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Impact of Corporate Governance on Earnings Management: Evidence from Sri Lankan Listed Companies

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The purpose of this study is to investigate the relationship between selected corporate governance mechanisms and the degree of earnings management of Sri Lankan listed companies. The study was carried out by using quantitative methodology and using secondary data primarily obtained through published annual reports of 175 non-financial companies listed in the Colombo Stock Exchange during 2017 to 2019. The study examined the relationship between eight selected corporate governance characteristics and level of earnings management which measured through discretionary accruals. Empirical results of the study reveal a noteworthy positive relation between frequency of audit committee meetings and earnings management. This finding is contrary to the results of most previous studies. The remaining corporate governance characteristics are not having a significant impact on the level of earnings management. This study adds some new evidence on the relationship between selected corporate governance mechanisms and the degree of earnings management of Sri Lankan listed companies as it used data of post implementation period of new Code of Best Practice of Corporate Governance 2017. Findings of the present study differ from available limited studies on the relationship between corporate governance and earnings management in Sri Lankan context as previous studies reported inconclusive relationships whereas the present study established at least one conclusive relationship between frequency of audit committee meetings and earnings management.

GEL Codes: M40, M41, M42, G34 and C33

1. Introduction

After several financial failures of many local and international companies due to weaknesses in corporate governance systems and poor-quality financial reporting policy makers, regulators, investor and other market participants have become increasingly aware of the need to have sound corporate governance policies and procedures. In Sri Lanka, bankruptcy of Pramuka Bank, Vanic Incorporation, Lanka Marine Services Ltd, Sri Lanka Insurance Corporation and the Golden Key Credit Card Company gained much attention to the corporate governance (Kalainathan & Vijayarani, 2014). Corporate governance has come into action in order to ensure that the management of a firm works towards the maximization of the value of a firm and to reduce the conflict of interest exists between managers and shareholders due to the separation of ownership from management of the modern corporations (Chelogoi, 2017). It has been argued that the management of a firm may pursue its own personal goals, even at the expense of the interests of the other groups of

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stakeholders and they may attempt to influence the reported figures in order to provide a favorable picture of firm's financial position (Chalevas & Tzovas, 2010). This means, in circumstances where goals are not being met firms often resort to earnings management (Bedard & Johnstone, 2004).

Earnings management can undermine corporate governance by manipulating an organization's profit in order for managers to obtain private benefits. Whatever the motivation it is documented that earnings management harms earnings quality (Jaggi & Tsui, 2007) and misleads financial reporting users. According to Pornupatham (2006), the practice of adopting international accounting and auditing standards has failed to provide sufficient and appropriate assurance that financial reports are free from earnings management even in developed countries. Investors' confidence depends mainly on the strength of the capital market associated with different monitoring mechanisms (Chang & Sun, 2009) such as internal corporate governance which has recently received significant attention in numerous countries. One of the vital roles corporate governance can play is that help firms and economies to attract investment and provide reasonable credibility in financial reporting.

The effectiveness of corporate governance in minimizing the occurrence of earnings management has become an increasingly debated topic in the accounting profession. Literature argues that the quality of corporate governance practice in an enterprise may prevent earnings management (Katmon & Farooque, 2017; Liu & Lu, 2007; Smaraidos, Thanasas, & Filiou 2018). For example, Bekiris and Doukakis (2011) note that corporate governance provisions seem to constrain the tendency of management to manage earnings, and leading to higher credibility for financial statements in firms listed on Athens, Milan and Madrid Stock Exchanges.

However, there are studies that are contrary to the above findings, suggesting a positive impact of corporate governance characteristics on earnings management practices. Seng and Findlay (2013), examined the relation between corporate governance mechanisms and earnings management in New Zealand listed companies and results show that the size of the board of directors is significantly positively associated with earnings management which suggests that larger boards seem to be ineffective in their oversight duties relative to smaller boards. Further, Chalevas and Tzovas (2010) suggested that corporate governance mechanisms have not affected the extent to which managers attempt to manipulate firm's earnings. Hence, the extant literature on corporate governance practices and earnings management provides mixed evidence.

Many corporate governance studies have been carried out in developed countries such as Europe, United States of America and Japan (for example, Epps & Ismail, 2009; Klein, 2002; Seng & Findlay, 2013; Xie, Davidson, & DaDalt, 2003). However, only a few studies have been done in developing countries (For example, Dibia & Onwuchekwa, 2014; Naderi, Mansoori, & Alipour, 2017). According to Zoysa and Rudkin (2010), empirical studies on corporate governance and reporting quality reveal that the majority of them have been conducted in countries with developed capital markets, and studies conducted in countries with developing capital markets are extremely limited. Results of the studies conducted in developed capital markets cannot be considered as applicable to developing capital markets due to the significant differences in political, cultural, technological, economic, and social

factors between the two markets (Waweru & Riro, 2013). Furthermore, many market imperfections continue to persist in emerging markets compared to developed markets, therefore, it is necessary to examine the impact of corporate governance on earnings management in emerging capital markets (Uwuigbe, Peter, & Oyeniyi, 2014).

In Sri Lankan context, Kankanamage (2015) examined the impact of board characteristics on earnings management and the study adopted Kothari, Leone and Wasley (2005) performance adjusted discretionary accrual model used to measure the earnings management. Findings of the study reveal that board characteristics, one of the key constitutes in corporate governance, are significant to constrain the earnings management of the listed firms in Sri Lanka. Rajeevan and Ajward (2019) provided empirical evidence regarding the association between designated corporate governance attributes and the degree of earnings management in selected listed companies in Sri Lanka using Roy Chowdhury Model to measure earnings management. The results reported a positive relationship between CEO-Chair duality and earnings management.

Therefore, it is apparent that there are limited studies on the relationship between corporate governance and earnings management in Sri Lankan context and they provide mixed evidence. At the same time, each study is different in terms of the methodology adopted and applied. In light of mixed evidence available in literature and dearth of literature pertaining to Sri Lankan context, this study aims to fill the gap in the literature by investigating the relationship between corporate governance mechanisms and earnings management activities in listed companies in Sri Lanka. Moreover, the present study differs from relevant past studies available in Sri Lanka as the former uses data of selected companies with reference to post implementation of new Code of Best Practice of Corporate Governance 2017 whereas the latter used the data pertaining to the period before this implementation. In this respect, the present study attempts to answer the research question of how selected corporate governance mechanisms such as board and audit committee characteristics affect earnings management behaviors through discretionary accruals in the Sri Lankan listed companies.

Remainder of the paper is organized as follows. Section 2 of the paper reviews relevant theoretical and empirical literature in order to develop hypotheses of the study. Section 3 explains sample and data, and presents regression model of the study. Empirical findings of the study are presented in Section 4, and Section 5 concludes the paper.

2. Literature Review

In agency theory, the separation of ownership and control is seen as one of the hallmarks of the modern corporation, which results in managers using their firm-specific experience and managerial expertise to achieve an advantage over firm's owners, who are absent from the day-to-day operations of the business (Dibia & Onwuchekwa, 2014). Since the managers are in charge of the business, the risk is that, they will act according to their own self-interest and not the interest of the owners. Agency theory indicates that the interest of the principal and agent varies and principal can control or reduce this by giving incentives to the agent and

incurring expenses from activities designed to monitor and limit the self-interest activities of the agent (Jensen & Meckling, 1976).

The principal agent relationship has brought some problems including information asymmetry and agency cost. Principals can protect their rights by offering appropriate incentives for the agents and by incurring monitoring costs designed to restrict the irregular behavior of agents (Shapiro, 2005). Due to information asymmetry, principals are confronted with two main problems, which are adverse selection (how to select the most capable managers) and moral hazard which means how to provide the right incentives to managers so that they put forth the appropriate effort and make decisions which are aligned with interests of shareholders (Hoque, 2006, as cited in Habbash & Alghamdi, 2015). In order to reduce information asymmetry, there is a need for governance mechanism such as board subcommittees composed of directors with the appropriate attributes (Wiseman, Cuevas-Rodríguez, & Gomez-Mejia, 2012). Managers may have strong incentives to engage in earnings management. Since shareholders and other potential investors derive valuable information from earnings information, optimal investment decisions become difficult to make when earnings are manipulated (Davidson, Jiraporn, Kim, & Nemec, 2004). According to Eisenhardt (1989) reliable (external) financial accounting standards and good corporate governance can reduce such agency problems. Prior accounting research has examined the relationship between different corporate governance factors and earnings management. Majority of previous studies (such as Klein, 2002; Seng & Findlay, 2013; Smaraidos et al., 2018) have concentrated on board and audit committee as proxy for corporate governance mechanism.

One of the determinants of corporate governance is board size. some literature exits on the effect of board size on earnings management. Jensen (1993) claims that small boards are more effective in monitoring the activities of the Chief Executive Officer (CEO) than large boards since large boards rely more on “politeness and courtesy” therefore easier for the CEO to monitor. Further, Yermack (1996) concludes that small boards are more effective monitors than large boards, finding that, the size of a firm’s board should be inversely related to earnings management. Also, Barnhart and Rosenstein (1998) found that firms with smaller board size perform better than firms with large board size. Seng and Findlay (2013) indicate that the size of the board of directors is significantly positively related with earnings management in New Zealand. This suggests that larger boards tend to be ineffective in their oversight duties compared to smaller boards. The other view argues that small boards may not be effective in monitoring the behavior of top management (Zahra & Pearce, 1989). Some studies argue that larger boards with varied expertise are capable of developing the synergetic monitoring of the board to mitigate the incidence of earnings management (Peasnell, Pope, & Young, 2005; Xie et al., 2003). According to Xie et al. (2003), larger boards are associated with lower levels of discretionary current accruals and larger boards may bring a greater number of experienced directors to a board therefore experienced directors seem to play a role in limiting earnings management. Tang and Xu (2007) found that there is no significant relationship between board size and earnings management. Accordingly, first hypothesis of the present study could be stated as;

H_1: There is a negative relationship between board size and earnings management.

Another determinant of corporate governance is board independence. Xie et al. (2003) argue outside members on the board of directors created an independent controlling mechanism over the board process, which mitigated earnings management practices. Similarly, a study conducted by Klein (2002) in the US firms documents a statistically negative association between earnings management (measured by the Jones model) and the percentage of independent directors on the board. Smaraidos et al. (2018) pointed that firms with a strong and independent board of directors are deterred from practices related earnings management. In a contrary finding, a study conducted of Chinese listed firms Yang, Tan, and Ding (2012) found a positive relationship between the presence of independent directors on the board and earnings management through income smoothing behaviors. A study undertaken by Rahman and Ali (2006) which employed the cross-sectional modified version of the Jones model, based on a sample of 97 Malaysian listed firms over the period 2002-2003, claims that there is insignificant relationship between board independence and the occurrence of earnings management. According to Seng and Findlay (2013) the independence of the board of directors is not significantly associated with earnings management. Therefore, second hypothesis of the present study is as follows;

H_2: There is a negative relationship between board independency and earnings management.

CEO duality is an opportunity for concentration of executive power that can lead to management indiscretion; thus, a separate CEO may provide more effective monitoring (Cornett, Marcus, & Tehranian, 2008). Under agency theory, the chair of the board should be independent, since a CEO with excessive power can easily manipulate earnings management (Rahman & Ali, 2006). Klein (2002) suggests that a CEO with too much power over board responsibilities can easily manage earnings. However, Rahman and Ali (2006) used a sample of 97 Malaysian firms employing the cross-sectional modified Jones model to determine the effectiveness of monitoring functions of boards of directors, audit committees and concentrated ownership in constraining earnings management and found that there is an insignificant relationship between duality and earnings management. Based on this the third hypothesis of the study could be developed as;

H_3: There is a negative relationship between CEO Chairman Duality and earnings management.

With regard to board meetings, the number of meetings has employed in prior studies as an indicator of a board’s diligence, since inactive boards are less likely to monitor management effectively. A study undertaken by Xie et al. (2003), highlights that a board that meets frequently may have time to look at issues such as earnings management. The findings conclude that earnings management is significantly negatively associated with the number of board meetings. Similarly, Tang and Xu (2007) document that more frequent board meetings are negatively associated with earnings management. However, most studies found an insignificant relationship between board meetings and earnings management. For example, Ebrahim (2007) and Habbash (2010) found that the number of meetings may not restrict earnings management practices. Habbash (2010) justified his finding by stating that frequent meetings may not always be a characteristic of an active board of directors. This association leads to develop the below fourth hypothesis of the study;

H_4: There is a negative relationship between frequency of board meetings and earnings management.

In respect of audit committee size, prior literature that investigates the relationship between earnings management and audit committee size found mixed results. Using a sample of US firms Xie et al. (2003) found no significant effect or relationship between audit committee size and the level of earnings management. Likewise, Bedard, Marrakchi, and Chouteau (2004), using a sample of US firms found no significant relationship between audit committee size and aggressive earnings management. Contrary to these findings, Rahman and Ali (2006) indicate in their studies that the number of audit committee members is related positively with earnings management level in Malaysian firms. On the other hand, Yang and Krishnan (2005) found that audit committee size has a negative impact on earnings management. Hence this relationship (H_5) can be hypothesized as;

H_5: There is a negative relationship between audit committee size and earnings management.

Independence of audit committee members has been the focus of most previous studies. A study conducted by Klein (2002) using a sample US firms showed a negative association between earnings management and the proportion of independent directors on the audit committee. Bedard et al. (2004) reveal that aggressive earnings management is negatively associated with fully independent audit committees. However, Xie et al. (2003) investigated the effectiveness of a number of characteristics of the audit committee on constraining aggressive earnings management and their findings indicate that audit committee independence is not significantly associated with reduced levels of earnings management. According to the study of Dibia and Onwuchekwa (2014) audit committee independence is not associated with earnings management in Nigeria. Similarly, Peasnell et al. (2005) showed no strong evidence to reinforce the view that the existence of an independent audit committee influences the extent of income increasing manipulations to meet or exceed earnings management thresholds. Hence, H_6 of the study is stated as below;

H_6: There is a negative relationship between audit committee independency and earnings management.

With regard to audit committee meetings, Xie et al. (2003) conclude that frequent meetings of audit committees can constrain the levels of discretionary current accruals and anticipated that more diligence audit committees are more effective. Moreover, selecting a sample of US manufacturing firms, Ebrahim (2007) studied the association between earnings management and the activity of the audit committee and found that audit committees that hold frequent meetings are more active and stronger. A study undertaken by Abbott, Parker, and Peters (2004) found a relationship between audit committee activity and earnings management. The study highlights a negative relationship between audit committee meetings and corporate fraud and financial reporting restatements. Ghosh, Marra, and Moon (2010) suggest a positive relation between earnings management and the frequency of audit committee meetings. Moreover, Vafeas (1999) suggests that earnings management is positively related to the frequency of audit committee meetings, which concludes that audit committees largely react to an escalating problem rather than taking

proactive measures to limit managerial reporting discretion. However, in the Australian context, Davidson, Goodwin-Stewart, and Kent (2005) found that diligent audit committees are not associated with lower earnings management. Accordingly, seventh hypothesis of the study can be developed as;

> *H_7: There is a negative relationship between frequency of audit committee meetings and earnings management.*

Audit committee expertise is another important determinant in the corporate governance mechanism. Bedard et al. (2004) studied the influence of audit committee characteristics, notably expertise, independence and activity, on the incidence of earnings management and findings report statistically that audit committees which include at least financial expertise are negatively associated with discretionary accruals. Xie et al. (2003) showed that audit committee members which comprise at least one member with a corporate or financial background are related to fewer earnings management practices. In the same vein, based on a sample of firms listed in the Malaysian stock market, Puat and Susela (2013) presented empirical evidence showing that the existence of "experts" in the audit committee (whether the expertise was in accounting or another area relevant to the firm) was significantly related to the magnitude of earnings management. However, based on data collected from Malaysian firms, Rahman and Ali (2006) found insufficient evidence to support the claim that the presence of financial experts on audit committees mitigate earnings management. This relationship constitutes eighth hypothesis of the study;

> *H_8: There is a negative relationship between audit committee financial and accounting expertise skill base and earnings management.*

Literature emphasizes that the relationship between corporate governance and earnings management has been the subject of an extensive research in developed economies (such as Epps & Ismail, 2009; Klein, 2002; Seng & Findlay, 2013; Xie et al., 2003). However, studies based on data from emerging countries, are relatively limited in comparison with those in developed countries. Moreover, the literature reveals relatively inconsistent findings about the relationship between corporate governance and earnings management for developing and developed countries. For example, the studies related to the board size to earnings management in developed countries found that smaller board size tended to reduce earnings management (e.g. Seng & Finglay, 2013), whereas the opposite appears to be true in developing countries (e.g. Uwuigbe et al., 2014). Furthermore, some of the empirical results such as Naderi et al. (2017) found no association between board characteristics and earnings management level. Therefore, conclusions of the studies conducted in developed capital markets cannot be considered as applicable to emerging capital markets due to the large differences in contextual settings and many market imperfections continue to persist in emerging markets (Uwuigbe et al., 2014).

Further, the latest update on Code of Best Practice of Corporate Governance 2017 was jointly issued by Institute of Chartered Accountants of Sri Lanka (ICASL) and Securities and Exchange Commission (SEC) and several key changes have been made to the code (ICASL, 2017). This has led listed entities in Sri Lanka to make necessary corporate governance reforms. Hence, this study is expected to contribute to existing literature by investigating how selected corporate governance mechanisms such as board and audit committee characteristics affect earnings

management behaviors through discretionary accruals in Sri Lankan context with the effect of revised Code of Best Practice of Corporate Governance 2017 using all non-financial firms listed in Colombo Stock Exchange. When considering the Sri Lankan context, most of the previous studies have examined the relationship between board characteristics and earnings management and there are limited studies that focus on the other corporate governance characteristics such as audit committees. Each study is unique in terms of the methodology adopted and applied and this study would contribute to the literature by expanding the number of sectors to identify the relationship between variables by considering all nonfinancial firms listed in Colombo Stock Exchange. Further, the latest update on Code of Best Practice of Corporate Governance 2017 was jointly issued by ICASL and SEC and several key changes have been made to the code.

3. Methodology

3.1 Sample and Data

This study examines the relationship between corporate governance mechanisms and earnings management using quantitative approach. Most of the prior research studies (i.e. Klein, 2002; Smaraidos et al., 2018; Xie et al., 2003) have used a similar quantitative approach in investigating the relationship between corporate governance mechanisms and earnings management. All listed companies on the CSE were used for population for this study. There were 285 listed companies on the CSE representing 20 business sectors with the market capitalization of Rs 2,595.84 billion (as at 30th September 2020). The sample for the study was selected from companies listed in CSE, excluding insurance, finance and banking institutions because they are highly governed by stringent rules and regulations and follow a diverse method of the accounting treatment for their financial statements (consistent with prior research such as Klein, 2002; Rajeevan & Ajward, 2019; Seng & Findlay, 2013; Smaraidos et al., 2018). Accordingly, a final sample composes of 175 non-financial firms listed in CSE after removing missing data. Sample was selected covering the period between the fiscal years 2017-2019, where the financial period ended on 31st March. The rationale for using this as the study period is latest update on Code of Best Practice of Corporate Governance 2017 which was jointly issued by ICASL and SEC and several key changes have been made to the code.

Data for the study was collected from published annual reports, CSE website and the respective firm's website from 2017 to 2019. Specifically, the data have been collected from the portion expounding on corporate information, statement of corporate governance such the size of the board of directors, independence of the board of directors, CEO-Chairman duality, frequency of board meetings, size of the audit committee, its independence, frequency of meetings, and its expertise in finance and accounting. The financial data included; net income, cash flow from operations, accounts receivables, and net property, plant and equipment the selected companies.

Summary statistics of data related to the variables of the study indicate that sample firms have an average of discretionary accruals of 0.058 (in absolute values) which is high enough to show that the earnings manipulation in Sri Lanka is strong. On average there are seven directors on the board and three of them are independent non-executive directors. Summary statistics indicate that minimum number of

directors as three and maximum number of directors as fourteen. CEO duality is 14% in 24 sample companies, where these firms had complied with the Code of Best practice on Corporate Governance 2017 in Sri Lanka. The average number of board meetings is about five (mean = 5.3) with a minimum value of one to a maximum value of seventeen. The mean size of the audit committee in Sri Lankan firms is three with minimum value of two members to maximum number of six members. These numbers indicate that some Sri Lankan firms do not comply with corporate governance code recommendation according to the minimum audit committee members that requires not less than three. The average number of independent members in audit committee is two. When considering the audit committee expertise, on average there is one director with accounting and financial expertise on the audit committee and with membership of a recognized professional body. The mean number of audit committee meetings are recorded as four while minimum and maximum number of meetings are recorded as zero and seventeen. These results indicate that some firms do not consider the code of best practice recommendation regarding audit committee to meet at least four times a year.

3.2 Regression Model

The dependent variable of this study earnings management is measured as the absolute value of the Discretionary Accruals (DA). Dechow, Sloan, & Sweeney (1995) provide evidence that the modified Jones model is the most powerful model to identify earnings management among the alternative models to measure discretionary accruals. Also, as previous researches have used the modified Jones model in measuring accruals (Abed, Al-Attar, & Suwaidan,, 2012; Seng & Findlay, 2013; Uwuigbe et al., 2014), this study chose the cross-sectional modified Jones model to measure discretionary accruals. The absolute value of discretionary accruals is calculated as follows.

Step 1 – Total accruals are measured by subtracting cash flows from operating activities from net income:

$$TA_{i,t} = NI_{i,t} - CFO_{i,t} \text{ ………………………. (1)}$$

Step 2 – The coefficient parameters (industry average ƚvalues – see Equation below) under each industry was separately calculated by regressing *Equation 2* (Modified Jones model) below:

$$\frac{TA_{i,t}}{A_{i,t-1}} = \alpha_1\left(\frac{1}{A_{i,t-1}}\right) + \alpha_2\left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}}\right) + \alpha_3\left(\frac{PPE_{i,t}}{A_{i,t-1}}\right) + \varepsilon_{i,t} \text{ ………………… (2)}$$

Step 3 – Imputed above calculated industry average ƚvalues to each of the firm year variables using the *Equation 3*, to calculate non-discretionary accruals for each firm year separately:

$$\frac{NDA_{i,t}}{A_{i,t-1}} = \alpha_1\left(\frac{1}{A_{i,t-1}}\right) + \alpha_2\left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}}\right) + \alpha_3\left(\frac{PPE_{i,t}}{A_{i,t-1}}\right) \text{ …………………. (3)}$$

Step 4 – The discretionary accruals are calculated by subtracting Non-Discretionary Accruals (calculated under *step 3*) from Total Accruals (calculated under *step 1*).

Then, the absolute value of the discretionary accruals ($ADA_{i,t}$) is obtained, which is considered as the measure of earnings management in this research:

$$\frac{DA_{i,t}}{A_{i,t-1}} = \frac{TA_{i,t}}{A_{i,t-1}} - \frac{NDA_{i,t}}{A_{i,t-1}} \ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$

Abbreviations:

$TA_{i,t}$ = Total Accruals of the firm *i* at the end of year *t*
$NI_{i,t}$ = Net income before discontinued segments of the firm *i* for the year *t*
$CFO_{i,t}$ = Cash flows from operations of the firm *i* for the year *t*
$\Delta REV_{i,t}$ = Change in revenue for the firm *i* from year *t-1* to *t*
$\Delta REC_{i,t}$ = Change in receivables for the firm *i* from year *t-1* to *t*
$PPE_{i,t}$ = Net value of the property, plant, equipment for the firm *i* at the end of year *t*
$A_{i,t-1}$ = Total assets for the firm *i* at the end of year *t*
$NDA_{i,t}$ = Non-Discretionary Accruals for company *i* in year *t*
$DA_{i,t}$ = Discretionary Accruals for company *i* in year *t*
$\varepsilon_{i,t}$ = Residual for company *i* in year *t*

The following regression model is used in order to test the relationship between corporate governance variables and earnings management of the listed companies after incorporating the control variables identified by previous researchers.

$$ADA_{it} = \alpha + \beta_1 BDSIZE_{it} + \beta_2 BDIND_{it} + \beta_3 CEOCHAIR_{it} + \beta_4 BMEET_{it} + \beta_5 AUDCSIZE_{it} + \beta_6 ACIND_{it} + \beta_7 ACMEET_{it} + \beta_8 ACFAEXP_{it} + \beta_9 LEV_{it} + \beta_{10} FSIZE_{it} + \beta_{11} GROWTH_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots (5)$$

Where, ADA is absolute discretionary accruals; BDSIZE is number of board of directors; BDIND is number of independent non-executive directors on the board; CEOCHAIR is coded as ‘1’, if CEO and chairman roles are separated, and ‘0’ otherwise; BMEET is number of board meetings for firm; AUDCSIZE is number of members in the audit committee; ACIND is number of independent non-executive directors on the audit committee; ACMEET is number of audit committee meetings; ACFAEXP is number of members with finance or/and accounting qualifications in the audit committee; LEV is ratio of total debt to the total assets; FSIZE is natural logarithm of sales; and GROWTH is sales growth of firm. LEV, FSIZE and GROWTH are control variables of the model.

4. Empirical Findings

Correlation and regression analyses were carried out to draw statistical evidence to test hypotheses of the study. Before conducting these analyses, we tested whether the multicollinearity issue present in the data related to independent variables of the study. Lower correlation coefficients among independent variables below 0.9 ensure the absence of the multicollinearity issue in the study. Table 1 summarizes correlation results.

Table 1: Correlation Results

Correlation	Coefficient
Board size and earnings management	-0.02
Board independency and earnings management	-0.09*
CEO Chairman duality and earnings management	-0.07
Board meetings and earnings management	-0.08
Audit committee size and earnings management	-0.02
Audit committee independency and earnings management	-0.05
Audit committee meetings and earnings management	0.10**
Audit committee skill base in finance and earnings management	0.05

Notes: Number of observations is 350; *p<0.10; **p<0.05;

Table 1 shows that the audit committee meetings have a statistically significant weak positive relationship with earnings management of selected firms. Further, board independency reports a weak significant (p<0.10) negative relationship with earnings management of selected firms. It shows that when the board has more independent directors, earnings management is less likely to take place. The other board and audit committee characteristics have no significant systematic relationship with absolute discretionary accruals at any of the significant levels of (p> 0.01, p>0.05, p>0.10).

Regression estimates of the panel data regression model are summarized in Table 2. The results were obtained through random effects model as confirmed by the Hausman Specification Test.

Table 2: Regression Estimates

Variable	Coefficient	t-Statistic	p-value
Constant	0.122	2.98	0.00
BSIZE	0.001	0.75	0.44
INDBD	-0.006	-1.43	0.15
CEOCHAIR	-0.012	-1.22	0.21
BMEET	-0.001	-1.15	0.24
AUDCSIZE	-0.002	-0.42	0.67
INDAC	0.001	0.08	0.92
ACFAEXP	0.008	1.36	0.17
ACMEET	0.004	2.18	0.02
LEV	0.033	2.30	0.02
FSIZE	-0.003	-1.94	0.05
GROWTH	0.014	1.83	0.06

Adjusted R^2 = 0.03; F-statistic = 2.05 (0.02)

Table 2 reports estimates of multiple regression analysis based on random effects model. F-statistic of 2.05 with a P-value of 0.023 indicates robustness and efficiency of the model to analyze the collected data. Adjusted R-squared value of 0.03 indicates that all explanatory variables in the model jointly explain to the extent of 3% variation of the earnings management, which means that there can be some other variables which did not consider in this study are responsible for the rest of the variation in the earnings management.

As Table 2 shows, the audit committee meetings represent a significant (p<0.05) positive relationship with the level of absolute discretionary accruals. It indicates a

weak positive impact with a coefficient value of 0.004 and a probability value of 0.029. Accordingly, H_8, there is a negative relationship between frequency of audit committee meetings and earnings management, is not supported since frequency of audit committee meetings have a positive effect on earnings management. This result contradicts many of the prior literature (such as Lin & Hwang, 2010; Lin, Li, & Yang 2006; Xie et al., 2003) which did not find an inverse association with audit committee meetings and earnings management. One argument for this positive relationship is that audit committee meetings are more of a reaction to a dilemma. Ghosh et al. (2010) suggest a positive relationship between earnings management and the frequency of audit committee meetings, supporting the findings of Jensen (1993) and Vafeas (1999) that audit committee meetings are largely a reactionary measure to address an escalating problem. Accordingly, it can be concluded that increase in the frequency of audit committee meetings as sign of the presence of problems in the organization and thereby more chances to have earnings management issues. However, all the other selected corporate governance mechanisms are not systematically related with the absolute discretionary accruals, hence not supporting the hypothesis.

Considering the control variables, leverage represents a significant ($p<0.05$) positive relationship while firm size represents a significant ($p<0.05$) negative relationship with the level of absolute discretionary accruals. Also, firm's growth shows a significant ($p<0.10$) positive relationship with the level of absolute discretionary accruals. This suggests that a firm with high leverage is more likely to engage in earnings management when a firm is close to breaching debt covenants (Bartov, Gul, & Tsui, 2001; Davidson et al., 2005; Klein, 2002). In addition, the negative relation between firm size and absolute discretionary accruals suggests that larger firms are more carefully monitored by the market and other stakeholders, making it more difficult for them to engage in earnings management. This finding is consistent with those findings by prior studies (Bartov et al., 2001; Davidson et al., 2005; Klein, 2002; Park & Shin, 2004; Rahman & Ali, 2006; Xie et al., 2003). Further, the results provide evidence of a significant positive relationship between firm's growth and discretionary accruals signifying the fact that increasing the growth of a firm leads to an increase in the accounting choice exercised by the management while reporting the earnings figure (Skinner, 1993; Skinner & Sloan, 2002).

5. Conclusion

The purpose of this study is to examine the relationship between selected corporate governance mechanisms and the degree of earnings management in Sri Lankan listed companies. The study examined eight selected corporate governance characteristics including board of directors and audit committee and level of earnings management using discretionary accruals. In contrast to results of most previous studies, the research findings of the present study identified a noteworthy positive relation between frequency of audit committee meetings and discretionary accruals. Other selected corporate governance characteristics are not found to have a significant impact on the level of earnings management. Many of corporate governance studies have been carried out in developed countries in Europe, United States of America (USA) and Japan (for example, Epps & Ismail, 2009; Klein, 2002; Seng & Findlay, 2013; Xie et al., 2003). However, only a few studies have been conducted in developing countries (for example, Dibia & Onwuchekwa, 2014; Naderi et al., 2017). The conclusions of the studies conducted in developed capital markets

cannot be considered as applicable to emerging capital markets due to the large differences in political, cultural, technological, economic, and social factors between the two markets (Waweru & Riro, 2013). Furthermore, there are many market imperfections continue to persist in emerging markets like Sri Lanka compared to developed markets. Moreover, there are limited studies that focus on the relationship between corporate governance and earnings management in Sri Lankan context and the evidence of them is inconclusive. At the same time, each study is different in terms of the methodology adopted and applied. Therefore, this study fills the gap in literature by providing evidence about the relationship between corporate governance and earnings management in Sri Lankan context using all non-financial firms listed in Sri Lanka. Further, the latest update on Code of Best Practice of Corporate Governance 2017 was jointly issued by ICASL and SEC. Therefore, present study contributes to corporate governance literature by examining the revised Code of Best Practice of Corporate Governance 2017.

Findings of the current study are important for policymakers and regulators for policy and strategy formulation in terms of the corporate governance best practices in the Sri Lankan context. The regulators must devise a strategy regarding corporate governance practices in the financial statements of the firms. Further, policy makers should consider these results when formulating best practices regarding audit committee meetings and should concern on the effectiveness of audit committee meetings not only the frequency of the meetings. Furthermore, policy makers and regulators should examine why the majority of corporate governance characteristics did not have a significant impact on reducing the levels of earnings management in the listed companies and take remedial measures.

Results of this study pose questions for both researchers and policy makers. If the current Code of Best Practice of Corporate Governance cannot significantly constrain earnings management, should the regulators modify the code to accommodate the Sri Lankan setting, instead of copying from Anglo-Saxon model. The results revealed that firms following the recommendation of having majority of independent board with experienced directors and holding regular meetings do not guarantee a reduction of earnings management. Therefore, findings of the current study are important for policymakers and regulators for policy and strategy formulation in terms of the corporate governance best practices in the Sri Lankan context. The regulators must devise a strategy regarding corporate governance practices in the financial statements of the firms. Accordingly, these findings have implications for regulators such as ICASL attempting to increase the quality of financial reporting.

Further, the finding suggests that there is a positive relationship between frequency of audit committee meetings and discretionary accruals. Thus, policy makers should consider these results when formulating best practices regarding audit committees and should concern on the effectiveness of audit committee meetings not only the frequency of the meetings. It is arguable that audit committee activity or meetings may not be an accurate representation for efficiency. It is possible to have a high number of meetings, but the meetings may lack substance. In addition to that it is better to provide audit committee members with information regarding the significance of their role in enhancing financial reporting quality. The results will help shareholders to evaluate businesses in terms of using effective corporate governance mechanisms and to make more informed decisions with greater

confidence. Furthermore, policy makers and regulators should examine why the majority of corporate governance characteristics did not have a significant impact on reducing the levels of earnings management in the listed companies and take remedial measures.

Like any other study, this study is also subject to several limitations. The study only uses eight independent variables while there are many other variables that can affect real earnings management and independent variables in the model jointly explain to the extent of only 3.2% variation in the discretionary accruals. Therefore, future research could consider other corporate governance variables which do not consider in this study. Further discretionary accruals are only a proxy for earnings management and no perfect measure or estimate of earnings management exists. Therefore, future researchers could examine other models relating to earnings management and corporate governance. The issue of annual report disclosures may arise some concerns and the only use of secondary data was a limiting factor since ideas and opinions were not taken of directors, CEOs, accountants, finance managers. Level of earnings management in the company can be changed due to various reasons including political policies and organizational culture. The results of this study do not reflect the effects on individual firms, effects that also could depend on firm's specific characteristics. Therefore, future researchers could provide in-depth information to explore the strengths of corporate governance mechanisms in detecting earnings management by conducting interviews.

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