# AUDIT QUALITY: DO THE AUDIT COMMITTEE AND INTERNAL AUDIT ARRANGEMENTS MATTERS?

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**Abstract**

This study examines the impact of corporate governance mechanisms namely audit committee characteristics, internal audit arrangements, and managerial ownership on external audit fees. Using a sample of 539 firms listed on the main board, the results of the study document a positive relationship between audit committee independence and audit fees. Consistent with the capital reputational theory, the result suggests that independent audit committee demand for higher quality audit in order to protect their capital reputation as an expert. Contrary to our prediction, this study documents a negative relationship between audit committee expertise and audit fees indicating that auditors perceived firms with more audit committee members that possess accounting and finance expertise to be less risky and thus charged less audit fees to these firms. Furthermore, findings indicate that firms with their own internal audit function pay higher audit fees in comparison to those firms that outsourced their internal audit activities. Consistent with agency theory, the result suggests that the demand for audit services would be lower for firms whose managers own higher percentage of shares due to lower agency cost as compared to those firms with higher outsiders' ownership.

**Keywords:** audit, committee, corporate governance

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## Introduction

The recent spate of corporate collapses worldwide has triggered attention on the relationship between corporate governance mechanisms and audit pricing. As a result, regulatory bodies around the world begin to emphasis the roles of audit committee and internal audit especially in overseeing and strengthening the audit process (Sarbanes Oxley Act (SOX) 2002; Malaysian Institute of Corporate Governance (MICG), 2007; Australian Stock Exchange (ASX) Corporate Governance Council, 2003). Especially in Malaysia, speeches by prominent leaders including the Prime Minister of Malaysia in his 2008 Budget Speech on 7 September 2007 and the CEO of MICG, Datuk Shahran Laili Abdul Munid highlighted the continuing incidences of fraud, manipulation and corruption (Bernama, 2008) and voiced concerns over the need for higher standards of corporate governance for maintaining investor confidence in the nation's capital market. At the same token, the Securities Commission also added the pressure for such reviews with increasing incidences of firm and director misbehavior (Subramananiam *et al*., 2009). As such, it is expected good governance will prompt for a higher quality audit and thus reduce the risk of auditor providing incorrect opinion and accordingly improve the quality of the financial reporting.

Past studies have discussed the implication of corporate governance and audit quality. For instance, Abbott *et al*. (2003) suggest that audit committee effectiveness, namely their independence and expertise have a positive association with audit fees. Likewise, Carcello *et al*. (2002) also find positive associations between audit fees and board independence, expertise and diligence. Furthermore, Goodwin-Stewart and Kent (2006) find that higher audit fees are associated with the existence of audit

committee and more frequent audit committee meetings. In addition, the results of this study also suggest firms that utilise internal audit is associated with higher audit fees recognizing the fact that directors of these firms recognise the importance of both types of audit as mechanisms to strengthen corporate governance. However much of the evidence to date is from developed countries where corporate governance systems are mature and the roles of boards, audit committees and internal audit tend to be better defined in comparison to those in developing countries and only a few studies have looked at the impact of corporate governance characteristics and audit fees especially in Malaysia.

Further, the motivation for this study also largely lies in the increasing attention received by boards and audit committees over their financial reporting oversight responsibilities. The various regulatory policies and best practice corporate governance guidelines continue to emphasize the importance of the link between the external auditors and the firms' board, senior management and audit committees. For example, in July 2002 following the enactment of the Sarbanes-Oxley Act, the Securities and Exchange Commission (SEC) required audit committees to be directly responsible for the audit fees paid to external auditors. Specifically, in Malaysia, the Malaysian Code on Corporate Governance (MCCG) has been revised in 2007 with a greater emphasis on the roles of audit committee and internal audit. These amendments aimed to strengthen the quality of the board of directors of public listed companies and audit committees while ensuring that the board of directors and audit committees discharge their roles and responsibility effectively. Particularly, in relation to the audit committee composition, the board is not only expected to establish an audit committee comprising at least three members, a majority of whom are to be independent, but also that all members of the audit committee should be non-executive directors. Members of audit committee should also be financially literate with at least one should be a member of an accounting association or body. Further, the Code also mandates the establishment of the internal audit function for all listed companies in Malaysia.

As such, the overall objective of this study is to examine the relationship between audit fees and corporate governance variables namely audit committee characteristics, internal audit arrangements and managerial ownership from a Malaysian perspective. More specifically, the study is motivated by the inconsistent and mixed results of prior studies examining this relationship, to date; there have been two studies (Yatim *et al*. (2006) and Muniandy (2007)) that have expressly examined the link between audit fees and audit committee characteristics. Unfortunately, their results appear mixed and limited as well as inconsistent with findings of other studies in more developed countries (Abbott *et al*., 2003; Vafeas and Wangles, 2007). Firstly, while Yatim *et al*. (2006) examine three types of audit characteristics, namely the independence, financial expertise and diligence of the committee, Muniandy (2007) examines only one aspect namely the independence of audit committee members. .

Further, Yatim *et al*. (2006) find only two significant relationships, namely between audit fees and audit committee's financial expertise and diligence, while Muniandy (2007) finds a significant interaction between audit committee independence and CEO duality or dominance affecting audit fees. It is possible some of these differences lie in the data-set used for analysis where Yatim *et al*.'s (2006) study was premised on data of 736 non-financial listed companies for the year-end 2003, Muniandy (2007) utilised year-end 2001 data of 447 non-financial listed companies. None of these studies examine the impact of internal audit arrangements and managerial ownership on audit fees. As such, the present study extends both Yatim *et al*., (2006) and Muniandy (2007) studies by including two other variables namely internal audit arrangements and managerial ownership. This current study also utilises more recent annual report, year-end 2006 of public-listed firms on the Main board of Bursa Malaysia. Investigation of this nature is warranted given that the most recent review of the Malaysian Corporate Governance Code, (first released in 2001 and revised in 2007), has placed significant emphasis on audit committee composition. Among the changes are all committee members should be non-executive directors, and has expanded the roles and rights of audit committee where such committees are to review the adequacy of the competency of the internal audit function, and have rights to convene meetings with external auditors, internal auditors or both, excluding the attendance of other directors and employees, while mandating the establishment of the internal audit function.

## 2. Background of the study

### 2.1 Audit committee effectiveness

Audit committees' key responsibility is to oversee the quality of the financial reporting of the organisation. Audit committees also have the authority to direct organisational resources towards establishing appropriate internal controls and other governance mechanisms. Prior studies, however, have shown that not all audit committees are effective in carrying out their tasks and that they may vary in their effectiveness. For example, as argued by Scarbrough, *et al.* (1998, p.182), "there is a difference between having an audit committee and having an effective audit committee". Recent studies emphasise that the characteristics of an audit committee such as its composition and diligence are important determinants of its effectiveness. In particular, audit committee characteristics such as its independence (Abbott *et al.*

2004; Carcello & Neal, 2000; Klein, 2002; Raghunandan *et al.*, 2001; Bedard *et al.*,2004; Bradbury et al., 2006; Gendron & Bedard, 2009); knowledge and experience (Beasley & Salterio, 2001; DeZoort, 1997; Kalbers, 1992; Kalbers & Fogarthy, 1993, Bedard *et al.*, 2004) and the level of diligence (Scarbrough *et al.* 1998; Raghunandan *et al.*, 2001; Goodwin & Yeo, 2001; Krishnan, 2005; Zhang *et al.*, 2007) are seen as essential attributes that enhance an audit committee's ability to discharge its responsibilities. As such, consistent with prior literature, this study focuses on audit committee independence, expertise and meeting frequency.

*2.1(a) Independence*

Various governance guidelines and regulatory requirements promote audit committees to comprise either a majority of independent directors or fully of independent directors. For instance, in 2003, the Australian Stock Exchange (ASX) recommends the companies within the S&P/ASX All Ordinaries Index to have an audit committee with the majority of the committee to be composed of independent directors. Likewise, on the same year, the New Zealand Stock Exchange released proposed listing rules changes which also require all listed issuers to establish an audit committee with a majority of whom should be independent with at least one with an accounting and financial background. Meanwhile, the SOX requires firms to have audit committees comprised solely of independent director who is not affiliate of the firm and not accepting any compensation from the firm other than director's fees. Particularly in Malaysia, the New Bursa Listing Requirements (2008), Para 15.09 (1) (b) are more stringent on the independence issue among audit committee by mandating "all the audit committee members to be composed of non-executive directors, with a majority of them being independent directors".[1]

Several studies have explored the relationship between the audit committee independence and financial outcomes. For instance, Carcello and Neal (2000) find that firms experiencing financial distress during 1994 have greater percentage of affiliated directors on the audit committee have lower probability of the auditor issuing a going concern report. Likewise, Abbott *et al.* (2003) based on 78 matched pairs of fraud and no-fraud companies find that no-fraud companies tend to have more independent audit committees that fraud companies while Abbott *et al.* (2004) find that audit committee independence is negatively associated with the occurrence of restatements. Both the results of Carcello and Neal (2000) and Abbott *et al*. (2003) document a significant and positive association between audit committee independence and audit fees. More recently, Gendron and Bedard (2009) in their qualitative study of corporations in Canada also posit that "independent status of audit committee members appears to be influential in constructing effectiveness" (p.220). Overall, these studies concur that independent audit committee view the directorship as a means of developing their reputation as experts in decision making (Fama and Jensen, 1983) and independent directors will insist for higher quality audits in order to protect their reputational capital. Abbott and Parker (2003) assert that while an audit committee membership may enhance the reputational capital of these outside directors, it may also diminish their reputation if a financial misstatement occurs. As such, it is reasonable to expect that independent audit committee members to be more actively seek for a better functioning of audit, so as to ensure that financial reports and controls are in place (Abbott *et al*., 2003; Lavelle, 2002; Abbott *et al.*, 2004). Based on the above, it can be argued that higher proportion of independent directors on audit committee will demand for greater audit effectiveness to identify and avoid any financial misstatements in order to avoid them from any detriment to their reputation. Thus, wider scope of audit work will lead to higher fees charged by the external auditors to their audit clients. Therefore, the foregoing argument leads to following hypothesis stated in alternate form.

*Hypothesis 1(a)*
*Firms with higher proportion of independent audit committee members are associated with higher external audit fees*

*2.1 (b) Expertise*
Audit committee experience and expertise in accounting and finance is always been regarded as an important dimension for an audit committee (DeZoort, 1998; Kalbers & Fogarthy, 1993). Professional and statutory bodies worldwide have stated concern over the technical experience and knowledge among audit committee members as "in most corporation, the responsibility for scrutiny of financial statements has been delegated by boards to the audit committee" (the Public Oversight Board, 1993). Further, BRC (1999) and SOX (2002) have also re-emphasized the importance of having an audit committee member with experience in accounting related areas. For instance, on 24th January 2003, the Securities Exchange Commission adopted Release Nos. 33-8177; 3-47235 titled "Disclosure Required by Section 406 and 407 of the Sarbanes- Oxley Act of 2002" requiring public companies, other than registered investment companies, to disclose in the annual report whether they have at least one audit committee financial expert serving on the audit committee and whether such person is independent (SEC, 2003). With regards to Malaysia, the Bursa Listing Requirements (2008) requires at least one of the

[1] In the Malaysian context, 'independent' refers to crucial aspects that are independence from management and from significant shareholders.

committee members to be a member of the Malaysian Institute of Accountants (MIA) and if he or she is not a member of the MIA, he or she must have at least three years of working experience. He or she must also pass the examinations specified in Part 1 of the first schedule of the Accountants Act 1967 and must be a member of one of the associations of accountants in accordance with Accountants Act.

Prior studies also suggest that audit committee members' expertise in accounting and finance make better judgment when compared with inexperienced ones. For instance, De Zoort (1998) provides initial evidence that general domain and task-specific experience can affect audit committee members' judgment on internal control evaluation. Using an experimental approach, the results provide support that the judgments of audit committee members' experience related to internal control system are more consistent; have higher cue weights, self insight, consensus, and additional technical knowledge than do members without experience and knowledge in accounting and finance. Likewise, DeZoort and Salterio (2001) also find that audit committee members with more experience are able to synthesize and better relate to the risks undertaken by external auditors. Further, Goodwin-Stewart and Kent (2006) find that the expertise of audit committee members is associated with higher audit fees, especially when meeting frequency and independence is low.

Both Zhang *et al*., (2007) and Krishnan (2007) suggests that firms are more likely to be identified with deficiencies in internal control over financial reporting, if the audit committee members composed of less financial expertise. Based on the above discussion, it is expected that audit committee members expertise in accounting and finance is likely to improve their oversight of the scope and activities in the firms as knowledgeable and experienced audit committee members are able to more effectively understand financial reporting issues and monitor events. As such, audit committee members with expertise are more likely to demand for higher quality audit work which in turn results in a corresponding increase in audit effort reflects in higher audit fees.

*Hypothesis 1 (b)*

*Firms with higher proportion of independent members on audit committee are associated with higher external audit fees*

*2.1 (c) Meeting Frequencies*

Prior empirical research suggests that audit committee that meets frequently is able to explore and undertake in-depth discussions on ways to improve a company's financial reporting system and thus reduce the incidence of financial reporting problems. Beasley *et al*. (2000) find that the number of audit committee meeting of a fraud firms is less than a non-fraud industry benchmark. Abbott *et al*. (2003) find that companies with at least four audit committee meetings per year are less likely to restate their audited financial statements. The Revised Code on Corporate Governance in Malaysia (2007) advocates an increase in the frequency of meetings to at least twice a year between audit committee and the external auditor without the presence of management. This implies that audit committee members that meet frequently will remain informed and knowledgeable, enabling it to take proactive action and influence audit coverage.

Further, by audit committee meeting more frequently, it can reduce the incidence of financial reporting problems as audit committee can alert the auditor or board on a particular issues requiring greater attention by the auditor (Raghunandan *et al*., 1998; Vafeas, 2005). Therefore, consistent with the demand perspective, we argue that a more diligent audit committee proxies by the frequency of audit committee meetings is likely to demand for higher quality audit requiring more audit effort and wider scope of audit which in turn results in an increased of audit fees charged by the auditor. Based on the above argument, we propose the following hypothesis stated in an alternate form:

*Hypothesis 1 (c)*

*Audit committee that meets more frequent is associated with higher external audit fees*

## 2.2 Management Ownership

Jensen and Meckling (1976) define agency relationship as "a contract under which one or more persons (the principal(s) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent" (p.308). In the modern corporation, the management is engaged by the owner (the shareholder) to run the business. When both parties are to maximise their interest which is usually not aligned, such conflict of interest creates agency costs. To resolve agency conflicts, managerial ownership is one of the essential factors. Further, Jensen and Meckling (1976) also argue that agency conflicts between managers and shareholders may be reconciled when managers have an ownership interest in their companies since both managers and directors are inside shareholders participating in the decision making process as well as enjoying the privileges of their ownership. Likewise, Warfield *et al.* (1995) suggest that with an increase in managerial stock ownership, a greater portion of managerial wealth is tied to the long-term value of an organization, leading to greater alignment of manager-shareholder interest. Since managerial ownership deems to realign the interests of shareholders and managers, it is expected that there will a reduced demand for extensive auditing. Further, when managers own significant portion or equity, they will have less incentive to issue misleading information to shareholders so auditors are less likely demand for

additional testing (O'Sullivan, 2000).[2] This reduces the risk of material misstatement and also overall audit risk associated with the financial reporting process. Consequently, the level of audit engagement effort becomes lower, leading to lower external audit fees. Based on the above argument, we posit the following hypothesis stated in an alternate form.

*Hypothesis 2:*
*Higher percentage of managerial percentage stock ownership is associated with lower external audit fees*

## 2.3 Internal Audit Arrangements

In recent years, outsourcing of internal audit functions has gained a great deal of attention from researchers as well as practitioners (Ernst & Young, 2006). Outsourcing is defined as "engaging an external party to provide services or products previously provided by internal source" (Institute of Internal Auditors, 1995, p 1). Traditionally, the internal audit function has been conducted and managed in-house, i.e. within the 337organization (nil-sourcing). However, provision of internal audit services represents a highly lucrative market for public accounting firms and thus has fuelled its growth in recent years. While it is no longer acceptable for external auditors to provide internal audit services to their audit clients (SOX, 2002), such services are still be provided by both specialist firms and public accounting firms to non-audit client. Findings from Mathew, Cooper and Leung (1993) indicate that 57 percent of the Australian firms outsourced their internal audit function. A more recent study of Australian Public Listed firms by Carey *et al*. (2006) suggest that 45 percent of the 99 respondent firms that outsourced their internal audit function had outsourced all or part of the internal audit activities. Particularly in Malaysia, the survey conducted by the Institute of Internal Auditors in Malaysia (2002) indicate that, in 1998, 10 percent of respondents' companies (304 companies) outsourced their internal audit function and the incidence of internal audit outsourcing increased steadily in 2002 as 29 percent of the companies responded to the survey (380 companies) outsourced their internal audit function.

There has been ongoing debate on the type of internal audit arrangements that firms should adopt. Proponents of in-house internal audit function argue that in-house internal audit staffs are postulated to be more committed to the long-term well-being of the organisation than outsourced staff (Rittenberg and Covaleski, 2001). In addition, Widener and Selto (1999) argue that in-house internal audit is preferable when the internal audit activity is frequent as company is able to enjoy economies of scale. On the other hand, the advocates of internal audit outsourcing argue that the external providers which have access to leading practices are able to deliver the internal audit with less cost. Carey *et al.* (2006) find that internal audit outsourcing is associated with perceived cost savings and that the larger organisation has greater propensity to outsource. More importantly, it has been argued that an outsourced provider may be more objective than an in-house internal audit function as it is difficult for an employee to be truly independent of management (James, 2003). Following, a number of researchers explore the relationship between the roles of internal audits in assisting the external auditor and as to whether this assistance would lead to a reduction of audit fees. Prior empirical results by Elliott and Korpi (1978), Wallace (1984) and Felix *et al.* (2001) document a negative relationship between audit fees and the internal audit contribution to financial statement audits. This suggests that internal audit can be regarded as a substitute for external audit (Wallace, 1984). In contrast, Goodwin-Stewart and Kent (2006) find external audit fees are associated with a greater use of internal audit as entities use external audit to complement internal audit monitoring. However, studies by Stein *et al*. (1994) and Carey *et al*. (2000) find no significant association between audit fees and the level of internal audit. The lack of significance in this relationship may be due to the fact that external auditors diverted their audit efforts to areas that are not fully covered by the internal audit and at the same time rely on the internal audit for the areas that have been explored by the internal auditors (Mat Zain *et al.*, 2004).

This study posits a negative association between audit fees and internal audit outsourcing. This may be so as external provider have specialised skill and expertise and thus, covered most of the risk areas sufficiently. As a result, boards do not demand for more in-depth investigation and audit effort by external auditors; this in turn leads to the reduction of audit fees charged by the external auditors to the client. On the other hand, it can be argued that the in-house internal audit function may pay higher audit fees as these firms are likely to use greater level of internal auditing, and this may also implies that in-house internal audit function involved in a higher level of monitoring. Based on the above argument, we propose the following hypothesis in the alternate form

*Hypothesis 3:*
*Firms that outsourced their internal audit function are being charged lower external audit fees*

[2] Likewise, Gul et al. (2003) observe that high managerial stock ownership significantly moderates the relationship between absolute discretionary accruals and audit fees. The results are consistent with the view that discretionary accruals associated with high managerial ownership are less likely to be driven by opportunistic earnings management. Thus, the managers' opportunistic behavior and likelihood of fraudulent reporting diminish as managerial stock ownership increases.

## 3. Research Method

### *3.1.* *Data Collection*

The data was collected from the 2006 annual reports of companies listed on the Main Board of Bursa Malaysia. As at end of 2006, there was a total of 649 companies listed on the Main Board of Bursa Malaysia. After deleting 47 companies from financial industry (due to their unique asset structures), 34 companies without internal audit function and 29 companies with incomplete data and, this study was left with 539 companies. Table 1 list the number of companies of each industry group.

**Insert Table 1**

### *3.2.* *Audit fee model specification and Variables Description*

#### *3.2.1 Dependent variable*

To test whether audit committee characteristics, managerial ownership and internal audit arrangements are associated with audit fees, this study employs an ordinary least squares (OLS) regression models. The dependent variable is audit fee which is measured by RM value paid by the firms to their external auditors. Consistent with the traditional audit fee model (Simunic, 1980; Francis, 1994; Goodwin-Stewart and Kent, 2006) and following the tests of normality, logarithm transformation is applied to the audit fee (AFEE).

#### *3.2.2 Experimental variables*

The experimental variables for the study are the audit committee independence, expertise, the frequency of audit committee meetings, managerial ownership and internal audit arrangements.

Hypothesis 1 (a) focuses the independence of audit committee members. Audit committee independence is measured as the percentage of audit committee members on the committee. To test Hypothesis 1(b) expertise is measured as the percentage of committee members with an accounting or finance qualification. Meeting frequency in Hypothesis 1 (c) is measured by the number of audit committee meetings held during the year. Further, Hypothesis 2 is measured by the percentage of shares owned by the insiders (managers). Finally, Hypothesis 3 tests for a relationship between audit fees and the internal audit arrangements, we use dichotomous variable set at one if the company outsourced their internal audit function, and zero if they establish the internal audit function within the organisation.

#### *3.2.3 Control variables*

Audit fee models employed in prior research have used a variety of control variables to control for cross-sectional differences associated with auditee size, complexity and the risk of client firm (Simunic, 1980; Gul and Tsui, 1997). Prior studies have found that the most significant determinant of audit fees is the size of the auditee (SIZE), the effect of size are controlled for with the natural log transformation of total assets, we posit a positive relationship between firm size and audit fees since larger firms are more complex which requires more audit effort which result in higher audit fees (Simunic, 1980; Francis, 1984). We also take into consideration of natural log transformation of subsidiaries (COMPLEX) to control for audit complexity (Simunic, 1980; Hackenbrack and Knechel, 1997). Further, the level of debt (LEV) (Gist, 1992; Craswell and Francis, 1999) and the ratio of receivables to total assets (ARTA) and inventory to total assets (INVTA) have been used as measures of audit risk (Francis and Simon, 1987). Return of equity (ROE) is used as a proxy for profitability and we predict a negative relationship between ROE and audit fees. A dummy variable for auditing firms (AUDITOR) is also incorporated since it is usually assume that the audit firms that charge higher audit fees, perform higher audit quality ( DeAngelo, 1981; Palmrose, 1989).

#### *3.2.4 Model*

This study thus posits the following model:

$$AFEE = b_0 + b_1SIZE + b_2COMPLEX + b_3ROE + b_4LEV + b_5ARTA + b_6INVTA + b_7AUDIT + b_8\mathbf{ACIND} + b_9\mathbf{ACEXP} + b_{10}\mathbf{ACMEET} + b_{11}\mathbf{MOWN} + b_{12}\mathbf{IAOSOURCE} + e$$

Where:

| | | |
|---|---|---|
| AFEE | = | natural log of external fee |
| SIZE | = | natural log of total assets |
| COMPLEX | = | natural log of number of subsidiaries |
| ROE | = | return of equity (earnings after tax divided by total equity) |
| LEV | = | ratio of total long term debt to total equity |
| ARTA | = | ratio of receivables to total assets |
| INVTA | = | ratio of inventory to total assets |

| | | |
|---|---|---|
| AUDITOR | = | a dummy variable given the value 1 when a big-four external auditor is used or 0 otherwise |
| ACIND | = | the percentage of independence audit committee members |
| ACEXP | = | the percentage of audit committee members with accounting and finance expertise |
| ACMEET | = | the number of audit committee meetings during the year |
| MOWN | = | the percentage of shares own by managers |
| IAOSOURCE | = | a dummy variable given the value 1 when internal audit function is outsourced or 0 otherwise |

## 4. Findings

### *4.1 Descriptive Statistics*

Table 2 presents the descriptive statistics for the variables in the model. The mean audit fee for the sample companies is RM262,122, ranging from a minimum of RM6,000 to a maximum of RM9.1 million. On average, over three quarter of the audit committee members are independent member and half of the audit committee members possess accounting and finance expertise. This is far beyond the Bursa Listing Requirements which require an audit committee to be comprised of at least three directors, whereby at least one of the audit committee is registered under the local accounting professional body, the Malaysian Institute of Accountants, or at least have three years experience after passing a professional examination and a member of one of specified accounting associations. Further, sample companies conduct at least one audit committee meeting during the year and average meetings per year for sample companies are 2.38 meetings. About 70 percent of the sample companies engage Big Four audit firm as their external auditors and an average 29.7 percent of the companies outsourced their internal audit function. The Pearson correlations presented in Table 3 generally suggest that audit fees is positively correlated audit committee independence (ACIND) and audit committee meetings ( ACMEET) but negatively correlated with audit committee expertise(ACEXP), managerial ownership (MOWN) and internal audit outsourcing (IAOSOURCE). The correlations amongst the independent variables are comparatively low. All values are well below 0.50 except for the correlation between SIZE (r=.0.634) and COMPLEX (r=0.587). To test the multicollinearity, the VIF was calculated for each independent variable. The results (not shown in paper) indicate all the independent variables has VIF values less than 10.

-Insert Table 2-
-Insert Table 3-

### *4.2 Multivariate analysis*

In order to illustrate the effects of audit committee characteristics, internal audit arrangements and management ownership on audit fees, we run three models and the results are shown in Table 4.

Model 1 regresses audit fees (AFEE) and control variables only, i.e. SIZE, COMPLEX, LEV, ARTA, INVTA and AUDITOR. The first model was carried out to test the validity of the audit fee model without incorporating any of the test variables. Model 1 is significant (*F*-statistic=72.044, p<.001) and the adjusted $R^2$ is reasonably high ($R^2$ =62.3 percent). This is consistent with prior research in Malaysia although slightly lower from those in the US, UK and Australia. [3] As expected, we find that SIZE, COMPLEX and INVTA are positively associated with AFEE whereas AUDITOR, LEV and ARTA are insignificant. ROE is significant but in the opposite direction. This may suggests that profitable company can afford financially to demand for a higher audit quality thus reflecting in higher audit fees.

Model 2 regresses AFEE on the variables in Model 1 and the three variables of interest, the model is significant (*F*-statistic=54.552, p<.001) with the adjusted $R^2$ of 64 percent and for Model 3, we further explore the association between audit fees and the percentage of shares owned by management and the internal audit arrangements. Model 3 is also significant (*F*-statistic=46.820, p<.001) with the adjusted $R^2$ of 64.6 percent.

Hypothesis 1(a) predicts a positive association between the percentage of independent directors on audit committee and external audit fees. As shown in Model 2 and 3, the coefficient between ACIND and AFEE is positive and significant (Model 2: *t*-statistic =.078; Model 3: *t*-statistic =0.690, p < 0.05, 1-tailed). The result is consistent with Abbott *et al.* (2003) and Vafeas and Waegelein (2007) that find a positive association

[3] The adjusted *R square* for prior audit fee studies in Malaysia are 44 percent in Abdul Wahab *et al.* (2009), 46.08 percent in Muniandy (2007), 60 percent in Gul (2006) and 69 percent in Yatim *et al*. (2006).

between audit fees and audit committee independence, however, contrary to Yatim et al. (2006) and Muniandy (2007), who did not find the relationship. The results is also in line with capital reputational theory which argues that independent directors demand for greater assurance on organisational functions to ensure high quality financial reporting in order to protect their reputations as experts in monitoring because the market for directors punishes those associated with corporate disasters or poor performance (see Fama and Jensen, 1983; Carcello et al., 2002).

Hypothesis 1(b) predicts a negative relationship between audit committee expertise and external audit fees. However, contrary to our prediction, the result indicates that audit committee with more accounting and finance expertise is negatively associated with audit fees (Model 2: *t*-statistic=-2.977; Model 3: *t*-statistic=2.905, $p < 0.05$). It is worth noting that the result is consistent with the argument from the supply perspective indicating that audit committee expertise allows for better understanding of auditing issues and risks, and the audit committee proposed to address and detect these issues and risks, and the audit procedures proposed to address and detect these issues and risks (DeZoort and Salterio, 2001, Yatim *et al*., 2006). Further, findings from Cohen *et al.* (2002) also suggest that auditors are less likely to refer a complex auditing issue to an audit committee that is perceived to be not knowledgeable about the technicality and financial reporting issues. Overall, from the supply perspective, it can be argued that audit committee expertise reduces auditors' risk assessments associated with the financial reporting process, resulting in lower external audit fees (Yatim *et al*., 2006).

Hypothesis 2 investigates the relationship between managerial ownership and audit fees. This hypothesis tests the assumption as to whether managerial ownership reduces agency conflicts whereby an increase of managerial ownership is expected to lead greater alignment of managerial shareholder interest. Consistent with our expectation, the finding indicates a significant and negative relationship between audit fees and management ownership (Model 3: *t- statistic* =2.003, $p<0.05$). Consistent with results of prior studies (see Gul *et al*., 2003; Mitra *et al*., 2007), this suggests that managers with high ownership interests are less likely to engage in opportunistic behaviors and more likely to produce high quality financial statement to communicate value relevant information. Since, manager's opportunistic behavior and the likelihood of fraudulent reporting diminish as the managerial stock ownership increased, this in turn reduces the risk of the material misstatements, and overall audit risk associated with financial reporting. In such situation, the demand for audit effort will be lower leading to lower audit fees.

Hypothesis 3 predicts a negative relationship between outsourced internal audit function and audit fees. Outsourced internal audit function is found to be moderately significant and negatively associated with external audit fees (*t*-statistic=-1.628 $p<.10$).

Insert Table 4

## 5. Conclusions

This study adds to the corporate governance and audit fees literatures, more specifically, this research revisits prior studies pertaining to audit committee characteristics and audit fees where the evidence appears to be mixed and unclear. Overall, the results of the study indicate that higher proportion of independent audit committee demand for higher quality audit reflecting in higher audit fees paid by audit client to the external auditors. However, contrary to our prediction, audit committee expertise is negatively associated with audit fees indicating that audit committee expertise reduces auditors' risk assessments associated with the financial reporting process, resulting in lower external audit fees.

The present study also contributes to the much needed research on managerial ownership and internal audit arrangements and their implication on audit fees. In particular, the research adds to evidence on audit pricing behavior in developing countries by considering the association between managerial ownership and internal audit arrangements within the Malaysian context. Our results support significant negative associations between audit fees with managerial ownership. The results are consistent with our argument that managerial ownership is likely to resolve agency conflict, thus reduce manager's opportunistic behavior and diminish the likelihood of fraudulent financial reporting. This in turn reduces audit risk and demand for audit effort will be lower, resulting in lower audit fees. Further, the findings also suggest that firms that outsourced their internal audit activities pay lower audit fees as compared to firms that establish the internal audit function. This suggests that firms with higher audit fees are more likely to use a greater level of internal auditing. This finding may implies that in-house internal audit function is likely to be involved in a higher level of monitoring.

While this study contributes to the audit fee literature, this study is not without limitations. First, this study does not take into consideration of other factors such as the ethnicity, political connection and cultural implication on audit quality. Given that Malaysian institutional environments have unique setting with

multicultural background. It is interesting to examine the moderating effect of that nature on audit pricing. Second, this study only investigates the relationship between audit committee, internal audit and managerial ownership only, other corporate governance variables namely board characteristics, institutional ownership are not examine in this study. In addition, this study utilises the old measure of audit committee effectiveness, as suggested by Goodwin-Kent & Stewart (2006, p. 402), "more refined measures of independence, expertise and diligence of audit committee members could be developed and used in the future studies". Furthermore, the data we used is cross-sectional (specific time period, i.e. 2006) and finally, we have controlled for the common determinants of audit fees as used in prior audit fees studies e.g. firm size, risk, auditor and complexity. Nevertheless, there is still a risk of omitted variable.

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## Appendices

**Table 1.** Distribution of 539 Sample companies by Industry

| Industry | No | percent |
|---|---|---|
| Consumer product | 76 | 14.1 |
| Industrial product | 140 | 26.0 |
| Trading/Services | 126 | 23.4 |
| Construction | 38 | 7.0 |
| Property | 90 | 16.7 |
| Plantation | 38 | 7.0 |
| Others | 31 | 5.8 |
| | 539 | 100 |

**Table 2.** Descriptive Statistics for the Sample Firms (n=539)

| Panel A: Continuous variables | | | | |
|---|---|---|---|---|
| | Minimum | Maximum | Mean | Std. Deviation |
| Audit fee (AFEE) | 6000 | 9100000 | 262122 | 611645.93 |
| Total asset (SIZE) | 950206 | 63494800000 | 1497438022 | 4733773989 |
| Number of subsidiaries (COMPLEX) | 0 | 286 | 16.18 | 21.704 |
| Return on equity (ROE) | -13.885 | 7.450 | .00464 | .885414 |
| Long term debt/total assets (LEV) | -.0852 | 53.3912 | .687318 | 3.2269338 |
| Receivables/total assets (ARTA) | .000 | 3.326 | .17819 | .193023 |
| Inventories/total assets (INVTA) | .000 | 2.977 | .10018 | .166675 |
| AC independence (ACIND) | .333 | 1.000 | .76247 | .143538 |
| AC expertise (ACEXP) | .167 | 1.000 | .59579 | .228613 |
| AC meetings (ACMEET) | 1 | 3 | 2.38 | .647 |
| Management Ownership (MOWN) | .000 | 1.000 | .09707 | .163587 |
| Panel B: Dichotomous variables | | | | |
| | Yes | percent | No | percent |
| Big 4 external auditor (AUDITOR) | 381 | 70.7 | 158 | 29.3 |
| IA Outsource (IAOSOURCE) | 160 | 29.7 | 379 | 70.3 |

**Table 3.** Correlation Coefficient for the variables in the model

| | AFEE | SIZE | COMPLEX | ROE | ARTA | INVTA | AUDITOR | ACIND | ACEXP | ACMEET | MOWN | IAOSOURCE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AFEE | 1 | | | | | | | | | | | |
| SIZE | .634** | 1 | | | | | | | | | | |
| COMPLEX | .587** | .375** | 1 | | | | | | | | | |
| ROE | .158** | 0.083 | .086 | 1 | | | | | | | | |
| ARTA | .062 | -.211** | -.023 | .091 | 1 | | | | | | | |
| INVTA | -.034 | -.247** | -.093* | .055 | .304** | 1 | | | | | | |
| AUDITOR | .079 | .106* | -.024 | -.021 | -.024 | -.046 | 1 | | | | | |
| ACIND | .101* | .076 | .008 | .004 | -.058 | -.054 | .053 | 1 | | | | |
| ACEXP | -.025 | .075 | .050 | -.004 | -.069 | -.123** | .049 | -.03 | 1 | | | |
| ACMEET | .091* | .061 | .114** | -.007 | .077 | -.082 | .02 | -.002 | .016 | 1 | | |
| MOWN | -.173** | -.213** | -.124** | -.081 | .178** | .112* | -.133** | -.08 | -.018 | -.017 | 1 | |
| IAOSOURCE | -.200** | -.162** | -.145** | -.064 | -.091* | .096* | -.045 | -.025 | -.031 | -.031 | .130** | 1 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Pearson correlations are adjusted automatically by SPSS when variables are dichotomous. Audit fee= natural log of audit fees, Size= natural log of total assets, No. subs= natural log of number of subsidiaries

**Table 4.** Least Squares Results on Audit Committee, Internal Audit and Audit Fee

| | Pred. Sign | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|---|
| | | Coefficient | *t*-stat | Coefficient | *t*-stat | Coefficient | *t*-stat |
| CONSTANT | | 3.512 | 5.368** | 3.274 | 4.989** | 3.801 | 5.580 |
| SIZE | + | .392 | 11.575** | .388 | 11.619** | .362 | 10.464* |
| COMPLEX | + | .399 | 10.294** | .401 | 10.565** | .387 | 10.194* |
| ROE | - | .059 | 1.776** | .069 | 2.104** | .064 | 1.955** |
| LEV | + | .014 | .618 | .017 | .748 | .024 | 1.056 |
| ARTA | + | .036 | 1.045 | .031 | .899 | .040 | 1.150 |
| INVTA | + | .088 | 4.088** | .084 | 3.921** | .088 | 4.165** |
| AUDITOR | + | .083 | 1.132 | .078 | 1.087 | .048 | .673 |
| ACIND | + | | | .712 | 2.977** | .690 | 2.905** |
| ACEXP | + | | | -.391 | -.2.730** | -.370 | -2.595** |
| ACMEET | + | | | .012 | .2240 | .011 | .2140 |
| MOWN | - | | | | | -.030 | -2.003** |
| IAOSOURCE | - | | | | | -.118 | -1.628* |
| Adjusted $R^2$ | | 0.623 | | 0.640 | | 0.646 | |
| F-stat | | 72.044 | | 54.552 | | 46.820 | |
| Significance | | .000 | | .000 | | .000 | |

* $p < 10$percent, ** $p < 5$percent, *Probabilities are one-tailed when in direction predicted*

Where:

AFEE = natural log of external fee
SIZE = natural log of total assets
COMPLEX = natural log of number f subsidiaries
ROE = return of equity (earnings after tax divided by total equity)
LEV = ratio of total long term debt to total equity
ARTA = ratio of receivables to total assets
INVTA = ratio of inventory to total assets
AUDITOR = a dummy variable given the value 1 when a big-four external auditor is used and 0 otherwise
ACIND = the percentage of independence audit committee members
ACEXP = the percentage of audit committee members with accounting and finance expertise
ACMEET = the number of audit committee meetings during the year
MOWN = the percentage of shares own by managers
IAOSOURCE = a dummy variable given the value 1 when internal audit function is outsourced and 0 otherwise