How a company’s level of Corporate Governance affects external Audit Fees?

BY

Chau Mat Lo, Dillian
04013220
Accounting Major

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Student No.: 04013220

Author / Student Name: CHAU MAT LO, DILLIAN

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Date: 27.4.07
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Abstract

This paper examined the effects of the level of corporate governance on the amount of external audit fees in a Hong Kong Setting. Characteristics of the board of directors and audit committees were chosen to represent the level of corporate governance. In particular, board of directors’ independence, diligence and size were examined while audit committees’ independence, diligence, expertise and size were examined. A total number of 70 companies listed on the main board of the Hong Kong Stock Exchange were randomly selected as samples.

Higher audit fees imply there is more work done by the external auditors and higher audit quality. We hypothesised that higher board independence, diligence; audit committees independence, diligence, expertise and larger size are associated with lower audit fees while larger board size is associated with higher audit fees.

The results indicated that the board characteristics do not affect the amount of audit fees. In contrast, audit committees’ independence and diligence were significantly associated with audit fee. However, the results showed that higher audit committees’ independence, diligence, expertise and larger size are associated with higher audit fees rather than as we hypothesised, to be associated with a lower audit fee. That can be explained by that, an independent and diligent audit committee tends to demand a higher audit quality and thus leads to a higher external audit fees.
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1. Introduction

In this paper, the linkage between listed companies’ level of corporate governance and the amount of external audit fee is examined. Prior studies used data mostly from the USA, the UK, and Australia. This study extended this line of research and examined the association between external audit fees and internal corporate governance structures of a sample of Hong Kong Listed Companies.

The examination was motivated by the recent improvement in the corporate governance standards in Hong Kong. The Hong Kong Stock Exchange first implemented a set of Code of Corporate Governance in 2001 and later revised the Code in 2005, but the Code is still on the way to be effective in terms of implementation. Hong Kong’s regulation in corporate governance is still under development when compared with countries like the USA and the UK. It still needs time to develop a full set of rules suitable for every company in Hong Kong to follow.

The study examined companies listed on the main board of the Hong Kong Stock Exchange. Financial and Corporate Governance data were obtained from the companies’ annual reports.

The remainder of the paper is structured as follows: section 2 introduces the problems examined in this paper, followed by a literature review in section 3. The objective of this study and setting of the hypotheses are then stated in section 4 and 5. Several statistical
analyses will be performed to test the hypotheses set and right before this the research
design will be explained detailedly. After all of the above, limitations of this study will be
stated and conclusions will be drawn with supporting statistical findings.
2. Statement of Problems

There is an increasing regulatory requirement in the level of corporate governance of companies operating in Hong Kong. Especially for listed companies in Hong Kong, all of them have to comply with the Code on Corporate Governance Practices contained in appendix 14 (the “Code”) included in the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited. The Code includes regulations on the board of directors and audit committee of a company; and its internal control and internal audit.

As companies are required to have a better internal control in response to the regulatory requirements, it implied that external auditor may not need to involve in as many work done as before, which means a lowering of audit fees. However, some studies had found out that audit fees were actually higher when Corporate Governance standards were higher as more tests will have to be done on the company’s internal control. So, to what extent does the corporate governance affect the amount of audit fee? And how does it affect companies in Hong Kong? This paper is going to find out the answers to these questions.
3. Literature Review

As mentioned earlier, prior studies used data mostly from the USA, the UK and Australia. The following are some examples from different localities.

Goodwin-Stewart and Kent (2006) analyzed and examined the relation between external audit fees, audit committee characteristics and internal audit. Under an Australian setting, they examined whether the existence of an audit committee, audit committee characteristics and the use of internal audit were associated with higher audit fees. Higher audit fees imply increased audit testing and higher audit quality. They found that the existence of an audit committee, more frequent committee meetings and increased use of internal audit were related to higher audit fees when meeting frequency and independence were low. They stated that these findings were consistent with an increased demand for higher audit quality by audit committees, and by firms that made greater use of internal audit. The results of their study were also consistent with those of Coulton et al. (2001) and Sharma (2003), both using Australian data, found that the existence of an audit committee was associated with higher audit fee.

Abbott, Parker, Peters and Raghunandan (2003), using US data, examined the relationship between audit fee and audit committee characteristics. They hypothesized that audit fees would be positively associated with audit committees’ independence, financial expertise and meeting frequency. And their study reported significant positive
associations between audit committee independence and financial expertise with audit fees, but there is no significant association between meeting frequency and audit fees. Their findings were contrast to the findings of Carcello et al. (2002), which found that audit committee characteristics were not significant in the presence of board-related variables. Meeting frequency was not associated with audit fees at the conventional levels.

Yatim, Kent and Clarkson (2006) extended the study to a Malaysia setting for the relationship between audit fees and board and audit committee characteristics. Other than audit committee characteristics and internal audit, they additionally examined the board characteristics. Thus, their study “Governance structures, ethnicity, and audit fees of Malaysian listed firms” reflected more comprehensively the relation between level of corporate governance and audit fees. They hypothesized that good corporate governance practices reduce auditors’ risk assessments, resulting in lower audit fees. They found that external audit fees are positively and significantly related to board independence, audit committee expertise, and the frequency of audit committee meetings. Their study also found a strong negative association between external audit fees and Bumiputera\(^1\)-owned firms.

Carcello, Hermanson, Neal and Riley (2002) examined the relations between three

\(^1\) A Malaysian word which includes various official meaning; it can be loosely translated into “Native People”
board characteristics (independence, diligence, and expertise) and audit fees for Fortune 1000 \(^2\) companies. They expected a positive relation between audit fees and the board characteristics, and audit fee increases as auditor’s additional costs are passed on to the client. They found significant positive relations between audit fees and board independence, diligence, and expertise. And they obtained the persistent results when similar measures of audit committee quality were included in the model.

Blue Ribbon Committee (1999) identified the audit committee characteristics on improving the effectiveness of corporate audit committee. The report of “Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees” addressed the characteristics include audit committee independence, audit committee expertise, audit committee size and audit committee diligence. The results proved that a more independent, diligent, expert, and larger audit committee is better able to objectively evaluate management’s accounting and reporting practices. These elements of an audit committee are likely to contribute to a higher quality of corporate governance within a company. From the view of an external auditor, these characteristics are likely to reduce a company’s inherent and control risks with the company’s financial statements and disclosures (Beasley, Carcello, Hermanson and Lapides, 2000). These studies thus offered explanations for variations of audit fees from a corporate governance perspective where it

\(^2\) Fortune 1000 is a reference to a list maintained by the American business magazine *Fortune*. The list is of the 1000 largest American companies, ranked on revenues alone.
argues that different level of corporate governance can result in different amount of external audit fees charged.

There are many other researches on the association between audit committees’ characteristics, board of directors’ characteristics, corporate governance structure and ethnicity and audit fees. Different studies under different localities may lead to different results. The above stated researches are some typical one and we can use them as guidance to the study of the Hong Kong market.
4. Objectives of the Study

Although many studies had proven that the level of corporate governance which includes the internal control, the existence of audit committee, board of directors’ characteristics, etc, most of the studies were done under the UK, Australia or Malaysia settings. This paper studied that, under a Hong Kong Setting, how the level of corporate governance is affecting the amount of audit fees.

Corporate governance is used to monitor whether outcomes are in accordance with plans and to motivate the organization to be more fully informed in order to maintain or alter organizational activity. The board of directors and audit committee play an important role in implementing the governing.\(^3\) Therefore, this study will focus on corporate governance structure which includes the characteristics of board of directors and audit committees.

In terms of the board of directors’ characteristics, their independence, diligence and size were examined. For Audit Committees, their independence, expertise, diligence and size were examined. The study would like to see the positive or negative association between these characteristics and audit fees for listed companies in Hong Kong.

\(^3\) By the Wikipedia, see at [http://en.wikipedia.org/wiki/Corporate_governance](http://en.wikipedia.org/wiki/Corporate_governance)
5. Statement of Hypotheses

As to test the relation between the level of corporate governance and the external audit fees, the board of directors and audit committees’ characteristics has been chosen to represent the corporate governance structure. The hypotheses are set as follows:

**H1: Higher Board of Directors’ independence is associated with lower audit fees.**

It is assumed that high board of directors’ independence will lower external audit fees as they are more likely to provide superior oversight on the financial reporting process, hence the greater reliability and validity in accounting reports is expected (Beasley, 1996; Dechow et al., 1996). Therefore, auditor’s risk assessments can be reduced and less audit efforts are required thus lower audit fees is charged.

**H2: More board meetings held is associated with lower audit fees.**

More board meetings held implied that the directors are likely to contribute more and be more effective to oversight matters concerning the financial reporting process. Byrne (1996) argued that boards that meet frequently are more likely to perform their duties attentively and are beneficial to shareholders and thus it is likely to be associated with lower audit fees.
**H3: The larger the size of the board of directors, the higher the audit fees.**

Beasley (1996) found that the size of the board significantly affects the likelihood of financial statement frauds. And the larger the boards are, the less effective they monitor of the financial reporting process. Thus, the external auditor will consider the control environment to be weak and hence higher audit fees will be charged.

**H4: Higher independence of audit committee lower audit fees**

An independent audit committee is likely to result in a more effective audit committee oversight of the financial reporting process, thus reducing the incidence of financial reporting problems. This strengthened the internal controls and should lead to a reduction in the levels of both inherent and control risk. As a result, the auditor can perform less substantive testing, and hence lower external audit fees are expected.

**H5: More accounting or finance expertise in the audit committees is associated with lower audit fees.**

With more members of audit committees hold accounting or finance qualifications, they are likely to have better understanding of the financial reporting process and reduce the auditors’ risk assessment thus lowering external audit fees.
H6: *The more frequent the audit committees meet, the lower the audit fees.*

It is expected that a more diligent audit committee is likely to reduce financial reporting problems thus lowering external audit fees.

H7: *The larger the size of audit committees, the lower the audit fees.*

Blue Ribbon Committee (1999) finds out that larger size of audit committees are likely to enhance the quality of financial reporting, resulting in lower audit fees.

The above hypotheses were examined by using statistical analysis. The research design is described in the next section.
6. Research Design

6.1 Data collection and sample selection

The sample comprised of the companies listed on the Main Board of the Hong Kong Stock Exchange. Bank and finance-related companies were excluded due to their unique characteristics, special requirements and different regulatory environments, which may threat the consistency and significant of the findings. A sample of 70 listed companies was selected randomly.

Both financial and corporate data were obtained from the annual reports of the sampled companies. The annual reports are available from varies sources, include the companies’ official website, Investor-relations Asia (www.irasia.com) and hard copies are accessible at the Hong Kong Central Library. Listed companies are required to disclose the audit fee incurred for the year and to include a corporate governance report in their annual reports.

Data of the year ended 2005 was selected for this study as they are the most updated information available for all listed companies, while not all companies’ 2006 annual reports has been published.
6.2 Model specification and Variables Measurements

The model used in this study is based on the traditional audit fee model introduced by Simunic (1980) and modified by Craswell et al. (1995) as to be consistent with prior studies. The following is the regression equation used as the primary model to test the hypotheses previously discussed.

Audit Fee Model

\[
LAF = b_0 + b_1LTA + b_2SRSUB + b_3INV + b_4REC + b_5CATA \\
+ b_6ROA + b_7BIG4 + b_8BIN + b_9BMEET + b_{10}BSIZE + b_{11}ACIN \\
+ b_{12}ACEX + b_{13}ACMEET + b_{14}ACSIZE + e
\]

Explanation of abbreviations of variables used in the model:

- \(b_0\) = constant term
- \(LAF\) = natural log of audit fee in thousand dollars
- \(LTA\) = natural log of total assets in thousand dollars
- \(SRSUB\) = square root of number of subsidiaries
- \(INV\) = inventories/total assets
- \(REC\) = receivables/total assets
- \(CATA\) = current assets/total assets
- \(ROA\) = return on assets (profit before interest and tax/total assets)
- \(BIG4\) = 1 if the firm is audited by a big-4 auditor, 0 otherwise
- \(BIN\) = proportion of independent non-executive directors on boards
- \(BMEET\) = number of board meetings held during the financial year
- \(BSIZE\) = total number of directors on boards
- \(ACIN\) = proportion of independent non-executive directors on audit committees
- \(ACEX\) = proportion of audit committee members with accounting/finance qualification
- \(ACMEET\) = number of audit committee meetings held during the financial year
- \(ACSIZE\) = total number of members of audit committees
- \(e\) = standard error of estimation (represents the unpredicted/unexplained variation)

The above model is made up of three types of variables: the dependent variable, hypothesized variables and control variables.
Dependent Variable is the audit fees disclosed in the notes to the accounts of the annual reports. The figures are transformed into natural logarithm as to control the skewed nature of audit fees (the variable named as LAF).

The hypotheses were to test the corporate governance structure, which are the board and audit committee characteristics. The variables named $BSIZE$, $BMEET$, $BIN$, $ACIN$, $ACEX$, $ACMEET$ and $ACSIZE$ are the characteristics to be tested, in other words, the hypothesized variables, for the seven hypotheses.

Effects of hypothesized variables are controlled in our analysis. Therefore, we also included control variables in the model the natural log of total assets, receivables and inventory intensity, current assets ratio and square root of number of subsidiaries, which were believed to be positively related to audit fees. In particular, return on asset (ROA) is expected to be negatively related to audit fees. The study also included a dummy variable of whether the sample companies were audited by a Big-4 auditor or not, as for control of the differences in audit quality.

Several statistical methods will be used in testing the hypotheses stated in section 4. Results were obtained by performing descriptive statistics, Pearson correlation and linear regression.

Details of the results and the analysis will be discussed on the next section.
7. Findings and Analysis

7.1 Descriptive Statistics

Table 1 shows the descriptive statistics for the variables employed in the model. Table 1a reports the continuous variables and Table 1b reports the dichotomous variable (i.e., the dummy variable). Because there is no prior studies focus on the study of the Hong Kong Market, therefore the distributions cannot be compared and due to the random sampling, the distributions is assumed to be even, and is not subject to material discrepancy.

The study is to determine the effects of certain corporate governance characteristics on audit fees. Audit fees of the 70 sample companies for the financial year ended 2005 range from HK$272,000 to HK$75,000,000. And the amount of total assets which can represents the size of the sample companies ranges from HK$206,794,000 to HK$32,266,000,800.

The corporate governance variables are of particular interest to the study. As discussed earlier, board and audit committee characteristics were chosen to be variables that represent a company’s corporate governance structure. The sampled companies’ boards sized from 5 to 19 directors, with 2 to 5 of them are non-executive independent directors. For instance, the average board size is 9.7, with an average of 3.29 board members are independent.
How a company’s level of Corporate Governance affects external Audit Fees?

The audit committees in the 70 samples sized from 3 to 6, with a mean of 3.44. In which they are having at least 2 independent directors as members, which means there is an average of 88.98% members of the audit committees are independent non-executive directors. There are at least 1 and at most 4 experts who have accounting or finance qualification in the committees, with an average of 1.96.

### Table 1a

**Descriptive Statistics: Continuous Variables (N=70)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Median</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDITFEE (HK$ '000)</td>
<td>272</td>
<td>75000</td>
<td>6798.87</td>
<td>1868.5</td>
<td>14057.117</td>
</tr>
<tr>
<td>TA (HK$ '000)</td>
<td>206794</td>
<td>520572000</td>
<td>32266001</td>
<td>2619102</td>
<td>91135182</td>
</tr>
<tr>
<td>SUBS</td>
<td>0</td>
<td>183</td>
<td>26.41</td>
<td>19</td>
<td>30.49</td>
</tr>
<tr>
<td>INV</td>
<td>0</td>
<td>0.512</td>
<td>0.098</td>
<td>0.038</td>
<td>0.119</td>
</tr>
<tr>
<td>REC</td>
<td>0.002</td>
<td>0.881</td>
<td>0.118</td>
<td>0.075</td>
<td>0.149</td>
</tr>
<tr>
<td>CATA</td>
<td>0.023</td>
<td>2.7</td>
<td>0.519</td>
<td>0.479</td>
<td>0.448</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.396</td>
<td>1.063</td>
<td>0.087</td>
<td>0.076</td>
<td>0.156</td>
</tr>
<tr>
<td>NOINED</td>
<td>2</td>
<td>5</td>
<td>3.29</td>
<td>3</td>
<td>0.64</td>
</tr>
<tr>
<td>BMEET</td>
<td>2</td>
<td>72</td>
<td>7.39</td>
<td>4</td>
<td>10.204</td>
</tr>
<tr>
<td>BSIZE</td>
<td>5</td>
<td>19</td>
<td>9.7</td>
<td>9</td>
<td>3.028</td>
</tr>
<tr>
<td>ACNOINED</td>
<td>2</td>
<td>4</td>
<td>3.01</td>
<td>3</td>
<td>0.525</td>
</tr>
<tr>
<td>ACEXPERT</td>
<td>1</td>
<td>4</td>
<td>1.96</td>
<td>2</td>
<td>0.875</td>
</tr>
<tr>
<td>ACMEEET</td>
<td>1</td>
<td>9</td>
<td>2.84</td>
<td>2</td>
<td>1.304</td>
</tr>
<tr>
<td>ACSIZE</td>
<td>3</td>
<td>6</td>
<td>3.44</td>
<td>3</td>
<td>0.694</td>
</tr>
</tbody>
</table>

### Table 1b

**Descriptive Statistics: Dichotomous Variables (N=70)**

<table>
<thead>
<tr>
<th>BIG4</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>13</td>
<td>18.6</td>
<td>18.6</td>
<td>18.6</td>
</tr>
<tr>
<td>Valid</td>
<td>57</td>
<td>81.4</td>
<td>81.4</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

(0 for companies audited by big4 auditor; 1 otherwise)
7.2 Correlations between variables

Table 2 reports the correlations between the variables used in the regressions. The Pearson Correlation illustrates association for the set of variables used in the study and determines the strength and direction of the association between the variables.

The correlation matrix reveals that few variables are inter-correlated (above 0.5). Variables with high significant correlations include natural log of audit fee and natural log of total assets (0.875), the proportion of non-executive independent directors on boards and the board size (-0.739), number of members of the board and the audit committees (0.574) and natural log of total assets and the board size (0.535).

A few governance variables are significantly correlated with each other, but their correlations do not indicate that multicollinearity (an undesirable situation when one independent variable is a linear function of other independent variables) is a serious problem. As shown in Table 2, the correlations between independent variables range from 0.535 (between number of board meetings and audit committee meetings) and 0.574 (between the size of boards and audit committees).

Although the problem is not indicated as serious, separate models and additional sensitivity analysis are performed to strengthen the findings.
Table 2: Pearson Correlation matrix of variables used in the study (N=70)

<table>
<thead>
<tr>
<th></th>
<th>LAF</th>
<th>LTA</th>
<th>SRSUB</th>
<th>INV</th>
<th>REC</th>
<th>CATC</th>
<th>ROA</th>
<th>BIG4</th>
<th>BIN</th>
<th>BMEET</th>
<th>BSIZE</th>
<th>ACIN</th>
<th>ACEX</th>
<th>ACMEET</th>
<th>ACSIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAF</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTA</td>
<td>.875(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRSUB</td>
<td>.324(**)</td>
<td>.291(*)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INV</td>
<td>-.184</td>
<td>-.299(*)</td>
<td>-.153</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REC</td>
<td>-.065</td>
<td>-.241(*)</td>
<td>-.012</td>
<td>.349(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATC</td>
<td>-.175</td>
<td>-.332(**)</td>
<td>-.07</td>
<td>.449(**)</td>
<td>.671(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>.08</td>
<td>.114</td>
<td>.13</td>
<td>.064</td>
<td>.207</td>
<td>.524(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIG4</td>
<td>.405(**)</td>
<td>.340(**)</td>
<td>.152</td>
<td>-.019</td>
<td>.004</td>
<td>-.106</td>
<td>.241(*)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIN</td>
<td>-.207</td>
<td>-.290(*)</td>
<td>-.157</td>
<td>.127</td>
<td>.237(*)</td>
<td>.036</td>
<td>-.087</td>
<td>-.169</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMEET</td>
<td>.225</td>
<td>.177</td>
<td>-.062</td>
<td>-.086</td>
<td>-.066</td>
<td>-.1</td>
<td>-.15</td>
<td>.105</td>
<td>-.01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSIZE</td>
<td>.448(**)</td>
<td>.535(**)</td>
<td>.073</td>
<td>-.209</td>
<td>-.213</td>
<td>-.166</td>
<td>-.006</td>
<td>.233</td>
<td>-.739(**)</td>
<td>0.164</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACIN</td>
<td>-.044</td>
<td>-.192</td>
<td>-.276(*)</td>
<td>.128</td>
<td>.229</td>
<td>.022</td>
<td>-.287(*)</td>
<td>-.069</td>
<td>.306(*)</td>
<td>.017</td>
<td>-.260(*)</td>
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<td>ACEX</td>
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<td>.186</td>
<td>.001</td>
<td>.01</td>
<td>-.004</td>
<td>.009</td>
<td>-.057</td>
<td>.162</td>
<td>.085</td>
<td>.052</td>
<td>-.025</td>
<td>.185</td>
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</tr>
<tr>
<td>ACMEET</td>
<td>.590(**)</td>
<td>.518(**)</td>
<td>.132</td>
<td>-.208</td>
<td>-.042</td>
<td>-.203</td>
<td>-.142</td>
<td>.197</td>
<td>-.187</td>
<td>.535(*)</td>
<td>.340(**)</td>
<td>.012</td>
<td>.15</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ACSIZE</td>
<td>.306(*)</td>
<td>.282(*)</td>
<td>.265(*)</td>
<td>-.026</td>
<td>-.081</td>
<td>-.098</td>
<td>-.094</td>
<td>.147</td>
<td>-.344(**)</td>
<td>-.041</td>
<td>.574(*)</td>
<td>-.486(**)</td>
<td>-.111</td>
<td>.142</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
7.3 Regressions

Table 3 presents the results of regression for testing the hypotheses.

In testing the validity of the models, the traditional audit fee model is employed and the natural log of audit fees is regressed on the control variables only. The result of the validity of the model is presented in Model 1. Consistent with prior studies, the size (represented by natural log of total assets), current asset divided by total assets, the use of a Big Four auditor (positively associated at $p=0.000$, $0.033$ and $0.013$ respectively) and return on assets (ROA, negatively associated at $p=0.010$) are associated with audit fees. The adjusted R square of 0.805 explained that 80.5% of the variance in audit fee can be explained by the independent variables (i.e. the control variables). Moreover, the model as a whole is significant ($p=0.000$), which illustrated that the regressions were effective in explaining the relationship between audit fee and the control variables.

Model 2 regresses external audit fees on control variables and the test variables of interest. The model is significant ($p=0.000$) with an adjusted R square of 0.830. The model shows that audit fees are significantly and positively associated with proportion of independent non-executive directors in audit committee(ACIN), number of audit committee meetings(ACMEET) and the size of audit committee(ACSIZE) ($p=0.011$, $0.016$ and $0.042$ respectively). These findings supported the Hypotheses 4, 6 and 7 for them having association with audit fee. We hypothesised the variables as to be negatively
associated with audit fees; however, the results indicated their association as positive. On the other hand, the results indicated that there is no significant association between board of directors’ independence, number of board meetings, size of board of directors and the proportion of expertise in audit committee, which do not support the hypotheses on these variables.

As mentioned in the previous part, a few hypothesised variables are significantly correlated with each other. Such as the number or board meetings and audit committee meetings and the size of the board of directors and the audit committees. Therefore, two regressions were run separately to test the associations between external audit fees and board characteristics and audit committee characteristics.

Consistent with the findings of Yatim, Kent and Clarkson (2006) under a Malaysia setting, Model 3 shows the results of regression between audit fees and board characteristics. With an adjusted R square of 0.802 and the model significant at p=0.000, the results indicated that there is no significant association between external audit fees and the board of directors’ characteristics. All the three hypothesised variables represent board characteristics (BIN: proportion of independent non-executive directors; BMEET: number of board meetings and BSIZE: size of board of directors) reported a coefficient of 0.003 to 0.855, and with the p-value range from 0.374 to 0.940. Therefore, the hypotheses in the study related to the board characteristics (i.e. Hypotheses 1, 2 and 3) were not
supported by the results.

Model 4 reports the regression results between audit fees and audit committee characteristics. It reports the model is effective in explaining the relation while having the p-value at 0.000, and the adjusted R square of 0.830. The results confirmed the association between audit committees’ independence, number of audit committee meetings and the size of audit committee. Hypotheses 4, 6 and 7 suggested there are negatively associations between audit fees and audit committee independence, number of audit committee meetings and the size of audit committee. However, the results from Model 4 showed that the association between audit fees and these variables are positive. That means, for instance, the more frequent the audit committee meets, the higher the audit fee.

On the whole, the regression results were consistent with prior researches. Moreover, testing the hypothesised variables in different models had strengthened the results because the models show the same significant results that there was significant association between audit fees and audit committee independence, number of audit committee meetings and size of audit committee, while the results were more significant in Model 2 (being tested with all governance variables) than in Model 4 (being tested with only audit committee characteristics).
Table 3: Regression Results for audit fees on control, governance, board characteristics and audit committee characteristics respectively (N=70)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Expected Sign</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>Transitional Audit Fee Model</td>
<td>Governance Structures</td>
<td>Board Characteristics</td>
<td>Audit Committee Characteristics</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>-1.513 a</td>
<td>-2.455 b</td>
<td>0.017 c</td>
<td>-3.451 a</td>
</tr>
<tr>
<td>Control Variables:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTA</td>
<td>+</td>
<td>0.596 ***</td>
<td>14.138</td>
<td>0.000</td>
<td>0.520 ***</td>
</tr>
<tr>
<td>SRSUB</td>
<td>+</td>
<td>0.038</td>
<td>1.386</td>
<td>0.171</td>
<td>0.038</td>
</tr>
<tr>
<td>INV</td>
<td>+</td>
<td>-0.011</td>
<td>-0.017</td>
<td>0.988</td>
<td>-0.074</td>
</tr>
<tr>
<td>REC</td>
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<td>0.626</td>
<td>0.533</td>
<td>-0.380</td>
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<tr>
<td>CATA</td>
<td>+</td>
<td>0.610 **</td>
<td>2.178</td>
<td>0.033</td>
<td>0.620 **</td>
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<tr>
<td>ROA</td>
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<td>-2.849</td>
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<td>BIG4</td>
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<td>0.491 **</td>
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<td>0.013</td>
<td>0.418 **</td>
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<td>Board and audit committee characteristics:</td>
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<tr>
<td>BIN</td>
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<tr>
<td>BMEET</td>
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<td>-0.450</td>
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<td>0.006</td>
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<td>BSIZE</td>
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<td>ACIN</td>
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<tr>
<td>ACSEX</td>
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<tr>
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<td>2.487</td>
<td>0.016</td>
<td>0.144 **</td>
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<tr>
<td>ACSIZE</td>
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<td>0.042</td>
<td>0.207 *</td>
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<tr>
<td>Adjusted R²</td>
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<td>0.830</td>
<td>0.802</td>
<td>0.830</td>
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<td>F-Statistics (p-value)</td>
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<td>41.585 ***</td>
<td>0.000</td>
<td>25.037 ***</td>
<td>0.000</td>
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</table>

Notes:
- Coefficient
- t-statistics
- p-values (two-tailed) ***p<0.01, **p<0.05, *p<0.10
7.4 Sensitivity Analysis

As mentioned in the previous section, a few hypothesised variables are significantly correlated with each other, therefore two separate regressions (Models 3 and 4) were run to validate the results. In addition to the separation of models, sensitivity analysis was performed to help to study how the variation in the output of a model can be apportioned, qualitatively or quantitatively, to different sources of variation.

First, collinearity statistics was performed to test the effects of correlations between variables to the models. The Variance Inflation Factor (VIF) indicated the reciprocal of the tolerance. As the VIF increases, so does the variance of the regression coefficient, making it an unstable estimate. Large VIF values are an indicator of multicollinearity. The VIF for the models employed range from 1.209 to 4.884, which was in a reasonable range and indicated that the problem of multicollinearity is not serious and unlikely affects the regression results.

Second, for each of the continuous variables, outlying observations had been deleted and the results were found qualitatively unchanged.

Lastly, regressions were run separately to test the association of audit fees and each of the hypothesised variables. The results persisted with the findings in the models except for the significance between audit fees and the size of audit committee. It could be explained with support from prior studies. Goodwin-Stewart and Kent (2006) found that
expertise is associated with higher audit fees when both meeting frequency and independence are low. In this study, both the meeting frequency and independence are high, therefore resulted that the insignificant association between audit fee and audit committee expertise.

Overall, we found the results in this study to be appropriate and convincing as the results persisted throughout the sensitivity analysis.
8. Limitations

The study has discussed the relationship between the dependent variable (external audit fees) and the hypothesised variables (Board and audit committee characteristics). Although the study had been supported by the statistics that were reliable and valid in certain extend, there are still some limitations in the study.

First, as not all companies had published their annual reports for the year ended 2006, therefore, the samples collected were based on the year ended 2005. Although it is not the most updated information, consistencies within the samples collected do exist. Moreover, the sample size was 70 companies out of a total number of about 935 companies listed on the main board of the Hong Kong Stock Exchange at the year ended 2005, representing only 7.49% of the population. Larger sample size can be used in future studies in order to increase reliability.

In this study, the industrial factor had been ignored and the sample had been selected in a random basis. As many companies involved in a multi-industry business, it is difficult to classify and difficult to identify. Since different natures of industries may lead to different results, the reliability of the results may be affected.

Finally, data of this study were collected from annual reports of the companies available from various sources. However, they may not completely explain the linkage between corporate governance characteristics and audit fees. As other variables such as
detailed ownership structures are likely to better explain the relationship; but such detailed information may not be available from the annual reports. If data can be gathered from other sources, for instance, a survey, the data collected may be able to provide better insights and more reliable findings for the study.
9. Conclusion

This paper extended the study of the association between external audit fees and corporate governance structures to the Hong Kong settings. The study was comprehensive: it included the testing of the board of directors’ size, diligence, independence; and the audit committees’ size, diligence, independence and expertise.

The study found out that, overall, the boards of directors’ characteristics do not associate with audit fees. We found no significant association between board independence, frequency of board meetings and board size with audit fees. And the results persisted when a separate model for testing association between board characteristics and audit fees was performed. According to the findings, Hypotheses 1, 2 and 3 were not supported. And concluded that, board independence, number of board meetings and size of board of directors actually were neither positively nor negatively associated with external audit fees. In terms of characteristics of audit committees, we did find significant associations between audit committee independence, frequency of audit committee meetings and size of audit committees with audit fee. The results also persisted when separate model is used for testing the association between audit fees and audit committees characteristics. As we hypothesised negative associations, however, we found that their association is actually positive. The significant findings may be further explained: higher independence of audit committees resulted to a more effective audit
committee oversight of the financial reporting process, while the independence of an audit committee is determined by the proportion of independent non-executive directors in it, therefore, independent directors who are representing shareholders may have a particularly strong incentive to prevent and detect fraudulent behaviours of the management and hence demanding a higher audit quality which leads to a higher external audit fee; more frequent the audit committees meet may reflect that they demand for a higher quality audit, and thus leads to higher audit fees.

To conclude, the study resulted that under a Hong Kong setting, external audit fees were positively associated with audit committees’ characteristics, in particular their independence and diligence. In other words, in terms of Corporate Governance, audit committees’ characteristics affected the amount of external fees more significantly than characteristics of the board of directors.

The study is at the same time being consistent and contrasted to prior studies. For example, the study is consistent with Puan, Kent, and Vlaskson (2006) in finding the positive association between external audit fees and audit committees independence and diligence; but also in contrast with them that this study did not find significant associations between external audit fees and board of directors’ independence. Thus, the study is a good indicator that the results from overseas studies may not be appropriate to be generalized to the Hong Kong Environment. In different settings, there are different
regulatory requirements, different corporate culture and other factors which may lead to
different findings to a same problem.
How a company's level of Corporate Governance affects external Audit Fees?

References


Blue Ribbon Committee (1999). Report and Recommendations on Improving the Effectiveness of Corporate Audit Committees, Report (The New York Stock Exchange)

Byrne, J., (1996). And you thought CEOs were overpaid, Business Week, 26, 34


