

Audit Quality and Earnings Management: Evidence from Sri Lanka: Food & Beverage and Hotel Sectors

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Abstract

The company's earnings are crucial for investors' decision-making since they provide emblems about value-creating ability. However, with the possibility of manipulating earnings, the whole purpose of financial reporting becomes valueless. External independent auditing can be identified as a control mechanism that minimises earnings management. This study examines the impact of audit quality on earnings management in the food and beverage sector and hotel companies in the Colombo Stock Exchange from 2013 to 2019. The real earnings management approach and total accruals are used to measure the earnings quality, while audit firm size, presence of the audit committee, frequency of the audit committee meetings and audit timeliness are the audit quality proxies. The study used regression analysis as the main analysis tool, and the findings reveal the existence of earnings management in the food and beverage and hotel sectors. Fascinatingly, audit quality does not significantly impact earnings management in the food and beverage sector, while it exists in the hotel sector. Moreover, companies' size and leverage significantly impact earnings management in both sectors. These findings suggest that effective regulation and monitoring are necessary to improve audit quality for both sectors, especially in the hotel sector companies in Sri Lanka. Hence, enhancing audit quality would minimise earnings management and improve earnings quality, which is instrumental to the decision-makers, especially investors and creditors. Henceforth, we suggest improving the audit quality in the food and beverage and hotel sectors and enhancing disclosure requirements such as research and development expenses, audit time, and non-audit services.

Key Words: *Audit quality, Real earnings management, Sri Lanka, Total accruals*

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Introduction

Stakeholders, especially investors, lenders, and managers, access information regarding companies through financial statements (Carvalho et al., 2017; Amr et al., 2019; Mayer, 2007). The International Accounting Standard Board (IASB) also recognised the importance of financial statements for investors' economic decisions. Several accounting variables that investors might refer to in making their decision. The study conducted by Ball and Brown (1968) emphasised that accounting information in the form of reported earnings acts as the bedrock of investors' decision-making. However, accounting information is essential at present; as per Deegan (2014), in the middle of 1960, the usefulness of accounting information was highly questionable. During the preparation of financial statements, managers have the opportunity to exercise judgment, and with that, they have motives to mislead the users of financial statements by using different types of accounting choices (Farooq & Abdelbar, 2015; Darus et al., 2014; Ali & Kamardin, 2018; Biswas, 2018). Therefore, the company's financials may not be true because many management estimations are involved in preparing financial statements.

With this backdrop, it is doubtful whether the reported earnings reflect a better picture of the company. Therefore, it can be argued that such information is unreliable for investors when making their economic decisions. Hence, there should be a control mechanism to overcome or detect the manipulation of the company's earnings. To this end, the external auditor plays a vital role in verifying whether the financial statements represent the true and fair view with the applicable accounting standard. (Habbash & Alghamd, 2016; Lin & Hwang, 2010) Auditors' opinions may differ from the different capabilities, factors, and quality of the audit should be associated with higher accuracy of information (Balsam et al., 2003).

When considering the recent high-profile earnings management cases (e.g., Enron,

Waste Management, WorldCom, Global Crossing) that resulted from losses to investors in the hundreds of billions of dollars, both the U.S. Congress and the U.S. SEC have taken actions to strengthen the quality of external audit and the quality of corporate earnings reporting (Hwang & Jarry, 2008). Hence, the recent financial scandals have increased the question of whether an external audit effectively reduces earnings management (Velury, 2005; Bekiris & Doukakis, 2011; Arya et al., 2003; Imhoff, 2003). In the Sri Lankan context, there were several scandals in the past, such as Pramuka Bank, Seylan Bank, Golden Key Investment, Touchwood Investment, ETL, TKS Finance, Sakwithi Investment, etc. (Pakianathan, 2017). With that, the public perception of the effectiveness of the statutory audit carried out by the leading audit firms is problematic. Since such scandals proved the audited financial statements misrepresented the financials, external auditors and audit committees were criticised, and the quality of the service provided by the external auditors and the functioning of the audit have been debated by the stakeholders. Therefore, it is required to examine the impact of audit quality on earnings management, and several scholars have conducted research on this in the global context to identify the relationship between audit quality and earnings management (Backer, 1998; Balsam et al., 2003; Habbash & Alghamd, 2016; Velury, 2005; Pakianathan, 2017; Lopes, 2018; Hwang & Jarry, 2008).

As per the literature, most scholars have focused on the whole market without considering the nature of the specific industry to measure the same relationship. At the same time, the most used proxy for earnings management is Jones' (1991) Model, which uses discretionary accruals. Recently, it has been found that earnings management is diverse through industries (Abdelghany, 2005; Asehaly, 2006; Lyimo, 2014; Wasiuzzaman S, Sahafzadeh, & Nejad, 2015). Hence, using the same earning proxy for the whole market may not reflect a true result, and an earnings proxy applicable to one industry might not apply to another.



Meanwhile, prior literature on earnings quality has highlighted the importance of real earnings management as a proxy to measure the earnings quality differently (Roychowdhury, 2006; Cohen et al., 2008; Gunny, 2010; Gunny, 2005; Kighir et al., 2014; Wijesinghe & Kehelwatenna, 2017). However, fewer studies have used a real earnings management approach and total accruals to examine the earnings quality. We could not find studies that tested these approaches using different data sets considering two sectors in a single study. Such a test may be useful to identify the compatibilities of the two approaches for different industries. In the Sri Lankan Context, to the best of the researcher's knowledge, there is one published study concerning audit quality and earnings management (Pakianathan, 2017). However, the result of that study is questionable as they used the discretionary accruals to measure the earnings management for the whole market. Further, he measured the audit quality using only two proxies.

As discussed so far, it is ostensible that earnings quality literature does not contain studies investigating the impact of audit quality on earnings management using two earning proxies for two different sectors. Therefore, this study has two main objectives: (i). To identify the presence of earnings management in the selected two sectors (ii). To examine the impact of audit quality (measured using audit firm size, presence of the audit Committee, frequency of the audit Committee meetings and audit timeliness) on earnings management in the selected sectors (iii). To investigate any difference between the results of the first two objectives.

The study fills the gap in determining the relationship in Sri Lanka by comparing two sectors and two approaches measuring earnings management in a single study. More importantly, the present study attempts to investigate the impact of audit quality on earnings management measured by real earnings and total accruals of listed food and beverage and hotel sector companies in Sri

Lanka. Also, the study examines whether earnings manipulation is present in selected sectors.

We contribute to the literature by examining audit quality and earnings management in the context of Sri Lanka as a lacuna of studies in Sri Lanka. Furthermore, studies based on developing economies remain scarce (Alzoubi, 2016), and the study's findings are useful for stimulating the quality of audits in Sri Lanka. Regulatory bodies can use these findings to improve the disclosure requirements concerning research and development expenses, audit time, non-audit service, etc.

The remaining part of this study is structured as follows: The next section reviews the literature, and the following section focuses on the study's methodology. The findings and conclusion are outlined, along with the limitations and directions for further studies.

Literature Review

Earnings management is a key element of financial reporting quality it has become a major concern for the past two decades (Ali & Kamardin, 2018). Prior studies (Lopes, 2018) use the definition put forward by Healy and Wahlen (1999), which is that earnings management occurs when managers use judgment in financial reporting and, in making transactions to change financial reports with the purpose of either misleading some stakeholders about the underlying economic performance of a company or influencing the contractual outcomes that heavily depend on reported accounting numbers.

Dechow & Skinner (2000) state that it is difficult to recognise, identify and measure earnings management directly. The most common method used to measure earnings management is Jones' (1991) model, which uses discretionary accruals (Johnston & Rock, 2005). However, Jones (1991) focused on total accruals as the source of earnings management and assumed that revenue is not manipulated which is not practical. Though most studies used discretionary accruals as

earnings proxy, studies have argued that discretionary accruals are unsuitable for all industries. Asehaly (2006) concluded that earnings management behavior differs according to the industry type. Further, it is evident that earnings management is different from industry to industry (Abdelghany, 2005; Lyimo, 2014; Wasiuzzaman et al., 2015). Therefore, a measurement of earnings management suitable for one industry may not apply to another.

In addition to the discretionary accruals, previous studies have highlighted the importance of using real activities to measure earnings management. Gunny (2010) has cited that real earnings management will occur when managers undertake actions that change the timing or structuring of an operation, investment, and financing transaction to influence the output of the accounting system. Schipper (1989). As cited by Wijesinghe and Kehelwalatenna (2017) the importance of real earnings management as a measure to detect earnings management is reasonable and important to measure the earnings quality (Healy & Wahlen, 1999). Prior research reflects that managers use real earnings management to achieve their goals (Roychowdhury, 2006; Gunny, 2005; Cohen et al., 2008). However, managing real activities is less costly to managers because it is less likely to draw auditor or regulatory scrutiny. Hence, Roychowdhury (2006) argues that managers prefer real earnings management to accrual earnings management. In the Sri Lankan context, Pakianathan (2017) has investigated the same relationship by considering the total market by using discretionary accrual as an earnings proxy with limited audit quality proxies such as audit firm size and audit independence and therefore, the result of the study is questionable and it may not reflect the true picture. Hence, in conclusion, based on the above-mentioned factors, this research will use real earnings management and total accruals by using the cash flow method as the proxy of the earnings management since there are limited studies on audit quality and earnings management

where the real earnings and total accruals have combined as the proxy of earnings quality in a single study.

Audit quality describes the ability of the audit to detect and report material misstatements in the financial statements (Gul et al., 2009). As per the previous studies, it is difficult to measure the audit quality, and prior studies have used various types of audit quality measures, such as audit firm size, audit fees, and audit tenure, to see the impact of the audit quality on the degree of earnings management. (DeAngelo, 1981). Most of the studies have used the audit firm size (Big Four and non-Big Four) as the proxy for audit quality (DeAngelo, 1981; Habbash & Alghamd, 2016; Yasar, 2013; Paula, 2018; Pakianathan, 2017; Nalarreason et al., 2019). In addition to the audit's size, the audit committee's presence has been used by scholars to measure the audit quality (Lin & Hwang, 2010). Further, some scholars have used the frequency of audit committee meetings to measure the audit quality (Xie et al., 2003). Apart from that, audit timeliness has been used in several studies to measure audit quality (Givoly & Palmon, 1982; Knechel & Payne, 2001; Mohamad et al., 2010; Tanyi et al., 2010; Habib & Bhuiyan, 2011).

Research in the Sri Lankan context considers the size of the audit firm and the auditor's independence in measuring audit quality. As per the study conducted by Bekiris and Doukakis (2011), due to the emergence of financial scandals from several companies in Europe and the United States, such as Enron, Adelphia, Global Crossing, Xerox and WorldCom, Ahold, Adecco, the independence, the role of the external auditor and the quality audit were questioned. Therefore, it is important to analyse whether the auditors can reduce earnings manipulation. The study by Lopes (2014) showed the relationship between earnings management and audit quality by stating that companies audited by a Big 4 had a lower manipulation of earnings than companies audited by a non-Big 4. Further, companies with non-Big Four auditors have

significantly higher earnings management by discretionary accruals than those with Big Four auditors (Backer, 1998). The study conducted by Alves (2013) revealed that with a confidence of 95%, there was a significantly positive relationship between firms audited by Big 4 and earnings management. As per the DeAngelo (1981) theory, big Four auditors in Turkey may not constrain earnings management of client firms compared to auditors in developed countries such as the USA because, in Turkey, the high quality is limited since there is no effective audit and oversight mechanism and no auditor's incentives to provide high-quality performance. Therefore, there are no differences in audit quality between Big Four and non-Big Four auditors in Turkey. The research conducted within the Sri Lankan context (Pakianathan, 2017) concludes that audit quality has no significant impact on the degree of earnings management in Sri Lankan listed companies.

Empirical studies have also reported mixed results regarding the relationship between audit committee presence and earnings management. Lin and Hwang (2010) highlight that few studies have reported a negative and statistically significant relationship between these two variables. Bedard, Chtourou and Courteau (2004) stated that there is a significantly negative relationship between earnings management and the mere existence of an audit committee. Furthermore, Lin and Hwang (2010) and Inaam and Khamoussi (2016) conclude that based on the meta-analysis conducted, there is no statistically significant relationship between the existence of an audit committee and earnings management.

Previous studies found that the frequency of audit committee meetings is associated with increased quality of earnings (Xie et al., 2003). As per Davidson, 2003 there is no significant evidence of the association between the frequency of meetings and earnings management. The prior research provides inconsistent evidence on the issue. For example, Lin, Li and Yang (2006) and Xie et al. (2003) stated a negative

relationship between earnings management and the frequency of the audit committee meetings. However, though Bedard et al. (2004) and Yang and Krishnan (2005) have researched to find the empirical relationship between the number of audit committee meetings, they failed to find such an association. Therefore, to see whether there is any significant relationship between these two variables, audit committee meeting frequency will be used as the proxy of the audit quality of the study. For the purpose of determining a significant impact on earnings management, the frequency of audit committee meetings will be used as the proxy for audit quality in this study.

In conclusion, the literature confirms that most of the researchers have considered the whole market to investigate this problem without considering the nature of the particular industry and no evidence for the comparison of two different sectors in a single study. In addition to that, mostly used proxy for earning management is discretionary accruals while only one or two proxies have been used to measure the audit quality. It appears that there are few studies in the literature on earning quality that investigate the same relationship using the real earning management approach. Therefore, earning quality may differ across industries.

Hypothesis of the Study

Earning management is a major issue for decision-makers, and most scholars have proved that companies are engaging in the manipulation of earnings in both global and Sri Lankan contexts. (Wijesinghe & Kavinda, 2017; Pakianathan, 2017). Regarding developing the hypothesis, agency theory will explain the relationship between agent and principal (Jensen & Mckling, 1976). Since the management has full access to the company's information, there is an opportunity for conflict to arise between the agent and principal. (Pakianathan, 2017). Both parties have the same goal, but they have different interests in achieving their own goals. Hence, the

relationship between stockholders and managers within the firm is a pure agency relationship, and earning management can be identified as one of agency problems. Scholars identified that (for example, Beatty & Harris, 1998) have identified external monitoring mechanisms as one of the important ways to avoid the costs of agency problems. Auditors will perform in the best interest of shareholders, and they will try to reduce agency problems between the agent and the principal (Kamolsakulchai, 2015). Hence, this external monitoring clearly gives authority to the external auditors (Alzoubi, 2016). Thus, on a theoretical basis, audit quality and earnings management have an inverse relationship. Thus, a high audit quality will be associated with lower levels of manipulation of results. Based on this, the hypotheses below were developed in the study.

H₁: The audit quality has a significant negative impact on earnings management.

H₂: The impact of audit quality on earnings management significantly differs in the selected sectors.

Methodology

Sample, Data, Data Collection and Data Analysis

The sample used in the present investigation consists of listed companies in the food and beverage sector and hotel sector in Sri Lanka for the period between 2013 and 2019. As of 31st March 2020, 290 companies have been listed in the CSE and out of such a population, this study focused on two main sectors with the higher market capitalisation on the same day. We consider the sample up to the year 2019 to eliminate the impact of COVID-19. Furthermore, to the best of our knowledge, prior studies have not examined the impact of audit quality on earnings management in these two sectors. Moreover, Sri Lanka is a country that mostly relies on tourism, and the selected sectors are more crucial to the development of Sri Lanka, which creates knowledge for the decision-

makers at large. Accordance with prior studies (Shabeeb Ali et al., 2020; Carvalho et al., 2017; Habbash, 2012; Wijesinghe & Kehelwalathenna, 2017) we excluded the Banks, finance and insurance sector companies due to the peculiar nature of the sector. Also, we disregarded the diversified sector from our analysis due to the nonavailability of data due to the nature of the variable that we used in our study. For the purpose of analysis, annual data was collected from the audited annual reports which were published in the CSE website. The empirical model of this study consists of multiple linear regression in order to explain the relationship between audit quality and earnings management.

Further, this study performed the multicollinearity test, unit root test, descriptive analysis, Hausman test and redundancy fixed effect test to get the more understanding about the variables of the study.

In this study nine panels were used to find out the impact of audit quality on earnings management and below mentioned model will be run with the abnormal production (Ab_Prod), real earnings management (REM) and total accruals (TAcc) for both two sectors to test the hypothesis of study.

$$\begin{aligned} \text{Ab_Cfo} = & \beta_0 + \beta_1 (\text{AuSiz}) + \beta_2 (\text{ACMPres}) \\ & + \beta_3 (\text{ACMFreq}) + \beta_4 (\text{AuTime}) + \beta_5 (\text{CSiz}) + \beta_6 \\ & (\text{Lev}) + \\ & \varepsilon_{it} \dots \dots \dots 01 \end{aligned}$$

Where,

Ab_Cfo	- Abnormal Cash Flow
AuSiz	- Audit Firm Size
ACMPres	- Presence of Audit Committee Meeting
ACMFreq	- Audit Committee Meeting Frequency
AuTime	- Audit Timeliness
Csiz	- Company Size
Lev	- Leverage



The dependent variable of the study is earnings management, which is measured by using real earnings and total accruals. Following (Roychowdhury, 2006; Cohen, Dey, & Lys, 2008; Gunny, 2010; Gunny, 2005; Kighir, Omar, & Mohamed, 2014; Wijesinghe & Kehelwalatenna, 2017) the study calculated the abnormal cash flow and abnormal production as follows. To calculated that, it is needed to calculate normal level cash flow and normal level production cost. Cross-sectional regression is used to calculate the normal level of cash flow and production for each year in the sample. Here, abnormal expenses were not considered the non-availability of the research and development cost in the published annual report.

The below regression is related to the estimation of normal-level cash flow.

$$\frac{CFO_{it}}{A_{it-1}} = \beta_0 + \beta_1 \left(\frac{1}{A_{it-1}} \right) + \beta_2 \left(\frac{Sales_{it}}{A_{it-1}} \right) + \beta_3 \left(\frac{\Delta Sales_{it}}{A_{it-1}} \right) + \epsilon_{it} \dots\dots\dots 02$$

The performed to capture the normal level production is as follows,

$$\frac{PROD_{it}}{A_{it-1}} = \beta_0 + \beta_1 \left(\frac{1}{A_{it-1}} \right) + \beta_2 \left(\frac{Sales_{it}}{A_{it-1}} \right) + \beta_3 \left(\frac{\Delta Sales_{it}}{A_{it-1}} \right) + \beta_4 \left(\frac{\Delta Sales_{it-1}}{A_{it-1}} \right) + \epsilon_{it} \dots\dots\dots 03$$

To calculate the cost of goods sold and the change in inventory, we need to run the following cross-sectional regression. The cost of goods sold and the change in inventory are calculated below.

$$\frac{COGS_{it}}{A_{it-1}} = \beta_0 + \beta_1 \left(\frac{1}{A_{it-1}} \right) + \beta_2 \left(\frac{Sales_{it}}{A_{it-1}} \right) + \epsilon_{it} \dots\dots\dots 04$$

The Production cost are calculated as follows.

$$\frac{\Delta INV_{it}}{A_{it-1}} = \beta_0 + \beta_1 \left(\frac{1}{A_{it-1}} \right) + \beta_2 \left(\frac{\Delta Sales_{it}}{A_{it-1}} \right) + \left(\frac{\Delta Sales_{it-1}}{A_{it-1}} \right) + \epsilon_{it} \dots\dots\dots 05$$

Finally, the normal level expenses are calculated as follow,

$$\frac{DISEXP_{it}}{A_{it-1}} = \beta_0 + \beta_1 \left(\frac{1}{A_{it-1}} \right) + \beta_2 \left(\frac{Sales_{it-1}}{A_{it-1}} \right) + \epsilon_{it} \dots\dots\dots 06$$

Due to the non-disclosure of research and development expenses in the financial statement in the Sri Lankan context, abnormal expenses were not estimated to measure the real earnings. The components of the above equations are as follows,

CFO_{it} -Cash flow from operation

A_{it-1} -Total assets

$Sales_{it}$ -Sales

$\Delta Sales_{it}$ -Difference between sales of the current year and last year

$PROD_{it}$ -The sum of the cost of goods sold and the change in inventory

$\Delta Sales_{it-1}$ -Change of the Sales of the company in year t-1

$COGS_{it}$ -The sum of the cost of goods sold by the company in year t

$DISEXP_{it}$ The sum of R&D expenses, selling, general and administrative expenses,

ΔINV_{it} -Inventory in the company in year t less inventory in year t-1

Reviewing the literature, the cash flow approach was used to measure the total accruals. As per Hribar and Collins (2002), using a balance sheet approach disrupts the accruals calculations that could lead to Type I errors. Hence, this study uses the cash flow method to measure the total accruals. Total accruals can be measured using the cash flow method by applying the following equation.

$$TACC_{it} = NI_{it} - CFO_{it} \dots\dots\dots 07$$

$TACC_{it}$ = Total accruals for company i in year t.

NI_{it} = Net income of company i for year t. measures/proxies representing the audit firm size, presence of the audit committee, frequency of the audit committee meetings and audit timeliness. Further, the study consists of two control variables: company size and leverage (cf. Table 01).

CFO_{it} = Net cash flow from operations of company i for year t.

The study's independent variable, audit quality, is measured through four main

Table 01: Measurement of Variables

Variable	Symbol	Operationalisation
Abnormal Cash Flow	Ab_Cfo	Difference of the actual and normal cash flow.
Abnormal Production	Ab_Prod	Difference of the actual and normal production.
Real Earnings Management	REM	Summation of the Ab_Cfo and Ab_Prod.
Total Accruals	TAcc	Difference of operating cash flow and net income.
Audit Firm Size	AuSiz	"1" if company is audited by BIG4.
Presence of the Audit Com.	ACMPres	"1" if company has an audit committee.
Frequency of the Audit Committee Meetings	ACMFreq	"1" if the audit committee meet at least four times for the fiscal year, and "0" otherwise.
Audit Timeliness	AuTime	Time gap between the reporting date and audit report date.
Company Size	CSiz	The natural logarithm of the total assets of the company
Leverage	Lev	Total Liability of company divided by Total assets of company.

Findings & Discussion

The results of the variance inflation factors (VIFs) and correlation matrix indicated that there is no linear relationship between explanatory variables and does not exist multicollinearity in both sectors. There are no significant correlations between independent variables, and none exceeds 0.80. The highest correlation was recorded between the AuSiz and CSiz, which is 30% in the food sector while the hotel sector has a -44.3% correlation between the ACMFreq and the AuTime. Levin, Lin and Chu test; the Im, Pesaran test; the Shin W-stat ADF test; the Fisher Chi-square test, and the PP - Fisher Chi-square are performed to test the stationarity of the data. The results confirmed that all variables are stationary at this level.

According to summary statistics, 96% of the sample companies are audited by the big four auditors: KPMG, Ernst & Young, PricewaterhouseCoopers and Deloitte (mean 0.956) in the food sector and the hotel sector, which is 81%. Further, almost all companies in both sectors within the sample have broadly conformed to the corporate governance principles, which have a 99% average of the presence of the audit committee. Further, 99% of companies have met at least four times during the year in the food and beverage sector; in the hotel sector, it is only 82%. Finally, auditors take an average of 93 - 100 days to finalise the audit in both sectors.

As per the summary statistics, companies in both sectors are manipulating earnings since the results show a positive mean value of Ab_Cfo, Ab_Prod and REM for both sectors. Further, as per Tables 2 and 3, Ab_Prod will show a higher explanatory power than Ab_Cfo, and the R^2 of Ab_Prod is almost the same as the R^2 REM in both sectors. This may be due to the companies in both sectors

having abnormal levels in their production cost rather than the abnormal cash flow. In the food and beverage sector, 59% of the companies have recorded abnormal cash flows, and 97% have recorded abnormal production. On the other hand, in the hotel sector it was 65% and 82% respectively.

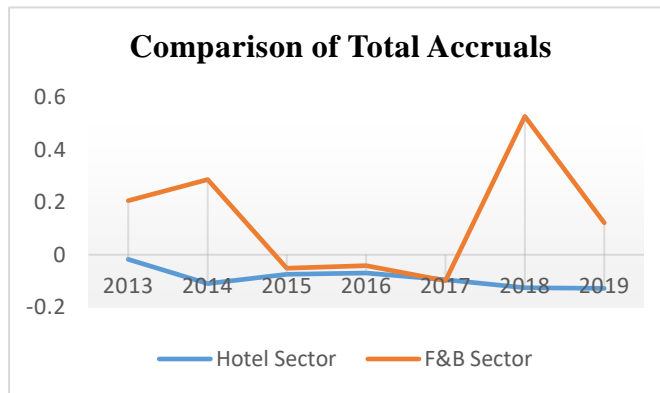


Figure 01: Comparison of Total Accruals

Regarding the behaviour of the total accruals, the graph shows that earnings manipulation in the Food and beverage sector was highly deviated within the sample period from 2013 to 2019. Meanwhile, the hotel sector has shown a declining trend in earnings management during the sample period.

Before running the panel regression, the Hausman Specification Test was performed to see whether the fixed effects model or the random effects model was more appropriate for each sector. As a result, the random effect model was selected to analyse the data set of the food and beverage sector since the probability values are greater than 5 per cent. On the other hand, the preferred model for the hotel sector was fixed effect since the probability value of chi-square is less than 5 per cent. To confirm further, a redundant fixed effect Test was performed for the hotel sector, and the result shows that the fixed effect model is preferred for the hotel sector because of the probability of the Chi-Sq. statistics is less than 0.05.

First, regression was run by combining the data of both sectors, and the result is questionable. It isn't easy to draw a sector conclusion. Results illustrated that the overall model for TACC is not significant, which might be due to earnings management behaviour differing according to industry type (Asehaly, 2006). Hence, a wise analysis of the results will be discussed hereafter.

As per the results indicated in Table 2, both companies audited by both Big-four and Non Big-four auditors have reported the same levels of earnings manipulation in the food and beverage sector and this contradicts the concepts driven from the study conducted by DeAngelo (1998) and Becker (1998). Meanwhile, this result will make a question of audit firm size as a measurement of audit quality suitable for future study (Yasser & Soliman, 2018). However, the findings are consistent with those of Yasar (2013), Yasser and Sliman (2018) and Pakianathan (2017). The presence of the audit committee and audit committee meeting frequency has no impact on earnings management, and the result is consistent with the previous studies

which investigated the same relationship (Habbash, 2010; Davidson et al., 2005; Abdul & Ali; Baxter & Cotter, 2009; Spira, 1999). As per the results of descriptive statistics, companies listed in the food and beverage sector have complied with the policies made by the regulatory bodies, such as establishing an audit committee for the companies and conducting regular meetings. However, it seems that, though there are such compliances, it has still failed to detect the earnings management of the companies.

Meanwhile, only audit time reflected the significant negative impact on earnings management measured through abnormal

cash flows. Audit quality does not impact earnings management in the food and beverage sector since almost all independent variables are not significantly related to the dependent variables. Regarding the control variable, company size significantly positively impacts earnings management. Some scholars have argued why large firms manage their earnings more than small firms. Barton and Simko (2002) stated that large firms have to manage their earnings since there is more pressure from the shareholders, and the same results have been derived by Pakianathan (2017) and Wijesinghe and Kehelwalatenna (2017).

Table 02: Regression Analysis for Food & Beverage Sector

	Ab_Cfo		Ab_Prod		REM		TAcc	
	Coeffi	Prob	Coeff.	Prob	Coeffi	Prob	Coeffi.	Prob
C	1.334	0.275	-7.430	0.275	-6.005	0.239	0.059	0.963
AuSiz	0.020	0.973	-0.090	0.968	-0.018	0.994	-0.3895	0.566
ACPres	-0.248	0.782	-1.695	0.607	-2.068	0.583	0.252	0.793
ACMFreq	-0.670	0.219	2.782	0.155	2.251	0.311	-0.4423	0.442
AuTime	-0.007	0.077*	0.020	0.178	0.011	0.500	0.007	0.108
Lev	0.232	0.726	14.24	0.000***	15.31	0.000***	-1.988	0.008***
Csiz	0.558	0.000***	3.028	0.000***	3.535	0.000***	0.331	0.073**
R ²	0.21		0.45		0.43		0.14	
Prob.	0.0000		0.0000		0.0000		0.0456	

Note: *Significant at 0.10 level, **Significant at 0.05 level, ***Significant at 0.01 level

Table 3 represents the regression results for the hotel sector by using four dependent variables. The result indicated that audit firm size significantly positively impacts earnings management in the hotel sector, as measured by abnormal cash flows and real earnings approach. These findings are compatible with the (Chi et al., 2011; Phillips & Sipahioglu, 2004; Sial et al., 2018). Meanwhile, audit firm size has a significant negative impact on total accruals. Here, it seems that audit firm size shows a contradictory result with different earnings proxies in the hotel sector by concluding there is a possibility that different earnings proxies may reflect different results for the same data set.

Further, in the hotel sector, the frequency of audit committee meetings indicates an inverse impact on the abnormal cash flow, and the audit timeline negatively impacts total accruals. When comparing the results with those of the food and beverage sector, it seems that the audit quality indicates earnings management in the hotel sector since several audit quality proxies significantly impact the earning management proxies. However, audit quality does not significantly impact the food and beverage sector, and these results may be due to the quality of the audit. The auditing approach differs across industries, and the earnings behaviour differs from industry to industry.

Apart from that, though the company size positively impacts earnings management in the food and beverage sector, it does not affect earnings management in the hotel sector. However, leverage shows a significant negative effect on earnings management in the hotel sector.

Table 03: Regression Analysis for Hotel Sector

	Panel E		Panel F		Panel G		Panel H	
	Ab_Cfo		Ab_Prod		REM		TAcc	
	Coeffi.	Prob	Coeffi.	Prob	Coeffi	Prob	Coeffi.	Prob
C	0.003	0.98	0.338	0.164	0.342	0.368	0.493	0.068
AuSiz	0.274	0.08*	0.202	0.123	0.476	0.021**	-0.325	0.0266**
ACMPres	0.027	0.89	-0.069	0.704	-0.041	0.884	0.072	0.7227
ACMFreq	-0.139	0.09*	-7.17	0.999	-0.139	0.200	0.088	0.248
AuTime	0.001	0.27	0.0004	0.709	0.001	0.283	-0.004	0.004**
Lev	-0.094	0.22	-0.127	0.053*	-0.222	0.038**	-0.172	0.020**
Csiz	-0.064	0.44	0.010	0.885	-0.054	0.625	0.044	0.0573
R ²	0.86		0.95		0.95		0.48	
Prob.	0.0000		0.0000		0.000		0.000	

Note: *Significant at 0.10 level, **Significant at 0.05 level, ***Significant at 0.01 level

Conclusion

The study analyses the impact of audit quality on earnings management in the food and beverage and hotel industries of the Colombo Stock Exchange between 2013 and 2019. Real earnings and total accruals were used to measure earnings management, while audit firm size, presence of the audit committee, frequency of the audit committee meetings, and audit timeliness were used as audit quality proxies.

The study's first objective is to identify the presence of earnings management in the two sectors and the results evident in both sectors engaging in earnings management based on the selected proxies in the study. These results align with prior studies on the whole market and sectors (for example, Wijesinghe and Kavinda, 2017 concluded that the manufacturing sector involves earnings management). Further, the majority of the companies in the sample of both sectors have abnormal levels in their production cost than cash flow, and this reduces the earnings quality of the companies in the food and Beverage sectors, showing higher deviation of total accruals during the sample period that

may lead to lower explanatory power for all models employed under the food & beverage sector.

Concerning the second and third objectives of the study, results conclude that audit quality has no significant impact on the degree of earnings management in companies listed in the food and beverage sector in Sri Lanka. Further results show that audit company size significantly impacts the management of food and beverage sector earnings. Therefore, the study does not reject the study's first and second alternative hypotheses. This study provides evidence of the varying impact of audit quality on earnings management across two selected sectors. These results support the agency theory that when a company is large, it will have a greater information asymmetry and agency conflict faced by the company (Nalarreason et al., 2019). Further, facing more pressure from investors and financial analysts to show positive earnings may lead to these results. Large firms may have more bargaining power to negotiate with auditors

and more transaction treatments, making it easier to manipulate the earnings.

Concerning the hotel sector, audit firm size has a significant positive impact on earnings management and a significant negative impact on total accruals. Here, it seems that audit firm size will show a contradictory result with different earning proxies in the hotel sector by concluding there is a possibility that different earning proxies may reflect different results for the same data set. In the hotel industry, audit quality serves as an indicator of earning management. It can be observed that the quality of the audit and the approach to auditing differ across industries, leading to variations in earnings behaviour. Also, leverage shows a significantly negative relationship with earnings management in the hotel sector, consistent with Wijesinghe and Kavinda (2017).

According to the results, audit quality does not constrain earnings management in the food and beverage sector, while audit quality indicates earning management in the hotel sector. These contradictory results may occur due to the behaviour of the earnings differing across the industry (Abdelghany, 2005; Lyimo, 2014; Wasiuzzaman et al., 2015), earnings considered in this study have been already rectified for any material misstatements and the way auditing differs

from industry to industry. However, most studies reject the agency theory prediction that external monitoring mechanisms could reduce earnings management. This will raise the question of whether the agency theory widely used in auditing and reporting quality studies in the West is also applicable to other less developed countries with different settings (Habbash & Alghamd, 2016).

The study suggests regulatory bodies for improving effective regulation and monitoring to enhance the quality of audits in Sri Lanka. Regulatory bodies can have improved disclosure requirements concerning research and development expenses, audit time, and non-audit service. This study is limited to the companies of two sectors, the food and beverage and hotel sectors, and some companies in the selected sectors have to be eliminated due to the unavailability of the company's data. The study focuses only on the quantitative measures of audit quality, and future studies can examine the same, focusing on the qualitative aspect of the audit quality. Further, future studies could consider the same impact considering the pre and post-impact of COVID-19. Additionally, we suggest analysing the impact of audit quality on earnings management in Sri Lanka's financial sector, given its history of notable scandals.

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