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CORPORATE SOCIAL RESPONSIBILITY AND EARNINGS MANAGEMENT: INSIGHTS FROM SRI LANKA

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Abstract

This study examines the impact of Corporate Social Responsibility (CSR) on earnings management among listed companies in Sri Lanka. CSR practices have been significant, with organisations engaging in CSR initiatives to meet stakeholder expectations. However, this may lead to earnings manipulation to align financial reporting with these expectations. The research examines the relationship between CSR and earnings management using three independent variables — economic, environmental, and social dimensions of CSR — and two dependent variables: discretionary accruals and real activity-based earnings management. Control variables include firm size, leverage, and return on assets. A purposive sample of 65 listed companies, selected from 294 based on CSR disclosure according to the GRI index, provided data from annual reports spanning 2017-2023. Findings indicate that the economic dimension of CSR positively influences both discretionary accruals and real activity-based earnings management. Conversely, the environmental dimension shows a negative impact on these forms of earnings manipulation. The social dimension of CSR was found to have an insignificant effect on both dependent variables. The study suggests that companies focus on CSR initiatives that can be enhanced through stakeholder theory and highlights the importance of developing CSR standards tailored to Sri Lanka. Additionally, the research provides insights into detecting earnings management through various measurement models, contributing valuable knowledge to the Sri Lankan context.

Keywords: *CSR, discretionary accruals, firm size, real earning management*

1.0 Introduction

Corporate Social Responsibility (CSR) has become a strategic imperative for firms aiming to align their operations with stakeholder expectations while enhancing their long-term sustainability. CSR encompasses voluntary organizational practices across economic, environmental, and social dimensions that reflect a firm's commitment to ethical conduct and

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sustainable development. Originating from Bowen's (1953) seminal work, the concept has evolved into a vital element of corporate governance, particularly in emerging economies where institutional frameworks are still maturing. CSR is often promoted as a mechanism to build trust, mitigate risk, and enhance reputation. However, recent research suggests a paradoxical association between CSR and earnings management (EM)—a practice where managers manipulate financial statements to mislead stakeholders about firm performance (Healy & Wahlen, 1999). While CSR is designed to promote transparency and accountability, it may also be strategically employed to mask unethical practices, such as earnings manipulation. This duality introduces a complex dynamic: CSR can simultaneously enhance corporate legitimacy and serve as a tool for obfuscation (Hemingway & Maclagan, 2004; Prior et al., 2008). Managers may exploit the positive perception associated with CSR to distract from aggressive earnings management strategies. For instance, CSR disclosures may be used to offset negative financial signals, exploiting information asymmetry between insiders and external stakeholders. This behavior is particularly salient in contexts like Sri Lanka, where regulatory enforcement and investor protections are relatively weak. Hence, it is plausible that firms in such environments use CSR to build goodwill while managing earnings to meet performance benchmarks or secure favorable financing. Given these concerns, this study explores the relationship between CSR practices and earnings management in Sri Lanka. Specifically, it investigates how the economic, environmental, and social dimensions of CSR influence two forms of earnings management: discretionary accruals and real activity-based management. Previous studies have yielded inconsistent results, with some suggesting that CSR reduces EM through enhanced stakeholder monitoring, while others highlight managerial opportunism disguised under CSR initiatives (Mahrani & Soewarno, 2018; Dissanayake & Ajward, 2019). These conflicting findings highlight a gap in understanding the mechanisms through which CSR affects EM, particularly in developing economies. This study addresses the following research problem: How does corporate social responsibility impact earnings management in listed companies in Sri Lanka? The study is grounded in agency, stakeholder, and legitimacy theories, offering a comprehensive view of how CSR can either constrain or facilitate EM practices. This study contributes to the literature in several ways. First, it adds empirical evidence to the ongoing debate on the CSR EM nexus in a South Asian emerging economy context, which remains underexplored. Second, it employs both accrual-based and real activity-based models to measure EM, providing a robust methodological approach that accounts for different dimensions of earnings manipulation.

Third, the study uses the GRI framework to assess CSR disclosure quality, aligning with international best practices. The study offers practical insights for policymakers, regulators, and corporate managers interested in promoting ethical reporting practices and sustainable governance in Sri Lanka by examining sector-specific CSR practices and their effects on EM.

1.1 Research problem

The problem of earnings management arises from information asymmetry between managers and owners, the inadequacies in auditing structures, and the evolving ethical practices in accounting. These factors enable managers to manipulate reported earnings, prioritizing personal gains over stakeholders' interests. This practice undermines trust in the company's financial reporting, leading to heightened vigilance and reduced stakeholder support in the long term (Choi et al., 2013). Financial transparency and accountability in disclosures are critical for fostering stakeholder relationships. Additionally, corporate social responsibility (CSR) offers an effective mechanism to address the interests of diverse stakeholders. Companies increasingly implement CSR initiatives across economic, environmental, and social dimensions, recognizing the close link between CSR and accurate financial disclosures (Ehsan, 2020). Extant research has examined the relationship between CSR and financial performance (FP) (e.g., Cochran et al., 1984; Tsoutsoura, 2004; Okafor et al., 2021; Szegedi et al., 2020), often reporting a positive impact of CSR on FP. However, the mechanisms through which CSR enhances financial performance remain inadequately explained (Choi et al., 2013). Sri Lanka, characterized by a relatively low level of CSR adoption, has limited studies addressing the influence of CSR on earnings management (EM). Dissanayake and Ajward (2019) highlight significant gaps in understanding how CSR relates to EM within the Sri Lankan context. Although models like Azzam and Zalat (2020), Salido & Roychowdhury (2006), and Li and Zhang (2010) have been proposed to measure EM, Sri Lankan studies predominantly utilize the Roychowdhury model. This research aims to address this gap by employing multiple models to measure EM, examining the effect of CSR on EM in Sri Lanka's listed companies. The impact of CSR on EM has been widely discussed in developed economies, but findings for Sri Lanka remain inconsistent. Thus, this study investigates the extent to which CSR influences EM in listed Sri Lankan companies, guided by the research question:

How does corporate social responsibility impact earnings management in listed companies in Sri Lanka?

1.2 Objectives of the study

This study aims to examine the primary objective of assessing the impact of corporate social responsibility (CSR) on earnings management in listed companies in Sri Lanka. The study also addresses the following sub-objectives:

a) To analyse the impact of CSR on discretionary accruals in listed companies in Sri Lanka.
b) To investigate the impact of CSR on real activity-based earnings management in listed companies in Sri Lanka.

1.3 Literature review

Various researchers offer differing perspectives on CSR Renowned economist Milton Friedman argued that businesses should not prioritise CSR initiatives unless they generate value and align with the interests of the company's shareholders.

1.3.1 Theories Connecting CSR and Earnings Management Practices

The theoretical framework of this study is structured around five core perspectives stakeholder theory, agency theory, stewardship theory, social contract theory, and legitimacy theory providing a comprehensive basis for exploring the relationship between CSR and earnings management. These theories collectively offer insights into how firms navigate ethical obligations, managerial incentives, and stakeholder expectations. While this multi-theoretical approach enriches the analysis, one limitation is the study's exclusive reliance on the Global Reporting Initiative (GRI) standards to measure CSR. Although the GRI provides a widely accepted international benchmark, it may not fully capture context-specific CSR practices and disclosures relevant to Sri Lanka. Local firms may engage in informal or culturally embedded CSR activities that are underreported in GRI-aligned disclosures. Future studies should consider developing hybrid or localized CSR indices that blend global standards with region-specific indicators to more accurately reflect CSR behavior in the Sri Lankan context.

1.3.2 Perspectives and Empirical Evidence

Ehsan et al. (2020) emphasize that the long-term perspective aligns with stakeholder and legitimacy theories, advocating for transparency and sustainable relationships. Stewardship theory, developed from stakeholder theory by Davis et al. (1997), offers a solution to agency issues by addressing the alignment of managerial actions with stakeholder interests (Jensen &

Meckling, 1976; Krisnawati et al., 2014). Palacios-Manzano et al. (2021) explored whether a firm's CSR orientation influences its reporting practices, finding that CSR fosters transparency and reduces the scope for income management. Ruwanti (2019) examined the moderating role of corporate governance in the relationship between firm size, CSR, and earnings management in Indonesian manufacturing firms. The study, conducted on 66 listed firms from 2014 to 2017, revealed significant associations among CSR, firm size, and EM, with corporate governance influencing these relationships. Mahrani and Soewarno (2018) investigated the impact of governance mechanisms and CSR on financial conditions, using earnings management as a moderating variable. Their study of 102 companies listed on the Indonesian Stock Exchange in 2014 showed a positive relationship between CSR disclosures, corporate governance, and financial outcomes. Wanninayake and Sameera (2020) analyzed the impact of different CSR activities on earnings management. Their findings revealed that employee-based CSR activities negatively influenced EM, while environmental and governance-related activities did not. The study employed the modified Jones Model to measure discretionary accruals and a weighted average method to assess CSR activities. Dissanayake and Ajward (2019) assessed whether CSR is used to mask negative perceptions arising from EM practices in Sri Lanka. Using the Global Reporting Initiative (GRI) framework to measure CSR and the Salido & Roychowdhury (2006) model to evaluate EM, they found high levels of real activity-based earnings management (RAEM) and below-average CSR practices. Their results suggest that CSR may be opportunistically employed to conceal unfavorable corporate behaviors.

1.3.3 Research Gap

The existing literature shows mixed results on the CSR and earnings management relationship, particularly in emerging markets. While some studies report CSR reduces earnings management through enhanced stakeholder monitoring, others suggest CSR can mask opportunistic managerial behavior. This ambiguity reveals a clear research gap in the Sri Lankan context, necessitating further empirical investigation. This study aims to bridge this gap by explicitly testing hypotheses concerning CSR’s impact on both discretionary accrual and real activity-based earnings management.

1.3 Research Methodology

This study covers how to use the study's design and execution and discusses the processes, data-gathering techniques, and data analysis.

1.3.1 Conceptualisation

The following conceptualization model shows the link between corporate social responsibility and earning management.

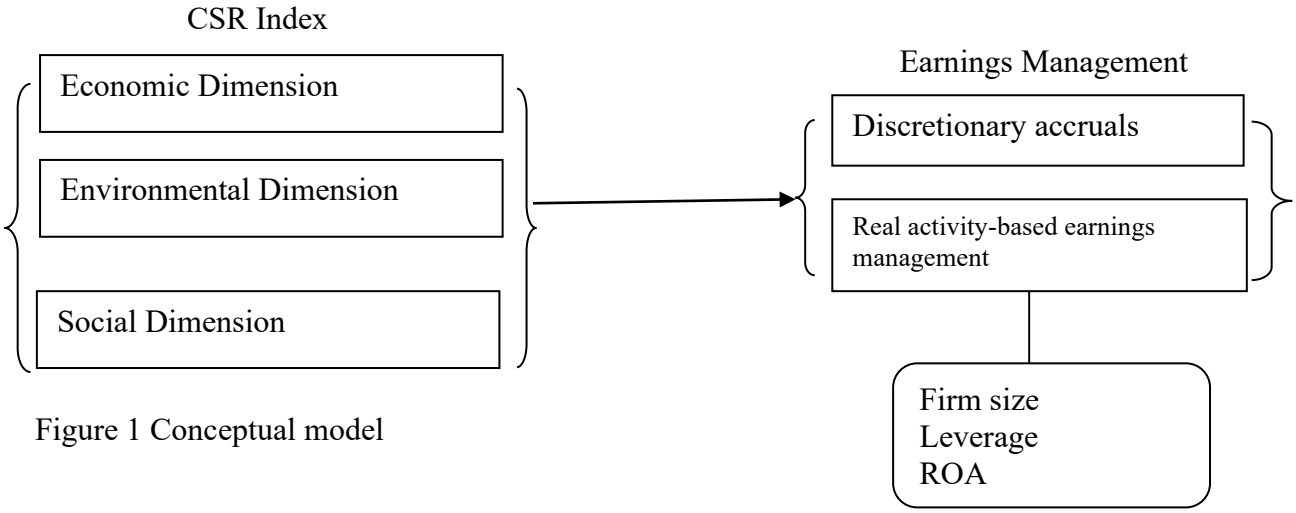

Figure 1 Conceptual model

1.3.2 Hypotheses

Possible hypotheses are developed based on the literature, the conceptualization of the research problem, and the research topic. Since this study examines the influence of corporate social responsibility (CSR) on earnings management, the research is based on the following hypotheses:

H_1: Corporate social responsibility influences discretionary accrual-based earnings management in Sri Lankan listed companies.

H_2: Corporate social responsibility influences real earnings management in Sri Lankan listed companies.

This study utilizes CSR indicators developed according to the GRI Standards (2021). The real earnings management (REM) model was selected following the study by Ghaleb et al. (2021), and the discretionary accruals model is based on Dechow et al. (1995). The population consists of 294 companies listed on the Colombo Stock Exchange (CSE), from which a

sample of 65 companies was selected using a purposive sampling technique. The sample selection adhered to specific conditions, including:

Organizations that follow the GRI Index to disclose their CSR activities.

The sample comprises 65 listed companies that adhered to GRI-based CSR disclosures from 2017 to 2023. While this purposive sampling is methodologically sound and suitable for identifying patterns within GRI-compliant firms, it limits the generalizability of the findings to the broader corporate sector. Many firms, particularly small and medium-sized enterprises (SMEs) or those in less regulated industries, are excluded due to their non-alignment with GRI standards. Acknowledging this limitation is crucial when interpreting the results, and future research could expand the sample to include a more diverse set of companies using alternative or broader CSR assessment frameworks.

Regression Models

The following two regression models were utilized to test the impact of CSR on earning management factors

$REM = \beta_0+\beta_1 ECO+ \beta_2 ENV + \beta_3 SOC +\beta_4 FSIZE + \beta_5 LEV+ \varepsilon_{it}$…….Model 1

$DA = \beta_0+\beta_1 ECO+ \beta_2 ENV + \beta_3 SOC + \beta_4 FSIZE + \beta_5 LEV +\varepsilon_{it}$……Model 2

Where

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$= Coefficient values

REM=Real activity-based earning management

ECO= Degree of economic oriented CSR activities

ENV=Degree of environment-oriented CSR activities

SOC=Degree of social oriented CSR activities

FSIZE= Firm size

LEV=Leverage

DA=Discretionary accruals

ROA=Return on Asset

ε =Error

REM can be calculated by following formula. It was developed by Roychowdhury model (2006)

$$\frac{CFOt}{ASSt-1} = \beta_1\left(\frac{1}{Asst-1}\right) + \beta 2\left(\frac{St}{Asst-1}\right) + \beta 3\ \left(\frac{\Delta St}{Asst-1}\right) + \varepsilon t \text{ Equation i}$$

$$\frac{PRCt}{ASSt-1} = \beta_1\left(\frac{1}{Asst-1}\right) + \beta 2\left(\frac{Sit}{Asst-1}\right) + \beta 3\ \left(\frac{\Delta St}{Asst-1}\right) + \beta 4\left(\frac{\Delta St-1}{Asst-1}\right) + \varepsilon t \text{ Equation ii}$$

$$\frac{DIEt}{ASSt-1} = \beta_1\left(\frac{1}{Asst-1}\right) + \beta 2\left(\frac{St-1}{Asst-1}\right) + \varepsilon t \text{ Equation iii}$$

REM= ACFO + ADIE + APRC

Source: Ghaleb et al, 2021

Where,

CFOt = cash flow from operation for the current period

Asst-1 = total assets value for the previous year

St = the yearly revenue

ΔSt = the variation in revenue from the previous year

ΔSt-1 = the variation of the revenue for the previous year from year t-2

PRCt = aggregated value of inventory changes and cost of goods sold for the year

DIEt = aggregated expenses of research and development expense and marketing expenses

St-1 = total revenue of prior year

ACFO = the abnormal cash flow from operations calculated as a residual from Equation (1)

APRC = the abnormal production costs calculated as a residual from Equation (2)

ADIE = the abnormal discretionary expenses calculated as a residual from Equation (3)

REM = the aggregate value of the standardized ACFO (−1), standardized APRC, and standardized ADIE (−1), calculated by Equation (4) to measure overall REM.

DA will be calculated based on modified Jones model

$$TAit = \Delta CAit - \Delta Cashit - \Delta CLit + \Delta STDit - Depit$$

$$\frac{TAit}{Ait-1} = \beta 1\left(\frac{1}{Ait-1}\right) + \beta 2\left(\frac{\Delta Revit - \Delta Recit}{Ait-1}\right) + \beta 3\left(\frac{PPEit}{Ait-1}\right) + \varepsilon it$$

$$NDAit = \beta 1\left(\frac{1}{Ait-1}\right) + \beta 2\left(\frac{\Delta Revit - \Delta Recit}{Ait-1}\right) + \beta 3\left(\frac{PPEit}{Ait-1}\right)$$

$$DAit = \frac{TAit}{Ait-1} - NDAit$$

Where:

TA_{it} = the total accruals of the company for the current year

CA_{it}= the changes in current assets for the present year from the past year

$Cash_{it=}$ the difference between cash and cash equivalents for the current year and last year.

CL_{it} = the difference between current liabilities for the current year from last year

STD_{it} = the difference between short-term debt for the current year from last year

Dep_{it} = depreciation expenses for the year

Rev_{it} = the changes in income for the current year from the prior year

Rec_{it} = the changes indebtors for the current year from the prior year

PPE_{it} = the value of property, plant, equipmentat the end of current year

A_{it}-1 = the value of total assets at the end of current year

NDA_{it} = company's nondiscretionary accrual for the present year

DA_{it} = company's discretionary accrual for the current year

TA_{it}-1 = company's total accrual for the current year

(Source: GRI standards 2021, Ghaleb et al, 2021, Dechow et al study of 1995)

Data Analysis

The data used are obtained from annual reports of companies which are listed on the Colombo Stock Exchange (CSE) for seven years, starting from 2017 to 2023.

Multicolinearity test

Variance Inflation, Factor or Tolerance test, which can be used for measuring multicolinearity, was investigated in the present study. The acceptable VIF range is between 1- 10).

Table 1 Variance Inflation Factors

Variable	Coefficient Variance	Centered VIF
GRI_ECO	0.464843	1.079210
GRI_ENV	0.935680	1.083319
GRI_SOC	2.029003	1.065241
FSIZE	0.057557	1.450762
LEV	0.001992	1.410222
ROA	0.009493	1.033834

According to Table 1, all variable's VIF values are fallen between1-2. Thus, the study concluded that there is no multicolinearity problem. From this result, the methods chosen for measuring independent variables in this study did not achieve multicolinearity.

Correlation Analysis

Table 2 Correlation Matrix

Probability	REM	DA	GRIEC	GRIEN	GRISO	GRIOV	FSIZE	LEV	ROA
REM	1.00000								

DA	0.9335	1.0000							
	0.0000	-----							
GRI_ECO	0.1795	0.1735	1.0000						
	0.0001	0.0002	-----						
GRI_ENV	-0.1811	-0.2015	-0.1072	1.00000					
	0.0001	0.0000	0.0221	-----					
GRI_SOC	0.0264	0.0365	0.2177	0.00101	1.0000				
	0.5731	0.4361	0.0000	0.9828	-----				
GRI_OVE	0.0306	0.0233	0.6469	0.42177	0.7197	1.0000			
	0.5150	0.6194	0.0000	0.0000	0.0000	-----			
FSIZE	0.4452	0.5015	0.1451	-0.23297	0.0333	-0.0099	1.0000		
	0.0000	0.0000	0.0019	0.0000	0.4782	0.8330	-----		
LEV	0.1683	0.2114	0.0865	-0.22780	0.1140	0.0072	0.5164	1.0000	
	0.0003	0.0000	0.0652	0.0000	0.0150	0.8773	0.0000	-----	
ROA	-0.7813	-0.7094	-0.04566	0.0413	0.0054	-0.0028	-0.1710	-0.04254	1.0000
	0.0000	0.0000	0.3311	0.3789	0.9076	0.9525	0.0002	0.3652	-----

The correlation matrix reveals statistically significant relationships between CSR dimensions and earnings management variables. The economic dimension of CSR shows a positive correlation with both discretionary accruals (DA) and real activity-based earnings management (REM), suggesting that firms with strong economic CSR engagements may be more inclined to manipulate earnings. This raises concerns regarding the potential strategic use of CSR as a façade to obscure opportunistic financial reporting behavior. Conversely, the environmental dimension of CSR demonstrates a negative correlation with DA and REM. This finding implies that firms committed to environmentally responsible practices tend to

exhibit lower levels of earnings management, aligning with the principles of stakeholder theory and legitimacy theory. The social dimension of CSR, however, does not show any statistically significant correlation with earnings management indicators, highlighting a limited role of socially focused initiatives in constraining EM in the Sri Lankan context.

Regression Analysis

Regression analysis used to find out the impact of autonomous variable on dependant variable. The impact of the independent variables (corporate social responsibility variables) on the dependent variable (earning management variables) is examined using a regression model. Two models are used in this study to determine the outcome. The identical independent variables are examined using various earning management models.

Calculation of Discretionary Accruals

The modified Jones model (Dechow et al., 1995) has been used as the foundation for regression analysis model 1, which measures the dependent variable, discretionary accruals.

First step total accruals will be calculated from following equation 1.

$$\mathbf{TAit = \Delta CAit - \Delta Cashit - \Delta CLit + \Delta STDit - Depit} \quad \textbf{Equation i}$$

Then following model used to find the coefficient value. The model was developed by Jones and called as original Jones Model.

$$\frac{TAit}{Ait-1} = \beta 1\left(\frac{1}{Ait-1}\right) + \beta 2\left(\frac{\Delta Revit - \Delta Recit}{Ait-1}\right) + \beta 3\left(\frac{PPEit}{Ait-1}\right) + \varepsilon it \quad \textbf{Equation ii}$$

The estimates of β1, β2, and β3 from the original Jones Model (Equation 2) can be gathered and will be applied in equation 3. (Dechow et al., 1995; Chen and Hung, 2021). The coefficient values are showing in the table 3.

Table 3 Beta values for equation iii

Variable	Coefficient
1/ Ait-1	-8297235.
(ΔRevit -ΔRecit)/ Ait-1	-0.055659
PPEit/ / Ait-1	0.597889
C	-0.072724

Then the coefficient value (Table 3) will be applied in equation 3.

$$NDAit = \beta 1\left(\frac{1}{Ait-1}\right) + \beta 2\left(\frac{\Delta Revit - \Delta Recit}{Ait-1}\right) + \beta 3\left(\frac{PPEit}{Ait-1}\right)$$ **Equation iii**

Finally, equation 4 will be calculated by subtracting Non-discretionary accruals from total accruals to determine discretionary accruals.

$$DAit = \frac{TAit}{Ait-1} - NDAit$$ **Equation iv**

Table 4 Regression Analysis Model 1

Dependent Variable: DA

Total panel (balanced) observations: 455

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GRI_ECO	0.908010	0.321020	2.828517	0.0049
GRI_ENV	-1.399576	0.455452	-3.072942	0.0022
GRI_SOC	0.351248	0.670687	0.523713	0.6007
LEV	-0.026668	0.021012	-1.269165	0.2050
FSIZE	1.312291	0.112961	11.61724	0.0000
ROA	-1.058240	0.045875	-23.06813	0.0000
C	-13.76055	1.371492	-10.03326	0.0000
R-squared	0.667667	Mean dependent var		-0.951107
Adjusted R-squared	0.663216	S.D. dependent var		2.826211
S.E. of regression	1.640138	Akaike info criterion		3.842703
Sum squared resid	1205.144	Schwarz criterion		3.906092
Log likelihood	-867.2150	Hannan-Quinn criter.		3.867676
F-statistic	150.0074	Durbin-Watson stat		1.650661
Prob(F-statistic)	0.000000			

Table 4 presents the results of the regression model analyzing the effect of CSR dimensions on discretionary accruals. The economic CSR variable is positively and significantly associated with DA ($\beta = 0.908$, $p < 0.01$), indicating that firms focusing on economic aspects of CSR may engage more in accrual-based manipulation. In contrast, the environmental CSR variable is negatively and significantly associated with DA ($\beta = -1.400$, $p < 0.01$), reinforcing the notion that environmentally responsible firms are less likely to manipulate earnings. The social CSR dimension remains statistically insignificant in influencing DA. Among the control variables, firm size and return on assets (ROA) have significant effects on DA. Firm size is positively associated ($\beta = 1.312$, $p < 0.01$), while ROA has a strong negative effect ($\beta = -1.058$, $p < 0.01$), indicating that larger but less profitable firms are more likely to manage

earnings through discretionary accruals. Leverage does not show a significant impact on DA in this model. The model's explanatory power is substantial, with an R-squared of 66.7%, suggesting that the independent variables and controls collectively explain a large proportion of the variance in discretionary accruals. The F-statistic is significant at the 99% confidence level, affirming the robustness and suitability of the model for the analysis.

Calculation of real activity-based earning management (REM)

REM will be calculated by following equation.

REM= ACFO + ADIE + APRC

The aggregate cash flow from operations (ACFO), aggregate production costs (APRC), and aggregate discretionary spending (ADIE) are added to create the whole REM. Before that, each aggregated value will be calculated by running regression models.

The following equation will use to calculate ACFO.

$$\frac{CFOt}{ASSt-1} = \beta_1\left(\frac{1}{Asst-1}\right) + \beta 2\left(\frac{St}{Asst-1}\right) + \beta 3\left(\frac{\Delta St}{Asst-1}\right) + \varepsilon t \quad \textbf{Equation 1}$$

The table shows the beta values for equation 1and that will be applied to calculate the aggregate value of the CFO.(The relevant regression analysis table is annexed in appendices.)

Table 5 Beta/ Coefficient values for equation 1

Dependent variable CFOt/Asst-1

Variable	Coefficient
$1/ASSt_{-1}$	2.26E+08
$S_t/AASSt_{-1}$	-0.055643
$\Delta s_t/ ASSt_{-1}$	2.337286
C	-1.062492

APRC calculated through Equation 2. The table 5 presents the beta values for equation 2.(The relevant regression analysis table is annexed in appendices.)

$$\frac{PRCt}{ASSt-1} = \beta_1\left(\frac{1}{Asst-1}\right) + \beta 2\left(\frac{Sit}{Asst-1}\right) + \beta 3\left(\frac{\Delta St}{Asst-1}\right) + \beta 4\left(\frac{\Delta St-1}{Asst-1}\right) + \varepsilon t \quad \textbf{Equation 2}$$

Table 6 Beta/ Coefficient Values for Equation 2

Dependent Variable: PRC_t/ASS_{t-1}

Variable	Coefficient
$1/ASSt_{-1}$	-10858753

S_t/A $ASSt_{-1}$	0.661792
Δs_t/ $ASSt_{-1}$	0.041847
Δs_{t-1}/ $ASSt_{-1}$	-0.004898
C	6.55E-05

The table 6 indicates the beta values for equation 3 which was applied in equation 3 to calculate the ADIE

$$\frac{DIEt}{ASSt-1} = \beta_1 \left(\frac{1}{Asst-1}\right) + \beta 2 \left(\frac{St-1}{Asst-1}\right) + \varepsilon t$$ **Equation 3**

Table 7 Beta/ Coefficient Values for Equation 3

Dependent variable DIE/Asst-1

Variable	Coefficient
1/ $ASSt_{-1}$	-4123549.
$SALES_{t-1}/ASS_{t-1}$	0.026149
C	0.011217

Above eqation1, equation 2, equation 3 generates the final REM value.

Regression Model 2 Analysis

Table 8 Regression Analysis Model 2

Dependent Variable: REM				
Total panel (balanced) observations: 455				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GRI_ECO	1.571470	0.421123	3.731618	0.0002
GRI_ENV	-1.846335	0.597475	-3.090232	0.0021
GRI_SOC	0.178306	0.879827	0.202660	0.8395
FSIZE	1.579492	0.148185	10.65892	0.0000
LEV	-0.049679	0.027564	-1.802309	0.0722
ROA	-1.732777	0.060180	-28.79345	0.0000
C	-17.58890	1.799164	-9.776154	0.0000
R-squared	0.727675	Mean dependent var		-2.351693
Adjusted R-squared	0.724027	S.D. dependent var		4.095668
S.E. of regression	2.151581	Akaike info criterion		4.385548
Sum squared resid	2073.927	Schwarz criterion		4.448937
Log likelihood	-990.7122	Hannan-Quinn criter.		4.410521

F-statistic	199.5152	Durbin-Watson stat		1.368583
Prob(F-statistic)	0.000000			

As presented in Table 8, Model 2 evaluates the relationship between CSR and REM. The economic CSR dimension again exhibits a positive and significant association ($\beta = 1.571$, $p < 0.01$), while the environmental CSR dimension shows a negative and significant association with REM ($\beta = -1.846$, $p < 0.01$). The social CSR variable remains statistically insignificant in this model as well. Control variables show similar patterns to Model 1. Firm size ($\beta = 1.579$, $p < 0.01$) and ROA ($\beta = -1.733$, $p < 0.01$) significantly influence REM, whereas leverage shows a weaker but marginally significant effect ($\beta = -0.050$, $p < 0.10$). These results support the view that firm-specific financial characteristics significantly impact the extent of earnings management, alongside CSR dimensions. The model demonstrates strong explanatory power, with an R-squared of 72.7%, suggesting that CSR dimensions and control variables explain nearly three-quarters of the variance in REM. The F-statistic is significant at the 99% level, indicating that the model is statistically sound and well-specified.

1.4 Conclusion and recommendation

This study investigates the influence of corporate social responsibility (CSR) on earnings management (EM) in Sri Lankan listed companies, with a focus on discretionary accruals and real activity-based earnings manipulation. The analysis is grounded in stakeholder theory, agency theory, stewardship theory, social contract theory, and legitimacy theory, offering a multi-dimensional lens through which CSR and EM interactions are understood.

Economic CSR activities show a positive and statistically significant association with both discretionary accruals ($\beta = 0.908$, $p < 0.01$) and real earnings management ($\beta = 1.571$, $p < 0.01$). This suggests that companies engaging in economic CSR such as job creation, infrastructure investment, or local economic development may use such activities to enhance public perception, while simultaneously manipulating earnings for internal financial or strategic reasons.

Environmental CSR activities demonstrate a negative and significant effect on both discretionary accruals ($\beta = -1.400$, $p < 0.01$) and real earnings management ($\beta = -1.846$, $p < 0.01$). This indicates that firms with genuine environmental commitments are less likely to engage in earnings manipulation, reinforcing the view that environmental stewardship supports transparent and accountable reporting practices.

Social CSR activities, such as employee benefits and community engagement, do not show significant relationships with either form of earnings management in this study. This may suggest that social initiatives, while valued, are either insufficiently reported or do not exert a meaningful influence on financial practices in the Sri Lankan context.

The role of control variables further clarifies the dynamics. Firm size is positively related to EM in both models, implying that larger firms may possess greater capacity or incentive to manage earnings. In contrast, return on assets (ROA) consistently exhibits a negative relationship with EM, indicating that more profitable firms have less need to manipulate earnings. Leverage shows a weak or mixed effect, being significant only in the REM model at the 10% confidence level.

The relatively high R-squared values—66.7% for discretionary accruals and 72.7% for real activity-based EM underscore the strength of the models. These results suggest that CSR dimensions and financial controls explain a substantial portion of the variation in earnings management behavior.

The findings partially align with international studies. For example, similar to Ruwanti et al. (2019), this study finds that environmental CSR reduces earnings management. However, unlike some studies that report a negative or insignificant impact of economic CSR on EM (e.g., Moratis & van Egmond, 2018), this study identifies a positive association. These inconsistencies may stem from regional differences in regulatory enforcement, industry-specific norms, or variation in CSR measurement models. In the Sri Lankan context, economic CSR may be used more opportunistically due to relatively weaker institutional frameworks.

Several limitations should be noted. First, the study relies exclusively on GRI standards to measure CSR, which may not fully reflect the local context or informal CSR practices prevalent in Sri Lanka. Second, the sample size of 65 companies, while adequate for statistical testing, limits the generalisability of findings to all firms, particularly small and medium-sized enterprises that may not follow GRI-based reporting. Third, the study focuses solely on quantitative disclosure, without considering the qualitative content or tone of CSR narratives.

Future research could address these limitations by developing context-specific CSR indices that incorporate local cultural and regulatory dimensions. Using alternative earnings management models such as the Kothari model or sector-adjusted real activity measures—to validate results. Exploring the qualitative aspects of CSR disclosures using content analysis or

natural language processing. The study highlights important implications for regulators, investors, and corporate governance practitioners. Regulators should consider tightening disclosure standards and promoting independent verification of CSR reporting, especially for economic initiatives. Investors and stakeholders must exercise due diligence in interpreting CSR claims, especially when economic CSR is prominently advertised. In conclusion, the most significant finding is that not all CSR is equal in its relationship to earnings management. While environmental CSR acts as a deterrent to EM, economic CSR may, in some cases, enable it. The evidence suggests that CSR can serve both as a mechanism for accountability and a strategic shield for managerial opportunism. Recognising this duality is essential for designing effective corporate governance frameworks and for fostering a culture of ethical financial reporting in emerging markets like Sri Lanka. The findings suggest that firms should implement CSR initiatives with genuine transparency and accountability to avoid misuse as a tool for earnings manipulation. Regulators need to strengthen CSR disclosure standards and promote independent verification or third-party audits to ensure the reliability of reported information. Investors and stakeholders should exercise critical evaluation of CSR claims, particularly economic CSR activities that may serve as a façade for earnings management. Establishing clear enforcement mechanisms and sector-specific guidelines can further support ethical CSR implementation and deter opportunistic behavior.

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