in earnings. Gunny (2005) provides evidence that real activities management has an economically significant impact on future operating performance. Bartov (1993) provides evidence consistent with managers selling fixed assets to avoid reporting negative earnings and debt covenant violations. Herrmann, Inoue and Thomas (2003) investigate Japanese managers' use of income from the sale of assets to manage earnings. They find that firms increase (decrease) earnings through the sale of fixed assets and marketable securities when current operating income falls below (above) management's forecast of operating income.

Statements by regulators about earnings manipulations suggest that their definition of earnings management encompasses financial fraud as well as any choice and judgment made within generally accepted accounting principles so long it is a used with the intent of misleading current and perspective stakeholders about underlying economic performance. The academic literature provides similar definitions. For example, Schipper (1989, p. 92) defines earnings management as "a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain." Similarly, Healy and Wahlen (1999) state that "earnings management occurs when managers use judgments 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." Dechow and Skinner (2000), however, make it clear that while these definitions are widely accepted, it is difficult to operationalize them directly using attributes of reported accounting numbers since they center on unobservable managerial intent.

2.1 Why Do Firms Manage Earnings?

There are manifold reasons for why managers manage earnings. At the fundamental level, the reasons are related to the performance of the firm with respect to some benchmark. This benchmark could be the previous period's performance the desire to show an improving trend, analysts expectations (the desire to meet or beat expectations), "zero" (the desire to remain profitable), or whatever benchmark is specified in a manager's compensation contract (the desire to meet a bonus threshold). Missing these benchmarks can be extremely costly because the relationship between stock price and compensation and earnings is very non-linear around the benchmarks. A firm that missing an earnings target by a mere cent may see its stock price decline precipitously, while a firm that beats a target by a few cents may see a nice boost to its stock price. Little wonder that the instances of firms missing their target by a cent are tens of times less likely to occur than firms exactly making or exceeding their target by a cent [(DeGeorge, Patel and Zeckhauser (1999). When firms are extremely close to a target, the incentives to take earnings just over the target becoming exceedingly strong. In these cases, the firms will try and use some form of upwards earnings management to "bump up" earnings over the target. However, when firms are way below their targets, they have an incentive to make things look even worse for the following reasons. Firstly, it is highly unlikely that any amount of earnings management will get them over the target. Secondly, if one is way below the target, the costs of being even worse are typically minimal. Such earnings management is referred to as "big-bath" accounting. Typically, firms will take large restructuring charges, increase provisions for bad debts and take other income decreasing accounting

decisions. Given the self-adjusting nature of accounting, these will lead to boosts in future income in the form of expenses that will not need to be recognized. Further, any improvements in performance will look even more creditable. Managers will get greater credit for turning around a firm, although a substantial portion of the turnaround may be an artifact of the accounting.

When firms are way above their targets, they may again have an incentive to reduce earnings. Typically, there is little benefit in going way above a benchmark. Researchers such as Aboody and Kasznick (2000) have shown that managers are more likely to postpone disclosures of good news and accelerate negative disclosures in the time periods just prior to option grant awards. As options are typically granted at the money, this allows them to get options at a potentially lower strike price making them more valuable. Recent research by Bartov and Mohanram (2003) has shown that managers adjust the stream of earnings by using income increasing accounting methods in periods prior to large exercises of options and income decreasing methods thereafter.

2.2 How do Firms Manage Earnings?

Firms have a variety of different options when it comes to managing earnings. The most common methods involve changing the assumptions for accounting standards. Most of this arises from the flexibility that GAAP usually allows. From the outside, it is difficult to ascertain whether these changes represent manipulation or the genuine application of managerial discretion. This allows those who do manipulate to get away with it as one cannot for sure attribute these changes to manipulation. Other methods that firms can use include the capitalization of expenses previously expensed, increasing the extent of capitalization, slowing down amortization of previously capitalized expenses and reducing the provisions for bad debts. Firms can also reduce income by taking on large one-time charges. These charges can be used for taking big baths in bad times or creating cookie jar reserves.

Fundamentally, most earnings management is based on accruals. Accruals are the differences between earnings and cash flows. Most accounting decisions involve some accruals. For instance, selling on credit leads to the creation of accruals because the sale is recognized along with a receivable, even if there is no cash received as yet. Most accruals are a normal part of a firm's business and tend to reverse out over time. A receivable today disappears when cash is received. Most accruals are in place simply because accounting principles such as matching that try to get a better economic measure of period performance than cash flows. The critical aspect is separating out the discretionary and non-discretionary accruals in a firm's financial statements. Earnings management can be considered as an "inter-temporal" transfer of income between periods. If a firm is aggressive with its accounting, it is in a sense borrowing from the future. If a firm is conservative, it is saving up for the future. None of this matters in steady state, because of the natural reversal in accruals. However, when firms are growing, they can be aggressive with their accounting and get away with it, much like nations that run manageable budgetary deficits. When the growth a firm is experiencing reverses, the aggressiveness in accounting manifests itself. Little wonder that there were few accounting scandals in the height of the technology boom while there has been a spate of such scandals in the recessionary environment since.

2.3 Earning Quality

Earnings quality, in accounting, refers to the overall reasonableness of reported earnings. It is an assessment criterion for how "repeatable, controllable and bankable" a firm's earnings are, amongst other factors. It recognizes the fact that the economic impact of a given transaction will vary across firms as a function of their fundamental business characteristics, and has variously been defined as the degree to which earnings reflect underlying economic effects, are better estimates of cash flows, are conservative, or are predictable. To date, the bulk of the literature on earnings quality has examined firm-specific characteristics. Dechow and Dichev (2002) define higher earnings quality to be when more accruals are realized as cash. They document that earnings quality is poorer for firms that are smaller, are experiencing losses, have greater sales and cash flow volatility, and have longer operating cycles. Each of these innate characteristics makes accruals more difficult to estimate.

The concept of earnings quality has roots in the judgmental nature of accounting, which can be seen in the fact the different parties may interpret the economics underlying a transaction differently, and different firms may have different business characteristics. Earnings quality is the inverse of earnings management that is, more earnings management results in less earnings quality. In addition to these innate characteristics, earnings quality has been found to vary with firm infrastructure. Klein (2002) finds that firms with more independent board members have higher quality accruals, consistent with stronger governance constraining earnings management. Ashbaugh-Skaife et al. (2006) and Doyle et al. (2006) find that earnings quality is poorer in firms that have weaker internal controls over financial reporting, where it is less likely that errors or intentional misstatements are discovered and corrected.

The issue of whether earnings quality has declined over time is important for investors, researchers and regulatory bodies. For example, if earnings quality has indeed declined over time, a time-series analysis of financial statements is not meaningful unless adjustments are made for varying levels of earnings quality. Similarly, if earnings quality varies across industries, analysis of financial statements and firm valuation must take this into consideration. Also, a time-series analysis of earnings quality can shed light onto the debate of whether or not the level of stock prices in recent years represents 'bubble'. Furthermore, if any evidence of declining earnings quality is found, then one could

argue that earnings management (hence, lower quality earnings) documented in various samples with specific earnings management incentives, are systemic. On the other hand, in the absence of any decline in earnings quality, imposing higher regulatory burdens on corporations proves to be counter-productive and promotes inefficiency in the economy. Knowing which industries exhibit higher quality of earnings as opposed to other industries has implications for firm valuation and investment decisions. As such the focus of this study is to understanding the quality of the extent to which evidence of earning management that access the pervasiveness of earning management and the overall integrity of financial reporting.

3. Hypotheses Development

Based on previous literatures and the economic implications of corporate financial reporting it concluded that there are lacks of studies done concerning on earning management which reduce the quality of earning in the company. Because from the previous literature the researchers only focus on the behavior of the manager in order to manage the earning for specific purpose. Thus, this study was conducted to find the determinants on earning management that reduce the earning quality i.e in MESDAQ Company. Three independent variables namely; Size of Audit Firm (Big 4), Internal Auditor and Former auditor on BOD were tested against Discretionary accruals as proxy to earning management. Subsequently three hypotheses were developed based on the literature review that is relevant to the purpose of this study. The hypotheses developed are as follows:-

Audit quality is defined as the joint probability that an existing material error is detected and reported by an auditor (DeAngelo, 1981). Audit effort affects the probability that the auditor detects an existing problem, whereas auditor independence affects the probability that the auditor reports a detected problem. Prior studies primarily investigate whether earnings management is related to factors that could impair auditor independence. Such factors include fees from audit and non-audit services, client importance and audit firm tenure (Frankel et al., 2002; Reynolds and Francis, 2000; Myers et al., 2003). However, there is no evidence regarding the effect of audit effort on earnings management. In analytical research, hard-working auditors are more likely to detect that earnings are overstated (e.g., Dye, 1993, 1995), so theory leads to predict that audit effort has a negative impact on income-increasing earnings management. Therefore the following hypothesis is proposed:

H1 : *There is negative relationship between earning management and size of audit firm*

Independent internal audit function provides more reliable reliance on internal audit function by external auditors than non-independent internal audit function. It could be argued that such structure would reduce substantive audit tests since the risk of internal control would be deemed low. Less substantive tests would reduce audit hours and thus fees to be charged. A Malaysian survey in Northern area of 64 respondents by Haron, Chambers, Ramsi and Ismail (2004) found that external auditors value technical competence and scope of function of internal auditors when considering their work. While the study does not generalize to the population of external auditor's in Malaysia, the results are expected. The earliest attempt to study this issue using archival data is documented in Gerrard, Houghton and Woodliff (1994) which tested the number of internal auditors on audit fee in Australia and found no significant result. Felix Jr., Gramling and Maletta (2001) conducted a study on the contribution of internal audit towards audit fee. Their results suggest a significant contribution of internal audit on audit fee of matched survey responses of seventy non-financial big six clients from diverse industries. Of course, this assumes that internal audit function covers financial reporting area.

H2 : *There is negative relationship between earning management and Internal Audit establishment*

O'Sullivan (1999) documents the absence of link between corporate governance proxies and audit fee in the post Cadbury and suggests a possible "dual-impact" of higher audit effort-higher internal monitoring may inhibit theoretical expectation of lower fees for higher internal monitoring. While a test on percentage of independent directors, a dichotomy of CEO-chairman looks promising at that time, the need to study into finer proxies of corporate governance pose a challenging job to researchers as the variable in question often is fundamentally abstract and noisy. However, a promising proxy such as the existence of senior auditor on board may have direct relationship with audit fees. Iyer (1998) suggests that alumni (former auditor) may works well for accounting or audit firm as a marketing arm. They (former senior auditor) have the experience and knowledge on audit budget and may works on auditor side as they are perceived to value audit works more than just "satisfying statutory duty"

H3 : *There is negative relationship between earning management and former senior auditor as a company director*

4. Research Methodology

This study used solely the annual reports (secondary data) available at http://www.bursamalaysia.com/website/bm/listed_companies/company_announcements/annual_reports/ for the year 2006. The reasons for using 2006 data were in order to get the most recent data and to have more companies involve in the sample studied. The closer the sample towards population, the more accurate the results will be. The sample

firms used in this study were all the companies listed on Bursa Malaysia under MESDAQ technological sector in 2006 (the latest available annual reports for most companies on Bursa Malaysia's website). While there should be 128 MESDAQ Companies in 2006, and a few of them have no available 2006 annual reports. Thus, the sample is reduced to 118 MESDAQ and further reduce to 113 for complete data. All data were extracted from the annual reports.

4.1 Measurement of the dependent variable

The previous literatures present three dominant approaches to the measurement of earnings management (McNicholas 2000; Beneish 2001). Studies focusing on the detection of earning management have traditionally used measures based on the aggregate accruals (Healy 1985; DeAngelo 1986; Jones 1991; DeFond and Jibbalvo 1994; Dechow et al 1995). Some industry based studies have examined specific accruals that are likely to be used to manage earnings (McNicholas and Wilson 1998; Liu et al 1997; Teoh et al 1998a). The final approach examines the distribution of reported earning with earning management indicated by discontinuities in the distribution (Burgstahler and Dichev 1997b; Degeorge et al 1999; Holland and Ramsay 2003). This study uses the discretionary accruals as a component of total accruals being as the indicator of earning management.

The chosen measurement for dependent variable of this study is discretionary accruals. Accruals based measures are widely accepted as indicators of earning management activity (Healy 1985; DeAngelo 1986; Jones 1991; Dechow et al 1995; Becker et al 1998; Krishnan 2003). However the decomposition of total accruals into discretionary and non discretionary components acknowledges that not all accruals choices represent earnings management. Accruals may also be used to make financial statement more informative. The difficulty is determining into which category the accruals choices fall.

Extensive research has been undertaken to identify the circumstances in which earnings management is more likely to occur (Jones 1991; Boynton et al 1992; De Fond and Jibalvo 1994; Perry and Williams 1994; Wu 1997; Teoh et al 1998a, 1998b; Erickson and Wang 1999; Kasznik 1999). For example there is evidence that firms use income increasing accruals prior to initial public offers (Teoh et al 1998b) and stock financial acquisitions (Erickson and Wang 1999) and in order to meet targets (Kasznik 1999). There is also evidence of the use of income decreasing accruals in order to reduce tax liabilities (Boynton et al 1992).

Guay et al (1996) find similar results with the market placing greater reliance on non discretionary accruals than discretionary accruals. Comparison of the commonly used discretionary accruals models reveals that Jones Model (Jones 1991) and the modified Jones model (Dechow et al 1995) estimate discretionary accruals that are consistent with income smoothing. However, Guay et al (1996) were not able to distinguish between opportunistic and performance related use of discretionary accruals. Earning management as signaled by high levels of discretionary accruals, provides an indicator of poor earnings reliability. The perceived lack of earnings reliability may results in the market placing less reliance on earning in the valuation process.

4.2 The Measurement of the independent variable

All three independent variables namely:

1. Size of audit firm
2. Internal audit establishment
3. Former senior audit as a company director

All this independent variables were measured as described in table 1.

5. Results

Table 2 presents descriptive statistic for the entire sample of MESDAQ and main board technological firms. The Earning Management Model which proxy by total discretionary accruals is estimated using model earning management via total discretionary accruals in equation [2]. The range of discretionary accrual for the sample is minimum negative 1.3% (-1.3054) and the maximum value is positive 6.8% (6.7844) and the mean is negative 1.8% (-1.7699). From the above table, it suggests that on average MESDAQ Companies are involve in income decreasing accruals. If earnings management are rampant theoretically the mean for DACC should be positive (income increasing) for smaller and newer firms though income decreasing accruals also considered part of earning management but this is normally linked to bigger firms who are taking earnings bath for example.

5.1 Pearson Correlation Analysis

Pearson correlation matrix will indicate the direction, strength and significance of the bivariate relationship among the variables of the study. Table 3 above shows the correlation result between total audit fee, total asset, numbers of all subsidiaries, Big4 (size of audit firm), internal audit establishment, former auditor as a company director, audit license, company audit partner and audit delays (audit sign off) and the discretionary accruals as proxy of the company which scaled by net income minus the cash flow from the operation of the company.

5.2 Multiple Regression Analysis

Since the correlation coefficient (r) indicates the strength of relationship between two variables, it gives no idea of how much of the variance in the dependent variable will be explained when several independent variables are theorized to simultaneously influence it. Thus, multiple regression analysis would indicate on how much of the

variance in the dependent variable is explained by a set of predictors (being independent variables). The result of the analysis is also under the Table 4, it has been found that the audit signoff is significantly influence on the earning management. It seem that firms that delays it audit report are probability making the earning management in attracting the investor which then reducing its earning quality. However for the independent variable namely audit fee, audit license and total asset have been found as weakly significant influence on the earning management which we can see from the table above that show its p value is significant at 10% and 5% respectively.

Table 4 also shows that the F value is significant at the 0.5206 level. This result represent that overall model have a good fit. In addition, $R^2 = 0.14067$ as shown in the table above explain that the variation in the independent variable such as total audit fee, total asset, size of audit firm (Big4), internal audit, former auditor as company director, audit license, company audit partner and audit signoff are accounted for 14.1 percent of the variance in the dependent variable namely discretionary accruals which represent the earning management of the MESDAQ Companies.

Based on the results represented in the Table 4, an estimate of expected accruals for a firm is developed using the industry based cross-sectional Jones model (Jones1991). The modified Jones is applicable for firms in this study because MESDAQ is also known as the young technological based companies and they should attract outside investor to participate and provide capital then they will manage their earning (Thomas and Zhang 2000) in order to attract them. The multiple regressions earning management can be expressed as follows:

$$ACC_{j,t} = EARN_{j,t} - CFO_{j,t} \quad [1]$$

Where

$$\begin{aligned} ACC_{j,t} &= \text{Total Accruals for firm } j \text{ in the } t \\ EARN_{j,t} &= \text{Earning before extraordinary items for firms } j \text{ in the year } t \\ CFO_{j,t} &= \text{Cash flows from Operations for firm } j \text{ in the year } t \end{aligned}$$

And

$$\frac{ACC_{j,t}}{TA_{j,t-1}} = \varphi_1 \left(\frac{1}{TA_{j,t-1}} \right) + \varphi_2 \left(\frac{\Delta REV_{j,t}}{TA_{j,t-1}} \right) + \varphi_3 \left(\frac{PPE_{j,t}}{TA_{j,t-1}} \right) + \epsilon_{j,t} \quad [2]$$

Where

$$\begin{aligned} ACC_{j,t} &= \text{accruals for firms } j \text{ in the year } t \text{ (calculated using equation [1])} \\ TA_{j,t-1} &= \text{total asset for firm } j \text{ at end year } t-1 \\ \Delta REV_{j,t} &= \text{revenues in the year } t \text{ less revenues in year } t-1 \text{ for firm } j \\ PPE_{j,t} &= \text{property, plant and equipment fir firm } j \text{ at end year } t \\ \epsilon_{j,t} &= \text{error term for firm } j \text{ in year } t \end{aligned}$$

The estimated coefficient from Equation [2] is used to calculate the expected accruals for each firm. As the forecast is assumed to represent non discretionary component of accruals, the difference between estimation and actual accruals is deemed to be the total discretionary accruals.

5.3 Indicator of Earning Management

Discretionary accruals could be either positive or negative as to the extent may that is might be used to manage the current earnings in either direction to reach a certain target. Consequently it is the magnitude rather than the direction of the accruals that is of interest. The absolute value of the discretionary accruals is used to rank firms according to the level of accruals usage. High levels of discretionary accruals are more likely to reflect opportunistic. Behavior than conservative levels of discretionary accruals thus signal low quality of earnings. Therefore high discretionary accruals are used as the indicator of earning management in this study.

Beside Table 4 also shows the regression results for all variables tested against earning management. From the table, only 1 variable are significant and the rest of independent variables and other control variables are weakly significant and some not significant at all. Significant level under this study is stated below of 0.05 ($p < 0.05$). Therefore, result that above then 0.05 ($p > 0.05$) will be considered as not significant. From the above analysis, it could be concluded that, audit sign off also known as audit delays are the significant item that contributes to earning management which reduce the earning quality of the company. Where it suggests that the longer the audit the lower is the discretionary accrual (earning management) and it significant at 0.03% (1-tailed). For the variable of audit license, it had suggest that senior or old or more experience audit partner is associated with lower earning management or younger audit partner is associated with higher earning management. Whereas for the audit fee it suggests that the higher the audit fee the lower is earning management whereas total asset suggest that bigger MESDAQ firms are associated with higher earning management. However from the table it shown that Big4 (represent size of audit company), internal audit establishment (IA) and former senior auditor as company directors have no significant effect on earning management.

5.4 Summary of Findings

There is one independent variable that is perceived to have significant influence for the company to practice earning management i.e in MESDAQ Company which then reduces the earning quality of the companies. The variable is

audit delays. However, no hypothesis is accepted in this study since Hypothesis 1 (H1), Hypothesis 2 (H2), Hypothesis 3 (H3) are not accepted due to the different direction of relationship obtained from the relevant analyses and the OLS models that used to test this analysis shown that these three hypotheses discussed earlier have no effect on earning management. However, the item that being determinant of earning management for the MESDAQ companies namely audit delay was not discussed in this study as it was not a hypothesis test in this study as well. Perhaps it would be suggested as the variable for the future research.

6. Discussion

Earning management was used as the indicator of reliability and being scale the earning quality itself in order to be presented to the users of financial reports in annual reports. It was introduced to the model as an intercept dummy variable and as an interaction term with both earnings and book value. Then consistence with prior researches this study used discretionary accruals as proxy of earning management (Healy 1985; DeAngelo 1986; Jones 1991; Dechow 1995). Total accruals were estimated as the difference between earnings and cash flows from operations. The Jones model (Jones 1991) was used to determine the discretionary components of accruals. This method involved regressing total accruals against change in revenue and property, plant and equipment. The estimated regression equation was used to calculate the expected level of total accruals. The difference between the actual accruals and this expectation was deemed to be discretionary components of total accruals.

According to the By-Law B-6 issued by the Malaysian Institute of Accountants (MIA) recommends that audit firms should consider among others, degree of responsibility and urgency when charging fees to client. As such, auditing a public entity listed on Malaysia Exchange of Securities Dealing & Automated Quotation (MESDAQ) which requires submission of audited financial statement within four month after year end fits the criteria due to its backgrounds as young technological based companies; MESDAQ is a place where most young technological based companies can attract outside investor to participate and provide capital. It was launched on 6 October 1997, and initially it had only twelve listed companies in 2002. At present there are 128 companies listed on MESDAQ. While main board and second board companies must provide proven record of accomplishment, MESDAQ listed companies need no such requirements. Thus it is natural to assume that MESDAQ audit presents additional risk to statutory audit especially in the early years of engagement.

Hypothesis 1 (H1) tested the relationship between earning management and size of the audit firm. In this section it was tested whether the income increasing earnings management is different if the company being audit by the Big 4 audit firm. The incremental effect of audit effort may be larger for Big Four firms due to their higher quality. However the situation is complicated by the fact that Big Four firms work more hours than non Big Five firms and there may be diminishing returns to working more hours. In addition this study is treated the company's choice of audit firm as predetermined whereas in reality the company can choose which audit firm to hire. This raises another endogeneity issue because a company may hire a lower quality audit firm if it intends to manage earnings. Thus it is reasonable to treat auditor choice as pre determined when audit firm tenure is long (Myers et al., 2003). Hence we can see that there is no relationship between the sizes of audit firm since the management can choose which audit firm they want to hire in order to audit their company.

Hypothesis 2 (H2) tested the relationship between earning management and internal audit establishment. While having independent internal audit function enhances the credibility of internal auditors. The result in the OLS model suggest that internal audit have no effect on earning management ($p = 0.66$). In part this finding may well be explained by ISA 610 which it prescribes in paragraph 11, "...the external auditor should perform preliminary assessment...when it appears that internal auditing is relevant to the external audit of financial statement in specific audit areas. Hence it can be speculated that internal audit works in Malaysia deals primarily on the operational area that lead to non-reliance of external auditor on internal audit functions as reflected in the IIAM & EY (2004). This is in contrast with findings from Mat Zain et al. (2006). The number of companies with independent internal audit function in this study is slightly bigger (81 as against 76) than in Mat Zain et al. (2006), and while the respondents self-reportedly claim positive contribution towards external audit works, chances are this claim is not widely shared by the external auditors. As such, the result also suggests that a mere existence of independent internal audit function would not drive audit fees down. This leads to previous findings by Felix Jr., Gramling and Maletta (2001) that found significant association of perceived internal audit contribution by audit firms in their sample on audit fees.

Hypothesis 3 (H3) tested the relationship between earning management and former senior auditor as company director. The result also suggest that former senior auditor as company director has no effect on earning management ($p=0.7138$). As such the appointment of such person supports that it may effect earning management actually, expanded auditor's scope of audit and works and thus results in higher audit fees ('Atef et al., 2007). Hence there is no strong evidence to suggest that former senior auditor- director acts as negotiator of audit fees which later brings audit fees down and yet affect the earning management and will decreases the quality of earning as well.

7. Conclusion

Earnings management is a reality of today's capital markets. This study has exposed readers to the nature of earnings management and tried to identify methods by which earnings management can be detected. This finding has important implications for different participants in the financial markets – investors, financial analysts, the business press, regulators, auditors, academics and the firms themselves. In spite of the fact that earnings are managed, it would be naïve to say that one ought to go back to cash flows. Managed earnings are a reality in a world where managerial discretion can be used manipulatively. That does not negate all of accounting. The notion that cash is king is misleading. Earnings that have a high correlation with cash flows (i.e. low levels of accruals) are indeed higher quality earnings, but earnings in general are a better metric than cash flows for the purposes of performance evaluation, prediction of future performance and valuation. An insight into how managers can manipulate earnings is essential for capital market participants to extract the most use of financial statements. Knowing what tricks managers have up their sleeve can help market participants unravel the effects of any manipulation and in the long run blunt the effectiveness of earnings management techniques. In our opinion, the problem lies not in the inherent flexibility, but in the inability or unwillingness of financial market participants to focus on accounting issues when markets are on an upswing. Focusing on accounting issues will allow regulators to keep accounting standards flexible so that firms can use them to best communicate with capital markets as any attempts to manipulate will be ferreted out by market participants with sophisticated “forensic” accounting skills.

References

- Aboody, D., and R. Kasznik. (2000). CEO Stock Option awards and the timing of corporate voluntary disclosures. *Journal of Accounting and Economics* 29: 73 -100.
- Ashbaugh-Skaife, H., D. Collins, W. Kinney, and R. LaFond. (2006). Internal Control Deficiencies, Remediation and Accrual Quality. *Working Paper*, University of Wisconsin, University of Iowa, University of Texas at Austin and MIT.
- Bartov, E. (1993). The timing of asset sales and earning manipulation. *The Accounting Review* 68: 840 – 855.
- Bartov, E. and P. Mohanram. (2003). Private Information, Earning Manipulations, Executive Stock Option Exercises. *Working Paper* – Columbia University/New York University.
- Beaver, W.H., and E.E. Engel. (1996). Discretionary behavior with respect to allowances for loan losses and the behavior of security prices. *Journal of Accounting and Economics* 22: 177-206.
- Becker, C., M. DeFond., J. Jambalvo, and K.Subramanyam. (1998). The effect of audit quality on earning management. *Contemporary Accounting Research* 15(Spring): 1-24.
- Beneish, M. D. (2001). Earnings Management: A Perspective. *Managerial Finance* 27(12): 3-17.
- Boynton, C.E., P. S. Dobbins and G. A. Plesko. (1992). Earning Management and the Corporate Alternative Minimum Tax. *Journal of Accounting Research* 30(3): 131 – 153.
- Bushee, B. (1998). The influence of institutional investor on myopic R&D investment behavior. *The Accounting Review* 73: 305 – 333
- DeAngelo, L. (1981). Auditor size and audit quality. *Journal of Accounting and Economics* 3: 183–199.
- DeAngelo, L. E. (1986). Accounting Numbers as Market Valuation Substitutes: A Study of Management Buyouts of Public Stockholders. *The Accounting Review* 61(3): 400 – 420.
- Dechow, P. & Sloan, R. (1991). Executive incentives and the horizon problem. *Journal of Accounting and Economics* 14: 51 – 89
- Dechow, P. M., R. G. Sloan & A. P Sweeney. (1995). Detecting Earnings Management. *The Accounting Review* 70(2): 193 – 225.
- Dechow, P.M. (1996). Causes and Consequences of Earning Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC. *Contemporary Accountin Research* 13 (1):1-36.
- Dechow, P. M. & D. J. Skinner. (2000). Earning Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators. *Accounting Horizons* 14(2): 235 – 250
- Dechow, P. & I. Dichev.(2002). The Quality of Accruals and Earnings: the Role of Accruals Estimation Errors. *The Accounting Review*: 35 – 59
- DeFond, M.L. & Jambalvo, J. (1993). Factors related to auditor–client disagreements over income-increasing accounting methods. *Contemporary Accounting Research* 9: 415–431.

- DeFond, M.L., and Jimbalvo.(1994). Debt Covenant Violation and the Manipulation of Accruals. *Journal of Accounting and Economics* 17(1-2): 145 – 176
- DeGeorge, F., J. Patel, & R. Zeckhauser.(1999). Earning Management to exceed threshold. *The Journal of Business* 72(1): 1-33
- Doyle, J.,W. Ge, & S. McVay. (2006). Accruals Quality and Internal Control over Financial Reporting.”*Working Paper*, Utah State University, University of Washington and New York University.
- Dye, R.A. (1993). Auditing standards, legal liability, and auditor wealth. *Journal of Political Economy* 101: 887–914.
- Dye, R.A. (1995). Incorporation and the audit market. *Journal of Accounting and Economics* 19: 75–114.
- Easton and Harris, P., & T.Harris. (1991). Earning as an Explanatory Variable for Returns. *Journal of Accounting Research* 29 (1): 19 - 36
- Erickson, M., & Wang. (1999). Earning management by acquiring firms in stock for stock merger. *Journal of Accounting and Economics* 27(2):149 – 176
- Felix jr., W. L., A.A.Gramling & M.J Maletta. (2001). The contribution of internal audit as a determinant of external audit fees and factors influencing this contribution. *Journal of Accounting Research* 39(3): 513-534
- Frankel, R., Johnson, M. & Nelson, K. (2002). The relation between auditors’ fees for non-audit services and earnings management. *The Accounting Review* 77: 71–105.
- Gerrard, I., K. Houghton & D. Woodliff (1994). Audit fees: The effect of auditee, auditor and industry differences. *Managerial Auditing Journal* 9(7): 3-11
- Guay, W. R., S. P. Kothari, & R. L. Watts. (1996). A market-Based Evaluation of Discretionary Accruals Models. *Journal of Accounting Research* 34(Supplement): 83-105
- Gunny, K. (2005). What are the consequences of real earning management? *Working paper*, University of Coloradoat Boulder.
- Haron,H.,A. Chambers, R. Ramsi &I. Ismail. (2004). The reliance of external auditors on internal auditors. *Managerial Auditing Journal* 19(9): 1148-1159.
- Healy, P. M. (1985). The effect of bonus schemes on accounting decision. *Journal of Accounting and Economics* 7 (April): 85 – 107.
- Healy, P. M. & J. M. Wahlen. (1999). A Review of the Earning Management Literature and Its Implications for Standard Setting. *Accounting Horizons* 13(4): 365 – 383.
- Herrmann, T., Inoue, T. & Thomas, W. B. (2003). The sale of asset to manage earnings in Japan. *Journal of Accounting Research* 41: 89 – 108.
- Holland, D. and A.Ramsay.(2003). Do Australian companies manage earnings to meet simple earning benchmarks? *Accounting & Finance* 43 (1): 41 – 62.
- Iyer, Ventakaraman M. (1998). Characteristic of accounting firm alumni who benefit their former firm. *Accounting Horizons* 12(1): 18-30
- Jones, J. J. (1991). Earning Management during Import Relief Investigations. *Journal of Accounting Research* 29(2) : 193 – 228
- Kaszniak, R. (1999). On the Assosiation Between Voluntary Disclosure and Earning Management. *Journal of Accounting Research* 37: 57 – 82.
- Klein, A. (2002). Audit Committee, Board of Director Characteristic and Earning Management. *Journal of Accounting and Economics*: 375 – 400.
- Krishnan, G. V. (2003). Does Big 6 Auditor Industry Expertises Constrain Earnings Management? *Accounting Horizons* 17: 1-16
- Levitt, A. (1998). The numbers game. Unpublished remarks. Available at <http://www.sec.gov/news/speeches/spch220.txt>.
- Liu, C., S. Ryan, & J. Wahlen.(1997). Differential valuation implications of loan loss provision across banks and fiscal quarters. *The Accounting Review* 72(1): 133-146.

- Malaysia Institute of Accountants. (2001). ISA 610 Considering the Work of Internal Auditing. *Malaysia Approved Standards on Auditing*, Kuala Lumpur
- Malaysia Institute of Accountants. (2002). *MIA by Laws (On professional Conduct and Ethics)*. Revised Jan 2002.
- Mat Zain, M., N. Subramaniam & J. Stewart. (2006). Internal auditors's assessment of their contribution to financial statements audits: The relation with audit committee and internal audit function characteristic." *International Journal of Auditing* 10:1-18
- McNichols, M., & G. P. Wilson. (1988). Evidence of Earning Management from the Provision of Bad Debts. *Journal of Accounting Research* 26: 1 – 31
- McNicholas, M. (2000). Research design issues in earnings management studies. *Journal of Accounting and Public Policy* 19(4/5): 313-345
- Mohd 'Atef. (2007). "Audit Fees of Technological firms on Bursa Malaysia: A Test on Internal Audit Establishment and Former Senior Auditor." *Working Paper*: 1-10
- Myers, J.N., Myers, L.A. & Omer, T.C. (2003). Exploring the term of the auditor–client relationship and the quality of earnings: a case for mandatory auditor rotation? *The Accounting Review* 78: 779–799.
- O'Sullivan, N. (1999). Board characteristic and audit pricing post-Cadbury: a research note. *The European Accounting Review* 8(2): 253-263
- Ohlson, J. (1995). Earning, Book Values, and Dividends in Equity Valuation. *Contemporary Accounting Research* 11(2)Spring: 661-687
- Ou, J. & J. Sepe. (2002). Analysts Earning Forecast and the Roles of Earnings and Book Value in Equity Valuation. *Journal of Business Finance and Accounting* 29(3-4): 287-316
- Penman, S. (1998). Combining Earnings and Book Value in Equity Valuation. *Contemporary Accounting Research* 15(3): 291-324
- Perry, S., and Williams. (1994). Earning Management Preceding Management Buyout Offers. *Journal of Accounting and Economics* 18: 157 – 179
- Reynolds, J.K. & Francis, J., (2000). Does size matter. The influence of large clients on office-level auditor reporting decisions. *Journal of Accounting and Economics* 30: 375–400.
- Roychowdhury, S., (2006). Earnings management through real activities manipulation. *Journal of Accounting & Economics* 42: 335 – 370.
- Schipper, K. (1989). Commentary on earning management. *Accounting Horizon* 3: 91 – 102
- Teoh, S. H., Welch, I. & Wong, T.J., (1998a). Earning management and the long-run market performance of initial public offering. *Journal of Finance* 53, 1935 – 1974
- Teoh, S.H., T.J. Wong & G.Rao. (1998b). Are accrual during public offerings opportunistic? *Review of Accounting Studies* 3: 175 – 208
- Wu, Y.W. (1997). Management buyouts and earnings management. *Journal of Accounting, Auditing & Finance* 12 (4): 373 – 389

Table 1. Measurement of Independent Variables

Hypotheses :	Definition	Measurement
- Big 4	Big four firms (KPMG, PwC, Deloitte and EY)	1 for yes, 0 otherwise
- Int_audit	Existence of independent internal audit function	1 for yes, 0 otherwise
- bodxsenaudit	Existence of former senior auditor (manager or partner level) as company director	1 for yes, 0 otherwise
Controlled :		
lgaudfee	Audit fees	Log ₁₀
lgasset	Total asset	Log ₁₀ and scaled in '000
sqrtsubs	Number of all subsidiaries	Square-root number of subsidiaries
audit_partner	Senior and junior auditor	Audit license number
caudpartner	Company audit partner	1 for yes, 0 otherwise
aud_signoff	Audit delays	Audit day

Table 2. Descriptive Statistic for this study

Variables	N	Minimum	Maximum	Mean	Std. Deviation
big4	139	0.00	1.00	0.40	0.49
invrecta	139	0.00	1.04	0.37	0.19
inventory	139	0.00	91502.00	8694.55	17268.46
rndaset	139	0.00	21723.00	2062.60	3832.17
receivable	139	583.00	375365.00	27365.53	47005.16
central	139	0.00	1.00	0.78	0.42
busy	139	0.00	1.00	0.78	0.41
int_audit	139	0.00	1.00	0.58	0.49
bodxsenaudit	139	0.00	1.00	0.50	0.50
aud_license	139	398.00	2760.00	1724.94	620.40
caudpartner	139	0.00	1.00	0.81	0.40
aud_signoff	139	25.00	122.00	100.85	19.37
tot_asset	139	2956.00	2705137.00	122203.20	293719.74
revenue	139	827.00	2495981.00	92705.41	252638.93
subs_all	139	0.00	93.00	6.04	8.88
forsubs	139	0.00	17.00	1.53	2.48
jvnassoc	139	0.00	33.00	0.83	3.00
audfee	139	5200.00	983000.00	68494.35	111943.30
audprov	139	-16540.00	35000.00	411.14	4561.85
nas	139	0.00	795000.00	26913.65	89997.75
SMEAN(netincome)	139	-13485.00	56112.00	4510.18	8135.02
DV_dacc	139	-1.3054	6.7844	-1.7699	0.77404
Valid N (listwise)	139				

Table 3. Correlation coefficient between variables

	dacc	lgaudfee	lgasset	sqrtsubs	big4	central	busy	int_au~t	bodxs~t	aud_li~e	caudpa~r	aud_si~f
dacc	1.000											
lgaudfee	0.052	1.000										
lgasset	0.234	0.629	1.000									
sqrtsubs	0.109	0.552	0.293	1.000								
Big4	-0.08	0.409	0.219	0.073	1.000							
central	0.089	-0.042	-0.064	0.011	-0.127	1.000						
busy	0.072	-0.049	-0.010	0.085	-0.084	0.075	1.000					
int_au~t	0.058	0.278	0.352	0.184	0.099	-0.152	0.014	1.000				
bodxs~t	-0.064	0.179	0.044	0.026	0.113	-0.204	-0.16	0.059	1.000			
aud_li~e	0.048	0.105	-0.066	-0.087	0.447	-0.039	0.023	-0.000	-0.005	1.000		
caudpa~r	0.016	-0.010	-0.119	-0.021	0.161	-0.180	-0.18	0.009	-0.088	0.352	1.000	
aud_si~f	-0.147	-0.018	-0.008	0.017	0.007	-0.016	0.156	-0.004	-0.044	0.002	0.013	1.00

Table 4. Multiples Regression Analysis

- Model OLS estimates using 113 observations
- Dependent variable: dacc

	Expected Direction	Coefficient	std. error	t-ratio	P-value
Const	+/-	-1.07158	1.66246	-0.6446	0.5206
Lgaudfee	-	-0.234104	0.154915	-1.511	0.1338*
Lgasset	+	0.341881	0.246849	1.385	0.1691*
Sqrtsubs	+	0.142463	0.145411	0.9797	0.3295
Big4	-	-0.262637	0.211422	-1.242	0.2170
Int_audit	-	-0.0447518	0.100992	-0.4431	0.6586
Bodxsenaudit	-	-0.0443594	0.120633	-0.3677	0.7138
aud_license	+	0.000217173	0.00011803	1.648	0.1025**
caudpartner	+/-	0.0543358	0.156451	0.3473	0.7291
aud_sigoff	-	-0.00647821	0.00301615	-2.148	0.0341***

*/**/*** are significant at 10%, 5% and 1% respectively (1-tailed)

- Unadjusted R-squared = 0.14067
- Adjusted R-squared = 0.06558
- F-statistic (9, 103) = 0.833911 (p-value = 0.587)