Audit committee characteristics and earnings management: is there link?

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Abstract

This study analyses the correlation between audit committee (AC) characteristics and earnings management in a sample of 100 Sri Lankan firms. The analysed AC characteristics include Size of AC, AC independence, AC knowledge and Frequency of AC meetings. The empirical evidence is provided by a sample of 100 Sri Lankan listed firms. Descriptive statistics and multivariate regression are performed. Evidence suggests that size of AC, AC independence and frequency of AC meetings are significant to reduce the earnings management. The remaining AC characteristics (i.e., AC knowledge) are not found to have a significant impact on the earnings management. Other than that, performance also found to be significant, a finding that is consistent with the previous literature on earnings management. This study provides further evidence on how AC characteristics affect their ability to oversee earnings management.

keyword: Audit committee, corporate governance, earnings management

1 Introduction

An Audit committee (AC) represents a governance mechanism that needs to function effectively in order to limit potential agency conflict problems arising from the separation of corporate ownership and control (Abbott L. , Parker, Peters, & Raghunandan, 2003; Jensen & Meckling, 1976). Under the traditional view of good corporate governance where the focus is on the interests of shareholders, the equitable treatment of shareholders, and the disclosure and transparency by management – monitoring roles by the board, its committees and an independent auditor are central. The Corporate Governance Committee (1997, pp.1) asserts that:….'directors are entitled to govern the company, and to supervise and monitor the company's management in order to promote effective management and ensure prudent accountability to the shareholders'. Corporate boards are responsible for monitoring managerial performance in general, and financial reporting process in particular, a task that is delegated to audit committees. It is generally agreed that ACs play a significant role in corporate governance, particularly in enhancing the board of directors' effectiveness in monitoring management (Klein, 2002; Li, Mangena, & Pike, 2012; Smith Report, 2003; Spira, 2003). In order to produce unbiased financial reports, audit committee members are appointed to act independently in order to resolve conflicts between the managers and outside auditors (Klein, 2002). In general, the findings of corporate finance literture indicate that audit committee are important in financial reporting process (Li, Mangena, & Pike, 2012). There is a stream of research in the literature that examines the relation between audit committee characteristics and earnings management. Klein (2002) finds that high AC independence (i.e., the proportion of independent directors on the audit committee) leads to less earnings management. Bedard et al. (2004); Krishnan and Visvanathan (2008) and Dhaliwal, Naiker, and Navissi (2010) find that AC members' accounting financial expertise can enhance financial reporting quality. Bedard et al. (2004) find that earnings management is lower when audit committee members' board seats of other firms are high. Norman and MacDonald (2004) find that management has a strong incentive to manage earnings upward when the level of earnings is slightly negative. While extant studies suggest that audit committee characteristics are related to constraining earnings management and enhancing financial reporting quality, it is unclear whether those characteristics can affect earnings management that is viewed as harder to be detected and constrained. Therefore, the objective of this study is to examine whether AC characteristics are effective to control earnings management practices in Sri Lankan firms as an example of emerging market. This study would hopefully benefit academics, researchers, policy-makers and practitioners of Sri Lanka and other similar countries through exploring the relation between audit committee characteristics and intellectual earnings management and pursuing strategies to improve the current status of it.

This paper is organised as follows: Section 1.2 presents a review of the empirical studies that investigate the association between AC characteristics and earnings management; Section 1.3 addresses research methods; Section 1.4 reports the results and discussion; and Section 1.5 summarises the conclusion.

2 AC regulations for listed companies in Sri Lanka

The legal framework for corporate control was provided by the Companies Act of Sri Lanka, enacted in 1982, which was based on the 1948 Companies Act of the United Kingdom (Guo & Kga, 2012). The institute of chartered accountants of Sri Lanka (CA Sri Lanka) published the first report on the code of best practice on matters relating to financial aspects of corporate governance in 1997. The code of best practice on AC, which was issued in 2002, provided guidelines on the role of audit committees, their composition, detail objectives relating to the financial reporting system, business risk management, internal controls, compliance with laws and firm policies and the external audit function (CA, Institute of Chartered Accountants of Sri Lanka , 2018). The other guidelines for listed firms in respect of audit and audit firms was issued in 2004 and covered guidelines for audit of listed firms and guidelines for AC. The new guidelines was issues in 2017 which provides guidelines on some aspects such as the definition of independent for AC members, the authority of AC, and AC meetings. According to this rule, the board must establish an AC exclusively of non-executive directors with a minimum of three non-executive directors of whom at least two should be independent. If there are more non-executive directors, the majority should be independent (CA, 2017). The committee should be chaired by an independent non-executive director. Additionally, at least one of the AC shall have accounting and/or finance expertise. The responsibility of the audit committee is to provide independent professional advice to the board of directors and identifying matters that require the attention of the board of directors (CA, 2017). In terms of international comparison, AC rules in Sri Lanka, in general, are similar to those in the UK, specifically in the membership requirement of an audit committee. However to date, some of these guidelines have not achieved mandatory status.

3 Literature Review and Hypotheses Development

The literature suggests that the effectiveness of the AC is enhanced when the AC is well resourced, independent and has members with financial expertise (Iyer, Bamber, & Griffin, 2012). Therefore, the study develop hypotheses regarding the AC characteristics and earnings management.

3.1 Size of AC

The key role of AC is to assist the board of directors in overseeing corporate reporting policy (Carcello & Neal, 2003). The Sri Lankan code on corpoarte governance follows the listing requirment of colombo stock exchange (CSE) that AC shall comprise of at least three directors. Although, there is no precisely recommended size for an AC, most previous studies and requlatory requirments seem to suggest three to five members (DeZoort, Hermanson, Archambeault, & Reed, 2002; Abbott, Parker, & Peters, 2004). There is a question whether larger AC size would lead to more effective moniorting. Empirical studies provide mixed outcome on the role of AC size in avrious aspects of organisational endeavours. Some studies find AC size to be associated with lower earnings management (Cornett, McNutt, & Tehranian, 2009) and intellectual capital disclosure (Li, Mangena, & Pike, 2012), whilst others fail to find a significant relationship with earnings mangement (Bedard, Chtourou, & Courteau, 2004) and financial reporting process (Abbott, Parker, & Peters, 2004). Based on this discussion, Hypothesis 1 is:

H_1: *There is a significant relationship between AC size and the magnitude earnings management.*

3.2 AC independence

The AC oversees the reporting process as well as the internal control mechanism within a firm. As in the case of the board of directors, the monitoring function on behalf of shareholders is enhanced as the independence of the committee increases (Saleh, Iskandar, & Rahmat, 2007). In the Sri Lankan context, code of best practices (2017) recommends audit committee to have minimum three non-executive directors of whom at least two should be independent. If there are more non-excutive directors, the majority should be independent. Studies conducted in this area have yielded mixed results. Some studies find that AC independence is positively associated with financial reporting quality (Mangena & Tauringana, 2007), whilst others fail to find a significant relationship (Agrawal & Chadha, 2005; Yang & Krishnan, 2005). Thus, Hypothesis 2 can be stated as follows:

H_2: *There is a significant relationship between independence of AC and the magnitude earnings management.*

3.3 AC knowledge

A financial expert within the AC is defined as a director having accounting, auditing or finance background/relevant experience (Iyer, Bamber, & Griffin, 2012). Sri Lankan best practices on CA (2017) recommends that at least on audit committee member should have recent and relevant financial experience. Li, Mangena, and Pike (2012) argue that AC with financial expertise are likely to be in a better position to understand the capital maket implications of providing quality intellectual capital disclosures. McMullen and Raghunandan (1996) argue firms with financial problems are unlikely to have AC members with financial expertise. This is because members of the committee equipped with financial experience and training should be able to understand earnings management and act accordingly (Xie, Davidson, & DaDalt, 2003). Based on this discussion, hypothesis 3 is stated as:

H_3 : *There is a significant relationship between financial expertise on the AC and the magnitude earnings management.*

3.4 Frequency of AC meeting

A more active audit committee is expected to provide an effective monitoring mechanism As a best parctice, audit committee meeting should be conducted at least once a year (Saleh, Iskandar, & Rahmat, 2007). However, total number of meetings depends on the firm's term of reference and the complexity of the firm's opertaions. Empirical evidence notes that there is a positive relationship between audit committee meetings and financial reporting quality (Abbott, Park, & Parker, 2000). On the other hand, other studies found no association between audit committee meetings and financial reporting quality (Bedard, Chtourou, & Courteau, 2004). Thus, the hypothesis to be tested as follows:

H_4: *There is a significant relationship between frequency of AC meeting and the magnitude earnings management.*

3.5 Control variables

The potential interaction between AC characteristics and earnings management can be influenced by other firm factors including the ownership structure, firm size, profitability and other governance-related indicators such as overall board independence (Saleh, Iskandar, & Rahmat, 2007). As a result, in addition to AC characteristics, this study controls for other variables such as Size, leverage and performance according to the prior research (Klein, 2002).

4 Research Method

The population of interest in this study is (initially) the 295 listed firms on the CSE, as at February 2016. This study excludes financial, investment and securities sector firms because their unique financial attributes, intensity of regulation, and/or intensive use of leverage are likely to confound the outcomes being studied. Also, the risk of missing data was minimised by excluding firms that were not listed throughout the review period. After the eliminations 100-firms sample, randomly drawn from the exchange –listed firms, was analysed. The sources of the data were the 2016/17 financial reports. The financial reports were chosen for two reasons (Lang & Lundholm, 1993; Bozzolan, Favotto, & Ricceri, 2003) such as they are considered an important source of company information by external users and the disclosure level in financial reports is positively correlated with amount of corpoarte information comunicated to the market and to stakeholders using other media.

4.1 AC characteristics' measures

The size of AC, AC independence, AC knowledge and frequency of AC meetings are used to measure AC characteristics.

Variables	Measures	Symbols
Size of AC	Number of board directors on audit committee	SAC
AC independence	Independence directors on audit committee/ Number of board directors on audit committee	INAC
AC knowledge	Dummy variables would either take the value of 1 if one or more audit committee members have financial expertise, otherwise it would take the value of 0.	FEAC
Frequency of AC meetings	Number of audit committee meetings held during the financial year (2016/17)	MAC

4.2 Earnings management measures

Earnings management is measured by an abnormal accruals (DAC) developed from Jones (1991), many accruals management studies. Jones (1991) provide a synthesis of the empirical literature and defined an effective earnings management as follows:

$$DAC = \frac{TACCi}{Ai-1} - \{a\left(\frac{1}{Ai-1}\right) + b\left(\frac{REV\Delta i}{Ai-1}\right) + c\left(\frac{PPEi}{Ai-1}\right)\}$$

The prediction errors (DAC) from equation above are then regressed on AC characteristics identified in the previous section controlling for size, leverage and performance. Control variables are included because earnings management represented by DAC is found to be related to size, performance and leverage (Young, 1998).

$$\begin{aligned} DAC_{it} = \alpha_1 + \alpha_2 SAC_{it} + \alpha_3 INAC_{it} \\ + \alpha_4 FEAC_{it} + \alpha_5 MAC_{it} \\ + \alpha_6 SIZE_{it} + \alpha_6 LEV_{it} \\ + \alpha_7 PERFORM_{it} + \varepsilon_{it} \end{aligned}$$

4.3 Control variables measures

The size, leverage and performance are used to measure the control variable of this study.

Variables	Measures	Symbols
Size	Log 10 of total assets	SIZE
Leverage	Log 10 of the debt to total assets ratio	LEV
Performance	Return on total assets at t-1	PERFORM

5 Results and Discussion

5.1 Descriptive statistics

The 100 firms of the samples are drawn from a range of industrial sectors. Table 1 shows the descriptive statistics of the variables. Size of AC for the Sri Lankan selected firms (in the descriptive statistics), averaged seven members and a 43 percent of the members are independence directors. The results also indicate that audit committee's meet about five times a year, the total number of meetings depends on the firm's terms of reference and the complesity of the firm's operation and a 63 percent of them have accounting knowledge. Even as, Bedard, Chtourou and Courteau (2004) indicate that the larger audit committee, the more likely it is to uncover and reslove potential problems in the financial reporting process, because it is likely to provide the necessary strength and diversity of views and expertise to ensure effective monitoring. Prior studies note that financial experts within the audit committee curb internal control weaknesses (Krishnan, 2005) and ensure high financial reporting quality (Bedard et al., 2004). This study reveals that sample firms' size is averagely 0.36, leverage is 0.315 whilst average performance is 4.6 percent. Examination of DAC (dependent variable) indicates significant non-normality exists (skewness ¼ 4.777, kurtosis ¼ 21.321). This may lead to non-normality in the residual of the regression which violates the assumption. Therefore, DAC were normalized utilizing Van der Waerden approach (Cooke, 1998). The non-normal data were assigned with ranks. The ranks were subsequently transformed into numbers on normal distribution.

Table 1 – Descriptive statistics

Variables	Mean	Median	SD
DAC	0.384	0.352	0.203
Size of AC	7.610	8.00	0.159
AC independence	0.434	0.435	0.214
AC knowledge	0.630	1	0.506
Frequency of AC meetings	5.140	5	0.089
Size	0.367	0.330	0.152
Leverage	0.315	0.263	0.197
Performance	4.601	3.470	0.186

5.2 Multivariate regression analysis

Table 2 presents the multivariate regression results of DAC on AC characteristics and controlling for size, leverage and performance. The model R_2 value of DAC indicate that 14.4 percent of the observed variability in DAC can be explained by the AC characteristics. The F-statistics and significance level shows that DAC model generate statistically significant outcomes. The result indicates the Size of AC is not significant. H_1 is not supported. This implies that the more members in the committee is associated with sluggish earnings management practice. The coefficient is significant indicating that the presence of independent directors in audit committee is effective to reduce earnings management significantly. The result support H_2. The result indicates the proportion of audit committee members with accounting knowledge is not significant. H_3 is not supported which implies that active characteristics are effective to deter earnings management practices. The significant relationship between frequency of AC meetings and DAC may also be interpreted as the existence of audit committee in Sri Lanka is not for window dressing but is effective in enhancing financial reporting quality in terms of earnings management. The result support H_2. It is also noted that when performance is significant, two other control variables (Size and Leverage) become not significant, implying the activities to manage earnings are concentrated only in firms. This additional insight into the interacting characteristics of AC should become an important input for the authorities to draw new regulations that relates to corporate governance.

Table 2 - Multivariate regression

	DAC
Constant	1.584
	(0.117)
Size of AC	2.516
	(0.013)
AC independence	3.311
	(0.006)
AC knowledge	1.440
	(0.153)
AC meetings	2.419
	(0.050)
Size	0.353
	(0.725)
Leverage	0.748
	(0.456)
Performance	3.134
	(0.020)
R	0.380
R Square	0.144
F	2.214
Sig	0.040

6 Concluding Remarks

The evidence demonstrations that the size of AC and independence reduces earnings management practices significantly. The study reveals that the interaction of the frequency of meeting is significantly related to earnings management practices. Also, the AC knowledge shows no relationship with earnings management practices. Overall, these results are consistent with the agency theory-based view that AC charactertics are substitutive control mechanisms Results also suggest that regulators should also encourage AC in firms to have both qualities: a high proportion of the members possess accounting knowledge and a high frequency of meeting to improve the monitoring function of the committee. Users of annual report information should also be informed that these two characteristics of AC are important to achieve good governance that can reduce earnings management in firms. This study also contributes when it compares the relationship between audit committee and earnings management when the intention to manage earnings is weak or strong (indicated by the incentives to avoid losses). It also recognises the existence of interaction between AC characteristics under investigation. The limitation is the difficulties inherent in discovering and adjusting for variations in the earnings management, business scope, and/or financing portfolio across firms. Specially, the earnings management may actually be influenced by variables other than those considered in this study. The difficulties from accounting principles differing between firms have been greatly mitigated over the past decade by the increasing adoption and use of International Financial Reporting Standards (IFRS). Future research should consider including many countries across the emerging to developed continuum, so as to support more generalised conclusions.

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