Examining the relationship between audit committee effectiveness and audit fees: An empirical investigation on companies listed in the UAE financial markets

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Published: 26 April 2019

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Examining the relationship between audit committee effectiveness and audit fees: An empirical investigation on companies listed in the UAE financial markets

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Published: 26 April 2019

This study seeks to understand the relationship between audit committee effectiveness and audit fees. Prior literature suggests two perspectives to explain this relationship; the first is demand based whereas a positive relationship is expected, while the second is audit risk which propose a negative relationship between the two variables. In order to test the relationship between the two variables, data were collected from 64 companies listed in Abu Dhabi Securities Exchange and Dubai Financial Market. Univariate and multivariate analyses were conducted to test the hypotheses of the study. Results showed that audit committee effectiveness has a significant positive impact on audit fees. This result supports the demand based perspective to explain the relationship between audit committee effectiveness and audit fees. Also, a significant positive relationship is reported for number of meeting of audit committees and audit committee members financial expertise with audit fees.

\textbf{keywords:} Audit committee, Audit fees, Corporate governance.

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1 Introduction

As a key component of corporate governance practices, it is believed that audit committees (AC) have essential roles to protect shareholders from any fraudulent accounting practices and to ensure reliable financial reporting, internal controls, external auditing, and risk management through their diligent oversight efforts and monitoring processes (Kang et al., 2011). Monitoring the auditor and management is one of the main responsibilities of the AC. In this regard the AC serves as the watchdog to protect shareholders’ interest from any opportunistic behavior of management and auditors (Malik, 2014). Looking specifically on AC and audit quality, prior literature suggests that an effective AC will ensure the audit quality of companies. While auditing literature indicated that audit quality is unobservable (Yasin and Nelson, 2012), prior studies used audit fees to proxy for audit quality (O’Sullivan, 2000; Carcello et al., 2002; Salleh et al., 2006; Yatim et al., 2006; Goodwin-Stewart and Kent, 2006; Mitra and Hossain, 2007; Bliss, 2011). According to these studies higher audit fees is a result of a more thorough investigation resulting in more audit hours and more specialized audit staff which, in return, might indicate a higher quality audit. In a similar vein, McMullen (1996) noted that an effective AC protects the interest of shareholders and boosts the external auditors’ effectiveness by allowing more extensive exploration of problems wherein firms with strong and effective AC demand additional assurance from the auditors and higher audit quality, resulting in higher audit fees. These audit fees represent part of the monitoring costs resulting from the monitoring actions (Lifschutz et al., 2010).

Several studies have been undertaken to identify how AC effectiveness (mainly: independence, expertise, meetings frequency, and size) can explain the variation of audit fees. The majority of these studies were conducted in developed countries (Abbott et al., 2003; Goodwin-Stewart and Kent, 2006; Stewart and Munro, 2007; Lifschutz et al., 2010). Yet, limited number of studies examined Arab and Middle Eastern countries (Kikhia, 2014). In these countries, legislations regarding corporate governance codes are relatively recent when compared to other legislations in more developed countries. The UAE provides an interesting context to explore the benefits of applying corporate governance codes as it recently started obliging listed companies to adhere to corporate governance codes in 2010. Also, no attempt (to the best of the researchers’ knowledge) has been made to explore variables influencing AC effectiveness and audit fees in the UAE environment. This study attempts to provide further evidence on the impact of AC effectiveness on audit fees for a sample of companies listed UAE main financial markets.

2 Audit Committee Effectiveness: an operational definition

Audit Committee is considered as the main mechanism responsible for the oversight of financial reporting process and disclosure (Al-Aali et al., 2014). Sarbanes-Oxley Act of 2002, section 2 (SOX) defined the Audit Committee as “a committee (or equivalent body) established by and amongst the board of director of an issuer for the purpose
of overseeing the accounting and financial reporting processes of the issuer and audits of the financial statements of the issuer” (Beasley et al., 2009: pag:67). In light of this definition, it is obvious that monitoring the external auditor and the management of the company is the main responsibility of the Audit Committees (Abbott and Parker, 2000). McMullen (1996) viewed AC as a monitoring mechanism that reduces the information asymmetry and agency problem between management and shareholders. Nevertheless, the success of an audit committee depends on its effectiveness. To ensure an effective monitoring process, Abbott et al. (2003) viewed the criteria for composition (especially independence), which can be considered the input determinant of an effective monitoring process. McMullen (1996) emphasized that effective AC enhances the credibility of annual audited financial statements, assists the board of directors in safeguarding the interests of shareholders, and boosts the external auditor’s independence and effectiveness by allowing more extensive exploration of problems (Klein, 2002).

Extensive research was conducted to identify the characteristics of an effective audit committee. Sarbanes Oxley Act (2002) imposed strict requirements on audit committee membership, including independence, expertise, size, and meeting frequency. It has been argued that an effective and independent AC has an influential role in the financial reporting process (Gendron and Bédard, 2006). An independent AC provides greater monitoring of the financial discretion of management and ensures the credibility of corporate financial disclosure (Aljifri et al., 2014). The level of expertise is another factor which enhances the effectiveness of the AC. A requirement of at least one member of the AC possesses a background in accounting and finance (Beasley and Salterio, 2001; Abbott et al., 2003). Hence, it is assumed that having independent and qualified AC members enhances the quality of a firm’s financial statement and disclosure (Aljifri et al., 2014).

According to (DeZoort et al., 2002: 41) an effective audit committee: “Has qualified members with authority and resources to protect stakeholders’ interests by ensuring reliable financial reporting, internal controls, and risk management through its diligent oversight efforts”

To sum up, prior literature identified four characteristics of an effective audit committee: (1) independence of members, (2) size of committee (3) financial expertise of members, and (4) holds meetings on a regular basis. Consistent with prior literature, current regulations in the UAE provided the same key indicators of AC effectiveness. In this regard the UAE ministerial resolution number 518 of 2009 identified the factors comprising audit committees effectiveness as: independence of members, size of committee, meetings frequency, and accounting and financial reporting knowledge. The resolution required companies to establish audit committees adhering to the following requirements (1) consist of at least three members (2) all members are independent, (3) meet at least 4 times per fiscal year, and (4) include at least one member of financial expertise.
3 Theoretical framework and hypotheses development

The relationship between audit fees and audit committee effectiveness is explained from two main perspectives: (1) the demand based perspective, and (2) the audit risk perspective. The demand based perspective (Carcello et al., 2002; Abbott et al., 2003; Kikhia, 2014) viewed a positive association between AC effectiveness and audit fees. Firms with effective AC and strong corporate governance structures demand additional assurance from their auditor to preserve their reputation, avoid potential litigation, and make a positive expression about the financial reporting and audit quality for both of the management and investor mind, resulting in a higher audit fees. On the contrary, the audit risk perspective (Goodwin-Stewart and Kent, 2006; Lifschutz et al., 2010) suggests that the auditors can be used as an internal control mechanism that influences the nature and extent of audit testing. In firms with effective AC and strong corporate governance, auditors will reduce their audit risk assessment, and audit testing, leading to lower external audit fees. In other words, the effective internal audit might be used as a substitute to the external audit procedures resulting to lower audit fees (Kikhia, 2014).

The current study seeks to find answers regarding which perspective explains the relationship between AC effectiveness and audit fees in the UAE environment. So, hypotheses in this study are none directional. If the results of the study show a positive relationship between audit committee effectiveness and audit fees, then the demand based perspective is supported in the UAE environment. On the other hand, if the results showed a negative relationship between audit committee effectiveness and audit fees, then the audit risk perspective is supported in the UAE environment.

Thus the main hypothesis of this study examines the relationship between AC effectiveness and audit fees; the hypothesis is stated as follows:

H1: There is a relationship between AC effectiveness and audit fees.

In addition, three AC effectiveness variables will be examined in this study, these are: size of audit committee, meetings frequency, and financial expertise. The variable related to independence of AC members is excluded because all members of the AC are required to be independent according to the law. As a result, no variability among companies is expected to exist as for the independence of the audit committee members. As a result three sub-hypotheses are formulated as for these three variables. The following provides a discussion regarding these three sub-hypotheses.

Audit Committee Size

DeZoort et al. (2002) indicated that the AC should have an adequate number of AC members. The size of audit committees’ numbers varies between three to six members. Prior literature indicated a positive relationship between AC size and audit fees. Bushman et al. (2004) noted that small AC is expected to have fewer advisors and monitors of management. As a result, it is expected that large size AC have higher governance impact (Goodwin-Stewart and Kent, 2006). In order to ensure AC effectiveness, the
UAE ministerial resolution no. 518 of 2009 required companies to have at least three members in the audit committee. Accordingly, the following hypothesis is considered:

**H1.1: there is a relationship between audit fees the size of AC.**

**Audit Committee Meeting Frequency**

Raghunandan and Rama (2007) indicated that the frequent meeting of AC is a visible sign of an active AC. The AC should have direct channels with the auditors to discuss and review specific issues and to stay informed and knowledgeable about relevant accounting and auditing issues. Beasley et al. (2009) pointed out that the AC who met less was more likely to fraud than that committee who met frequently. Moreover, Abbott et al. (2003) found that companies whose AC members met more than four times per a year are less expected to obtain and have restated their audited financial statements. Gendron et al. (2004) found that the AC who meet frequently are more knowledgeable of current audit issues and more effectively and therefore more likely to support the auditor and understand his or her issues, thus lead to high audit fees. On the other hand, some studies reported mixed results regarding the association between audit fees and AC meeting frequency. Goodwin-Stewart and Kent (2006) and Stewart and Munro (2007) found a positive association between AC meeting frequency and the level of audit fees. While Abbott et al. (2003) and Kikhia (2014) found no significant relation between the frequency of AC meetings and the audit fees.

Based on the above discussion, the following hypothesis is developed:

**H1.2: there is a relationship between audit fees and AC meeting frequency.**

**Audit Committee Expertise**

The AC must have at least one financial expert among its members. To be a financial expertise, this member should have an education and experience as a public accountant, auditor, a principal, financial officer, or have an understanding of generally accepted accounting principles and financial statement (Malik, 2014). Financial knowledge and expertise enhance AC effectiveness and play an important role in audit function (Spira, 2003). AC members with financial and accounting knowledge is more likely to support external auditors while discussing auditing issues with the management and such committee with this expertise is more likely to understand the risk that the external auditor faces (Kikhia, 2014). Members of the AC need to be able to ask relevant, probing and tough questions in order to ensure that management are fulfilling their duty in protecting the shareholders’ interests (Spira, 2003). The presence of members with financial expertise is a good sign that adding value to the committee in respect of technical auditing and reporting issues, thereby boosting the discharge of their oversight functions on management (DeZoort and Salterio, 2001).
The results of prior studies that investigated the AC expertise and audit fees correlation are conflicting. On the one hand, Abbott et al. (2003) and Yatim et al. (2006) reported a significant positive association between AC expertise and audit fees. While on the other hand, Goodwin-Stewart and Kent (2006) found no significant relationship between audit fees and AC expertise.

Accordingly, the following hypothesis is developed:

**H1.3:** there is a relationship between audit fees the number of AC members with financial expertise.

4 Research Design

4.1 Sample of the study

Data were collected from the 2015 annual reports of companies listed in the ADX and DFM. Total number of companies included in the study was 76.

4.2 Variable measurement and model specification

To explore the research question, univariate and multivariate analyses are used. As for the univariate analyses, tests of means and tests of medians were used. On the other hand, the multivariate analysis relied ordinary least squares (OLS) regression model by extending the traditional audit fee model (Simunic, 1980; Francis, 1984; Simon and Francis, 1988; Craswell and Francis, 1999) to include the variables of interest to this study.

4.2.1 Independent variables

Four variables are included in the study as independent variables, these are: Independence of members, Members Financial Expertise, Audit committee number of meetings, size of audit committee. Audit committee independence is measured as the percentage of independent directors on the committee. A director is assumed to be independent if he/she is a non-executive who has no related party transactions with the company. Expertise is measured as the percentage of committee members who have an accounting or finance qualification. Meeting frequency is the number of audit committee meetings held during the year. This information is disclosed in the directors’ report or the corporate governance statement in the annual report.

4.2.2 Control Variables

Prior literature on audit fees determinants recognized variables related to size, profitability, firm risk, and work complexity of audited firm. Studies have also associated a relationship profitability and sector type and audit fees. Therefore, the current study included these variables to control for the relationship dependent variable and independent variables.
4.3 Regression Models

Hypotheses of the study are tested using the following two models:

**Model (1)**

Audit Fee = \( \alpha + b_1 \text{AC Effec} + b_2 \text{Size} + b_3 \text{Prof} + b_4 \text{Cmplx} + b_5 \text{Rsk} \)

**Model (2)**

Audit Fee = \( \alpha + b_1 \text{AC Size} + b_2 \text{AC Meet} + b_3 \text{AC FinExp} + b_4 \text{Size} + b_5 \text{Prof} + b_6 \text{Cmplx} + b_7 \text{Rsk} \)

Where:

Audit Fee = External audit fees
AC Effec = Audit committee effectiveness, dummy variable: 0 = if a firm AC at minimum requirement. 1 = if firm AC is above requirement
AC Size = number of members in the audit committee
AC Meet = number of meetings held during the year
AC FinExp = number of audit committee members with financial expertise
Size = size of company measured by the natural logarithm total assets
Prof = profitability of the company measured by ROA
Cmplx = degree level of complexity measured by the number of branches
Rsk = firm risk factor measured by the debt ratio

5 Results of the study

5.1 Descriptive statistics

Table 1 below shows descriptive statistics of the variables included in the study. As seen in the table, independent variables (audit committee size, audit committee number of meetings, and audit committee financial expertise) vary among firms. Even though, the UAE corporate governance code required companies to adhere to certain requirements for audit committee members and meetings, it is noticed that some firms voluntarily go beyond what is required. For example, size of audit committees ranges from 3 members to 5 members (the code requires 3 members).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Fees</td>
<td>27065</td>
<td>4169152</td>
<td>477768</td>
<td>246500</td>
<td>609601</td>
</tr>
<tr>
<td>AC Size</td>
<td>1</td>
<td>5</td>
<td>3.250</td>
<td>3</td>
<td>5.345</td>
</tr>
<tr>
<td>AC Meet</td>
<td>4</td>
<td>12</td>
<td>4.875</td>
<td>4</td>
<td>1.693</td>
</tr>
<tr>
<td>AC FinExp</td>
<td>4</td>
<td>12</td>
<td>4.875</td>
<td>4</td>
<td>1.693</td>
</tr>
<tr>
<td>Size</td>
<td>1552101</td>
<td>74179236000</td>
<td>4441997200</td>
<td>12109386664</td>
<td>122348841254</td>
</tr>
<tr>
<td>Prof</td>
<td>1059</td>
<td>9769</td>
<td>1086</td>
<td>9466</td>
<td>.998</td>
</tr>
<tr>
<td>Cmplx</td>
<td>0</td>
<td>126</td>
<td>5.641</td>
<td>2</td>
<td>16.374</td>
</tr>
<tr>
<td>Rsk</td>
<td>0</td>
<td>99</td>
<td>4162</td>
<td>.4320</td>
<td>.4201</td>
</tr>
</tbody>
</table>
5.2 Results of the Univariate analyses

Companies were divided into two groups in order to conduct univariate analyses for each independent variable. The first group represents companies who adhered to the corporate governance code requirements. The second group included companies who voluntarily done more than required by the code. Tests of means (parametric tests) and test of medians (none parametric tests) were conducted for continuous variables (Audit fees, ROA, Total Assets, Number of Branches, and Debt). Results showed that audit fees are higher and significant for companies whose audit committee size and meetings frequency is above what is required. Thus the results of the univariate analyses support hypotheses H1.1 and H1.2. On the other hand, the variation between the two groups is not significant when considering audit committee financial expertise. Accordingly, hypothesis H1.3 is not supported. Results of the univariate analyses are shown in tables 2, 3 and 4.
### Table 2: Univariate Analysis results of Size of Audit Committee

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parametric test</th>
<th>Non Parametric Test (Test of Ranks)</th>
<th>( Z ) Score</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum requirement (N = 51)</td>
<td>Above requirement (N = 13)</td>
<td>F-Value</td>
<td>P-Value</td>
</tr>
<tr>
<td>Mean</td>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit Fees</td>
<td>389889.490</td>
<td>822521.092</td>
<td>6.983</td>
<td>.016**</td>
</tr>
<tr>
<td>Total Assets</td>
<td>5008389505</td>
<td>2219996619</td>
<td>.917</td>
<td>.342</td>
</tr>
<tr>
<td>ROA</td>
<td>.0757</td>
<td>.2231</td>
<td>10.779</td>
<td>.002**</td>
</tr>
<tr>
<td>Number of branches</td>
<td>4.998</td>
<td>11.692</td>
<td>11.174</td>
<td>.001***</td>
</tr>
<tr>
<td>DEBT</td>
<td>4146</td>
<td>4222</td>
<td>799</td>
<td>.375</td>
</tr>
</tbody>
</table>

* significant at 10%, ** significant at 5%, *** significant at 1%

### Table 3: Univariate Analysis results of Number of Meetings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parametric test</th>
<th>Non Parametric Test (Test of Ranks)</th>
<th>( Z ) Score</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum requirement (N = 35)</td>
<td>Above requirement (N = 29)</td>
<td>F-Value</td>
<td>P-Value</td>
</tr>
<tr>
<td>Mean</td>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit Fees</td>
<td>315835.657</td>
<td>673203.370</td>
<td>7.763</td>
<td>.007***</td>
</tr>
<tr>
<td>Total Assets</td>
<td>2168493042</td>
<td>7185881329</td>
<td>9.478</td>
<td>.003***</td>
</tr>
<tr>
<td>ROA</td>
<td>.0907</td>
<td>.1336</td>
<td>941</td>
<td>.336</td>
</tr>
<tr>
<td>Number of branches</td>
<td>3.829</td>
<td>7.828</td>
<td>2.808</td>
<td>.094**</td>
</tr>
<tr>
<td>DEBT</td>
<td>4396</td>
<td>5870</td>
<td>228</td>
<td>.635</td>
</tr>
</tbody>
</table>

* significant at 10%, ** significant at 5%, *** significant at 1%
5.3 Results of the Multivariate analyses

Ordinal least square regression analyses are conducted to test models 1 and 2. Results are shown in tables 5 and 6. As seen in table 5 which reports the results related to model 1, AC effectiveness has a significant positive relationship with audit fees at the 5% significance level. The positive relationship between AC effectiveness and audit fees provide supporting evidence of the demand based perspective when explaining the relationship indicating that more effective AC will require high quality external audit work which reflects in a higher audit fees. Similar results were reported by (Carcello et al., 2002; Abbott et al., 2003; Kikhia, 2014). In addition, table 6 reports the results of model (2). As seen in the table, results showed that AC number of meetings is significant positive indicator of audit fees at the 1% significance level. As a result, hypothesis H1.2 is supported. This result is consistent with the findings reported by Goodwin-Stewart and Kent (2006) and Stewart and Munro (2007). Also, AC members’ financial expertise has found to have a significant positive relationship with audit fees at the 10% significance level. Hence, hypothesis H1.3 is supported. Similar results are reported by Abbott et al. (2003) and Yatim et al. (2006). However, the model did not find significant evidence of the relationship between AC size and audit fees. Accordingly, hypothesis H1.1 is not supported.
Table 5: Results of the multiple regression analysis (Model 1)

<table>
<thead>
<tr>
<th>Model statistics</th>
<th>F Value</th>
<th>P. Value</th>
<th>Adj. R²</th>
<th>DW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.813</td>
<td>0.005</td>
<td>0.347</td>
<td>1.98</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>B</th>
<th>P-value</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Effec</td>
<td>0.225</td>
<td>0.04**</td>
<td>2.017</td>
</tr>
<tr>
<td>Prof</td>
<td>0.138</td>
<td>0.218</td>
<td>1.793</td>
</tr>
<tr>
<td>Complex</td>
<td>0.312</td>
<td>0.012**</td>
<td>1.698</td>
</tr>
<tr>
<td>Risk</td>
<td>0.118</td>
<td>0.113</td>
<td>1.732</td>
</tr>
<tr>
<td>Size</td>
<td>0.335</td>
<td>0.011**</td>
<td>1.763</td>
</tr>
</tbody>
</table>

* significant at 10%, ** significant at 5%, *** significant at 1%

Table 6: Results of the multiple regression analysis (Model 2)

<table>
<thead>
<tr>
<th>Model statistics</th>
<th>F Value</th>
<th>P. Value</th>
<th>Adj. R²</th>
<th>DW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.367</td>
<td>0.004</td>
<td>0.223</td>
<td>1.764</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>B</th>
<th>P-value</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Size</td>
<td>0.062</td>
<td>0.65</td>
<td>1.286</td>
</tr>
<tr>
<td>AC Meet</td>
<td>0.419</td>
<td>0.010***</td>
<td>2.017</td>
</tr>
<tr>
<td>AC FinExp</td>
<td>0.252</td>
<td>0.091</td>
<td>1.479</td>
</tr>
<tr>
<td>Prof</td>
<td>0.177</td>
<td>0.176</td>
<td>1.168</td>
</tr>
<tr>
<td>Complex</td>
<td>0.255</td>
<td>0.035**</td>
<td>1.3</td>
</tr>
<tr>
<td>Risk</td>
<td>0.109</td>
<td>0.349</td>
<td>1.075</td>
</tr>
<tr>
<td>Size</td>
<td>0.299</td>
<td>0.051*</td>
<td>1.348</td>
</tr>
</tbody>
</table>

* significant at 10%, ** significant at 5%, *** significant at 1%

6 Summary and conclusions

This study seeks to explain the impact of audit committee effectiveness on the quality of external audit for companies operating in the UAE. Consistent with prior literature, audit fees has been identified as a proxy of external audit quality. In addition, audit committee effectiveness has been examined in terms of three variables, namely: size of the committee, meetings frequency, and financial expertise. Previous studies suggested two different directions to explain the relationship between audit committee effectiveness and audit fees. The first is demand perspective whereas a positive impact is expected. On the other hand, the second perspective provides a negative direction of the relationship. Results of the study provided evidence of significant positive relationship between audit committee effectiveness and audit fees. Hence, the demand perspective is supported in the UAE environment. As discussed earlier in this study, the UAE has implemented the new corporate governance code in order to strengthen the investing environment and to make the UAE financial markets to be viewed as safe, reliable, and protected. Findings of this study provides evidence that more effective audit committees will lead to high levels of external audit quality which will eventually leads to more reliable corporate
financial reporting.

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