Audit Committee and Earnings Quality

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In this study, we investigate the relationship between the Audit Committee and earnings quality. The audit committee plays an important role in the improvement of earnings quality. Our Empirical evidence shows that the Audit Committee does not allow management to get involved in earnings management and examine all the activities of management thoroughly to ensure better earnings quality. Firms are usually identified by weak internal audit control. We used two models to measure earnings quality, the first introduced in the year 1991 by Jones (very commonly used) and the second introduced in the year 2002 by Dechow and Dichev. Our results show that the audit committee curtail earnings management activities in firms. We also define the conflicts between the two measures of earnings quality and the audit committee. Earnings management was usually found where the majority of the audit committee consisted of independent directors. The audit committee should be independent and perform an unbiased role in the development of the firm.

Key words: Audit Committee, Earnings Quality, Malaysia.

Introduction

The main objective of this research is to analyze the relationship between the audit committee and earnings quality. The worth of a firm is associated with retained earnings and this creates economic benefits that put pressure on management to be involved in earnings management. Previously this was presented in “The Numbers Game” speech by US Security Exchange Commission (SEC) Chairman Levitt (1998). He called for the number of the issue especially, corporate management effect by fundamental culture, enhance the corporate governance and improving the effectiveness of audit committee. There are several corporate scandals around
the world that create doubt in the eyes of investors and also shaken the confidence in financial statements of the firms for example, Enron, WorldCom, and Xerox who were involved in planned fraud in developed nations where the investor had to face losses (Miko et al., 2015). Managers get involved in earnings management to overstate the profits as to achieve the targets. Manager’s incentives are based on targets and they use earnings management to manipulate results in order to achieve the required targets (Leuz et al., 2016). This type of manipulation is not sustainable and is evident in future periods. Hamisu et al., (2018) reported that during the period of 2008 to 2012 financial fraud increased from 18.2% to 31% which is quite unreasonable and drew the attention of researchers and authorities.

Corporate shareholders have greater concern with regards to earnings quality. The better the quality of earnings the longer the firm survives. In other words, if a firm needs to improve financial reporting in order to improve the earnings quality it has to establish and empower the independent audit committee (Sarkar et al., 2016). Therefore the practices adopted by the Australian stock exchange were very unique. They asked all the companies listed in the stock exchange to provide details related to their corporate governance practices, regardless of whether they had an audit committee or not, if their practices were suitable for the requirement then there was no barrier to compliance with best practice guidelines. In 2003 audit committee become compulsory for the listed companies in Australia.

The main responsibility of the audit committee is to monitor, review and acknowledge financial activities and ensure that internal controls are perfect and adhered to (Ittonen et al., 2018). In recent years it has become mandatory to develop audit committees which has further emphasized the role of the audit committee with respect to financial reporting. Previously researchers explained that the quality of financial reporting reflects the expertise of auditors and their monitoring activities (Wu et al., 2016; Subramaniam & Anandasayanan, 2018).

In this paper, we hypothesize that the formation of an audit committee increases the quality of earnings (Beattie et al., 2015). In particular, we realize that the quality of financial reporting is widely based on the strength of the audit committee. The relationship between the audit committee and earnings quality is described by (Babri et al., 2018). We elaborate on this topic in different ways. First, we use accruals estimation error and discretionary accruals measurement for the identification of earnings quality. Earnings quality can measure more comprehensively with accruals estimation error. Previously very few studies used the Dechow and Dichev (2002) model for accrual estimation errors in order to explain the relationship between the audit committee and earnings quality. The analytical values for these two earnings quality measures give us an opportunity to elaborate the impact on the existence or development of an audit committee in various aspects.

Buallay et al. (2019) extracted some evidence about the influence of the audit committee on earnings quality. Since the earnings quality rely on the expertise of the audit committee, Inaam et al., (2016) examined the role of the audit committee. Our investigation is based on research (Buallay et al., 2019; Alzeban et al., 2015) which discussed the relationship of audit committee characteristics with accruals quality. Our results indicate that the formation of an audit committee leads to better earnings quality. This approach indicates that the Jones model
is better in capturing accruals manipulation. This research also examines the difference between earnings quality measure and audit committee accounting expertise.

**Literature Review**

**Formation of Audit Committee**

Previous empirical research evidence in several studies to show the relationship between the audit committee and financial reporting (Gaynor et al., 2015). The research methods used in previous studies were unable to clearly show the impact on earnings quality through the formation of audit quality. To observe in more detail, this research suggests changes in the audit committee and measures the degree of changes happening in earnings quality.

Inaam et al. (2016) directly examines the relationship of formation of the audit committee with earnings quality. The impact of on earnings quality due to the formation of audit committee does not reflect in the same period as the financial reporting quality need to be figured. It is observed that in the subsequent period the quality of earnings improve. We hypothesize that the establishment of an audit committee does effect the increase in earnings quality. Hence, we hypothesize that:

H1: Earnings quality will improve after the establishment of an audit committee.

**Audit Committee Characteristic**

**Independence**

The independent audit committee is a necessary part of the organizational structure. The purpose of establishing an audit committee is to oversee the financial reporting process. The independent audit committee discourages earnings management and increases the earnings quality of a firm by improving financial reporting. The independent audit committee cannot take pressure from the management in manipulating the reports. They support the phenomenon of long term firm survival and protecting the investment of shareholders (Abbadi et al., 2016).

In previous studies, it has been found that the independent audit committee plays an important role in earnings quality (Elijah et al., 2015). However, some studies didn’t find a consistent result. For example, Klein (2002) failed to dig out any evidence related to the association of audit committee (built up of independent directors) with earnings management. In the same way, Lawson et al., (2016) finds the negative association of the audit committee with aggressive earnings management.

**Expertise**

Expertise is considered as the main characteristic of the audit committee on which effective and efficient operation depends. It has been argued that the audit committee should be capable enough and possess suitable expertise in accounting, auditing, and finance to assess and control the manipulation in accounts, which is reflected in financial reports (Kent et al., 2016).
Previous studies have discovered that there is a remarkable association in the expertise of the audit committee with respect to earnings quality (Juhmani et al., 2017). However, there are some inappropriate results that appear in other studies such as (Sultana et al., 2015) were there was inability to derive the relationship in the improvement of earnings quality and independent audit committee.

**Size and activity of the committee**

The audit committee has to plan some activity to enhance control and effectiveness in order to improve earnings quality. Pérez-Cornejo et al., (2019) argue that the committee should not work under the supervision of the board or they are liable to take permission regarding their work as it was established independently. Agyei-Mensah et al., (2019) suggest that earnings management can be easily detected by the audit committee as compared to the dormant committee. It is a general perception that the size of an audit committee can have a positive impact on earnings quality. The larger audit committee can be more effective as they can have different variety of experts to run effective operations (Agyei-Mensah et al., 2019). For this we develop a new hypothesis:

H2: The expertise, activity, independence and size of an audit committee helps in improving the earnings quality.

**Methodology**

**Data and Sample**

The earnings quality measure is calculated from the extracted data of the company’s financial statements. H1 suggests an increase in the quality of earnings associated with the formation of an audit committee. To simplify H1, it is necessary to find the estimates before and after the formation of an audit committee. Therefore the earnings quality measure estimated by the industry match sample, before and after the establishment of an audit committee is essential. Moreover, these measures were viewed again for each of the sample firms to analyze the association between earnings quality and audit expertise, audit committee and audit committee independence (H2). Data for the audit committee variables was collected from the annual reports of the firms. The audit committee expertise and independence can be realized by disclosures about the director’s backgrounds, qualification, and professional experiences.

The study sample is drawn from 916 companies listed in the stock exchange of Bursa Malaysia. 414 firms were considered in this study belonging to different Malaysian industries. Financial institutions and the firms who haven’t provide a complete annual report and those firms whose data is missing for the study variables are not included in our study as modelled by previous studies (Al-Rassas et al., 2015; Tabrizi, 2017). Table 1 provides the breakup of sample data collected from different sources.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Firms</th>
<th>Observations</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial products</td>
<td>127</td>
<td>530</td>
<td>6</td>
</tr>
</tbody>
</table>

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Establishment of Audit Committee

To analyze the outcome of forming an audit committee with respect to earnings quality, the test will be conducted before and after the audit committee was formed. In the result of Panel A of Table 2, the significant difference arises in the matched-pair t-test. Those results show the accruals estimation before and after the formation of an audit committee. Accrual variables are identified from the modified Jones (1991) model and the mean value for EQMJones (Before) (0.2305) is quite significantly higher than EQMJones (After) (0.1359). This difference shows that the earnings quality base on the estimation of Jones (1991) model is prominently increased after the establishment of an audit committee. This result indicates that the audit committee plays an important role in the enhancement of earnings quality. This result also supports our first hypothesis H1: Earnings quality will improve after the establishment of an audit committee.

Table 2: Panel A

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>EQMJones (Before)</td>
<td>86</td>
<td>0.02</td>
<td>0.76</td>
<td>0.1199</td>
<td>0.2305</td>
<td>0.2465</td>
<td>3.092</td>
</tr>
<tr>
<td>EQMJones (After)</td>
<td>86</td>
<td>0.100</td>
<td>0.76</td>
<td>0.0863</td>
<td>0.1359</td>
<td>0.1564</td>
<td>-</td>
</tr>
<tr>
<td>EQMD (Before)</td>
<td>73</td>
<td>0.00</td>
<td>0.46</td>
<td>0.0572</td>
<td>0.0923</td>
<td>0.1036</td>
<td>-</td>
</tr>
<tr>
<td>EQMD (After)</td>
<td>73</td>
<td>0.00</td>
<td>0.62</td>
<td>0.0596</td>
<td>0.0974</td>
<td>0.1123</td>
<td>0.298</td>
</tr>
</tbody>
</table>

* Significant at the 5% level, ** significant at the 1% level

However, our second measure of earnings quality was the Dechow and Dichev (2002) model. The results of this measure show unreasonable variation before and after forming an audit committee as mentioned in the above table. The t values of both models are almost opposite to each other. This indicates that both models have different characteristic of measuring earnings quality.

Earnings Quality and Earnings Management

This study uses two different models to find the increase in earnings quality, the first model is very common, the Jones modified (1991) model of discretionary accruals. This model has been used very commonly in different kinds of literature to evaluate earnings quality. Beaudoin et al. (2015) discuss earnings management as a deliberate act of intervention in which manipulation takes place in the external financial reporting process, with the intention
of getting personal benefits. Under these circumstances, deliberate earnings management left
a negative impact on earnings quality, thus the lower the earnings management the greater the
earnings quality would be.

The second model used to measure the earnings quality is based on the modified version of
the Dechow and Dichev (2002). This model is based on the statement that level estimation
error occurs in accruals and that the level of subsequent correction compromises the quality
of accruals and as well as earnings.

We express earnings quality by using two models which are described below. These models
are not relevant unless all deviation from given earnings reduces earnings quality. We use
cross-sectional rather than time-series specifications for each of our measures since we
require measures of earnings quality for specific firm years. To calculate earnings quality
variable, we use information from the Global Industry Classification Standard (GICS) to
develop the data sample. To increase the reliability and enhance the validity of the measure,
we restrict the sample data to those industry groups that had more than 15 companies in the
KLSE-Bursa Malaysia Exchange. For those industrial sectors that have a large number of
companies, the sample data was restricted to a maximum of 25 companies.

Initially the earnings quality measured with (EQMJones) the modified form of the Jones
(1991) model. Our sample companies extracted from the same industry groups by using the
cross-sectional method. Our first measure of earnings quality is the absolute value of
discretionary accruals. The discretionary accruals model has been criticised as incomplete
because it categories misclassified expected accruals as unexpected. Leung et al., (2017)
argued that the model estimating the discretionary accruals has a significant imperfection and
mis specification when the evidence was consistent. Ilmas et al., (2018) argued that research
studies shouldn’t rely solely on discretionary accruals because they possess the element of
over and understated values that are useful in earnings management. Dechow et al. (1995)
illustrate that discretionary accruals models generate tests of low power for earnings
management which is economically feasible.

To minimize the criticism of the modified Jones model, we use another earnings quality
measure which is (EQMD). (EQMD) is the cross-sectional method of measuring earnings
quality. McNichols (2018) provides analysis of the Dechow and Dichev (DD) model and give
recommendation for enhancement. Francis et al. (2005) added two variables to the Jones’s
model to get better results i.e., the change in credit sales and the change in noncurrent asset
which is PPE (Property, Plant and Equipment).

We find EQMD by the given below equation with estimating the modified model. These
estimations are different for every firm provided in the sample data, related to its industry for
each year of interest. All variables in below equation are divided by average total assets:

\[
DWCY_f = \beta_0 + \beta_1 NCFOf_{f-1} + \beta_2 NCFOf_f + \beta_3 NCFOf_{f+1} + \beta_4 \Delta Sales_f + \beta_5 CPPE_f + \varepsilon
\]

(Equation 1)

Where; DWCYf = Change in Current capital in year f; NCFOf-1 = Operating cash flow in
year f – 1; NCFOf = Cash flows from operations in year f; NCFOf+1 = Cash flows from
operations year in year \( f + 1 \); \( DSales_f = \text{Change in Sales in year } t \text{ less sales in year } f - 1 \); \( CPPE_t = \text{Gross property, plant and equipment in year } f \).

**Control Variables**

FORM is a dummy variable that would be considered as zero before the formation of an audit committee and at 1 after the establishment of an audit committee. All the variables are calculated before the formation of an audit committee and after 1 year of the establishment of an audit committee. Return on asset (ROAt) is used to observe the performance of the firm. Earnings quality can also be increased with the performance of the firm. It is realized that forming an audit committee and changing the board of directors can also affect the earnings quality. That’s the way we include some more controls like Board independence (PRIND), accounting expertise (PRDBAQ), board members (BMDSIZE), board meeting (NBM), legal expertise (PRDBL) and auditor quality (AUDR) for before and after the formation of the audit committee.

**Method of analysis**

It is most likely possible that the difference exists in the earnings quality before and after the establishment of an audit committee. Therefore, this study examines the earnings quality before and after the implementation of an audit committee in a firm. Further, we include other variables that may influence the earnings quality. Following (Sadiq et al., 2019; Sadiq & Othman, 2017), this study include the following control variables in the regression:

\[
EQU = \beta_0 + \beta_1 \text{FORM} + \beta_2 \text{ROA} + \beta_3 \text{PRIND} + \beta_4 \text{PRDBAQ} + \beta_5 \text{PRDBL} + \beta_6 \text{NBM} + \beta_7 \text{BMDSIZE} + \beta_8 \text{AUDR} + \varepsilon
\]

(Equation 2)

Where; \( EQU \) is earnings quality, which is measured using modified Jones (1991) model, and modified Dechow and Dichev (2002) accruals quality model; FORM is an indicator variable which is indicated 1 if audit committee is established and 0 before the establishment of audit committee; PRIND = Proportion of independent directors on the board; ROAt = Return on assets calculated as operating profit after tax divided by average total assets; BMDSIZE = Number of board members; PRDBL = directors on the board with legal qualifications; NBM = Number of board meetings per year; PRDBAQ = directors on the board with accounting qualifications; AUDR is a dummy variable, which is indicated by 1 if a firm is audited by big four auditors and 0 otherwise.

The data of 414 Malaysian companies were collected as this study sample. Regression will be run using the above identified model. This model of earnings management works only when accrued expense and accrued revenues are mapped into cash flow realization in the present, past, and future. Fields et al. (2018) measure earnings quality through residuals of standard deviation by using the above model. However, we cannot use the residuals of the standard deviation in this study because we are using the cross-sectional industry model. Therefore it will provide the generalized results for earnings management that can be considered for all the firms in the industry group, instead of the specific firm of our interest. Larson et al.,
(2018) also required that this measure be taken on a firm-year basis and thus in the research, the measure of earnings quality is captured by the absolute value of the residuals.

**Results**

**Descriptive Analysis**

Table 3 provides a descriptive analysis of the variables used in finding the connection between the characteristics of the audit committee and earnings quality (H2). The absolute discretionary accruals are measured based on the cross-sectional modified Jones (EQMJones) model. The mean and median values of our cross-section match with those reported by Elghuweel et al. (2017).

The descriptive analysis of sample companies indicates that there is a significant variation in audit committee variables. The mean proportion of the independent audit committee PRINDC is 0.51 is quite low as compared to the United States. Zalata et al., (2016) provide some evidence about the audit committee independence in America, which shows a much higher proportion of independent directors. This indicates that the audit committee regulations are much higher in the United States as compared to Malaysia. In this research, the measure of NACME and NACM is slightly higher when compared to that reported in previous studies. The rest of the variables in Table 3 are control variables.

**Table 3: Descriptive analysis of 414 Malaysian companies**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>EQMJones</td>
<td>0.00</td>
<td>2.96</td>
<td>0.11</td>
<td>0.17</td>
<td>0.23</td>
</tr>
<tr>
<td>EQMDD</td>
<td>0.00</td>
<td>1.31</td>
<td>0.07</td>
<td>0.09</td>
<td>0.15</td>
</tr>
<tr>
<td>PRINDC</td>
<td>0.00</td>
<td>2.00</td>
<td>0.47</td>
<td>0.51</td>
<td>0.31</td>
</tr>
<tr>
<td>PRDAQ</td>
<td>0.00</td>
<td>3.00</td>
<td>0.31</td>
<td>0.33</td>
<td>0.29</td>
</tr>
<tr>
<td>PRDACL</td>
<td>0.00</td>
<td>2.00</td>
<td>0.00</td>
<td>0.17</td>
<td>0.23</td>
</tr>
<tr>
<td>NACME</td>
<td>0.00</td>
<td>18.00</td>
<td>4.00</td>
<td>3.01</td>
<td>1.30</td>
</tr>
<tr>
<td>NACM</td>
<td>2.00</td>
<td>13.00</td>
<td>3.90</td>
<td>3.13</td>
<td>0.98</td>
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<tr>
<td>PRIND</td>
<td>0.00</td>
<td>1.00</td>
<td>0.37</td>
<td>0.39</td>
<td>0.27</td>
</tr>
<tr>
<td>PRDBAQ</td>
<td>0.00</td>
<td>0.76</td>
<td>0.18</td>
<td>0.24</td>
<td>0.19</td>
</tr>
<tr>
<td>PRDBL</td>
<td>0.00</td>
<td>0.49</td>
<td>0.11</td>
<td>0.13</td>
<td>0.13</td>
</tr>
<tr>
<td>NBM</td>
<td>3.00</td>
<td>36.00</td>
<td>20.00</td>
<td>12.01</td>
<td>4.19</td>
</tr>
<tr>
<td>BDMSIZE</td>
<td>3.00</td>
<td>19.00</td>
<td>8.00</td>
<td>6.09</td>
<td>2.19</td>
</tr>
<tr>
<td>TA (bn)</td>
<td>8.60</td>
<td>86.24</td>
<td>36.83</td>
<td>56.31</td>
<td>71.25</td>
</tr>
<tr>
<td>LEV</td>
<td>0.00</td>
<td>3.68</td>
<td>0.63</td>
<td>0.48</td>
<td>0.29</td>
</tr>
</tbody>
</table>

**Regression Results**

Table 4 contains the results of pooled regression. The results show the significant and negative relationship between the establishment of an audit committee and accrual-based earnings management activities, indicating high earnings quality. Our findings are consistent
with the findings of Sadiq et al., (2019) who suggest that firms report better earnings quality in the presence of an audit committee. However, an audit committee is not significantly related to earnings management when it is measured using the modified Dechow and Dichev model, suggesting that the Jones Model is more robust in measuring earnings quality.

NBM and ROAt are significantly and negatively related to earnings management activities, which indicates that firms with more frequent board meetings and high net profits are less involved in earnings management and reporting high earnings quality. PRDBQ and PRDBL are not significantly related to earnings management, which indicates that the accounting qualification and the legal qualification of the directors do not ensure high earnings quality. BDMSIZE have the same signs in both models but very low values, which shows that number of board members has no effect on earnings quality.

Table 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>EQMJones</th>
<th>Coefficient</th>
<th>z value</th>
<th>EQMDD</th>
<th>Coefficient</th>
<th>z value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.291</td>
<td>2.192**</td>
<td>0.096</td>
<td>2.226*</td>
<td>0.007</td>
<td>0.350</td>
</tr>
<tr>
<td>FORM</td>
<td>-0.069</td>
<td>-2.264 *</td>
<td>-0.048</td>
<td>-1.124</td>
<td>-0.007</td>
<td>-0.350</td>
</tr>
<tr>
<td>ROAt</td>
<td>-0.162</td>
<td>-2.261</td>
<td>-0.048</td>
<td>-1.124</td>
<td>-0.048</td>
<td>-1.124</td>
</tr>
<tr>
<td>PRIND</td>
<td>0.082</td>
<td>1.279</td>
<td>0.050</td>
<td>1.127</td>
<td>0.050</td>
<td>1.127</td>
</tr>
<tr>
<td>PRDBAQ</td>
<td>-0.002</td>
<td>-0.019</td>
<td>0.027</td>
<td>0.428</td>
<td>0.027</td>
<td>0.428</td>
</tr>
<tr>
<td>PRDBL</td>
<td>0.105</td>
<td>0.991</td>
<td>0.063</td>
<td>0.886</td>
<td>0.063</td>
<td>0.886</td>
</tr>
<tr>
<td>NBM</td>
<td>-0.005</td>
<td>-2.298 *</td>
<td>-0.003</td>
<td>-1.497</td>
<td>-0.003</td>
<td>-1.497</td>
</tr>
<tr>
<td>BDMSIZE</td>
<td>-0.003</td>
<td>-0.392</td>
<td>-0.002</td>
<td>-0.361</td>
<td>-0.002</td>
<td>-0.361</td>
</tr>
<tr>
<td>AUDR</td>
<td>-0.056</td>
<td>-1.647</td>
<td>0.007</td>
<td>0.365</td>
<td>0.007</td>
<td>0.365</td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td>0.296</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1829</td>
<td>1829</td>
<td>1829</td>
<td>1829</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant at the 5% level, ** significant at the 1% level

Conclusion

This research carries out a systematic and formal inquiry to relate the association of an audit committee and earnings quality in Malaysia. It is hypothesised that the formation of the audit committee increases that the earnings quality (H1), and the independence, expertise, activity, and size of an audit committee are positively associated with earnings quality (H2). The overall outcome supports H1 that is, that the audit committee is associated with an increase in earnings quality, however the results do not support the second hypothesis.

Many conclusions can be drawn from these results. Firstly it was found that the Jones (1991) earnings management model measurement of the discretionary accruals decreases significantly after forming an audit committee. The purpose of this study is to discourage earnings management and encourage earnings quality. The establishment of an audit committee results in a reduction in earnings management hence an increase in earnings
quality. One more benefit of forming an audit committee is that it improves financial reporting practices. This will increase transparency in financial transactions, and ultimately results in the reduction of earnings manipulation and increases the earnings quality. Secondly, earnings quality was measured by using an accruals estimation error model.

It is evident that the accounting expertise of the audit committee is also associated with higher earnings quality. However this correlation was not found when investigating earnings quality while using an earnings management measure. Overall this research focus on earnings quality in multiple ways found that, different results are obtained from different measures of earnings quality. Every earnings quality measure has its own limitation and this apparent in the comparison of findings.

REFERENCES


