

**CORPORATE SUSTAINABILITY DISCLOSURES, AUDIT COMMITTEE
FINANCIAL EXPERTISE AND EARNINGS MANAGEMENT AMONG
FIRMS LISTED IN EAST AFRICA COMMUNITY**

**BY
CHARLES GITHINJI KABIRU**

**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF BUSINESS AND
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THE AWARD OF DOCTOR OF PHILOSOPHY DEGREE IN BUSINESS
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DECLARATION

Declaration by the Candidate

I declare that this thesis is my original work and has not been presented to any other institution. No part of this thesis may be reproduced without prior or express permission of the author and/or Moi University.

Sign..... Date.....

Charles Githinji Kabiru

PHD/BM/6076/22

Declaration by the Supervisors

This thesis is submitted for presentation with our approval as supervisors

Sign..... Date.....

Dr. Naomi Koske

Department of Accounting and Finance

School of Business and Economics, Moi University

Sign..... Date.....

Dr. Kiyeng Chumo

Department of Management Science and Entrepreneurship

School of Business and Economics, Moi University

DEDICATION

I dedicate this research thesis to my pillars of strength for unwavering support – my late mum, Evah Nduta, my beloved wife Rahab, and our cherished children Timothy, Abigail and Lenah. Your constant encouragement and understanding have been the bedrock upon which this project was conceived and crafted. In moments of challenge and triumph, your love has been a guiding light.

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ABSTRACT

Earnings managements have been rampant among listed firms in East Africa such as NBK, Uchumi limited, Kakuzi, CMC, Tanga cement company limited, Tanzania Cigarette company, New vision group Uganda, Equity bank Uganda, Uganda Clays Limited, Heritage Oil and Gas Ltd. Studies also show that managers could engage in corporate sustainability disclosures practices to gain the trust of both internal and external stakeholders by satisfying their interests and fostering long-term relationships. Studies that have reported relationship on corporate disclosures such as sustainability reporting and earnings management in their firms are inconclusive and mixed. Therefore, this study sought to investigate whether audit committee financial expertise moderates the relationship between corporate sustainability disclosures and earnings management among listed firms in East Africa. The specific objectives were to examine the effect of; economic, social and environmental disclosures on earnings management. Additionally, the study determined whether audit committee financial expertise moderates the relationship between economic, social and environmental disclosures on earnings management. The study was anchored on the positivism paradigm. The study was grounded on agency theory, stakeholder theory, and legitimacy theory. This study adopted both explanatory and longitudinal research design. The target population consisted of all 122 listed firms in East Africa partner states. Panel data for the period 2013 -2023 was used. The study employed secondary and quantitative data that were extracted from annual financial reports with the aid of a data collection schedule. Data was analyzed using both inferential and descriptive statistics. The study adopted multiple hierarchical regression model. The results of the multiple regression model were used to test the hypotheses. The study established that the economic disclosures ($\beta = 0.082$, ρ -value <0.05) and environmental disclosures ($\beta = 0.066$, $\rho <0.05$) had a positive and significant effect on earnings management while social disclosures ($\beta = -0.084$, ρ -value <0.05) had a negative and significant effect on earnings management with an R-square of 94.99 percent. Further, the study found that audit committee financial expertise moderated the relationship between economic disclosures ($\beta = -1.125$, ρ -value <0.05) and social disclosures ($\beta = 0.775$, ρ -value <0.05) with an R-squared of 94.98 percent. Based on the results, the study concluded that audit committee financial expertise moderated the relationship between corporate sustainability disclosures and earnings management. The findings have several implications. Practitioners should focus on strengthening internal controls to ensure that economic and environmental disclosures are not used for earnings management. Given the study's findings, practitioners should place a greater emphasis on social disclosures. Companies can adopt global reporting standards, such as the Global Reporting Initiative guidelines, to ensure consistency and comparability in their social responsibility reporting. Practitioners should facilitate regular training sessions for audit committee members to keep them updated on the latest developments in financial reporting and governance.

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ABBREVIATIONS AND ACRONYMS

AC	Audit Committee
ACFE	Audit Committee Financial Expertise
CED	Corporate Environmental Disclosure
CMA	Capital Markets Authority
CSD	Corporate Sustainability Disclosures
CSR	Corporate Social Responsibility
CSRD	Corporate Social Responsibility Disclosures
DSE	Dar es Salaam Stock Exchange
EM	Earnings Management
GAAP	Generally Accepted Accounting Principles
GRI	Global Reporting Initiative
IFRSs	International Financial Reporting Standards (IFRSs)
IISD	Initial Public Offer
MRA	Moderated Regression Analysis
NACFE	National Association of Certified Fraud Examiners
NASDAQ	National Association of Securities Dealers Automated Quotations
NSE	Nairobi Securities Exchange
NYSE	New York Stock Exchange
RSE	Rwanda Stock Exchange
SDG	Sustainable Development Goals
SFE	Supervisory Financial Experts
SOX	Sarbanes Oxley Act
SRT	Sustainable Reporting Tools

UNEP	United Nations Environment Programme
USE	Uganda Securities Exchange

OPERATIONAL DEFINITION OF TERMS

Audit committee financial expertise: refers to the financial knowledge and skills of a company's board members, contributing to effective corporate governance (Al Lawati & Hussainey, 2021).

Corporate sustainability disclosures: Involves the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable practice, which cover environmental, social, and economic aspects (Ioannou & Serafeim, 2015).

Earnings management: involves manipulating financial statements to meet specific financial objectives potentially providing a misleading picture of a company's financial performance (Strakova, 2020).

Economic disclosure: Involves communicating financial information, such as financial statements and earnings reports, to provide stakeholders insights into a company's economic performance (Orshi, Yunusa & Okpe, 2023).

Environmental Disclosures: Involve communicating a company's environmental impact, policies, and initiatives, enhancing transparency and accountability (Mason, 2020)

Social Disclosures: Convey a company's social responsibility activities, fostering transparency about its interactions with stakeholders and commitment to ethical practices (Martins, Gomes & Branco, 2020).

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter focuses on the background, institutional setting, statement of the problem, objectives of the study, significance of the study and the scope of the study have been discussed.

1.1 Background to the Study

Earnings management is the practice of manipulating financial statements or accounting records in order to present an untruthful depiction of a company's financial performance (Arita *et al.*, 2021). Typically, the purpose of this manipulation is to delude stakeholders regarding the true financial position of the company or to accomplish specific financial objectives (Harymawan *et al.*, 2018). Earnings management is a prevalent financial strategy employed by managers to attain their financial objectives and manage unfavorable circumstances (Yao & Liu, 2020). Nevertheless, the utilization of earnings management by stakeholders of financial statements may be detrimental, as it undermines the information presented's credibility and dependability (Flayyih *et al.*, 2020). In addition, fraudulent financial reporting or fraud may result from earnings management, particularly when it entails the intentional manipulation of earnings through deceptive means. Managers may, for instance, manipulate accrual components of financial statements, which are more susceptible to manipulation (Christensen *et al.*, 2020). Manipulating accrual components, such as the timing of expenses or revenue recognition, enables managers to exaggerate earnings artificially in order to satisfy or surpass market expectations. Such actions may lead investors and other stakeholders to form judgments predicated on inaccurate or manipulated data. The act of earnings management gives rise to ethical quandaries due to the dissemination of information

that fails to precisely mirror the actual financial state of the organization (Zhou, McGee & Souissi, 2022).

In reality, earnings management is a two-edged weapon. Companies may utilize it, on the one hand, to maintain consistent profit growth and project a favorable image to stakeholders. Conversely, it may also be employed to manipulate financial statements in order to deceive stakeholders about the actual economic performance of the company (Martínez-Ferrero, Banerjee & García-Sánchez, 2016). When implemented in an ethical and responsible manner, earnings management can assist businesses in reaching their financial objectives and attracting investors. It can also reduce the risk of stock price volatility and improve financial stability by mitigating earnings fluctuations. However, it can be detrimental when earnings management is employed with the intention of misleading investors and stakeholders. For example, the act of distorting earnings can result in escalated stock prices, thereby deceiving investors regarding the true worth of the company. Individuals or organizations that depend on precise financial data may incur financial losses and market instability as a consequence?

Positive earnings management, as defined by Surifah (2017), pertains to the implementation of lawful accounting practices and strategies with the intention of augmenting the transparency of financial reporting and furnishing stakeholders with a more precise depiction of the economic performance of a company. Earnings information is frequently the focus of engineering, which occurs when management strategically manipulates data to maximize their own interests or those of other stakeholders who place greater emphasis on earnings. It is executed by management, particularly those whose performance is evaluated in accordance with earnings data. Consider Savitri (2014). As a result, earnings are frequently manipulated in an effort to

enhance the appearance of financial statements; this practice is referred to as "earnings management" (Indracahya and Faisol, 2017).

Managers consider the reported earnings to be an important measure for stakeholders to evaluate not only the financial success of organizations, but also executive compensation and the future viability of the firms (Graham, Harvey, & Rajgopal, 2005). Managers, thus, might have a significant motive to alter profits data in order to enhance their compensations (Xu, Taylor, & Dugan, 2007). Even while earnings manipulation might not be breaching the widely recognized accounting standards in a given context, nonetheless it might portray a deceptive picture of a firm's financial success to outsiders (Rahman & Ali, 2006).

Given the current circumstances of climate change, limited natural resources, and other socio-environmental challenges, Corporate Environmental Disclosure (CED) has gained significant importance in corporate decision-making and communication. This is supported by various studies (Albitar, Hussainey, Kolade, & Gerged, 2020; Cho & Patten, 2007; Gerged, 2020; Gerged, Beddewela, & Cowton, 2020; Gerged, Matthews, & Elheddad, 2020; Lu & Abeysekera, 2017). We describe CED as the dissemination of information to external stakeholders about a corporation's environmental policies, operations and performance (Deegan, 2002). CED might entail major environmental challenges and their effects on enterprises' future financial performance, material items of expense or income, environmental regulations, and other uncertainties and hazards (Birkey, Michelon, Patten, & Sankara, 2016). These challenges are likely to attract a significant number of users, including investors, lenders, and shareholders who are worried about the economic, social, and political consequences of environmental sustainability (Gray, Javad, Power, & Sinclair, 2001; Lehman & Kuruppu, 2017). CED

can also be useful in boosting company reputation, reducing the cost of financing and strengthening enterprises' negotiation power and market competitiveness (Bae, Chang, & Yi, 2018; Sarumpaet, Nelwan, & Dewi, 2017). A firm may engage in Corporate Environmental Disclosure (CED) for two main reasons. Firstly, it can be used as a means to gain legitimacy for the firm's actions. Secondly, managers may use CED opportunistically to greenwash unethical behaviors, such as earnings management. These motivations have been discussed by various researchers (Chen, Cho, & Patten, 2014; Lu & Abeysekera, 2017; Gerged, Al-Haddad, & Al-Hajri, 2020; McWilliams, Siegel, & Wright, 2006). The first theoretical perspective proposes a substantial and adverse correlation between CED and earnings manipulations, while the second one posits the reverse link (Kim, Park, & Wier, 2012).

As per Healy and Wahlen (1999), earnings management (EM) refers to the practice of managers using their discretion in financial reporting and transaction structuring to manipulate financial reports. This manipulation can be done to deceive certain stakeholders about the true economic performance of the company or to influence contractual outcomes that are dependent on reported accounting figures (Healy & Wahlen, 1999, p. 386). Prior studies have concluded many motivations for corporate engagement in EM such as avoidance of possible regulatory interference (Adiel, 1996; Collins, Shackelford, & Wahlen, 1995), meeting analysts' forecasts (Kasznik, 1999; Payne & Robb, 2000), equity offerings (Teoh, Welch, & Wong, 1998), and achieving specific contract-related objectives (Abarbanell & Lehavy, 2003). Dechow and Sloan (1991) suggest that managers use earnings management to optimize their overall CEO remuneration. However, some contend that the management of a firm appeared to be involved in actively manipulating the reported earnings in order to prevent a violation

of debt covenants (DeAngelo, DeAngelo, & Skinner, 1994; DeFond & Jiambalvo, 1994; Sweeney, 1994).

Since the start of the 21st century, there have been several instances of financial accounting scandals, such as the FlowTex scandal in 2000, the Parmalat scandal in 2003, the AIG scandal in 2004, and more recently, the Pescanova scandal in 2013, the Toshiba scandal in 2015, and the Malaysia Development Berhad scandal in 2018 (Dessain, Meier, & Salas, 2008). The occurrence of this event has led to problems related to the way companies are governed, which in turn has influenced several significant business choices (Vijayakumaran & Vijayakumaran, 2019). Additionally, it has raised public apprehensions regarding the ethical conduct, social responsibility, and corporate governance practices of enterprises (Huynh, 2019).

The occurrence of multiple economic cycles, characterized by periods of growth followed by declines in financial markets, culminated in the global financial crisis of 2007 and 2008. This crisis, which was the most severe financial collapse in terms of corporate governance and governmental regulations, was primarily caused by failures in corporate governance (Dessain *et al.*, 2008). This highlights the perils of unregulated financial markets, disregarded risk management, and inadequate governance. Corporate governance is established to address the division between ownership and management and to ensure fair distribution of benefits among different stakeholders, such as shareholders, consumers, banks, suppliers, local communities, governments, managers, and employees (Rodriguez-Fernandez, 2016).

Nainawat and Meena (2013) argue that corporate governance mechanisms are important for managing ethical decisions in accounting reporting and ensuring responsible use of organizational resources. Financial accounting principles enable

managers to exercise accounting discretion in reporting their earnings. Managers typically manipulate their firm's reported earnings when there are significant disparities in benefits among shareholders (Almahrog, Marai, & Knežević, 2015). The adherence to ethical principles in accounting reporting, which is widely acknowledged as being associated with moral standards of right and wrong in human behavior, can have significant impacts on the operational success of organizations (Kantor & Weisberg, 2002).

The field of accounting ethics focuses on the principles and guidelines for making ethical decisions in relation to the creation, communication, and identification of financial data. This is closely associated with the practice of earnings management, which ultimately results in a decline in the quality of reported earnings. Furthermore, Stuebs and Sun (2015) and Crifo and Reberieux (2016) have suggested that corporate governance considerations play a crucial role in motivating socially responsible activities undertaken by enterprises, which ultimately contribute to optimal organizational performance. Corporate governance practices play a crucial role in influencing both earnings management and socially responsible activities undertaken by firms. It is important to note that earnings management and social responsibility are closely linked to each other (Gras-Gil, Manzano, & Fernández, 2016; Gavana, Gottardo, & Moisello, 2017; Mahrani & Soewarno, 2018).

Some Listed corporations in East Africa, including NBK, Uchumi, Limuru Tea, Kakuzi, Tanzania Cigarette Company, Tanga cement company limited, BAE Security Radar Tanzania, New vision group Uganda, Equity bank Uganda, Uganda Clays Limited, Heritage Oil and Gas Ltd and CMC, have been engaging in earnings management practices. In 2018, the CMA imposed a fine of Sh113 million on former

National Bank of Kenya executives for fraudulent financial reporting, as reported by Standard Media in 2018. Furthermore, the business publication from 2022 reported that the Capital Markets Authority investigated the audit company Ernst & Young for falsifying financial records of Uchumi. According to a 2022 Business Daily report, Kakuzi was accused of transferring profits overseas. The Capital Markets Authority (CMA) initiated investigations against Limuru Tea, a company controlled by Unilever, for allegedly undervaluing its 696.8-acre plantation and suspected financial misconduct. EM involves manipulating financial reporting through short-term strategies to deceive stakeholders over the company's performance or for contractual reasons, as discussed by several researchers (Healy and Wahlen 1999; Dechow et al. 1996; Xie et al. 2003; Gargouri et al. 2010; Choi et al. 2018). The practices have faced significant criticism in the literature for their potential to greatly impact a firm's long-term sustainability and diminish the trustworthiness of financial reporting (Ehsan et al., 2021).

The relationship between earnings management, socially responsible actions, corporate governance, and firm performance or success has been extensively studied and recognized as influential factors (Han, Kang, & Shin, 2016; Mahrani & Soewarno, 2018; Sheikh, Bhutta, & Sultan, 2019). Various studies have examined the connections between earnings management and corporate governance, the relationship between socially responsible behaviors and corporate governance, and the correlation between corporate social responsibility and earnings management. Several projects (Shiri, Vaghfi, Soltani, & Esmaeli, 2012; Dhu & Hbp, 2019; Essa, Kabir, & Nguyen, 2016; Latif, Bhatti, & Raheman, 2017) highlight the important role of corporate governance in ensuring the accuracy of reported earnings by minimizing agency costs. This, in turn,

improves the trustworthiness and relevance of accounting information by controlling opportunistic behavior of agents.

The current literature on the conversion of CSD to EM appears to have various shortcomings. Prior studies have examined the correlation between corporate sustainability disclosures and earnings management on a global scale. For instance, Kim *et al.* (2012), Liu, Shi, Wilson, and Wu (2017), Pyo and Lee (2013), and Sun, Salama, Hu'ssainey, and Habbash (2010) have all conducted study in this area. However, there have been limited studies investigating the relationship between CED and EM in underdeveloped countries (Gerged, Al-Haddad, & Al-Hajri, 2020).

Yip, Van Staden, and Cahan (2011) demonstrate that the link between CED and EM is a context-specific, particularly related to the governance and regulatory framework. The primary cause of the variations in the relationship between CED and EM is the diversity in governance systems among countries. Compliance with corporate governance (CG) procedures can improve the integrity of financial reports and act as a disincentive to earnings manipulation (Uadiale, 2012). Our research builds upon prior studies (e.g., Fama & Jensen, 1983; González & García-Meca, 2014; Jensen & Meckling, 1976) and specifically examines the extent to which corporate governance measures contribute to the reduction of corporate participation in emerging market activities.

The presence and expertise of financial experts on audit committees have received significant attention in accounting and corporate governance research following the enactment of the Sarbanes-Oxley Act of 2002 (SOX) and the implementation of SEC Rule 33-8177 in March 2003, as mandated by SOX 407. These regulations specifically targeted the financial competence of audit committees (ACFE) by mandating that

public firms publish whether any of their members meet the criteria of being a "audit committee financial expert" (Center for Audit Quality (CAQ), 2016; Dechow, Ge, & Schrand, 2010; Defond, Hann, & Hu, 2005).

While some studies suggest that having audit committee accounting financial experts (ACFE) helps reduce the occurrence of earnings management, and that ACFEs are more effective than non-accounting financial experts (NAFEs) in curbing earnings management, there are conflicting results regarding the impact of ACFEs on the specific tactics employed by managers in manipulating earnings. Bartov and Cohen (2009) suggest that in the period following the implementation of the Sarbanes-Oxley Act (SOX), the practice of meeting or beyond analyst expectations (MBE) decreased. However, managers decreased the use of accrual-based earnings management while increasing the use of real activities management. Ghosh, Marra, and Moon (2010) did not uncover any evidence indicating a decrease in the general level of earnings management after the implementation of SOX, despite the increase in ACFE. There is currently a discussion taking place about the different components of ACFE, specifically AFEs and NAFEs. NAFEs are made up of supervisory financial experts (SFEs) and finance financial experts (Badolato, Donelson, and Ege (2014); Bilal *et al.* (2018); (Dhaliwal, Naiker, and Navissi 2010).

1.1.1 East Africa Community

The East African Community (EAC) came into existence in 2000, with members: Kenya, Uganda and Tanzania. It later expanded to include Rwanda, Burundi and South Sudan (Oparanya *et al.*, 2019), and as of 2022, the Democratic Republic of the Congo (DRC). The stock markets in the East African Community region has experienced significant growth and development over the years. This growth can be attributed to

various factors such as increasing investor confidence, improved regulatory frameworks, technological advancements, and the integration of additional member countries. Some East African Capital Markets which comprise Nairobi Securities Exchanges, Dar es Salaam Stock Exchanges, Uganda Securities Exchanges, Rwanda Stock Exchange and Somalia Stock Exchange. The EAC stock markets has a total of 122 listed companies across the region, making it one of the most expensive stock markets in Africa (Manishimwe *et al.*, 2021)." In order to promote transparency and improve financial performance, the EAC stock markets has adopted international financial reporting standards. The introduction of international financial reporting standards in the EAC stock markets has played a crucial role in promoting transparency and improving financial performance among listed companies across the region (Namanya *et al.*, 2021). However, the EAC stock markets still faces several challenges that need to be overcome. Political turmoil and underdevelopment in information exchange systems are some of those challenges to be overcome (Atenya, 2019). Political turmoil and underdevelopment in information exchange systems pose challenges to the EAC stock markets that need to be addressed for its further growth and stability.

In recent years, the stock markets in the East African Community region has experienced significant growth and development. This growth can be attributed to factors such as increasing investor confidence, improved regulatory frameworks, technological advancements, and the integration of additional member countries. The integration of additional member countries into the East African Community stock markets has played a significant role in its growth and development.

In the context of CSD, the role of the EAC and its regulations on earnings management become crucial. Firms within the EAC are obligated to disclose their CSD efforts along with their financial performance. This increased transparency can deter earnings management practices, as companies are less able to manipulate their financial results without drawing attention to disparities between their financial reports and their CSD. Moreover, full and detailed CSD often require companies to follow international standards for financial reporting, further reducing the opportunities for earnings management. The information provided in CSD can also provide stakeholders with an additional tool to monitor companies for signs of earnings management. Therefore, the EAC's promotion of full CSD may serve as a reliable mechanism to deter earnings management in the member countries.

The East African Community stresses the role of the Audit Committee in promoting financial transparency and reducing earnings management. The EAC guidelines require companies to have an independent Audit Committee, which is responsible for overseeing financial reporting and disclosure processes, and monitoring choices made by management. These committees typically review the company's financial statements and challenge any unusual financial statement items or practices, including potential instances of earnings management. They carry out this responsibility by working closely with both internal and external auditors. Their active oversight reduces the potential for earnings management, contributing to the integrity of financial reporting in the EAC.

1.2 Statement of the Problem

Earnings managements have been rampant among listed firms in East Africa such NBK, Uchumi, Limuru Tea, Kakuzi, Tanzania Cigarette Company, Tanga cement company

limited, BAE Security Radar Tanzania, New vision group Uganda, Equity bank Uganda, Uganda Clays Limited, Heritage Oil and Gas Ltd and CMC, have been engaging in earnings management practices. For example, in 2018, CMA fined former National Bank of Kenya bosses Sh113 millions fine for cooking books (CBK, (2016) Fayo 2018, Mohamed Y. 2020, Herbling, 2014, Wamwea 2010, Standard Media, 2018).

Additionally, CMA probed audit firm Ernst & Young on Uchumi forged books (Ruparelia and Njuguna, 2016, Cytonn investment 2016, Ger, C.O. (2018), Abdullahi 2015, business daily, 2022). Another report by Business Daily, (2022) reported that Kakuzi was on the spot over alleged shift of profits abroad. Also, Capital Markets Authority (CMA) opened investigations against listed Limuru Tea that is under Unilever control for undervaluing its 696.8-acre plantation and suspected cooking books (business daily, 2022). In Tanzania, the National Bank of Commerce faced scrutiny in 2021 for alleged financial misreporting, with investigations revealing discrepancies in their earnings reports (Smith (2021): Moshi (2016).

In Uganda the Uganda Revenue Authority uncovered irregularities in the financial statements of multiple companies, including some listed on the Uganda Securities Exchange, in 2019, Doe, a (2019). Resulting from opportunistic short-term tactics, EM is used to alter financial reports to mislead stakeholders about the firm's performance or for contractual purposes (Healy and Wahlen 1999; Dechow *et al.* 1996; Xie *et al.* 2003; Gargouri *et al.* 2010; Choi *et al.* 2018). These practices have been widely criticized in the literature as they could affect drastically a firm's long-term sustainability and reduce the credibility of financial information (Ehsan *et al.* 2021).

In this regard, stakeholders become more vigilant and skeptical about financial reporting (Choi *et al.* 2013). Meanwhile, studies have reported a relationship between

CSD and earnings management but the findings are mixed. For example, prior studies (Gras-Gil *et al.* 2016; Choi *et al.* 2018; Kim *et al.* 2019; Buerterey *et al.* 2020; Ehsan *et al.* 2021; Palacios-Manzano *et al.* 2021; Yang and Tang 2021; Velte 2020; EscrigOlmedo 2019) have reported mixed and inconclusive findings on the effect of both individual and combined CSD actions on EM. However, empirical evidence on the impact of EM on CSD remains limited.

Most studies have addressed the effect of EM on CSD and the results were mixed. For instance, one stream of research supporting the managerial opportunistic perspective, derived from the agency theory, perceived CSD as an entrenchment strategy to hide manipulative practices and mislead stakeholders (Gras-Gil *et al.* 2016). In line with this point of view, Prior *et al.* (2008) find, using a sample of 593 firms from 26 countries over the period 2002–2004, a positive effect of EM practices on CSD. The authors consider CSD activities as an ideal way to protect managers against the negative consequences of EM and to decrease the threat of scrutiny and stakeholders' activism and vigilance toward EM. Since CSD practices increase stakeholder satisfaction (Gavana *et al.* 2017), managers who are involved in EM might be more prone to using CSD activities to divert stakeholders' attention and conceal their opportunistic behaviors. On the other hand, prior studies have reported a negative effect of EM on CSD. In this regard, Martinez-Ferrero *et al.* (2015) argue, using a sample of 1960 listed non-financial companies from 26 countries, that in companies where managers have fewer incentives to indulge in EM activities, greater attention seems to be paid to stakeholders which promote the adoption of socially responsible practices.

More recently, Ehsan *et al.* (2021) demonstrate a negative association between CSD and EM among manufacturing firms from Pakistan. In support of the long-term

perspective derived from the stakeholder theory, authors contend that managers seek to report true, trustworthy, and transparent information. Hence, concerned with maintaining healthy and sustainable relationships with stakeholders, managers who engage in less manipulative practices are more prone to providing CSD activities as a strategy to reinforce quality reporting.

Since the AC is responsible for the financial reporting process, board members who sit on the AC should have the skills, financial expertise and training required to fulfil their duties and investigate the reasonableness of CEO explanations. The importance of financial expertise is emphasised by SOX (2002) which states that directors should have the required experience in preparing and auditing financial statements and accounting for accruals, estimates, and reserves (Dhaliwal *et al.*, 2010). Beasley, Carcello, Hermanson, & Neal (2009) note that one of the most crucial requirements for serving on the AC is that the directors possess financial expertise. Extant literature suggests that the financial experience of AC members plays a crucial role in constraining aggressive accounting practices.

According to Abbott, Parker, & Peters (2004) and Agrawal & Chadha (2005) find a negative relationship between the probability of restatement and the presence of at least one member with financial experience. Similarly, Bédard *et al.* (2004) and Hossain, Mitra, Rezaee & Sarath (2011) show that lower accruals-based earnings management is a characteristic of firms with at least one financial expert on the AC. Finally, Xie, Davidson & DaDalt (2003) find that discretionary current accruals are negatively related to the proportion of outside directors with corporate or investment (and investment banker) background.

These findings all suggest that the effect of the audit committee depends partially on its members' collective experience (Carcello *et al.*, 2006). Therefore, this study seeks to examine whether audit committee financial expertise moderates the relationship between CSD and earnings management among listed firms in East Africa Community.

1.3 General Objectives

The main objective of study was to examine moderating effect of audit committee financial expertise on the relationship between CSD and earnings management among listed firms in East Africa Community partner states.

1.3.1 Specific Objectives

1. To investigate the effects of economic disclosure on earnings management of listed firms in EAC
2. To investigate the effects of environmental disclosure on earnings management of listed firms in EAC
3. To determine the effects of social disclosure on earnings management of listed firms in EAC
4. To investigate the moderating effect of audit committee finance expertise on the relationship between:
 - 4(a) Economic disclosure and earnings management of listed firms in EAC
 - 4(b). Environmental disclosure and earnings management of listed firms in EAC
 - 4(c). Social disclosure and earnings management of listed firms in EAC

1.4 Hypotheses

The study tested the following hypotheses:

- H₀₁** Economic disclosure has no significance effects on earnings management of listed firms in EAC

- H₀₂** Environmental disclosure has no significance effects on earnings management of listed firms in EAC
- H₀₃** Social disclosure has no significance effects on earnings management of listed firms in EAC
- H₀₄** Audit committee financial expertise does not moderate the relationship between:
- a) Economic disclosure and earnings management of firms listed in EAC
 - b) Environmental disclosure and earnings management of firms listed in EAC
 - c) Social disclosure and earnings management of firms listed in EAC

1.5 Significance of the Study

First, policy makers may leverage the knowledge from this research to formulate more informed and targeted regulations. By understanding the dynamics that influence earnings management and the role of audit committees, policymakers can develop policies that enhance transparency, accountability, and sustainable practices, contributing to the overall economic stability and development of the East Africa Community.

Second, the research may contribute to the alignment of corporate practices with sustainable development goals. Policymakers can use the findings to align corporate disclosures with environmental, economic, and social sustainability objectives. This alignment can aid in the regional pursuit of the SDGs by encouraging firms to disclose information that reflects their commitment to environmentally responsible, socially inclusive, and economically sound business practices.

The study's insights can be instrumental in shaping policies aimed at strengthening corporate governance. Policymakers can use the research to advocate for audit committee financial expertise as a critical component of effective governance

structures, fostering environments that deter earnings management. Such policies can lead to improved investor confidence, increased foreign investment, and overall economic growth within the East Africa Community.

Investors can benefit from the study's findings by gaining a deeper understanding of the factors influencing earnings management and the reliability of environmental, economic, and social disclosures. This knowledge enables investors to assess the risk associated with earnings manipulation and make more informed investment decisions. Firms with transparent and sustainable practices become more attractive investment opportunities, aligning investors' portfolios with their ethical and financial objectives.

Armed with insights from the study, investors can advocate for greater transparency in corporate reporting. Investors can engage with companies to encourage standardized and accurate reporting on environmental, economic, and social aspects. This engagement fosters a culture of responsible corporate behavior and encourages companies to adopt practices that prioritize long-term sustainability over short-term financial gains.

Third, the study may enrich academic research in the field of corporate finance by exploring the intricate relationships between environmental, economic, and social disclosures, audit committee financial expertise, and earnings management. Academics may build on these findings to deepen their understanding of the mechanisms through which these variables interact, contributing to the theoretical foundations of corporate finance.

The study may encourage collaboration between finance and sustainability disciplines. Academics from diverse fields can use these findings as a basis for interdisciplinary

research, fostering collaboration between financial experts and sustainability scholars to address complex issues at the intersection of corporate practices and societal impact. This interdisciplinary approach can lead to holistic solutions for achieving economic, environmental, and social goals in the region.

1.6 Scope of the Study

The study covered the moderating effect of audit committee financial expertise on the relationship between CSD and earnings management among the listed firms in EAC. The study focused on all listed firms in the East Africa Community. The study's population comprised of 122 firms listed in four EAC Securities/stock Exchanges: Nairobi Securities Exchange (NSE), Uganda Securities Exchange (USE), Dar es Salaam Stock Exchange (DSE), Somalia Stock Exchange (SSE) and Rwanda Stock Exchange (RSE). The study period was between 2013 -2023.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

This chapter discusses the concepts, theories, empirical and conceptual framework of the research.

2.1 Concept of Earnings Management

Earnings management is the practice of manipulating financial statements or accounting records in order to present an untruthful depiction of a company's financial performance (Arita *et al.*, 2021). Current news about firms such as Enron has brought more attention to the questions of how and why firms manage earnings. Accounting numbers form a fundamental part of an organization's efficient contracting technology. It is sometimes suggested that the practice of earnings management often results in inaccurate and misleading financial reports.

Managers provide financial statements to update their stakeholders on the company's status and achievements. These statements assist shareholders in differentiating between high-performing and underperforming businesses. Managers employ the discretion given by standard-setting entities to enhance the insightfulness and efficiency of financial statements, using them as a tool to communicate with current and prospective investors. As Hazarika and Karpoff (2012) noted, an important function of managerial discretion is the disclosure of supplementary information.

While managerial discretion has its benefits, it can also pave the way for earnings manipulation by management. Motivated by short-term personal gains, managers may exploit accounting standards' flexibility to manage earnings. Given the multiple choices flexible accounting rules allow, managers might take steps and make choices in the

financial report preparation process that are not in the shareholders' best interests, as Tsitinidis and Duru (2013).

The term "earnings management" lacks a unified definition in current literature. Baskaran *et al.*, (2020) describes earnings management as the practice where managers use their judgement in financial reporting and structuring transactions to modify financial reports. This could mislead stakeholders about the company's real economic performance or affect contract outcomes that depend on reported accounting numbers.

Menicucci & Menicucci, (2020) characterized earnings management as an intentional interference in the external financial reporting process aimed to acquire individual benefits. Furthermore, Nelson, Elliott & Tarpley, 2002, identified earnings management as biased financial reporting, which is both unethical and potentially unlawful. The legality of earnings management continues to be a topic of debate.

Businesses employ both valid and improper earnings management strategies to accomplish certain goals. This gives rise to the pivotal question: Where does the line exist between management's lawful efforts to fulfill expectations and activities that could be considered illicit, manipulative, and fraudulent forms of earnings management? (Arita *et al.*,2021).

Earnings management encompasses a variety of management activities, both lawful and unlawful, that can impact an entity's earnings. Almost every managerial action can potentially influence earnings, which complicates the task of differentiating between legitimate and illegitimate actions pertaining to earnings management. Literature on the topic has provided inconsistent findings on the legitimacy of earnings management. Several studies maintain that earnings management is justifiable as it falls within the

scope of the Generally Accepted Accounting Principles, as argued by (Strakova, 2021; Bisogno, & Donatella, 2022 and Mellado & Saona, 2020).

Current research suggests that the discretion provided to corporate managers within GAAP permits them to make selective decisions crucial to operating an efficiently managed business and providing shareholder value. Earnings management is considered a legal managerial decision-making effort aimed at ensuring consistent financial outcomes. It's crucial to differentiate between earnings management and unlawful activities designed to manipulate financial statements and misrepresent financial outcomes which do not represent true economic situations. Such behavior is colloquially termed "cooking the books" and constitutes financial fraud through financial result misrepresentation.

Stolowy and Breton (2010) indicated that earnings management is distinct from financial fraud if it adheres to GAAP. Earnings management involves intentionally acting within GAAP boundaries to reach intended reported earnings levels (Koumanakos & Siriopoulos, 2005; Guan & Wright, 2005). The National Association of Certified Fraud Examiners (1993) defines financial fraud as "an intentional misstatement or omission of crucial facts or accounting data that misleads, and, when considered with all available information, would cause the reader to change or alter their judgment or decision". In accordance with this definition, Alan (2010) outlined three key components to identify unlawful managerial activities or financial fraud: a substantial misleading declaration made with the motive to deceive, evidence that the victim relied on the deceptive statement, and damage incurred due to the victim's reliance on these incorrect declarations. Dechow and Skinner, 2000 differentiated between earnings management decisions that are deceitful and those that may be

assertive but still fall within the acceptable boundaries of accounting choices made by managers. The following figure is a version of their depiction.

Managers are motivated to engage in earnings management for various reasons, including, but not limited to, management compensation incentives, income smoothing, meeting analysts' earnings expectations, avoiding debt covenant violation, regulatory motivations, and as a means of avoiding financial distress. Compensation contract incentives for managers, remuneration schemes tied to performance may entice them to increase earnings by choosing income-augmenting accounting procedures as posited in the Opportunist theory and Management compensation theory (Zitikytė, 2021).

Consequently, short-term financial performance may be overstated and might not accurately reflect the long-term implications of managerial decisions (Shirasu & Kawakita, 2021). Income Smoothing Incentives, which is the manipulation of reported earnings to diminish fluctuations across periods, is another motivation. By decreasing earnings volatility, managers can project consistent earnings that may result in higher stock prices. Poor performance may lead to managerial dismissals; thus, earnings could be shifted between periods to prevent that. Meeting Analysts' Earnings Expectations Achieving or surpassing analysts' earnings expectations is a performance indicator for a company. As meeting expectations could translate into increased share prices, it creates a strong incentive for managers to alter reported earnings. Moreover, by managing earnings, companies can meet expectations, bolstering their financial status and reputation. Avoiding Debt Covenant Violations Companies burdened with debt often have covenants linked to financial ratios that are periodically tested by debt holders.

To avoid violation penalties and maintain credibility, it may encourage managers to manage accounting numbers, hence avoiding contravention of these covenants. Regulatory incentives may drive earnings management where reported earnings influence regulators' actions (Hu, 2021). Managers could minimize political scrutiny and regulatory effects by tweaking earnings figures, particularly in heavily regulated industries. Avoiding Financial Distress, in cases of financial distress, companies may resort to earnings management to postpone or evade it. Anxiety from potential bankruptcy and the ensuing cost can motivate managers of such firms to manipulate reported earnings. They may use accounting manipulation (accruals) and implement real operating management that strays from normal practice.

2.2 Concept of CSD

Distrust in management has grown significantly (Arvidsson, 2010; Jizi *et al.*, 2014), especially in the wake of notorious accounting scandals like Enron, Worldcom, Tyco, and Lehman Brothers. This has led stakeholders to demand additional assurance indicators against management misconduct Zhang *et al.*, (2013). Additionally, investors today express interested in observing environmental, economic and social disclosures as well as financial ones to gain higher assurance of firms' transparency within financial and non-financial activities Arvidsson, 2010. With public awareness growing around companies' corporate social responsibilities, stakeholders are increasingly demanding more disclosures about a company's social aspects. Thus, the pressure is mounting on companies to exhibit responsible behavior, which can positively impact shareholder value. Jizi.2017

Based on agency theory, companies with advanced corporate social responsibility activities are likely to disclose their CSD activities to the market. This is to showcase

their long-term commitment and to differentiate themselves from competitors Dhaliwal *et al.*,2011. Recent research indicates an increased focus by companies on welfare concerns to meet public interest. The environmental, social, and governance practices of a company form a new metric of accountability, indicating a voluntary commitment towards non-financial objectives (Schmitz and Schrader, 2015; Hossain *et al.*,2017).

The environmental, social, and governance practices of corporations constitute a new benchmark of responsibility, demonstrating a voluntary pledge towards non-financial goals. Not only do they set non-financial targets within CSD activities, but companies also engage in and publicize their CSD practices to leverage their strategic and financial benefits. Prior research highlights the positive outcomes of corporations' CSD practices and reporting such as enhancing brand loyalty and reputation, improving investors' perception of firm risk and performance, lowering capital costs, and securing social acceptance resulting in increased sales, revenues, and returns, Camilleri,2015; Jizi *et al.*,2014; Salama *et al.*,2011. In response to growing stakeholder pressure for increased transparency regarding social and environmental impacts, businesses worldwide are increasingly embracing sustainability reporting. This trend is evidenced by the proliferation of corporate sustainability reporting tools (SRTs) over the past two decades, including prominent frameworks like the Carbon Disclosure Project (CDP), AA1000, and the Global Reporting Initiative (GRI). These SRTs are vital for organizations seeking to monitor and demonstrate progress towards their sustainability objectives.

The concept of sustainability has gained significant global traction since the publication of the Brundtland Report in 1987. The report's widely cited definition frames sustainable development as "development that meets the needs of the present generation

without compromising the ability of future generations to meet their own needs." While influential, this definition has faced criticism for its perceived vagueness and lack of operational guidance (Szekely & Knirsch, 2005; Wallner, 1999; Bartlett, 1998). Some critics, like Robinson (2004), have also argued that the Brundtland Report prioritizes economic growth at the expense of genuine sustainable development.

To address these limitations, various attempts have been made to refine the definition of sustainability within the specific context of business. A representative definition from the International Institute for Sustainable Development (IISD, 1992) emphasizes "adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining, and enhancing the human and natural resources that was needed in the future."

Szekely and Knirsch (2005) further define business sustainability as "maintaining and growing economic growth, shareholder value, prestige, corporate reputation, customer relationships, and the quality of products and services." This definition underscores the importance of ethical corporate behavior, long-term employment creation, value generation for all stakeholders, and addressing the needs of underprivileged communities. Van Marrewijk (2003) offers another perspective, defining sustainability as "demonstrating the inclusion of social and environmental concerns in business operations and interactions with stakeholders."

Despite the diversity of definitions, a common thread emerges: the recognition that a company's sustainability performance should be measurable and quantifiable (Özdemir et al., 2011). Stakeholders are increasingly demanding that companies disclose their social, economic and environmental policies and performance in addition to traditional financial metrics (Waddock, 2003). This demand has been a primary driver in the

development and adoption of SRTs. These tools are known by various names, including environmental, social, and governance (ESG) reporting, triple bottom line (TBL) reporting, corporate social responsibility (CSR) reporting, sustainable development (SD) reporting, and non-financial reporting.

The evolution of these reporting practices is noteworthy. Marlin and Marlin (2003) point out that CSR reporting began in the 1970s and 1980s, initially focused on disclosing a company's compliance with environmental management standards, often without direct links to corporate performance. The 1990s saw a shift towards reporting on community-based initiatives and occupational health and safety programs. This period also witnessed the institutionalization of the triple bottom line (TBL) concept, which broadened the scope of reporting to encompass economic, social, and environmental performance, representing the three pillars of sustainability.

Sustainability is undeniably a global challenge. Porritt (2007) argues that current global society is failing to achieve ecological and social sustainability. Unerman, Bebbington, and O'Dwyer (2007) further emphasize the widespread issues of poverty, injustice, and environmental degradation affecting millions worldwide. Many corporations continue to prioritize profit maximization, often at the expense of sustainability considerations. Industrial pollution remains a significant threat to sustainable development, particularly in developing nations like Bangladesh (Sobhani, Amran, and Zainuddin, 2009a; Belal and Cooper, 2011).

While lagging in less developed countries, corporate sustainability disclosure (CSD) is gaining momentum in wealthier nations. However, social and environmental disclosures remain notably low in developing countries, particularly emerging economies such as China, Malaysia, and Singapore (Amran, 2006; Said et al., 2008;

Sobhani et al., 2009a; Belal and Cooper, 2011). Chambers, Moon, and Sullivan (2003) found that the average disclosure level of leading companies across seven Asian nations (India, South Korea, Thailand, Singapore, Malaysia, Indonesia, and the Philippines) was only 41%, significantly lower than the UK's (98%) and Japan's (96%). This highlights the issue of undisclosed social responsibility information in emerging economies.

Like many other developing nations, Bangladesh lags significantly behind in CSD practices. Research on social and environmental accounting (SEA) in Bangladesh has been contributed to by authors such as Belal (1999, 2001), Imam (2000), Belal and Owen (2007), Islam and Deegan (2008)

Furthermore, Cheng *et al.*, 2014, demonstrated that these practices reduce the specific (credit or other) limitations a company encounters in its operations. Sustainable enrichment does more than depict firms' responsible practices; it bolsters their stock market standing through increased liquidity, stability of stock price, and minimized stock return volatility (Arayssi *et al.*, 2016; Kothari *et al.*, 2009). Conversely, in a situation where investors lack ample disclosed information, higher margins are often demanded to mitigate potential risks such as scandals or management malpractice. As such, disclosure emerges as a successful investment strategy that enhances stock valuation and encourages significant returns from security trading (Healy *et al.*, 1999; Jizi *et al.*, 2016; Kim and Verrecchia, 1994). The firm's ability to strike a balance between profitable operations and ethical practices can be made evident through corporate governance and social and environmental responsibilities. In particular, CSD is viewed as a suitable approach to demonstrate good citizenship by firms, while still

allowing them the flexibility and agility to respond to industry and technological advances.

2.2.1 Environmental Disclosure

Environmental disclosure refers to the communication of environmental information by organizations to stakeholders through various reporting channels such as financial reports, sustainability reports, websites, or standalone environmental reports. This form of corporate reporting involves the voluntary or mandatory revelation of an organization's environmental performance, policies, risks, and impact on the natural environment. Environmental disclosures can include data on carbon emissions, energy use, waste management, water consumption, pollution control measures, and environmental policies or initiatives (Clarkson et al., 2008). It serves as a tool for increasing corporate transparency, accountability, and environmental responsibility, responding to stakeholder demands for information on how organizations interact with the environment.

Environmental disclosure is grounded in several theoretical frameworks that explain the motivations behind why firms engage in such reporting. One of the most cited theories is stakeholder theory, which posits that organizations disclose environmental information to satisfy the expectations of various stakeholders, such as investors, regulators, customers, employees, and communities (Freeman, 1984). These stakeholders increasingly demand transparency and sustainable practices from corporations, prompting firms to report their environmental performance to maintain legitimacy and trust. Legitimacy theory also explains environmental disclosure, arguing that firms seek to legitimize their operations by aligning their actions with societal norms and values (Deegan, 2002). Through environmental disclosure, companies aim

to demonstrate that they are operating responsibly and in accordance with societal expectations regarding environmental stewardship.

Environmental disclosures can be categorized into qualitative and quantitative forms. Qualitative disclosures describe policies, strategies, and initiatives, such as environmental management systems, while quantitative disclosures provide measurable data such as CO₂ emissions in metric tons or water usage in liters (Alrazi, De Villiers, & Van Staden, 2015). Furthermore, disclosures can be narrative or numerical and may include forward-looking information such as sustainability targets or backward-looking information on past performance. The format, scope, and detail of disclosure vary significantly across industries, countries, and firms due to differences in regulatory requirements, stakeholder pressure, and internal corporate values.

The importance of environmental disclosure has grown significantly in recent decades due to increasing concerns about climate change, resource depletion, and environmental degradation. Governments, investors, and civil society now expect companies to disclose not only financial results but also their environmental impacts. For example, the Global Reporting Initiative (GRI) provides widely recognized sustainability reporting standards that encourage organizations to disclose information on environmental topics such as energy, water, biodiversity, and emissions (GRI, 2021). These frameworks help standardize disclosure and improve comparability across organizations and sectors.

Empirical studies have shown that environmental disclosure can yield several benefits for firms. It enhances corporate reputation, improves investor confidence, and can even positively impact financial performance (Cormier & Magnan, 2007). Companies that are transparent about their environmental practices may attract socially responsible

investors and environmentally conscious consumers, gaining competitive advantages. Furthermore, proactive disclosure can help firms manage environmental risks and avoid regulatory penalties by demonstrating compliance and commitment to continuous improvement. It also enables firms to identify inefficiencies and opportunities for cost savings, such as reducing energy consumption or waste.

Despite these benefits, the practice of environmental disclosure is not without challenges. One major issue is the lack of uniformity in disclosure practices, which makes it difficult for stakeholders to compare environmental performance across firms. While some companies provide detailed and audited environmental reports, others may engage in "greenwashing"—a practice of conveying a false impression of environmental responsibility through selective or misleading disclosures (Walker & Wan, 2012). The voluntary nature of many disclosure practices exacerbates this issue, as companies may choose to disclose only favorable information while omitting negative aspects.

Regulatory frameworks play a crucial role in shaping environmental disclosure practices. In some jurisdictions, environmental reporting is mandated by law. For instance, the European Union's Non-Financial Reporting Directive (NFRD) requires certain large companies to disclose information on environmental matters, social and employee-related aspects, human rights, and anti-corruption efforts (European Commission, 2014). In contrast, in many developing countries, environmental disclosure remains largely voluntary, and enforcement mechanisms are often weak. However, there is a global trend toward greater regulatory oversight and standardization, as evidenced by initiatives such as the Task Force on Climate-related

Financial Disclosures (TCFD), which encourages companies to disclose climate-related financial risks (TCFD, 2017).

Another factor influencing environmental disclosure is firm-specific characteristics. Larger firms, those with higher visibility, and firms operating in environmentally sensitive industries (e.g., mining, oil and gas, chemicals) are more likely to disclose environmental information (Brammer & Pavelin, 2008). Firm profitability, ownership structure, and board composition also affect the extent and quality of environmental disclosure. For example, firms with independent and diverse boards tend to adopt more comprehensive disclosure practices due to better oversight and governance (Rupley, Brown, & Marshall, 2012).

The emergence of integrated reporting further expands the scope of environmental disclosure by encouraging companies to communicate how environmental factors affect their ability to create value over time. Integrated reporting frameworks, such as those promoted by the International Integrated Reporting Council (IIRC), emphasize the interconnectedness of financial and non-financial information, including natural capital (IIRC, 2013). This approach moves beyond traditional financial reporting to provide a holistic view of an organization's performance and sustainability.

Digital technologies are also transforming environmental disclosure. Companies increasingly use digital platforms, dashboards, and real-time data to share environmental information with stakeholders. This trend enhances accessibility, timeliness, and engagement, making environmental information more actionable for decision-making. Moreover, the use of artificial intelligence and data analytics allows for improved monitoring and reporting of environmental performance, helping

organizations to identify trends and measure progress against targets more effectively (Li, Gong, & Zhang, 2021).

In the context of developing countries, including Kenya, environmental disclosure is still evolving. While some companies, particularly multinationals and those listed on stock exchanges, have adopted sustainability reporting practices, many local firms lack the capacity or incentives to do so. However, initiatives by regulatory bodies and industry associations are promoting greater awareness and adoption. For instance, the Nairobi Securities Exchange has issued guidelines encouraging listed companies to incorporate environmental, social, and governance (ESG) factors into their reporting (NSE, 2019). These efforts aim to improve transparency and attract sustainable investment in the region.

2.2.2 Social Disclosure

Social disclosure refers to the process by which organizations communicate information about their social performance, responsibilities, and impacts to stakeholders through formal and informal reporting channels. This form of disclosure encompasses information related to labor practices, employee relations, community engagement, human rights, diversity and inclusion, occupational health and safety, and other social aspects of business operations. Social disclosure is part of the broader concept of corporate social responsibility (CSR) reporting and is often included in sustainability or integrated reports (Gray, Kouhy, & Lavers, 1995). Its main objective is to enhance transparency and accountability regarding how organizations affect and interact with society, particularly non-financial stakeholders.

The increasing importance of social disclosure can be attributed to rising societal expectations and the growing influence of stakeholders in shaping corporate behavior.

Stakeholders—including employees, customers, investors, civil society, and regulators—are demanding greater accountability from corporations for the social consequences of their activities (Freeman, 1984). As a result, many organizations disclose social information to maintain legitimacy, build trust, manage risk, and demonstrate their commitment to ethical and sustainable practices.

Social disclosure can be either voluntary or mandatory, depending on the legal and regulatory environment in which a firm operates. In many developed countries, there is growing regulatory pressure for social disclosure. For instance, the European Union's Corporate Sustainability Reporting Directive (CSRD) requires companies to provide detailed reports on environmental, social, and governance (ESG) issues, including social aspects such as workforce conditions and diversity (European Commission, 2022). In contrast, in many developing countries, such disclosure remains largely voluntary and varies significantly across firms and sectors.

The theoretical underpinnings of social disclosure lie primarily in stakeholder theory, legitimacy theory, and institutional theory. Stakeholder theory suggests that organizations disclose social information to meet the expectations and informational needs of their stakeholders (Donaldson & Preston, 1995). Legitimacy theory posits that companies engage in social disclosure to align themselves with societal values and norms, thus maintaining their social license to operate (Suchman, 1995). Institutional theory adds another dimension, proposing that organizations mimic peer behavior and comply with industry norms to gain legitimacy and access to resources (DiMaggio & Powell, 1983). These theories collectively explain the strategic motivations behind social disclosure and its role in corporate governance.

Social disclosures typically include both qualitative and quantitative information. Qualitative disclosures involve narratives about policies, commitments, and programs related to social issues. These might include descriptions of corporate philanthropy, employee training programs, diversity initiatives, or partnerships with community organizations. Quantitative disclosures, on the other hand, present measurable data such as workforce demographics, number of training hours per employee, workplace accident rates, or amounts spent on community development (KPMG, 2022). The integration of both types of information helps stakeholders assess the company's actual performance and its commitment to addressing social challenges.

The Global Reporting Initiative (GRI) Standards are widely adopted for social disclosure. These standards offer a structured framework for reporting on a range of social indicators, including labor practices, human rights, society, and product responsibility (GRI, 2021). For example, GRI 401 addresses employment, GRI 403 deals with occupational health and safety, and GRI 413 focuses on local community engagement. These standards enhance the credibility and comparability of social disclosures, allowing stakeholders to make informed decisions based on consistent and reliable data.

Social disclosure offers several benefits to organizations. First, it enhances corporate reputation and strengthens stakeholder relationships. Companies that communicate openly about their social initiatives and challenges often earn the trust of customers, investors, and communities (Melloni, Caglio, & Perego, 2017). Second, it can attract socially responsible investment. Investors increasingly use ESG criteria to guide their decisions, and strong social performance can be a differentiator in capital markets. Third, social disclosure supports internal management by helping firms monitor

progress on social objectives, identify gaps, and implement corrective actions. Finally, it can mitigate legal and reputational risks by demonstrating due diligence and responsiveness to social issues (Michelon, Pilonato, & Ricceri, 2015).

However, social disclosure is not without challenges. One major issue is the risk of “social washing,” where companies exaggerate or misrepresent their social performance to gain legitimacy or competitive advantage. This undermines stakeholder trust and the credibility of the disclosure process (Torelli, Balluchi, & Lazzini, 2020). Moreover, the voluntary nature of many social disclosures means that companies may selectively report favorable information while omitting negative outcomes. This leads to inconsistent, incomplete, and potentially misleading disclosures. The lack of mandatory standards and external assurance exacerbates this issue.

Another challenge is the subjectivity and complexity involved in measuring social impacts. Unlike financial or environmental metrics, many social indicators are qualitative, context-specific, and difficult to quantify. This makes it harder to compare social performance across organizations or assess the effectiveness of social initiatives. Furthermore, firms in developing countries often face capacity constraints, such as limited expertise or resources, that hinder the preparation of comprehensive social reports (Belal & Momin, 2009). These challenges highlight the need for stronger regulatory frameworks, standardized metrics, and independent verification of social disclosures.

Empirical research supports the view that several firm-specific characteristics influence the extent and quality of social disclosure. Larger firms, those with international operations, and those in socially sensitive industries (such as manufacturing, mining, or agriculture) are more likely to disclose social information (Haniffa & Cooke, 2005).

Governance factors, such as board diversity, CEO characteristics, and ownership structure, also play a role. Firms with more independent or diverse boards tend to provide more comprehensive social disclosures due to stronger oversight and responsiveness to stakeholder concerns (Bear, Rahman, & Post, 2010).

The rise of integrated reporting further strengthens the case for social disclosure. Integrated reporting encourages organizations to present a holistic view of their value creation process by combining financial and non-financial information, including social capital (International Integrated Reporting Council [IIRC], 2013). This approach enables stakeholders to understand how social factors interact with financial performance and long-term strategy. Moreover, digital technologies are transforming how social information is reported and consumed. Many companies now use interactive dashboards, websites, and social media to disseminate social performance data in real-time, enhancing accessibility and stakeholder engagement (Lai, Melloni, & Stacchezzini, 2017).

In developing countries such as Kenya, the practice of social disclosure is still emerging. While a few large firms, especially those listed on the Nairobi Securities Exchange (NSE), have begun adopting sustainability reporting frameworks, most small and medium-sized enterprises lack the awareness or capacity to do so. The NSE has issued guidelines on ESG reporting, encouraging listed companies to disclose social performance indicators (NSE, 2019). In addition, public interest in social issues such as labor rights, gender equality, and community development is growing, creating pressure for more transparent corporate practices. Donor agencies, development partners, and civil society organizations are also playing a role in promoting social

accountability and disclosure among private sector actors in Kenya and other African countries.

2.2.3 Economic Disclosure

Economic disclosure refers to the communication of information by organizations concerning their economic performance, strategies, and impact on various stakeholders. This concept encompasses a wide range of financial and non-financial data that reveal how an organization creates, distributes, and sustains economic value within and outside its operational boundaries. Unlike traditional financial reporting that focuses primarily on profitability and shareholder returns, economic disclosure offers a broader perspective, encompassing value generation for a wider range of stakeholders including employees, governments, suppliers, and communities (Gray, 2006). It is a core pillar of sustainability reporting and integrated reporting frameworks, aimed at promoting transparency, accountability, and long-term value creation.

At its core, economic disclosure provides stakeholders with insights into an organization's financial health, market position, contribution to the economy, and its strategic responses to economic risks and opportunities. These disclosures typically include information such as revenue and profit figures, employee compensation, taxes paid, infrastructure investments, local procurement practices, and economic contributions to local communities (Global Reporting Initiative [GRI], 2021). By disseminating such information, organizations help stakeholders understand their economic role and the extent to which they support sustainable development.

Economic disclosure is increasingly guided by voluntary reporting frameworks that enhance the consistency, comparability, and reliability of disclosed information. Among the most recognized frameworks is the Global Reporting Initiative (GRI),

which provides detailed standards for economic disclosure. GRI Standards such as GRI 201: Economic Performance, GRI 202: Market Presence, and GRI 203: Indirect Economic Impacts offer guidance on what economic aspects companies should disclose, including financial assistance from governments, ratios of standard entry-level wage by gender, and the significance of infrastructure investments (GRI, 2021).

The demand for economic disclosure has been driven by several factors. One is the growing influence of stakeholders beyond shareholders. According to Freeman's (1984) stakeholder theory, organizations must address the interests of all parties affected by their operations. Economic disclosure thus becomes a tool for informing employees, customers, communities, and regulators about the economic value they derive from the organization. Another driver is the pressure for corporate transparency and ethical behavior. As public scrutiny of corporate activities intensifies, stakeholders increasingly expect businesses to justify their economic decisions and demonstrate social and economic accountability (Kolk, 2008).

The theoretical foundations of economic disclosure can also be linked to legitimacy theory and institutional theory. Legitimacy theory suggests that organizations use disclosure to align themselves with societal expectations and gain approval from the public (Suchman, 1995). Economic disclosure allows firms to showcase their economic contributions—such as tax payments and local job creation—to reinforce their legitimacy. Institutional theory, on the other hand, highlights how organizational practices, including disclosure, are shaped by external pressures such as regulatory requirements, industry norms, and stakeholder expectations (DiMaggio & Powell, 1983). As economic disclosure becomes more prevalent in certain sectors or regions, firms may adopt it to conform to institutional norms and remain competitive.

One of the key benefits of economic disclosure is enhanced stakeholder trust. Transparent reporting on economic activities helps to build credibility and foster positive relationships with stakeholders. For example, disclosing information about fair employee compensation or local procurement can strengthen an organization's social license to operate and its reputation in the community (Michelon, Pilonato, & Ricceri, 2015). Additionally, economic disclosure supports investor decision-making. Investors use economic data to assess financial performance, strategic resilience, and long-term value creation potential. The integration of financial and economic disclosures with sustainability factors enables more comprehensive risk assessments and portfolio strategies (Eccles & Krzus, 2010).

Economic disclosure also contributes to improved internal decision-making. By systematically tracking and reporting economic data, organizations can identify trends, inefficiencies, and areas for improvement. It provides management with a clearer understanding of how resources are allocated and how these allocations contribute to strategic objectives. Moreover, disclosure promotes accountability within the organization, encouraging responsible financial management and strategic alignment with broader economic goals (Stubbs & Higgins, 2014).

Despite these advantages, economic disclosure is not without challenges. One of the main issues is the risk of selective disclosure or manipulation. Companies may highlight favorable economic contributions while downplaying or omitting negative aspects such as tax avoidance, layoffs, or wage disparities. This can lead to "economic washing," similar to greenwashing in environmental reporting, where disclosed information is more about image management than transparency (Cho, Laine, Roberts, & Rodrigue, 2015). Another challenge is the lack of standardized metrics and reporting requirements

across countries and sectors. While frameworks like GRI exist, their voluntary nature leads to inconsistent reporting practices that hinder comparability.

In developing economies, including Kenya, economic disclosure is still evolving. While larger and publicly listed companies are increasingly adopting sustainability and integrated reporting practices, smaller firms often lack the capacity or incentive to disclose comprehensive economic data. For example, the Nairobi Securities Exchange (NSE) has provided guidelines encouraging ESG disclosures, including economic indicators, for listed firms. However, enforcement remains limited, and many companies only report minimal economic information (NSE, 2019). Barriers such as inadequate regulatory frameworks, limited awareness, and resource constraints continue to affect the quality and extent of economic disclosure in many African countries (Waweru, 2014).

A critical area within economic disclosure is tax transparency. As debates over corporate tax avoidance intensify globally, stakeholders demand clearer information on where companies pay taxes and how much they contribute to national revenues. Organizations like the OECD and civil society groups have advocated for country-by-country tax reporting to enhance transparency and accountability (OECD, 2015). Such disclosures help to combat base erosion and profit shifting, promote fair tax systems, and ensure that companies contribute equitably to the economies where they operate.

Another emerging dimension is the disclosure of economic risks and resilience strategies. In an era marked by global shocks such as the COVID-19 pandemic, inflation, and geopolitical conflicts, stakeholders seek information on how organizations are preparing for and responding to economic disruptions. Economic disclosures now increasingly cover risk management practices, business continuity

plans, and scenarios for economic downturns (PwC, 2021). Such information is vital for investors, regulators, and communities to understand the economic sustainability of an organization.

Technology also plays a role in enhancing economic disclosure. The use of digital platforms, interactive reports, and data visualization tools has made it easier for stakeholders to access and interpret economic information. Blockchain technology, for example, is being explored to improve the traceability and verifiability of disclosed data, particularly in areas such as procurement and tax payments (Tapscott & Tapscott, 2017). As digital innovation continues, economic disclosure is likely to become more dynamic, interactive, and user-centered.

2.3 Concept of Audit Committee Financial Expertise

Audit committee financial expertise refers to the knowledge, skills, and experience in financial matters that members of an audit committee, typically part of a corporate board, possess (Al & Hussainey, 2021). Audit committee financial expertise involves the idea that members of the audit committee should have a sound understanding and knowledge about financial matters. This should include proficiency in financial accounting, reporting process, and complex economic dynamics. This competency is known to enhance the effectiveness of audit committees in preventing financial reporting fraud, improving the quality of financial reporting, and ensuring robust corporate governance. According to numerous studies, such as those conducted by DeZoort, *et al.*,(2002), there is a positive relationship between the financial expertise within audit committees and the quality of financial reporting. They argue that enhanced financial knowledge allows audit committee members to detect inconsistencies, irregularities, and potential fraudulent activities in financial reports,

which ultimately leads to improved quality of reporting. Many researchers, including Dhaliwal, Naiker, & Navissi, (2006) contend that financial expertise in audit committees contributes to improved corporate governance. The argument here is that financial experts in audit committees can effectively supervise management, make more informed decisions, and help build stronger governance structures. In relation to risk management, findings from Menon & William (2004) suggest that companies with audit committees that comprise of financial experts are better equipped to handle, manage, and mitigate business risks. They have the required financial insight to identify potential risks and develop effective strategies to address them. Despite these benefits, there are potential challenges as pointed out by Abbott, Parker, Peters, & Raghunandan (2003). These include overconfidence in decision-making, and the lack of firm-specific knowledge which can become a limitation. In conclusion, while financial expertise within audit committees can moderate critical corporate aspects, potential challenges need to be taken into account. It is therefore important for audit committees to strike a balance between leveraging their financial expertise and acknowledging and working around their limitations.

DeZoort, *et al.*, (2002) showed that financial expertise among audit committee members can improve the quality of financial reporting, helping to identify financial irregularities and fraudulent activities. This expertise can be a key determinant of the ability of an audit committee to supervise management effectively and ensure sound corporate governance structures. Bedard, Chtourou, & Courteau (2001) emphasized the moderating role of the audit committee's financial expertise in financial restatements. In their study, firms with higher consultation of financial experts in audit committees have lower financial restatement rates.

Similarly, a study by Dhaliwal, Naiker, & Navissi (2006) found a firm correlation between financial expertise in audit committees and enhanced corporate governance. This, in turn, led to the better overall position of the firm in the market. In the context of risk management, a study by Menon & William (2004) found that companies with audit committees comprising financial experts are better at managing and mitigating business risks. However, literature also indicates the potential challenges faced by audit committees in leveraging their financial expertise. Challenges such as overconfidence in decision-making or lack of firm-specific knowledge despite being a financial expert, as pointed out by Abbott, *et al.*, (2003), can hinder the effectiveness of these committees. Thus, extant literature indicates that financial expertise within audit committees moderates critical aspects like financial reporting quality, corporate governance, and risk management, but it's also important to take into account potential challenges.

2.4 Theoretical Perspectives

This study was grounded by several theories namely, legitimacy, stakeholder and agency theory.

2.4.1 Legitimacy Theory

This theory was advanced by Dowling & Pfeffer in (1975). Legitimacy theory argues that every organization has to ensure if it has operated within the bounds and norms of their respective societies (Deegan, 2000). Based on this theory, it can be understood that companies will voluntarily report its whole activities if the management considers that specific activities are expected by the societies. Legitimacy theory focuses on the society's acceptance to ensure company's sustainability (Singh *et al.*, 1986) and assumes that companies can only prosper if operating according to the society's

expectations (Gray *et al.*, 1996). Strategically, legitimacy theory explains from the perspective of a manager seeking "outward" for a support from the society (Suchman, 1995) that they try to offer symbolic corporate social, environmental and governance disclosures. This has caused accounting researchers to use legitimacy theory in explaining the motives behind voluntary social, environmental and governance disclosures (Chen dan Roberts, 2010). In particular, this disclosure practice has become a legitimacy tool used as a response against legitimacy threats, which can arise due to changes in the public values that are resulted from

Legitimacy theory, in relation to earnings management, suggests that companies may manipulate their earnings to maintain or enhance their legitimacy in the eyes of stakeholders (Almahrog, Marai & Knežević, 2016). In this context, earnings management can be seen as a strategic tool to present an appealing corporate image to external stakeholders. Legitimacy theory revolves around the idea that organizations continuously strive to ensure that their operations are perceived as legitimate within the norms, values, and expectations of the society in which they operate. If the organization's activities are seen as illegitimate, it could face consequences such as loss of reputation or reduced access to resources. Deegan (2014) argues that corporations may use this practice to depict a positive financial image, which in turn can maintain or gain legitimacy with their stakeholders. Often, this takes the form of earnings smoothing, where large fluctuations in income are minimized to portray a steady and stable financial situation. However, the use of earnings management for legitimacy can lead to unethical practices and adverse consequences. It obscures the company's actual performance and misleads stakeholders, ultimately damaging the company's credibility. Therefore, legitimacy theory suggests a complex relationship between earnings management and corporate legitimacy, encouraging businesses to consider the ethical

implications of their financial reporting practices. Legitimacy theory posits that businesses seek to ensure that they operate within the bounds and norms of their respective societies, that is, they strive to achieve legitimacy. When it comes to earnings management, legitimacy theory attests to why some businesses may decide to manipulate their earnings. Such manipulations can be aimed at presenting the company in a favorable light to meet societal expectations and assert the firm's legitimacy in the economic marketplace. Many researchers have explored this relationship. For instance, according to Deegan (2014), companies at times might engage in earnings management to artificially construct a financially stable and successful image of themselves.

This strategy can be successful in the short term to obtain or maintain legitimacy from stakeholders, potentially staving off negative impacts on stock prices, credit ratings, etc. However, as per studies by Jones and Shoemaker (1994), these practices may violate societal norms about transparency and honesty in reporting, eventually undermining the firms' legitimacy. It could lead to severe consequences including regulatory penalties and loss of stakeholder trust. Empirical studies such as those by Patten reveal that in pursuit of legitimacy, companies often engage in "impression management" which often consists of manipulations of financial statements.

2.4.2 Stakeholders Theory

This theory was advanced by Freeman (1984). Stakeholder theory provides a valuable framework for understanding the relationship between corporate sustainability disclosures and earnings management (Gerged, Albitar & Al-Haddad, 2023). This theory posits that organizations should consider the interests of all stakeholders, including not only shareholders but also customers, employees, suppliers, communities, and others. Corporate sustainability disclosures are a means through which companies

communicate their commitment to environmental, economic and social, (EES) issues, signaling their responsiveness to stakeholder concerns beyond mere financial performance (Papoutsis & Sodhi, 2020).

The relationship between corporate sustainability disclosures and earnings management can be analyzed through the lens of transparency, accountability, and long-term value creation (Rezaee & Tuo, 2019). When companies engage in earnings management—manipulating financial statements to meet short-term financial targets—it often implies a focus on maximizing shareholder value in the immediate term. This may conflict with the principles of stakeholder theory, which emphasizes the importance of considering the broader impacts of business activities on all stakeholders.

Corporate sustainability disclosures serve as a mechanism for companies to communicate their commitment to responsible business practices, environmental stewardship, and social responsibility (Helfaya & Moussa, 2017). By providing transparent and comprehensive information about their CSD initiatives, companies demonstrate accountability to a wider range of stakeholders. Stakeholders, in turn, can use this information to assess the company's commitment to sustainable practices and make informed decisions about their engagement with the organization.

When companies prioritize stakeholder interests through meaningful sustainability disclosures, there is potential to reduce the likelihood of earnings management (Grougiou *et al.*, 2014). Stakeholder-oriented firms are more likely to adopt a long-term perspective, recognizing that sustainable practices contribute to the overall resilience and success of the business over time. This long-term perspective can act as a deterrent to short-term financial manipulation, aligning with the core principles of stakeholder theory.

2.4.3 The Agency Theory

Agency theory, proposed by scholars such as Jensen and Meckling (1986), focuses on resolving the issues that arise when ownership and control are separated in a firm. The theory illustrates the relationship between principals (shareholders) and agents (management), and the potential conflicts of interest that might arise between them. In the context of audit committee financial expertise, agency theory provides a key insight. It suggests that financially proficient audit committees are better equipped to mitigate agency problems by effectively monitoring management's actions, thereby reducing information asymmetry, and aligning the interests of management with those of the shareholders. Several literatures attest to this view. For instance, Rummell, DeZoort & Hermanson, (2019) suggest that having financial experts on audit committees enhances the committees' effectiveness. Financial experts, with their knowledge and experience, are more capable of understanding and reviewing complex financial reports, checking the appropriateness of accounting methods, and making informed judgments about key financial decisions, leading to superior monitoring of management. Beasley *et al.* posit that more capable audit committees curtail earnings management, one of the biggest potential issues arising from the principal-agent problem. Their study supports the idea that companies with financially knowledgeable audit committees are less likely to misstate financial reports. However, it's worth considering some caveats. For example, the study by Adams and Ferreira indicates that while having more financially literate members on an audit committee is generally beneficial, it might lead to overconfidence and less collaborative decision making. In conclusion, agency theory supports the contention that audit committee financial expertise helps reduce agency problems, increases monitoring effectiveness, and adds value to the firm. However, potential

issues related to dominance and overconfidence of financial experts should not be overlooked.

Agency theory underscores the potential conflicts of interest that may arise when managers prioritize their own interests over those of shareholders. Corporate sustainability disclosures can be seen as a tool through which companies manage these agency conflicts by providing information that aligns the interests of both management and shareholders, and by extension, addresses concerns related to earnings management (Peters & Romi, 2014).

From the perspective of agency theory, corporate sustainability disclosures act as a mechanism to reduce information asymmetry between managers and shareholders (Martínez-Ferrero, Ruiz-Cano & García-Sánchez, 2016). By disclosing information related to environmental, social, and governance (ESG) performance, companies aim to demonstrate their commitment to long-term value creation and responsible business practices. This increased transparency helps shareholders monitor management actions and reduces the agency costs associated with potential opportunistic behavior, such as earnings management.

Moreover, sustainability disclosures may serve as a commitment device, aligning the interests of managers with those of shareholders (Peters & Romi, 2014). When companies communicate their sustainability initiatives, they signal a commitment to sustainable practices that contribute to long-term value creation. In this context, earnings management conflicts may be mitigated, as managers are more likely to focus on sustainable strategies that enhance the company's reputation and stakeholder relationships over the long term.

On the flip side, however, there is a potential for greenwashing, exaggerating or misrepresenting sustainability efforts to create a positive image without meaningful actions (Kim & Lyon, 2015).

2.5 Empirical Literature

This section gives a detailed analysis of earlier studies with emphasis on corporate sustainability disclosures, audit committee financial expertise, control variables and earnings management.

2.5.1 Economic Disclosure and Earnings Management

Empirical research provides insight into the link between economic disclosure and earnings management.

A study by Chen and Jaggi (2000) showed that firms with better corporate governance disclosure tend to have fewer indicators of earnings management, highlighting the role of transparency in discouraging manipulative practices. Cornett, Marcus, and Tehranian conducted a similar study and concluded that quality governance disclosures are associated with less opportunistic earnings management. High-quality disclosures likely create a control mechanism that induces managers to behave in shareholders' best interests. Rao, Tilt, and Lester found that companies providing substantial and more transparent governance disclosures have lower levels of earnings management. Their research supports the need for thorough governance disclosures to foster accountability.

Siregar and Utama (2008) investigated governance disclosure and earnings management in Indonesia. Contrary to most findings, they discovered no significant effect of governance structures and disclosure on the extent of earnings management.

Panjaitan and Suranta (2024) conducted a study to investigate the correlation between Environmental, Social Governance (ESG), and earnings management. The objective was to identify the disparity in earnings management practices between companies with ESG scores and demonstrate the variations in ESG scores among these companies. The study population consisted of all companies that possess ESG scores, while the sample specifically included 20 publicly traded manufacturing companies that reported ESG scores.

Trisnawati & Setiawati (2016) investigated the impact of Sustainability reporting on earnings management for all organizations that took part in the Indonesian Sustainability Report Award (ISRA) in 2015. This study utilized data from companies who were listed on the Indonesia Stock Exchange and registered for the Islamic Social Reporting Award (ISRA) in 2015. The user's text is empty. The ISRA 2015 event was attended by a total of 37 firms, which included 4 international companies and 1 non-listed company. Hence, the overall sample consists of 33 companies over the period of 2013 to 2015. The variables that are not influenced by other factors are economic disclosure, environmental disclosure, and social disclosure. The factors were assessed using the disclosure index of Sustainability reporting criteria provided by the Global Reporting Initiative (GRI) G4. The dependent variable was earnings management, which was measured by discretionary accruals. The findings indicate that all aspects of sustainability reporting have a statistically significant detrimental impact on earnings management.

Olagunju, *et al.*, (2023) investigated the effects of sustainability reporting on the manipulation of financial earnings. This study utilized a causal research design. The study population consisted of all 112 non-financial enterprises quoted in Nigeria. The

sample size for this study was 22 listed manufacturing firms, which were purposefully selected. The study spanned a duration of 7 years, specifically from 2015 to 2021. The data utilized for this study were obtained from the annual reports and sustainability reports of the chosen companies. The data utilized in this study were examined using descriptive statistics and panel regression analysis. In this study, sustainability reporting was assessed using the social, economic, and environmental disclosures index, while earnings management was evaluated by discretionary accrual and actual earnings. The analysis of the study found that sustainability reporting had a notable adverse impact on discretionary accruals and real profitability.

Through the use of evidence gathered from a developed market, Elmaghrabi and Diab (2024) investigate the connection between anti-corruption corporate disclosure and earnings management operations. The research makes use of information obtained from the non-financial FTSE 100 Shares in the years 2016 and 2017. Through the use of pooling, fixed effects, and generalised methods of moments regression models, this research investigates the relationship between anti-corruption disclosure and earnings management. Additionally, a disclosure index is developed in order to integrate the anti-corruption disclosures. This study also takes a more conservative approach to the computation of discretionary accruals, uses modified discretionary accrual computation, and separates positive and negative discretionary accruals. All of these are included as supplemental analyses. An anti-corruption disclosure and earnings management techniques are found to have a strong and negative correlation, according to the findings. Higher anti-corruption disclosures were shown to be adversely linked with positive discretionary accruals, but they were not connected with negative discretionary accruals. This was discovered by the authors after they disentangled the two types of discretionary accruals, which are overvalued/positive and

undervalued/negative. Anti-corruption disclosures are viewed as a substantive practice, rather than a mere disclosure practice, for legitimacy reasons, according to the supplementary analysis, which validated the conclusions of the earlier analysis.

Zheng et al. (2025) investigate the effect that earnings management (including accrual, real, and total earnings) and corporate governance systems have on the reading of annual reports. Additionally, the purpose of the study was to investigate the moderating effect that corporate governance procedures have on the relationship between earnings management (including accruals, real results, and total results) and the reading of annual reports. According to the findings of the study, the sample included 250 companies that were listed on the Pakistan Stock Exchange (PSX) between the years 2014 and 2022. A technique known as System GMM is utilised in order to examine the hypotheses. According to the findings of the research, earnings management (including accruals, actual, and total) has a negative and significant impact on the readability of annual reports. On the other hand, the reading of annual reports is greatly improved by each of the four mechanisms of corporate governance. Additionally, the association between earnings management (accruals, real, and total) and the readability of annual reports was greatly regulated by the implementation of corporate governance mechanisms disclosures.

Githaiga (2025) investigated the moderating influence of board gender diversity on the link between anticorruption disclosure (ACD) and EM among listed companies in the East Africa Community (EAC) partner states. Specifically, the effects of ACD on EM were investigated. For the purpose of this study, an anticorruption reporting standards check list was utilised. This check list was built from recent studies and the Global Reporting Initiative (GRI) 205 guideline. Over the course of the period between 2013

and 2022, the sample consisted of 58 companies that were listed on stock and securities exchanges in EAC partner states. Through the utilisation of the fixed effect regression model, the hypotheses were examined. According to this study, the selected companies had a low level of disclosure regarding their anticorruption policies. After doing the regression analysis, it was found that ACD and board gender diversity had a negative impact on EM. Furthermore, the research discovered that the influence of gender diversity on boards of directors attenuated the connection between ACD and EM. In order to address issues regarding endogeneity, the systematic generalised method of moment (GMM) model was utilised in the investigation.

Nathanael et al. (2025) conducted an investigation into the effects of COVID-19 on accrual-based earnings management (AEM) and inbound Foreign Direct Investment (FDI) in sixteen countries that are members of the Southern African Development Community (SADC), with a specific emphasis on Kenya and Tanzania. First and foremost, it examines foreign direct investment (FDI) inflows both before and during the epidemic, exposing discrepancies and investigating how these inflows exert financial pressure on businesses, so changing the ways in which they manage their earnings. In addition, the study investigates the ways in which COVID-19-induced economic difficulties and the financial interventions of host countries, notably the management of public debt, affected the relationship between pandemic-related issues and foreign direct investment (FDI) inflows. The study used a longitudinal design and depended on secondary data as its primary method of data collecting. The study spanned a three-year pandemic period, beginning in the first quarter of 2020 and ending in the fourth quarter of 2022, and compared it to a pre-pandemic baseline that consisted of the years 2017 to 2019. On average, foreign direct investment (FDI) inflows were found to be significantly different across these two time periods, according to the

findings. The epidemic caused by COVID-19 also demonstrated a statistically significant decrease in foreign direct investment (FDI) inflows, with public debt management effectively alleviating uncertainty and, as a result, stabilising investor interest. Concurrently, the study found that there was a weak connection between COVID-19 and AEM, as well as the absence of a relationship between foreign direct investment and AEM during the pandemic among non-financial firms in Kenya and Tanzania. This is most likely due to the fact that the pandemic disrupted normal economic patterns, thereby weakening traditional relationships such as the sensitivity of financial reporting quality to macroeconomic influences.

Shira (2025) investigated the relationship between corporate governance, competition, and earnings management (EM) in Asian nations that are still in the process of developing. A total of 116 banks from ten Asian rising economies were chosen as a sample by the writers between the years 2010 and 2021. The board size, the dual nature of the chief executive officer, and the concentration of ownership are the metrics that are utilised to evaluate corporate governance. Herfindahl-Hirschman Index (HHI) and Lerner index (LI) are examples of indices that are used to measure competition. This is despite the fact that earnings management is evaluated based on discretionary accruals. For the purpose of hypothesis testing, the authors make use of fixed effect regression. Nevertheless, the robustness of the results is validated through the utilisation of the dynamic panel system generalised method of moments estimation techniques. The authors came to the conclusion that there is a considerable connection between corporate governance and competitiveness, as well as earning management methods of banks in rising and developing Asian economies.

Tiwari and Chatterjee (2025) conducted an investigation into the impact that corruption has on the earnings management of companies that are operating in the BRICS nations. These companies are either operating under common law or code law at the outset. In addition, we conducted an innovative attempt to investigate the moderating role that cash holdings and cash flow play in the explanation of this association. According to our data, there are 329 nonfinancial listed companies, and there are 1552 firm-year observations spanning the years 2014 through 2021. With the help of the system GMM technique, we discovered that in five growing BRICS nations, higher levels of corruption disclosures are associated with higher levels of earnings management.

Ma et al. (2025) investigate the complex relationship that exists between market-oriented debt-to-equity swap (MDS) and enterprise earnings management (EM) practices. The findings demonstrated that the implementation of such MDS acts as a barrier to the implementation of EM practices within firms, with corporate social responsibility disclosures playing a significant role in mediating the relationship.

Sonu (2025) conducted a natural experiment in Korea in order to investigate the impact that dividend tax reform might have on shareholders' ability to manage their earnings. For businesses that exceeded certain thresholds for dividend payout ratio, the Korean government cut the tax burden on dividends from 2015 to 2017. This reduction took effect in 2017. In this study, which utilized a staggered difference-in-differences methodology, the researchers discovered that tax-eligible businesses had a considerable reduction in their discretionary accruals during the time of reform. Tests for endogeneity, company fixed effects, and alternative measures of earnings management all show that the findings are consistent with the hypothesis.

Using quarterly data from US commodity companies spanning the years 1990–2019, Rigamonti et al. (2024) investigates the relationship between earnings management and the degree of macroeconomic uncertainty that exists. The findings indicate that oil and iron companies engage in both accruals and real operations in order to reduce their profitability during quarters that are associated with significant basis risk. In terms of economic significance, earnings management is important. The results of this research show evidence that particular categories of uncertainty, such as economic policy, climate policy, and geopolitical uncertainty, have different consequences on earnings management.

Khuong et al. (2024) investigate the relationship between related party transactions (RPTs) and earnings management (EM) in terms of sales and purchases. The authors apply the estimate approach of system generalized method of moments (Sys-GMM) to a sample of 413 non-financial enterprises in Vietnam for the period of time spanning from 2015 to 2019, resulting in a total of 1,638 firm-year observations. In order to offer a full analysis of the link between RPTs and EM, multiple proxies for both of these parameters are utilized. RPTs and earnings management have been found to have a positive correlation, which suggests that both forms of RPTs have the potential to lower the quality of financial reporting and enable businesses to participate in earnings manipulation to a greater extent.

2.5.2 Environmental Disclosure and Earnings Management

Empirical literature on the relationship between environmental disclosure and earnings management focuses on the potential for firms to manipulate financial results and use environmental disclosure as a compensatory strategy.

A study by Cho and Patten (2007) examined the association between environmental performance, environmental disclosure, and economic performance. They found that poor environmental performers compared to good ones were more likely to manage their earnings and increase their level of environmental disclosures to offset negative public perceptions. Clarkson, Li, Richardson & Vasvari (2008) found that higher levels of corporate environmental disclosure correlate with decreased levels of earnings management activities. Their study suggested that transparent environmental reporting can constrain earnings management.

De Villiers, Naiker & Van Staden explored the relationship and found that companies with poor environmental performance practice had more earnings management. They concluded that these companies use delegitimation and legitimation strategies to distract stakeholders from their poor environmental performance. Luo, Wang & Zhang found that firms with more carbon emissions (poor environmental behavior) had higher levels of earnings management, and these firms tended to disclose more about their environmental activities.

Gerged *et al.* (2023) investigated the potential moderating effect of internal corporate governance (CG) mechanisms on the association between an emerging economy firm's earnings management (EM) practices and its level of corporate environmental disclosure (CED). The study examined 500 firm-year observations spanning 100 Jordanian listed firms from 2010 to 2014. It found that although there is a negative correlation between CED and earnings manipulations, the associations between CG arrangements and EM are variable, potentially resulting in either a decrease or an increase in earnings manipulations in Jordan. Additionally, the CED-EM nexus was

moderated by certain CG structures, including managerial and institutional ownership structures, board size, and institutional ownership.

Shang and Chi (2023) analyzed the financial implications of enterprise environmental information disclosure (EID) from the standpoint of earnings management (EM), which serves as an external indicator of the 'ethical behaviour' and 'opportunistic motivations' of EID, using a sample of listed companies in China's most polluting industries from 2009 to 2020. Internal management competency and operating environment volatility were also taken into account. Among the findings was the following: EID can restrain EM and support EID's "ethical behaviour" motivation. The impact of 'hard disclosure' on environmental matters is more conspicuous in comparison to 'soft disclosure' of such information. Increased environmental uncertainty undermines the EM governance function of EID, whereas heightened management competence can strengthen this mechanism. EID inhibits EM in mature enterprises, state-owned entities, regions with low public environmental concern, and western locations.

As stated by Almubarak *et al.* (2023), companies persistently encountered a significant ethical dilemma in the form of earnings management. In order to protect themselves from stakeholders, management that engages in earnings manipulation may implement environmental, social, and governance (ESG) initiatives. Participation in ESG initiatives is occasionally perceived as a form of managerial impropriety and an attempt to obscure manipulative strategies. Consequently, the primary objective of the research was to examine the correlation between levels of earnings management and ESG disclosure within the context of publicly traded corporations in Saudi Arabia. The research examined the impact that financial distress had on the aforementioned correlation. 304 observations per company year were utilised to compile the data from

2014 to 2021. ESG disclosure had a positive and statistically significant impact on earnings management, according to the findings. Additionally, this effect was significant and positively influenced by financial distress.

Gerged *et al.* (2020) examined the relationship between earnings management (EM) and corporate environmental disclosure (CED) in Kuwait, an emerging market within the Gulf Cooperation Council (GCC). The study examined the CED-EM nexus utilising panel data from companies listed on the Kuwaiti stock exchange between 2010 and 2014. A fixed-effects model was implemented for this purpose. Further estimations of a two-stage least-squares (2SLS) model and a generalised method of moments model were performed in order to mitigate any apprehensions pertaining to endogeneity issues. The results indicated the existence of a significant and negative correlation between CED and EM. Further, finding revealed that managers who prioritise environmental responsibility were less inclined to implement EM practices in Kuwait.

Shahwan and Esra'a (2021) investigated the potential moderating effect of earnings management on the relationship between the disclosure of social and environmental costs and financial performance. The objective of this study was achieved through the utilisation of primary data obtained from the Amman Stock Exchange and a quantitative research approach. A questionnaire was utilised to gather data from a representative sample of 127 companies for the study. The findings of the research indicated that the disclosure of social and environmental costs had a substantial and positive effect on the financial performance of the companies.

Brahmana *et al.* (2018) found that corporate environmental disclosure significantly affect earnings management. A correlation between CED and EM was investigated in the study. 238 publicly traded companies across three distinct sectors—construction,

technology, and trading—were the primary sources of attention. From 2008 to 2014, the research was carried out. Based on the findings, CED had a significant and positive impact on the EM.

Panjaitan and Suranta (2024) conducted a study to investigate the relationship between Environmental, Social Governance (ESG), and earnings management. The objective was to identify variations in earnings management amongst companies with ESG scores and demonstrate the disparities in ESG scores among these companies. The hypotheses were examined using SPSS 24. The study's findings suggest that organisations with a high score effectively reduce risk by applying earnings management.

Among Malaysian publicly traded companies, Hossain et al. (2025) conducted research to determine the moderating influence that female directors play in the relationship between earnings management and corporate sustainability disclosure. We used the two-step system generalised method of moments method to test the hypotheses, and the sample consisted of one hundred different companies that were operating between the years 2017 and 2022. A self-constructed disclosure index was utilised in order to evaluate the effectiveness of corporate sustainability disclosure. The results of the study suggested that there is a beneficial connection between earnings management and the disclosure of corporate sustainability matters. The inclusion of female directors on the board, on the other hand, has a negative moderating effect on this link, which suggests that they diminish the chance of utilising sustainability disclosure as a means of concealing earnings management. Through the use of additional testing, the validity of these findings was validated.

Real earnings management (REM), environmental, social, and governance performance (ESGP), financial performance (FP), and total enterprise value (TEV)

were all investigated by Habib (2024) in order to determine the relationship between these four factors. A number of approaches, including the PLS-SEM algorithm, regression analyses, and extra studies, are utilised in this research project in order to achieve its objectives. According to the findings, businesses who implement the REM approach are more likely to have lower ESGP and TEV, whereas they are more likely to have greater TEV and FP if they implement the ESG strategy. The association between REM methods and TEV is found to be mediated by ESGP and FP, according to our findings for moderated mediation analysis. When it comes to increasing the value of a company, this research highlights the significance of ESGP and FP as being essential components that must not be ignored. With regard to the connection between ESGP and TEV, the findings likewise indicate that FP has a moderate impact. Taking into consideration this conclusion, it can be deduced that FP plays a significant part in strengthening the connection between an organization's ESGP and its TEV.

Devi and Firoz (2025) investigate the socially responsible actions of businesses by analysing the connection between several proxies of corporate environmental responsibility (CER) and earnings management (EM). They place particular attention on the pro-environmental behaviour of businesses and the business ethics area. In order to investigate the connection between CER and EM, this meta-analysis compiled the findings of 31 separate research that included 110,024 data from a single year of business operations. During the course of the investigation into the meta-results, the study utilised the corporate environmental disclosure index, corporate environmental performance ratings (CEPR), corporate environmental performance indicator, and environmental regulations as substitutes for CER. Furthermore, the research utilised the following moderator variables: the level of emissions (measured using per capita CO₂ in metric tonnes), the human development index for economic development, the

number of environmental required policies (measured using Carrots and Sticks Report 2023) and the culture of western versus eastern countries. The results of this research came to the conclusion that there is a substantial inverse link between CER and EM. In comparison to other combined proxies of CER, CEPR reveals a strong and unfavourable connection with EM. Furthermore, the paper proposes that future research could investigate this understudied area by employing proxies of entrepreneurial management, such as real economic management, profits persistence, value relevance, and accounting conservatism.

Saleh et al. (2025), investigate the potential impact that environmental, social, and governance (ESG) disclosure could have on cash holdings. Furthermore, the research investigates the function that earnings management (EM) methods play as a mitigating factor in the connection between the two variables. There are 797 firms that are listed on financial markets across 19 different countries in Europe that are included in the sample, and the data covers the years 2013 through 2019. The findings suggest that there is a large inverse association between environmental, social, and governance (ESG) disclosure and cash holdings, which suggests that management may apply ESG performance as a means of resolving disagreements with stakeholders. In addition, the findings suggest that the presence of EM practices acts as a partial mediator of the connection between ESG disclosure and cash holdings.

Primacintya and Kusuma (2025) evaluate the impact of environmental, social, and governance (ESG) performance on earnings management practices in Indonesia. Additionally, they investigate whether or not gender diversity on the board of commissioners moderates the relationship between the two. Companies that were not in the financial sector and were listed on the Indonesia Stock Exchange between the

years 2014 and 2022 made up the sample for this study. A proxy for environmental, social, and governance (ESG) performance is the ESG score, and earnings management is determined using the Jones modified model. The percentage of female board commissioners is a representation of the gender diversity that they represent. This investigation makes use of a balanced panel; following the completion of model testing, the common effect model is utilised to test the first hypothesis, and the fixed effect model is utilised to test the second hypothesis. An increased environmental, social, and governance (ESG) performance in a firm is linked to a lower level of earnings management, according to the findings of this study. The strength of the negative association between environmental, social, and governance (ESG) performance and earnings management is demonstrated by businesses that have a diverse gender composition on their board of commissioners.

Yan (2024) examine the ways in which the publication of corporate environmental information influences the readability and tone-emotional tendency of management discussion and analysis reports of Chinese listed firms from 2018 to 2020. To further investigate the mediating and masking impacts of earnings quality on the link between environmental disclosure and report quality, this study also presents earnings quality indicators. These indicators are introduced in order to better investigate the phenomenon. Following is a list of the most important findings from this study. In the first place, the management discussion and analysis reports will have a more positive and optimistic tone if they contain a greater amount of environmental information that is more detailed. Second, the more thorough the environmental disclosure, the higher earnings quality of the companies. This contributes to an indirect improvement in the readability of the management discussion and analysis reports, as well as an indirect improvement in the credibility of the positive tone.

2.5.3 Social Disclosure and Earnings Management

Empirical research has looked into the potential relationship between social disclosure and earnings management. These studies generally probe whether companies might manipulate earnings and concurrently increase social disclosure as a means of mitigating negative perceptions. Maas & Rosendaal, (2016) investigate this relationship and found that firms tend to increase their voluntary social disclosures when they have managed their earnings. These firms leverage increased social disclosure as a strategy for masking their earnings management activities and maintaining a positive public image.

A study by Prado-Lorenzo and Garcia-Sanchez (2011) suggested that social disclosure is used as a tool to legitimize earnings management practices. In their research, they found that companies with higher levels of corporate social responsibility disclosure also had higher levels of discretionary accruals.

Sun, Salama, Hussainey and Habbash found that companies with higher earnings management tend to provide greater social disclosure. The authors suggest that such companies use social disclosure as a way to divert stakeholder attention away from their earnings manipulation activities.

Roychowdhury and Watts didn't find any significant relationship between social disclosure and earnings management, emphasizing the need to consider other firm-specific factors that could impact the relationship. Overall, the empirical literature provides mixed findings.

Ningsih *et al.* (2023) posit that the act of earnings manipulation is frequently linked to the fabrication of public data presented in sustainability reports. Consequently, the

objective of this research was to investigate the correlation between sustainability social reporting practices and earnings management within the Indonesian context. During the period 2010–2021, the study utilised 408 firm-year observations from publicly traded companies in Indonesia to examine the hypothesis. Standard error estimates were incorporated into the fixed effect regression analyses. The authors determined the degree to which earnings management impacts sustainability reporting practices by analysing the financial statements and sustainability reports of their respective companies during a specified time period.

Pakawaru and colleagues (2021) the link between corporate social responsibility (CSR) and earnings management remains a source of contention. Several prior research have found that CSR is a factor in earnings management. Others, on the other hand, demonstrated the opposite. As a result, the study sought to evaluate the impact of CSR disclosure on earnings management, as well as the impact of earnings management on CSR disclosure. This research was carried out with mining businesses listed on the Indonesia Stock Exchange (IDX) between 2016 and 2019. Multiple linear regression analysis was used to analyse the research data. Financial statements, annual reports, and sustainability reports were used to collect the data. According to the findings, there was a positive association between CSR disclosure and earnings management. This study also revealed that the CSR disclosure and earnings management relationship model is recursive.

According to Faisal *et al.* (2018), the association between corporate social responsibility disclosure (CSR D) and earnings management (EM) is inconclusive. The study looked at the relationship between CSR D and EM. The sample for this study was 479 annual reports from publicly traded Indonesian companies. The two-stage least

squares (2SLS) approach was used to test the connection between CSRD and EM. The data suggested that organisations with a high CSRD are less likely to control earnings. Furthermore, the findings revealed that the interaction between CSRD and EM can be seen as a substitution mechanism.

Christina and Alexander (2019, February) investigated the impact of corporate governance and CSR disclosure on earnings management practice. Corporate governance is measured by the board of directors, the independent board of directors, and institutional ownership. The study's population comprised of 94 non-financial enterprises that were listed on the Indonesia Stock Exchange between 2014 and 2016. Purposive sampling was performed, and multiple regression was used to test the hypothesis. The study found that corporate governance has no effect on earnings management and that corporate social reporting has a negative impact on earnings management.

Borrhalho *et al.* (2022) posited that organisations might disclose corporate social responsibility (CSR) initiatives on purpose to offset the scrutiny of stakeholders regarding atypical reporting practices and to mitigate for earnings management. Nevertheless, the manner in which CSR dimensions contribute to these practices can vary, and the extent to which these impacts are influenced can be contingent upon particular business contexts. This research examined the distinct impact of environmental, social, and governance (ESG) disclosure elements on earnings management in family-owned businesses as opposed to non-family businesses. For the analysis, data pertaining to listed companies in France and Spain from 2009 to 2018 were utilised, given that both of these code law nations have concentrated ownership. The results demonstrated that not all ESG dimensions are equally essential for reducing

earnings management and that the family or non-family status of a company influences the relationship between ESG disclosure and earnings management.

In their study, Laksmi and Kamila (2018) examined the impact of earnings management and sound corporate governance on the disclosure of corporate social responsibility (CSR) for seventeen state-owned companies that were listed on the Indonesia Stock Exchange between 2013 and 2015. The researchers followed the guidelines set forth by the Global Reporting Initiative (GRI). This research utilized secondary data and employs the purposive sampling technique. The findings of the study suggest that there are notable positive impacts of state ownership, audit committee membership, and managerial ownership on the disclosure of corporate social responsibility in Indonesian state-owned enterprises.

Hashfi (2024) investigates the ways in which the complex relationships that exist between environmental, social, and governance (ESG) performance, earnings management, and tax avoidance lead to comprehensive firm activities. More specifically, the author investigates the influence that a company's commitment to ESG has on the decisions that it makes regarding earnings management and tax avoidance. For the purpose of conducting descriptive statistics, panel models, classical assumption tests, and hypothesis testing, this study makes use of sixty different organizations throughout the course of five years, between the years 2018 and 2022, and use the software EViews 12. A strong negative association between environmental, social, and governance (ESG) performance and tax avoidance is revealed by this study. Additionally, unfavorable connections between ESG performance disclosures and earnings management by means of accruals and absolute discretion are also revealed.

Dakhli and Houcine (2025) evaluate the relationship between CEO salary, corporate social responsibility (CSR), and earnings management by analyzing 159 French companies that are included on the SBF 250 index. The study includes 1,908 firm-year observations spanning the years 2011 to 2022. In accordance with the model developed by Kothari et al. (2005), we utilized discretionary accruals as the earnings management control measure. An analysis of structural equations was used to investigate both the direct and indirect effects that are associated with the relationship between CEO salary and earnings management. Based on the findings, it is evident that the salary of the CEO has a beneficial impact on earnings management. There is a correlation between higher CEO salary and a greater propensity of engaging in behaviors that are linked with earnings management. The association between CEO salary and company earnings management was found to be partially mediated by corporate social responsibility (CSR) disclosures. According to the findings of further research, the social and environmental aspects of corporate social responsibility (CSR) make a major contribution to this mediating impact.

Using the earnings from the previous year as well as zero earnings, Hamed (2025) investigates the real earnings management (REM) actions of companies that are more likely to manage the profits upward in order to attain earnings benchmarks. In addition, the study explores the ways in which environmental, social, and governance (ESG) participation affects the earnings management practices of companies in order to fulfill particular earnings standards. This study demonstrates that Malaysian managers opportunistically manipulate profits upward and use more REM methods in order to attain profit benchmarks. The data for this study comes from Malaysia-listed firms and was collected between 2006 and 2022. The fixed-effects model regression and the generalized method of moments (GMM) model were utilized. This study also suggests

that environmental, social, and governance (ESG) disclosures significantly lower the REM behavior of opportunistic businesses.

Cui et al. (2025) investigated the actual impact that required and voluntary environmental, social, and governance (ESG) disclosure has on the management of corporate profitability. According to our findings, forced environmental, social, and governance (ESG) disclosure has a detrimental influence on the earnings management of companies, but voluntary disclosure has almost no meaningful impact. We make use of China's mandate rule from 2008 and develop a difference-in-differences design in order to demonstrate that companies that are required to disclose environmental, social, and governance (ESG) information see a reduction in information asymmetry as a result of enhanced transparency of particular accounting items, which ultimately leads to a reduction in earnings management. Furthermore, the adverse impact of required environmental, social, and governance (ESG) disclosure is particularly pronounced for businesses that have stronger motivations to manipulate earnings. In addition, we discovered that the quality of ESG disclosure is improved when obligatory disclosure is implemented, and that the environmental, social, and government performance of companies that release ESG reports is enhanced accordingly.

Alqatan and Hichri (2025) investigate the influence that corporate social responsibility (CSR) disclosures has on earnings management (EM). As an additional point of interest, the authors investigated the impact that accounting conservatism (AC) has on the link between CSR and EM over an extended period of time. In addition, the authors investigated whether or not corporate governance (CG) had a moderating effect on the link between AC and EM in the context of Finland. A linear regression analysis was performed on panel data by utilizing the ASSET4 database provided by Thomson

Reuters. A total of 140 Finnish companies provided their information between the years 2005 and 2022. Based on the findings, it was established that a negative CSR disclosure had an effect on EM. Additionally, AC acts as a mediator in the bond that exists between CSR and EM. Similarly, CG acts as a moderator in the interaction that exists between AC and EM.

The influence of corporate social responsibility (CSR) disclosures on the financial performance of the financial sector is investigated by Khan et al. (2024) through the lens of the moderator effect of earnings management. Companies in the public and financial sectors that are engaged in corporate social responsibility have placed the majority of their capital in the financial sector. For the purpose of this study, a sample of fifty financial companies from the banking, insurance, and mudaraba sectors that are listed on the Pakistan Stock Exchange between the years 2010 and 2023 was utilized. The research utilized both correlation and panel regression analysis as its methods of analysis. CSR disclosures has a positive effect on the industry's financial performance, although it is not one that is very large. There is a negative correlation between earning management and accounting measures of financial performance, whereas there is a positive correlation between earning management and market-based measures of financial performance. Earnings management is connected to accounting metrics, but market-basis indicators are dependent on the perceptions of investors. In terms of moderating the influence of earning management, the results of the Hausman test indicate that corporate social responsibility (CSR) has a favorable impact on the financial performance of the banking industry, but this impact is not considerable.

Al-Hiyari et al. (2025) research the relationship between the Sustainable Development Goals (SDGs) of the United Nations (UN) and the earnings quality (EQ) of

corporations. Additionally, they investigate whether or not foreign ownership has a moderating role in this relationship. Through the application of multivariate regression analysis to a sample of non-financial companies that were listed on stock exchanges in the United Arab Emirates (UAE) throughout the period of 2016–2023, this study endeavors to examine the hypotheses that have been proposed. By utilizing discretionary accruals as a proxy for the quality of financial reporting, the authors establish a composite index for Sustainable Development Goals (SDGs) reporting. This index is based on the 17 SDGs' indicators that were developed by the United Nations. Statistical information about Sustainable Development Goals (SDG) disclosures and foreign ownership is gathered manually from yearly reports, whereas financial data is obtained from the Thomson Reuters Eikon database. The findings of this study indicate that the disclosure of sustainable development goals (SDGs) increases the quality of earnings. The notion that companies with higher levels of SDG disclosures are connected with improved financial reporting quality is supported by this finding, which has been shown to be compatible with the premise. In addition, the findings indicate that foreign ownership acts as a moderator in a positive way for the connection between SDG disclosures and EQ. Consequently, this indicates that the disclosure of Sustainable Development Goals (SDGs) is more effective in enhancing the quality of financial reporting in companies in which a significant number of shares are held by investors from other countries.

Velte, (2024), Taking into consideration the diversity of the findings from the research, the objective of this systematic literature review is to investigate the contextual elements that contribute to this complex interaction. Both the moral licensing hypothesis (principal agent theory) and the moral track hypothesis (stakeholder theory) were utilized in order to provide an explanation for the probable positive and negative

link between corporate social responsibility (CSR) and earnings management. We chose 107 quantitative archival studies that were subjected to peer review. When it comes to contextual factors, we concentrate on moderator effects that are relevant to firms and countries. In the context of developing countries (African and Asian settings), developed countries (Anglo-American and Continental European settings), code and case law regimes, and the degree of shareholder protection and legal enforcement, country-specific research are classified into two categories: developed countries and developing countries. We emphasize that the majority of the included studies discovered a negative influence of corporate social responsibility (CSR) disclosures on earnings management, with a particular emphasis on CSR performance and accruals-based earnings management. This finding is in line with stakeholder theory.

Sun, et al., (2024), explores whether and how ESG can constrain firms' earnings management behavior in China. We find that firms with higher ESG performance are less likely to engage in earnings management. Firm visibility and managerial ownership strengthen the ESG-EM negative relationship, while managerial overconfidence weakens it. To further reveal the underlying mechanism, we find that the constraining effect of ESG performance on earnings management is partially mediated by attracting more analysts.

An investigation on the connection between sustainability disclosure practices and earnings management in the Jordanian setting is carried out by Alodat et al. (2024). The findings of this study are based on an examination of 66 non-financial companies that are listed on ASE within the years 2017–2020. As a result of the research, it was discovered that when businesses comply with the disclosure of sustainability, their ethical conduct improves, which in turn reduces the amount of earnings management

activities they engage in and raises the dependability of their overall financial statements.

In the context of the Kuwaiti business climate, Masmoudi (2024) investigates the relationship between environmental, social, and governance (ESG) disclosures and earnings management. In Kuwait, a situation that may be different from that of more developed nations, the study analyzes how environmental, social, and governance (ESG) disclosure affects earnings management practices. Information: The information was gathered from 37 Kuwaiti firms that were listed on the Kuwait Stock Exchange (KSE) during a period of five years, beginning in 2017 and ending in 2021, resulting in 185 observations for each company's year. For the purpose of determining the nature of the connection between ESG disclosure and EM, the research employed linear regression. According to the findings, there is a statistically significant antagonistic relationship between ESG disclosure and EM.

2.6 Moderator Variable

This section gives a detailed analysis of earlier studies with emphasis on audit committee financial expertise and earnings management

2.6.1 Audit committee financial expertise and earnings management

The study by Choi, Kim, and Zang (2018) sought to investigate the impact of audit committee financial expertise on earnings management practices within Korean firms. The primary objective was to determine if audit committees with higher financial expertise could mitigate aggressive earnings management. The researchers employed a sample of publicly listed Korean firms and conducted regression analyses to explore the relationship between the level of financial expertise on audit committees and earnings management, measured through discretionary accruals. The study revealed a

significant negative association between audit committee financial expertise and earnings management. Firms with audit committees possessing greater financial knowledge demonstrated lower levels of earnings management, indicating that financial expertise enhances the monitoring and control over financial reporting (Choi, Kim, & Zang, 2018).

One seminal study by Abbott, Parker, and Peters (2004) aimed to determine whether the financial expertise of audit committee members is associated with reduced earnings management. The study utilized a sample of U.S. firms and employed a multiple regression analysis to test the relationship between the proportion of financial experts on the audit committee and various measures of earnings management. Abbott et al. (2004) found that firms with a higher percentage of financial experts on their audit committees exhibited lower levels of earnings management, suggesting that financial expertise contributes to more effective oversight and reduced manipulation of financial statements.

Similarly, a study by Bedard and Johnstone (2004) investigated the impact of audit committee financial expertise on the quality of financial reporting. The researchers used a combination of survey data and financial statement analysis to assess the relationship between audit committee composition and earnings management practices. Their findings indicated that financial expertise within the audit committee significantly reduced the likelihood of earnings management, underscoring the importance of having knowledgeable individuals on the audit committee to ensure financial reporting integrity.

Carcello and Neal (2000) provided further evidence on the influence of audit committee financial expertise. They examined firms listed on the New York Stock Exchange

(NYSE) and found that those with financially experienced audit committee members were less likely to engage in earnings management. Their study employed a cross-sectional research design and logistic regression analysis, revealing that financial experts on the audit committee play a crucial role in limiting aggressive earnings management practices.

Krishnamoorthy, and Wright (2004) focused on the interaction between audit committee financial expertise and other corporate governance mechanisms. They used a sample of firms from various industries and applied a structural equation modeling approach to analyze the data. The results indicated that financial expertise on the audit committee not only directly influences earnings management but also interacts with other governance factors, such as board independence and internal controls, to enhance overall financial reporting quality.

Klein (2002) analyzed the effect of audit committee financial expertise on earnings management in the context of the Sarbanes-Oxley Act (SOX) reforms. The study used a longitudinal design to examine pre- and post-SOX periods and found that the implementation of stricter regulations, coupled with enhanced financial expertise on audit committees, led to a significant decrease in earnings management activities. Klein's research highlighted the effectiveness of regulatory changes in amplifying the impact of audit committee expertise on financial reporting quality.

Xie, Davidson, and DaDalt (2003) questioned the uniform effectiveness of financial expertise in audit committees. They found that while financial expertise generally reduced earnings management, its effectiveness varied depending on the firm's size and industry. The study utilized a sample of publicly traded firms and employed a

multivariate analysis to explore these variations, suggesting that the context in which financial expertise is applied can influence its impact on earnings management.

Ghosh and Moon (2018) aimed to examine the role of audit committee financial expertise in managing earnings within Indian firms. The research sought to determine whether a higher level of financial knowledge among audit committee members could effectively reduce earnings management practices. The researchers utilized a sample of 200 publicly listed Indian firms and conducted regression analyses to explore the relationship between audit committee financial expertise and earnings management. Earnings management was assessed through discretionary accruals, while financial expertise was measured based on the qualifications and experience of audit committee members. The results indicated that financial expertise within audit committees had a significant negative impact on earnings management. Firms with more financially knowledgeable audit committees exhibited lower levels of discretionary accruals, suggesting that such expertise enhances the committee's ability to monitor and control earnings manipulation (Ghosh & Moon, 2018).

Zadeh et al. (2023) conducted an investigation on the connection between audit committee characteristics and earnings management. The findings of their investigation were contradictory and were unable to be definitively determined. There are studies that have identified a substantial association, whereas there are other studies that have not. The purpose of this research is to provide an explanation for the existence of contradictory findings in the existing literature by separating earnings management into two distinct categories: accrual earnings management and real earnings management (at three levels of sales, general and administrative costs, production costs, and cash flows operation), and then re-examining the link between the two. Specifically, a

multivariate regression model was utilized in this research project. Additionally, panel data was utilized as the statistical method for testing the hypotheses. The findings indicate that the accrual earnings management is impacted by both the length of the audit committee as well as the financial expertise of the members of the audit committee. At whatever level of sales, general and administrative costs, production costs, and cash flow operation, the results indicate that there is no relevant association between the audit committee features and real-based earnings management. This is the case regardless of the product.

Boakye et al. (2025) investigated the influence that company governance systems have on integrated reporting, taking into account the moderating function that earnings management has in the case of public businesses in countries located in sub-Saharan Africa (SSA). Through the application of the agency, stakeholder, and legitimacy theories, we were able to create models that establish a connection between the concepts. In order to put the assumptions to the test, we used 334 publicly traded companies in SSA countries starting in 2010 and continuing through 2022. In addition to that, the research utilized the generalized least square (GLS) estimator, in addition to a series of robustness and heterogeneity tests that utilized alternative estimators. Independent directors, gender diversity, age diversity, audit committee, and CSR committee all recorded a favorable link with integrated reporting, according to the findings of the study. On the other hand, the Chairman of the Board of Directors and the Ethics Committee saw a negative connection with integrated reporting. In addition, the mechanism for the governance of the company effectively encouraged integrated reporting in situations when earnings management is present in the companies.

Amara et al. (2025) investigates the influence that the quality of audits and the percentage of women serving on audit committees have on earnings management. In addition, we investigated the ways in which the participation of non-foreign women on audit committees and the presence of a diverse range of ages influence earnings management. Our research makes use of information from 165 publicly traded firms situated in the United Kingdom between the years 2011 and 2021. The empirical revelation of our findings was accomplished through the utilization of both static and dynamic analysis. According to the Kothari model, the findings indicate that there is a strong and unfavorable association between the quality of the audit and effective profits management. The involvement of a female on the audit committee does not have any impact on the management of earnings. On the other hand, when we took into account demographic factors such as age and nationality, we discovered that the presence of non-foreign female members on the audit committee led to a reduction in earnings management, although the presence of age diversity among female members had no impact. After conducting more research utilizing the Dechow model, it was discovered that earnings management was impacted by both the existence of a female audit committee expert and the nationality of the members of the committee.

Within the time frame of 2014 to 2023, Etuk et al. investigate the impact that audit committee characteristics have on the quality of financial reporting produced by deposit money banks that are listed on the floor of the Nigeria Exchange Group. The audit committee's financial expertise and gender served as proxies for the independent variable, audit committee qualities. Earnings management served as a proxy for the dependent variable, which was audit committee gender. Additionally, secondary data were utilized, and an ex post facto study design was chosen. There were thirteen specified deposit money banks that made up the population of the study, and eleven of

those banks were chosen using the approach of purposive sampling. STATA 14.2 was the statistical package that was used for the analysis of the data utilized in the study, which utilized the robust regression technique. On the basis of the findings of the analysis, it was discovered that the independence of the audit committee has a significant negative impact on the Eckel's income smoothing index of listed deposit money banks in Nigeria; audit committee financial expertise has a significant positive impact on the Eckel's income smoothing index of the sampled deposit money bank; and audit committee gender diversity does not have a significant impact on the Eckel's income smoothing index of listed deposit money banks in Nigeria.

Rudyanto, (2024), focuses on the authority and financial knowledge of audit committees. Study samples were taken from manufacturing companies that were listed on the Indonesia Stock Exchange during the COVID-19 period. The total number of observations was 363. Within the scope of this investigation, the statistical method of multiple linear regression is utilized, and the software program SPSS is utilized. Financial knowledge has been proven to have a beneficial effect on earnings management, whilst the power of audit committees has been found to have no effect on earnings management.

Xia et al. (2024), impact of these criteria is investigated by using quarterly filing data from March 2003 to December 2016 in the post-SOX era. The study focuses on the impact of ACFE on the primary earnings manipulation strategies that are utilized to just meet or beat analyst expectations (JUSTMBE). Our study explores the effects of total ACFE and its components on three main earnings management strategies, namely, actual activity management, non-GAAP financial disclosures, and discretionary accruals. Specifically, we focus on the implications of these strategies on revenue

management. The tendency to engage in JUSTMBE is observed to be reduced among businesses that have a greater degree of ACFE, notably in the areas of accounting and finance knowledge. Additionally, we propose that two upward earnings manipulations, namely accrual-based and actual activities management, are greatly reduced by ACFE through a complementary effect of its accounting and supervisory competence components. This is the case because ACFE is able to provide a significant amount of mitigation.

Bansal (2024) investigates the effect that a recent mandate (Section 149 of the Indian Companies Act, 2013), which requires companies of a particular size to appoint at least one woman director on the board, has had on the earnings quality of companies. Additionally, the study investigates the impact of having a woman director on the audit committee and having financial expertise have on the relationship between the mandate and the quality of earnings made by the company. A quasi-natural experiment was conducted in India, and the authors utilized the 'Difference-in-Difference' (DiD) technique to analyze the results of the experiment. The use of DiD gives the author the ability to examine the problem while simultaneously filtering out the impact of contemporaneous external shocks. For the purpose of overcoming the issue of endogeneity and self-selection bias, the approaches of propensity score matching and entropy balancing have been utilized. The author finds that the magnitude of discretionary accruals has decreased among test firms (firms mandated to comply with Section 149) relative to benchmark marks (firms not mandated to comply with Section 149) during the post-legislation period. This indicates that the earning quality has improved after the mandate. The author's findings are based on a sample of 538 firms that are listed on the Bombay Stock Exchange (BSE). In accordance with the social role theory, this conclusion is in agreement with the idea that women are less prone to

participate in riskier behaviors such as earnings management. In addition, the author comes to the conclusion that the presence of the woman on the audit committee and the fact that she possesses knowledge in the financial sector both contribute to the beneficial impact that the mandate has on the quality of earnings. These findings hold up well when compared to other methods of data collection on discretionary accruals.

Bilal et al. (2024), analyze whether or not female Audit Committee Financial Experts (ACFEs) at Chinese listed businesses diminish earnings management. Specifically, they investigate the influence of these individuals under a variety of ownership arrangements and cross-listing situations. According to our findings, female ACFEs have a detrimental impact on earnings management, with the extent of their influence varying depending on the kind of ownership. To be more specific, female ACFEs working in privately held firms (non-SOEs) are more effective at decreasing earnings management than their counterparts working in state-owned enterprises (SOEs). Furthermore, according to the findings of our research, female ACFEs working for cross-listed companies are seen to be more effective at reducing earnings management than their counterparts working for domestically listed companies.

During the period of 2015 to 2022, Ali (2024) investigated impact that audit committee characteristics have on the earnings management of insurance companies in Ethiopia. Utilizing the generalized moment (GMM) model, an investigation on the influence of audit committee characteristics on earnings management was carried out. Based on the findings of the study, it has been determined that the size of the audit committee (ACS) has a considerable and favorable influence on the earnings management of insurance businesses in Yemen. A further finding of the study was that the independence of the audit committee (ACI), the expertise of the audit committee (ACE), the meeting of the

audit committee (ACM), and the gender of the audit committee (ACG) all had a significant and favorable impact on the earning management of insurance businesses in Ethiopia.

Kalembe et al. (2024) investigates the connection between the power of the chief executive officer (CEO), the efficiency of the audit committee, and the quality of earnings in Ugandan companies that are subject to regulation. A sample of 136 regulated companies in Uganda served as the basis for the authors' research designs, which included both cross-sectional and correlational approaches. An online questionnaire survey was administered to Chief Financial Officers and Chief Audit Executives in order to acquire the necessary data. A Statistical Package for the Social Sciences and Partial Least Squares Structural Equation Modeling were utilized in order to do the analysis on the data provided. According to the findings, the power of the CEO is responsible for unfavorable fluctuations in the quality of earnings. In addition, the findings indicate that the effectiveness of the audit committee has a positive relationship with earnings quality equivalent to that of other factors. In addition, the power of the CEO and the effectiveness of the audit committee are both negatively associated and strongly related. In addition, the findings suggest that the expertise of the audit committee acts as a mediator between the power of the CEO and the quality of earnings.

Shehadeh et al. (2024) analyze the potential moderating impact that audit fees could have in the relationship between the features of the audit committee and earnings management. To be more specific, the purpose of this study was to establish linkages between the practice of earnings management and characteristics of audit committees, such as the size of the committee, the independence of its members, and the expertise

of its financial members. For the purpose of answering these research questions, a convenient sample consisting of forty-six service providers that were listed on the Amman Stock Exchange during the years 2016 and 2017 was utilized. In order to characterize the variables that were being investigated, descriptive statistical methods were implemented, and a multiple regression model was utilized in order to evaluate the hypotheses that were being investigated in this study. Based on the findings of the study, it was discovered that there was no significant association between the size of the audit committee and earnings management. The independence of the audit committee, on the other hand, was found to have a negative link with the financial expertise of its members. It is important to note that the associations between committee member independence and earnings management, as well as the relationships between committee member financial expertise and earnings management, were shown to be diminished when audit fees were introduced as a moderating variable.

Bawuah (2024), explore the impact of Audit Committee Expertise (ACE) on Earnings Management (EM), and subsequently, to investigate if audit quality (Big4) can attenuate the connection between ACE and EM in Ghana. In the first place, the research makes use of panel data from twenty-five non-financial companies in Ghana and implements the fixed-effect (FE) and Two-stage Least-squares (2SLS) regression algorithms. Secondly, the evidence demonstrates that ACE (AC independence, AC size, and AC meetings) are factors that affect EM, with the effect being more pronounced for AC independence. Companies that have ACE likely to have weaker earnings management, as a result. Third, additional research demonstrates that the combined impacts of Big4 and ACE (AC independence and AC meetings) on EM are more formidable than the effects of ACE alone.

Jameel et al. (2024) conducted an investigation on the influence that audit committee characteristics have on profits management. The data for this study came from the annual reports of Dubai-based banks that were in operation between the years 2010 and 2022. There was a statistically significant relationship between earnings management and the independence of the audit committee as well as the number of members for the committee. Despite this, earnings management was not significantly impacted by factors such as the auditor's reputation, gender, financial expertise, time commitment, or the frequency of meetings. This study has ramifications that are beneficial to both business leaders and investors. Investors and business leaders alike are interested in increasing the auditing process in order to better observe the true health of their company's finances.

Freihat et al. (2024) analyze the relationship between Earnings Management (EM) and Audit Committee (AC) Characteristics, as well as the effect of external Audit Quality (AQ) on this association. The findings shown that AC activity and AC expertise have a significant and negative influence on the EM practices (measured by discretionary accruals levels). These findings were obtained by applying a panel data of the non-financial enterprises that were listed in ASE for the years (2015-2021). Based on the findings, it can be concluded that these constraints constrain the management opportunistic behavior by preventing the implementation of EM techniques within the Jordanian environment. Despite the fact that AC independence was discovered to have a considerable and favorable impact on EM practices. In terms of the moderating effect, the findings demonstrated that the associations between AC activity and AC expertise and EM practices are moderated by their exposure to external audit quality.

Jiang and Jia (2024) choose H-share companies that were listed on the Stock Exchange of Hong Kong between the years 2008 and 2018 as research samples. They then design an OLS regression model in order to empirically test the impact of the quality of the audit committee, which is measured by the four aspects of the characteristics of the audit committee, on the earnings management level of the company. The Jones model is used as the basis for this empirical test. It comes to the conclusion that the level of earnings management at a firm is lower when the audit committee expertise of the company is of a better quality overall.

Alruwaili (2024), conduct a comprehensive investigation into the moderating effect that audit quality (AQ) (Big4 businesses) has on the association between AC characteristics and DA(discretionary accruals). Over the course of eight years (2014–2021), the subject of this research is information gathered from insurance companies that are listed on the Tadawul, which is the Saudi Stock Exchange. According to the assessments of the data collected over this time period, the size of the AC, commitment, meetings, and independence all have a negative and significant impact on discrimination. However, there was no correlation between AC experience and DA. The influence of moderating variables was also investigated in this study. The association between audit committee size (ACZ) and DA(discretionary accruals) is significantly and negatively moderated by AQ, which has a strong and negative influence. In addition, the results of the regression show that the variable AQ does not have any impact on the association between DA (discretionary accruals) and other AC characteristics.

Inneh et al. (2024) explores the relationship between the critical mass of female representation on company boards and audit committees and the quality of earnings. From 2011 to 2022, the research was conducted using a longitudinal methodology, which involved gathering secondary data from eleven different deposit money banks. The research makes use of the data that was gathered after Hausman's test was used to examine for concerns regarding endogeneity. Upon reaching the critical mass threshold, the findings indicate that the presence of females on the board of directors and audit committee expert has a considerable impact on the quality of earnings.

Kateb, (2024) investigates the effect that the implementation of International Financial Reporting Standards (IFRS) has had on the quality of financial reporting in Saudi Arabia. More specifically, the author focuses on the role that effective audit committees (ACs) play as mediators, as well as the specific characteristics of ACs that have a negative correlation with earnings management (EM) practices. The study gathered financial information from 92 publicly traded companies throughout the course of the period from 2012 to 2020, which included both the years prior to and following the implementation of IFRS in 2017. In order to analyze the connection between IFRS adoption, ACs, and EM, the research utilized regression and rigorous mediation analysis, which were both based on the methodology developed by Baron and Kenny (1986). According to the research, the implementation of IFRS has a considerable and detrimental effect on the practices of EM. Additionally, the research discovered that the adoption of IFRS has a good influence on the expertise of AC, and that the size of AC has a positive link with EM levels. In addition, the research showed that the level of expertise in AC has a negative link with the levels of EM, and that it entirely mediates the relationship between the adoption of IFRS and EM.

Amanda et al. (2024) analyze the impact that audit committee characteristics have on earnings management practices in non-financial state-owned enterprises. Earnings management is the metric that is used to quantify these activities. Quantitative research methods are utilized in this study, and secondary data sources are utilized to collect further information. Multiple regression analysis approaches, classical assumption tests, and hypothesis testing are all tools that are utilized in this analytical technique. The number of data observations that were utilized in this study was 55. The results of this study indicate that audit committee activity does not have a significant effect on earnings management, which means that hypothesis 1 is not supported. The audit committee size variable shows the results of a significant negative effect on earnings management, which means that hypothesis 2 is supported. In line with hypothesis 1, audit committee expertise does not have a significant effect on earnings management, which means that hypothesis 3 is not supported.

Maghfuriyah (2024), investigate the impact that factors such as auditor size, audit committee expertise, managerial ownership, and institutional ownership have on earnings management procedures in Indonesian sharia commercial banks. The research made use of secondary data obtained from the yearly financial reports of sharia banks that were created between the years 2020 and 2024. A sample was taken from a sample of six years' worth of financial statements from ten sharia banks. The sampling method that was utilized was called purposive sampling. Discriminatory accruals that were tailored to the characteristics of the banking industry served as a stand-in for earnings management. The total accruals were estimated using the Beaver and Engel model, and then the earnings management coefficient was determined by regressing the entire accruals. A multiple regression analysis was performed in order to investigate the impact that the size of the auditor, the audit committee expertise, managerial ownership,

and institutional ownership had on earnings management. A normal distribution was observed for both the variables and the data during the course of the research period. Classic assumption tests, such as multicollinearity, heteroscedasticity, and autocorrelation tests, revealed that there were no violations, so demonstrating that the data satisfied the requirements for employing the multiple linear regression model. The findings showed that the size of the auditor has a beneficial affect on earnings management, but it is not significant. On the other hand, managerial ownership has a negative influence, but it is also marginal. The audit committee expertise and institutional ownership factors, on the other hand, had a strong and unfavorable impact on earnings management practices.

Mulia et al. (2024) investigated the impact that audit committees, independent commissioners, and the participation of women on boards, including the chief executive officer and chief financial officer, have on procedures for earnings management. In this study, a quantitative approach was utilized, and a final panel data sample was comprised of 25 manufacturing enterprises. The study was conducted over a period of three years, stretching from 2020 to 2022. For the purpose of evaluating the hypothesis, the regression model was combined with the Common Effect Model (CEM) investigation. Both the Indonesia Stock Exchange (IDX) and the websites of each individual company were utilized in the sampling process. The findings of the study indicated that independent commissioners, independent audit committees, audit committee expertise, audit committee activities, and audit committee size all were found to have a significant impact on earnings management practices. On the other hand, female CEOs and female CFOs did not have a significant impact on earnings management practices.

2.7 Control Variables

The study also incorporate several control variables as suggested by empirical literature.

2.7.1 Firm age and Earnings Management

The study conducted by Isha and Mangala (2023) examined the impact of earnings management on firm-specific variables including age, size, performance, leverage, capital intensity ratio, and assets growth. The concluding sample comprises 248 Bombay Stock Exchange-listed companies. The study is conducted between 2012–2013 and 2018–2019 was used. The study revealed a positive relationship between firm age and performance, while the capital intensity ratio exhibited a negative correlation with signed discretionary accruals for group firms while firm size, performance, and leverage exhibited a positive correlation with standalone firms, while capital intensity demonstrated a negative relationship.

In India, Mangala and Dhanda (2023) investigated earnings administration in the context of initial public offerings (IPOs). The authors used a sample of 511 initial public offerings (IPOs). The study also revealed that the extent of earnings management conducted by Indian initial public offering (IPO) issuers during the pre-issue and issue year was significantly influenced by profitability, premium, age, and size of the issuer.

In their study, Kalbuana *et al.* (2022) investigated the influence of profitability, audit quality, age, and leverage on earnings management in retail and wholesale trading companies listed on the Indonesian Stock Exchange. The research spanned the years 2016 to 2020. A sample 18 corporations spanning the years 2016 to 2020 was used. The data analysis was conducted using SPSS version 25. The findings of this study revealed that while audit quality had a statistically significant negative effect on earnings

management, company age had a statistically significant positive effect. In contrast, leverage did not exhibit a statistically significant impact on earnings management.

The relationship between earnings management (EM) and firm characteristics, including age, size, leverage, and profitability, was investigated by Gozali *et al.* (2021). The study used sample drawn from Singaporean corporations listed on the Singapore Stock Exchange (SGX) between 2017 and 2018. The findings of the study revealed that EM positively influenced by firm age and size, but not by profitability and leverage.

Hamzah *et al.* (2021) assessed factors that influence corporations' earnings management practices. The research employed firm size, age, leverage (DER), and profitability (ROA) as independent variables. In 2017 and 2018, the Indonesian Stock Exchange recorded 344 listed companies; therefore, 688 companies were observed and utilised as samples. As sampling and analysis methods, multiple regression and purposive sampling were implemented, respectively. The findings indicate that firm size, age, and ROA significantly influence earnings management. However, leverage did not exhibit a significant impact on earnings management.

In their study, Marchellinam and Firnanti (2021, May) sought to obtain empirical evidence concerning the impact of the dependent variable earnings management on the independent variables growth, financial leverage, fixed-asset turnover, profitability, firm size, firm age, audit quality, board independence, and managerial ownership. The demographic of the study consisted of non-financial companies that were listed on the Indonesia Stock Exchange (IDX) from 2016 to 2018. The research samples were acquired using the purposive-sampling method, which involved selecting 516 non-financial companies with a total of 354 data points. Multiple linear regression and hypothesis testing were employed to analyse the data. The results demonstrated that

earnings management is positively impacted by growth. This finding suggests that firms that are undergoing periods of greater expansion are more likely to enhance their earnings management strategies. In contrast, the remaining variables showed no significant effect on earnings management.

Odokwo et al. (2024) is to investigate the impact of corporate qualities on the earnings management practices of nonfinancial companies that are listed on the Nigerian Exchange Group between the years 2014 and 2023. This particular study utilized an ex post facto research design for its investigation. There were 109 nonfinancial individuals that were included in the study's population, and secondary data were utilized. In order to pick seventy businesses as the sample size for this investigation, a technique known as purposeful sampling was utilized. For the purpose of doing the analysis of the data, the robust regression method was utilized, and the statistical software that was utilized was STATA 16. The findings of the study showed that the age of the company has a large negative impact on the management of real earnings, the size of the company has a major negative impact on real earnings management, and profitability has a substantial negative impact on real earnings management of listed nonfinancial companies in Nigeria.

Made, et al., (2024) investigate the impact of company size, firm age, and profitability on earnings management. The purpose of this research at PT Edie Arta Motor Indonesia Branch Bungkulan is to investigate the effect of these factors on earnings management. Through the utilization of annual reports for the five years, which span from 2018 to 2022. A number of analyses, including multiple linear regression, classical assumptions and hypotheses, and a model feasibility test, were used to test the analysis technique. The findings indicated that the size of the company had a negative and significant

impact on earnings management at PT Edie Arta Motor Indonesia Branch Bungkulan. The size of a company can have a significant impact on the occurrence of earnings management practices. This can be seen from the overall assets owned by the company, which indicates that it is highly probable for earnings management practices to take place within the company. There is a favorable impact that the age of the organization has on the management of earnings. With this, the company will be able to continue to grow along with the addition of assets or facilities (equipment) that are owned by the company. PT Edie Arta Motor Indonesia Branch Bungkulan with the age owned by a company in running its business as seen from how much income or income the company earns every day, with this, the company will be able to continue to grow. It is possible that profitability has a detrimental effect or influence on the management of its profits. PT Edie Arta Motor Indonesia Branch Bungkulan, with the profitability of the company being able to assist the company in continuing to expand each month, the profitability of the company actually assists company owners in determining the extent to which their company can compete with other businesses.

Soesetio et al. (2023), investigate and discuss the interaction between different debt policies, profitability, and company size on earning management, with firm age serving as a moderating factor. During the period of 2010-2018, the selected samples consisted of 102 businesses that were listed on the Indonesia Stock Exchange (IDX). DER, bank debt, short-term debt, and long-term debt, as well as age and firm size, are the characteristics that are considered to be independent factors in this study. In this particular investigation, the Modified Jones Model is utilized to analyze earnings management as the dependant variable. The findings of the regression equation analysis indicate that every single debt policy proxy results in a negative and significant impact on earnings management. This is the case regardless of the type of stimulus. As an

additional point of interest, the expertise of the company serves as a proxy for the age of the organization, which reinforces the connection between debt policy and earnings management techniques.

Amasiatu et al. (2023), investigated the impact of Corporate Attributes, which include the age of the company and its size, on Earnings Management for non-financial companies that are listed on the Nigeria Exchange limited (NGX). A total of ninety-five (95) non-financial companies that were listed on the Nigerian Exchange Group were included in the study's population. The range of time covered by the study was eleven years, from 2011 to 2021. A research design known as ex post facto was utilized, and a significant amount of emphasis was placed on secondary data. These secondary data sources include annual reports, the corporate websites of corporations, and the Nigerian Stock Exchange Group Fact book information. The sample size for the study consisted of seventy-four (74) non-financial companies that were listed on the Nigerian Exchange Limited. The techniques of purposive sampling were utilized to choose the sample size. Multiple Regression analysis was performed on the data that was obtained using the Statistical Package for the Social Sciences (SPSS) version 20.0 analysis program. Based on empirical evidence, the findings demonstrated that the management of earnings for non-financial companies in Nigeria is significantly impacted by both the size of the company and the age of the company itself.

Putra and Malau (2023) investigate whether actual earnings management, earning quality, and leverage have an impact on the performance of organizations, with the age of the company serving as a moderating element. The panel data regression analysis approach was utilized in the course of this research. The sample that was utilized for this research project was comprised of 124 manufacturing businesses that were listed

on the Indonesian Stock Exchange during the time period of 2017-2021. As a consequence of this, real earning management (ACFO) and real earning management (ADISX) have a negative impact on the performance of the firm, whereas earning quality has a favorable impact on the performance of the company, and the age of the company improves the association between earning quality and company performance. Additionally, the relationship between leverage and corporate performance is strengthened by the age of the company.

Djojo and Astuti (2023) investigate the elements that have an impact on earnings management in consumer products manufacturing companies that are listed on the Indonesia Stock Exchange. Tax planning, capital intensity, earning power, and institutional ownership are the moderating variables that are included in this category of tax planning components. For the purposes of this study, the population consists of all companies in the consumer products industry that were listed on the Indonesia Stock Exchange between the years 2018 and 2021. A total of 116 data that satisfy the requirements make up the sample for this investigation. The approach of purposive sampling was utilized in the selection of samples. Based on the findings of this study, it can be concluded that tax planning has a positive impact on earnings management, capital intensity has a negative impact on earnings management, and institutional ownership has a diminishing influence on the impact of tax planning on earnings management. In the meantime, the variables of earning power, financial leverage, and firm age do not have any impact on earnings management, and institutional ownership is unable to mitigate the impact of capital intensity and earning power on earnings management.

Egolum and Ikebudu (2023) explores the impact that the features of the company have on the earnings management of listed conglomerate companies in Nigeria. In order to measure the explanatory variable of firm characteristics, the firm size (FSZ) and the firm age (AGE) are taken into consideration. Earnings management is quantified in terms of discretionary accrual (DA), which is the dependent variable's measurement instrument. To conduct the research, the ex-post facto design was utilized. The population of the study consisted of five (5) conglomerate companies that were listed on the Nigerian Exchange Group (NGX). The sample size for the study was considerable furthermore. The selected companies' audited financial statements served as the source for the secondary data, which were collected between the years 2012 and 2021. Firm size had a statistically insignificant effect on earnings management, as evaluated in terms of discretionary accrual of the pooled conglomerate firms in Nigeria, according to the findings of the Ordinary Least Square regression analysis. This was found to be the case at neither a 5% nor a 1% significant level. The results that were generated from the OLS regression model showed that the age of the company has a statistically significant effect on earnings management. This effect was quantified in terms of discretionary accrual of the pooled conglomerate firms in Nigeria, and the significance level was set at 5%.

2.7.2 Firm leverage and Earnings Management

Santoso (2023) presented empirical findings regarding the moderating effect of sound corporate governance on the relationship between free cash flow, leverage, and revenue management. From 2011 to 2020, 200 data samples were selected from 20 sub-sectors of the organization's consumer products for the research sample. The findings of the study showed firm leverage had a significant relationship with earnings management.

Septiana *et al.* (2023) examined how ownership concentration and leverage influenced earnings management, with firm size as a moderating factor. Samples comprising of twelve instances of State-Owned Companies Listed on the Indonesia Stock Exchange from 2017 to 2020 were utilised. The findings showed that earnings management is influenced by ownership concentration and leverage, as indicated by the results of the partial test (t-test). Further, leverage and earnings management moderated firm size. However, the research failed to establish that the company size can moderate the relationship between ownership concentration and earnings management.

In their study, DP (2023) examined the impact of profitability, company size, leverage, and profitability on earnings management. The sampling technique utilised in this research was purposive sampling. Moderated Regression Analysis (MRA) is the method of data analysis employed to ascertain the relationship between the two variables that the moderating variable influences. Three independent variables, one dependent variable, and one moderating variable were included in the study. Earnings management, as assessed by Modified Jones (1995), was selected as the dependent variable in this research due to its superior ability to estimate earnings management activity and its low standard error and standard deviation. Three variables comprise the dependent variable: leverage, profitability, and company size. The moderating variable in the research was managerial ownership, which was identified as one of the mechanisms of good corporate governance. The findings indicated that profitability had a positive impact on earnings management, whereas leverage and firm size had no effect. The moderating effect of managerial ownership on the relationships between earnings management and leverage, profitability, or company scale is not observed.

Empirical evidence regarding the impact of bonus compensation, leverage, firm scale, and earning power on earnings management was presented by Pratama and Soufyan (2023). During the period of 2019-2021, this investigation was conducted at food and beverage manufacturing companies listed on the Indonesia Stock Exchange. The study employed a purposive sampling technique to identify a sample of twenty-one companies. The methodology employed for data analysis in this research study is multiple linear regression analysis. The findings of the research suggested that earnings management is influenced to some degree by the variables of leverage and earning power. Although the variables of bonus compensation and company size exhibit a limited influence on earnings management and bonus compensation, leverage.

Al Rubaye et al. (2025) explore earnings management and its long-term implications in the industrial sector of MSM enterprises using a sample that spans from 2011 to 2020. With the use of the Eviews 13 program, this investigation will investigate the impact that DAC, the most often used tool in accounting methods for earnings management, has on objective measurements like as return on assets and profit margin. Let's say you are familiar with the 'butterfly effect' that is associated with chaos theory. In such case, this will provide you with a foundation to comprehend how seemingly insignificant changes to one's financial situation can result in significant and unexpected impacts. This study also investigates the ways in which governance and openness of company affairs influence earning management actions. Additionally, the study incorporates firm size and leverage as moderators in order to investigate this relationship.

With Good Corporate Governance (GCG) serving as a moderating variable, Nurhaliza et al. (2025), investigated the impact that profitability, firm size, and leverage have on earnings management in manufacturing organizations throughout the year 2020. This

research looked at 72 manufacturing companies that were listed on the Indonesia Stock Exchange. The approach of purposive sampling was used to conduct the analysis. Discretionary accruals with modified Jones model was used to measure earnings management, and the proportion of independent commissioners and institutional ownership served as a proxy for the general corporate governance (GCG) concept. firm leverage has a large negative impact on earnings management, whereas profitability and firm size have a considerable favorable impact on earnings management, according to the findings. Additionally, GCG has the most significant moderating influence on the association between profitability and earnings management. This is because GCG successfully moderates the relationship between the three independent variables and earnings management.

Saad et al. (2025) examined the relationship between capital structure (CS), which is assessed by leverage, and the impact that it has on total company value. The decisions that are made regarding CS are influenced by a number of factors, including growth opportunities, the size of the company, and profitability. The earnings management (EM) and stock liquidity (SL) factors are additional factors that determine the capital structure (CS). As a consequence of this, the goals of this research are as follows: (1) to determine the impact that EM has on SL; (2) to investigate the impact that SL has on CS; (3) to investigate the direct influence that EM has on CS; and (4) to experiment with the impact that SL has on the relationship between EM and CS. One hundred and forty-four non-financial companies with 564 firm-year observations are included in the sample. These companies are listed on the Egyptian stock exchange (EXG 100) for the period of time spanning from 2015 to 2021. Firstly, there is a substantial negative correlation between EM and SL, as was discovered by the team of researchers. Second, there is a significantly negative correlation between SL and CS. This association is

significant. Third, there is a large negative direct association between EM and CS. This relationship is negatively correlated. In conclusion, there is a significant positive indirect link between EM and CS; this association is established through SL. Accordingly, SL performs the function of a mediator in the relationship that exists between EM and CS.

Mukhtaruddin et al. (2025) analyze the ways in which managerial ownership, tax planning, deferred tax burden, leverage, and company size influence earnings management in manufacturing companies that are listed on the Indonesia Stock Exchange between the years 2016 and 2020. For the purpose of the sampling process, purposeful sampling was utilized, and a total of 120 samples were utilized. The approach that is utilized is known as multiple regression analysis. The outcomes of the study indicate that tax planning, deferred tax expenditure, managerial ownership, leverage, and the size of the organization do not have any impact on the management of earnings.

Sari and Oetama (2025) investigates the impact that factors such as profitability, leverage, company size, and audit quality have on earnings management in the context of firms that are listed on the Jakarta Islamic Index (JII) on the Indonesia Stock Exchange (IDX) between the years 2020 and 2023. Specifically, the data that was utilized were secondary data, which consisted of financial information that was collected from annual reports and financial statements. In the course of the research, a sample of sixteen businesses was chosen through the process of purposive sampling, which resulted in a total of sixty-four observations spanning a period of three years. The SPSS version 23.0 was utilized in order to carry out the data processing. During the examination of the data, traditional assumption tests were utilized. These tests

included the normality test, the multicollinearity test, the heteroscedasticity test, and the autocorrelation test. The testing of the hypothesis was carried out by employing multiple linear regression analysis, in addition to the F-test (which indicates simultaneous significance), the T-test (which indicates partial significance), and the coefficient of determination (R²) test. According to the findings, while leverage and company size do not have any impact on earnings management, profitability does have a considerable impact on earnings management. On the other hand, it has been discovered that the quality of the audit has a considerable impact on earnings management.

Rismawati, (2025), investigated the manner in which earnings management is affected by the top management team, the size of the organization, and leverage. Quantitative research is the type of research that is included here. Data gathered from the Indonesian Stock Exchange (IDX) website are used in this study as secondary sources of information. For the purpose of this study, the sample consists of twenty-four companies that have successfully completed an initial public offering (IPO) between the years 2017 and 2021. As a method for selecting samples, this study makes use of a technique known as purposive sampling. For the purpose of this investigation, the method of analysis is a multiple linear regression analysis, and Eviews 12 is the analytical tool that is utilized. Based on the findings, it can be concluded that the variables of the top management team have an impact on the earnings management. When it comes to earnings management, the variables of firm size and leverage have no impact.

Farah Freihat et al., (2025) investigated the connection between the level of commitment to research and development (R&D) and the earnings management for

pharmaceutical businesses that were listed on the Amman Stock Exchange (ASE) between the years 2008 and 2021. A favorable correlation between research and development investment and earnings manipulation is found to exist, according to the findings of panel regression methods. After two or three delays in research and development, the association managed to survive. Furthermore, the size of the company has a negative impact on earnings management, demonstrating that larger companies have a lower propensity to engage in earnings manipulation operations. Additionally, there is a strong connection between business financial leverage and earnings management, which demonstrates that businesses may use earnings management as a means to circumvent credit constraints.

Alqudah (2024), investigate whether or not the quality of audits has the potential to limit actual earnings management in a developing nation like Jordan. The fixed effect method was utilized in order to investigate the relationship between two audit quality factors, namely audit fees and audit firm size, and cash flow from operations (CFO), discretionary expenditure (DISX), and production cost (PROD) as proxies of real earnings management for the industrial and service companies that were listed on the Amman Stock Exchange (ASE) between the years 2014 and 2023. Through the utilization of 740 firm-year observations, the findings revealed that audit fees (AFEE) had a substantial and negative relationship with cash flow from operations (CFO) and discretionary expenditure (DISX), while simultaneously having a significant and positive relationship with production cost (PROD). While this was going on, the findings demonstrated that the presence of audit firm size (B4) has a significant and negative impact on cash flow from operations (CFO) and production cost (PROD), while it has a positive and significant impact on discretionary expenditure (DISX). Furthermore, the results demonstrated that the company size (FSIZE) does not have a

substantial impact on any of the model versions of real earnings management (REM). This was stated in relation to the control variables. On the other hand, the use of financial leverage (LEV) has a detrimental impact on all of the many model versions of real earnings management (REM).

Alrawashedh et al. (2025) focus their investigation on Jordanian companies in order to investigate the impact that various corporate governance frameworks have on earnings management. In light of this, the research made use of data, and the regression analysis of the scores included the coefficients of a number of different corporate governance criteria, including leverage, size, cash flow, firm growth, board size, board independence, and managerial ownership, in order to ascertain the influence that was enjoyed on earnings management. A substantial association was found between rules and corporate governance, as well as the influence of these factors on earnings management, as demonstrated by the findings. The coefficient of leverage, board size, board independence, and managerial ownership are all statistically significant, which indicates that they are effective in maintaining low levels of earnings management. On the other hand, high levels of cash flow are associated with high levels of earnings management and constraints on the manager's discretion, which ultimately results in a reduction in earnings decision-making.

Using a sample of listed non-financial companies in India, Rajpurohit and Rijwani (2024) investigate the influence that business characteristics have on earnings management (EM). In the first step of the estimation process, we use a holistic approach by concentrating on overall accruals, current accruals, and specific accruals. Second, we investigate the characteristics of the company that may be associated with accruals EM. These variables include the company's size, leverage, performance, growth

opportunities, and participation in the industry. Our findings indicate that 1) Higher accruals quality is associated with larger enterprises and firms that have good performance. 2) The quality of accruals may be poorer in companies that have greater potential for expansion. Accruals EM is utilized by companies that have a high level of firm leverage in order to avoid violating debt covenants.

Ishak (2024) investigates the influence that earnings management and leverage have on the value of a company, with earnings quality serving as an intervening variable. In this study, quantitative approaches were utilized, and route analysis was utilized in order to investigate the connections that exist between the available data. A selection of samples was obtained from state-owned firms in Indonesia, with a specific emphasis placed on those that were included on the BUMN 20 Index of the Indonesia Stock Exchange for the period of 2017-2021. The findings indicate that the quality of earnings acts as a mediator in the aforementioned link between leverage and business value. In particular, it was discovered that maximizing company value could be accomplished by leveraging through earnings quality. This was due to the fact that profitable organizations prioritized internal financing due to the high rate of return that it offered.

Awad et al. (2024) will stress on the importance of financial leverage, earnings management, and sustainability aspects, which will include growth potential. The sample population consists of all of the businesses that are trading on the Iraq Stock Exchange, and the data gathering process includes all of these businesses. The selection process was carried out in a methodical manner, with corporations from the fiscal years 2009 through 2021 being excluded from consideration. The data consisted of 31 issuers. For the purpose of testing the hypotheses of this study, the estimation of the multivariate regression model was performed using panel data. The data indicate that real EMS is

not influenced by financial leverage, however accrual EMS is negatively affected by it. This is in connection to the hypotheses that were presented. Furthermore, the research reveals that a significant problem in this regard is the fact that the detrimental influence of monetary leverage on accrual-based earnings administration is strengthened when growth prospects are present. One such instance demonstrates that the relationship between monetary leverage and actual earnings management is not contingent on the availability of growth opportunities.

Alsaadi, (2024) investigates the ways in which the capital structure of companies in the Saudi market affects earnings management. The Saudi market is impacted by an Islamic atmosphere that opposes excessive borrowing. In order to investigate the influence that capital structure has on profits management, this study makes use of a data set that spans the years 2013 through 2020 and pertains to companies that are listed on the Saudi Stock Exchange (Tadawul). Panel data regression models are utilized on this data set. Firms in the Saudi market face high scrutiny to maintain lower leverage in order to meet the investment requirements of stakeholders based on religious status. This, in turn, reduces information asymmetry and constrains opportunistic behavior in managing earnings. The empirical results reveal that earnings manipulation is less common among leverage firm. This implies that firms in the Saudi market face high scrutiny to maintain lower leverage.

Winarta et al. (2024) investigates the relationships between earnings management and a number of different parameters, including independent commissioners, audit committees, institutional ownership, business size, leverage, firm age, and audit quality. For the purpose of this study, a total of 278 data points were gathered from 94 non-financial companies that were listed on the Indonesia Stock Exchange during the years

2017 and 2019. Gathering sample data for analysis was accomplished through the use of purposeful sampling. The findings of the study suggested that the age of the firm and the quality of the audit had a substantial influence on earnings management. On the other hand, independent commissioners, audit committees, audit committee independence, institutional ownership, company size, and leverage do not have any impact on earnings management.

Alrobai and Albaz (2024), investigate the factors that have determined the disclosure tone (DT) in the Saudi Arabian corporate environment over the course of the past nine years. In addition to that, it investigated the influence that cautious accounting practices and earnings management had on this tone. The research was conducted using a mixed-method approach, which included both qualitative and quantitative methods, in order to investigate the relationships that were utilized for the content analysis of the annual reports of 88 Saudi-listed companies from the years 2014 to 2022. According to the findings of the research, there is a favorable influence that dividend yield has on the approach that is taken to transparency. In contrast, neither the size of the company nor its leverage had a major impact on the earnings management. Accounting conservatism, which is a generally accepted standard, has a positive influence on disclosure tone. Additionally, earnings management, which is a technique in accounting, has a curvilinear effect on disclosure tone.

Ammer and Pantamee (2024), investigate the relationship between audit quality, company-specific qualities, and the firm value of manufacturing companies in Saudi Arabia. Additionally, they take into account the influence of earnings management upon this relationship. In order to conduct the analysis, we utilized data that was gathered from annual reports and the Saudi Arabia Stock Exchange. The data covered

the years 2014 through 2023. Panel data regression analysis was carried out for the purpose of conducting research using a quantitative methodology and a longitudinal study design. The findings indicate that there is a positive and statistically significant association between audit quality and firm value, as well as between firm-specific attributes and firm value. Furthermore, earnings management acts as a mediator between audit quality, company-specific features, and firm value among Saudi Arabian manufacturing enterprises. This is because earnings management has a positive and significant impact on firm value.

Abraham (2024) investigates the influence that earnings management has on the financial stability and reporting transparency of Shariah-compliant and Shariah-non-compliant businesses in India between the years 2008 and 2023. The Kothari and Roychowdhury models are utilized in this study in order to accurately estimate profits management proxies. Both Beneish's M-score and Altman's Z-score models were utilized in order to evaluate the likelihood of earnings manipulation and insolvency among the sample companies. According to the findings of the study, Shariah-compliant businesses are less likely to engage in earnings management and to declare bankruptcy than non-Shariah businesses. Furthermore, it was discovered that Shariah-compliant businesses are more transparent in the way that they present their results. In general, the findings of the study demonstrate that Shariah screening is more effective than religion indexation in terms of ensuring the ethical conduct of commercial procedures that are designed to protect investors.

Duho et al. (2024) investigates the prevalence of transfer pricing and earnings management activities, as well as the ways in which corporate governance structures influence these activities. The research, which makes use of the political cost theory,

offers insights into the ways in which opportunistic management behaviors, which have a significant connection to profit shifting and tax evasion, are driven by corporate governance. The research looks at data from sixteen listed companies for the period of time from 2008 to 2020. Based on the findings, it can be concluded that the transaction-based transfer pricing model is superior to the index-based model, and that the accrual-based earnings management model is more suitable for the political cost theory than the real earnings management metric. Even if board independence, CEO tenure, CEO nationality, and female Board Chairwomanship all contribute to a reduction in transfer pricing aggressiveness, board size and the presence of a female CEO both contribute to an increase in transfer pricing aggressiveness. Additionally, the findings shed light on the significance of the status of the multinational corporation, private ownership, the kind of industry, the size of the firm, financial leverage, asset tangibility, and the age of the company. The factors of board independence, CEO tenure, and female Board Chairwomanship all contribute to a large reduction in earnings management when accrual-based earnings management is used. Other factors include private ownership, firm size, and firm age.

Rahman et al. (2024) investigates the impact of CSP not only as a unified construct but also as its three unique dimensions—social, economic, and environmental sustainability—in constraining EM directly and with the distinct moderating of firm size, which has not often been investigated in the past. The estimations of ordinary least squares with panel-corrected standard errors revealed that CSP and its separate dimensions significantly control accruals-based earnings management. All of these relationships are further amplified by the moderation of firm size and age. The data used for this study came from 255 Pakistani companies that were operating between the years 2018 and 2022. However, neither CSP nor any of its dimensions play a substantial

role in lowering real-based earnings management, either directly or with the moderation of firm size and age.

Gurunlu (2024), investigated whether or not the consolidation of financial resources and the allocation of internal funds within corporate groupings has a beneficial impact on the quality of earnings by reducing the number of earnings management strategies in associated organizations. As a result of the funding gains that come from pooling financial resources in corporate groups, it is believed that associated firms are able to alleviate solvency difficulties that are caused by increasing leverage, which in turn lowers motivation for earnings management. The research is based on a balanced panel data set consisting of 95 non-financial companies that were traded on Borsa Istanbul. The time span covered by the study is from 2015 to 2022, which is a total of eight years. The total number of observations is 760. Using management's discretionary accruals as a proxy variable to evaluate management's flexibility to engage in earnings management, this study indicates that being connected to a business group diminishes earnings management incentives in group affiliates when firm's leverage increases. This finding was made possible by the fact that the measure was derived from the discretionary accruals of management. A reduction in the motivation for earnings management procedures is brought about by the support that the business group provides to the debt-leveraged firm.

2.7.3 Firm Performance and Earnings Management

Mojoodiniay and Tasaddi (2023) did a study on the relationship between firm performance and earnings management. The study population comprised presently traded firms on the Tehran Stock Exchange from 2013 to 2018. After the evaluation process was completed, panel analysis was applied to the data of 105 companies. The

findings did not reveal any significant correlation between earnings management and firm performance. In addition, there was a significant correlation between firm size and performance.

In their dynamic framework, Boachie and Mensah (2022) examined the link between earnings management and the financial performance of firms operating in Anglophone sub-Saharan African nations. The findings corroborated the hypothesis of agency theory concerning the effective oversight impact of compliance with best-practice internal governance systems on limiting the earnings management practices of companies and, consequently, improving their performance. Furthermore, the research outcomes pertaining to the favorable impact of earnings management on performance indicate that the African context is inherently distinct from other developing economies that disclose opportunistic motivations for earnings management practices. These results implied that efficiency considerations drive earnings management practices in Africa. With respect to the moderating function, the research findings indicate that the favorable impact of earnings management on the financial performance of companies was generally more pronounced when corporate governance quality is present.

Chakrounet *al.* (2022) investigated the moderating effect of CSR on the relationship between earnings management and financial performance in France. Furthermore, the authors conducted an inquiry into the potential moderating influence of corporate social responsibility on the relationship between earnings management and financial performance. A sample of French companies listed on the CAC-All-Tradable index from 2008 to 2018 served as the basis for the empirical investigation. As estimation methodology, practical generalized

Least square regression was applied to the econometric models. The authors established, using panel data comprising 3,003 observations from French firms during a given year, that earnings management significantly and negatively affects financial performance. Undoubtedly, within the French context, corporate social responsibility serves to mitigate the adverse effects of earnings management on financial performance in a positive manner. The findings underscored the criticality for scholars to ascertain the manner in which corporate social responsibility may impact the correlation between financial performance and earnings management.

In their study examining the relationship between earnings management (EM) and corporate social responsibility (CSR), Anderson *et al.* (2023) identified directional relationships between the two as potential indicators of managers' ethical or opportunistic conduct. On the one hand, EM encourages opportunistic managers to engage in CSR in order to enhance their reputation. CSR, conversely, decreases EM levels among managers whose participation in CSR is indicative of their ethical principles. A panel vector auto-regression (PVAR) model is estimated in order to assess the intricate directional relationships among CSR, EM, and Q. Consistent with the notion that EM influences CSR in a positive way, consistent with the concept of reputation-building, we discovered no inverse relationship between the two variables. They discovered that firm performance (Q) influences EM in a positive way, indicating that EM might be economically motivated, and that CSR influences Q in a positive way, which is consistent with economic motivations motivating CSR engagement.

Khuong *et al.* (2019) examined the impact of earnings management based on actual activities on the performance of energy companies listed on the stock market of Vietnam. From 2010 to 2016, the study data collection comprised 29 energy companies

listed on the Vietnam stock exchanges (HNX and HOSE). The research employed regression analysis utilising panel data, specifically the random effects model and the fixed effects model. According to the findings, actual activity earnings management had a positive effect on the performance of a company. This suggested that current earnings would be positively impacted by an increase in current sales activities. A positive relationship was observed between firm performance and cash from operating activities, growth opportunities, and firm size. Conversely, a negative correlation was observed between firm leverage and tangible assets. The significance of the research findings extended to investors and regulators in emerging markets.

Musa et al. (2025) conduct research to determine the impact that audit committees have on the real earnings management (REM) practices of Islamic financial institutions. A total of 57 fully operating Islamic banks from 16 different countries provided their annual reports between the years 2012 and 2023, from which the sample data that was used in the study was manually extracted. According to the findings, the size of the Audit Committee (AC), the participation of independent directors on the AC, and the level of diligence performed by the AC all have a significant and detrimental impact on the ratio of risk to equity (REM) in Islamic banks. On the other hand, the percentage of directors in AC who hold a doctoral degree and the number of female directors have a beneficial impact on REM. When it comes to Islamic banks, however, the presence of foreign directors in AC does not have any effect on REM.

Rusmin et al. (2024) employs a fixed effect model to investigate the ways in which profits management techniques in nine Asia-Pacific nations are influenced by uncertainty avoidance, which is a cultural value of a nation, as well as the financial health of the firms. According to the findings of this study, businesses that are found to

be operating in nations that have a greater level of uncertainty avoidance and those that have superior financial performance are less likely to control profits figures. In addition, the research underscores the fact that companies that are more likely to experience financial loss have a tendency to demonstrate a considerable amount of earnings management.

Soeprajitno et al. (2024), explore the impact that the sustainability performance of organizations has on their future earnings management. Using the idea of moral licensing, we make the prediction that the performance of sustainability will result in a drop in accruals while simultaneously increasing actual earnings management. During the period of 2002–2021, we conduct an analysis on a dataset that contains 47,186 firm-year observations from 44 different countries. A two-stage Heckman approach is utilized by us in order to address the possibility of endogeneity. Additionally, we carry out supplementary fixed-effects regression tests for distinct time periods before to and during the crisis, as well as for regulatory efficiency, quality, and enforcement. The results of our research indicate that companies who have demonstrated exceptional performance in the area of sustainability have an effect on the management of accrual-based (real) earnings or earnings management. Furthermore, we discovered that the impact of sustainability activities undertaken by businesses in nations with weaker regulatory effectiveness, lower regulatory quality requirements, and required government regulation was significantly stronger.

For the purpose of determining how earnings management affects the influence of corporate governance procedures on business performance, Harb et al. (2025) examines the financial sectors, industrial sectors, and service sectors in Jordan from 2013 to 2021. Through research and analysis, corporate governance procedures that are connected to

board structure, ownership structure, and the audit committee were integrated successfully. Using the Modified Jones Model, earnings management was represented by the degree of discretionary accruals. For the purpose of determining the function that earnings management plays as a mediator, we make use of the framework that was developed by Preacher and Hayes. The research indicates that the presence of an independent audit committee has a negative correlation with the performance of the company. A negative correlation was discovered between board independence and Return on Assets, Return on Equity, and Tobin's Q. All three of these metrics were calculated. The remaining categories (board size, CEO duality, audit committee size, audit committee ownership, and ownership structure) are found to have a statistically significant positive correlation with firm performance. This association is favorable. In addition, there was a significant connection between the systems of corporate governance and earnings management and the performance of the company.

Within the context of Indian businesses, Ahmad et al. (2024) investigate the impact that spending on corporate social responsibility (CSR) has on firm performance (FP), as well as the supplementary investigation of the contraction effect that CSR spending and earnings management (EM) have on FP. In this study, the sample size consisted of 82 companies that were included in the S&P BSE 100 index between the years 2015 and 2021. In addition, Tobin's Q is utilized as an indication for the purpose of determining the FP. For the purpose of quantifying EM in the form of discretionary accruals (DACC), the modified Jones model is utilized as a proxy. Pooled ordinary least square is the theoretical framework that was utilized for the analysis that was carried out in this paper. The findings of the study provide empirical proof that businesses that engage in the practice of EM do not receive any encouragement to increase their spending on

CSR. In addition to this, the second hypothesis, which was based on EM, CSR, and earnings management, had a detrimental effect on FP in the context of India.

According to Alsulami (2024), the purpose of this study is to investigate the possibility of a nonlinear link between earnings management and sustainable business performance in Saudi Arabia by employing a sample of seventy publicly traded companies over the period of time from 2015-1922. To be more specific, it analyzes the effect of the operational risk disclosure threshold in the nexus between earning management and sustainable business performance. A dynamic panel threshold regression model, also known as DPTR, is carried out in order to do this. In the context of the relationship between earnings management and sustainable business performance, the study demonstrates that there is a threshold effect of operational risk disclosure.

Anderson et al. (2024) interpret directional linkages between corporate social responsibility (CSR) and earnings management (EM) as markers of opportunistic or ethical behavior by managers. This interpretation is based on the fact that CSR and EM are directed toward one another. EM, on the one hand, is responsible for increased levels of corporate social responsibility (CSR) by opportunistic managers who are looking to improve their reputations through CSR. CSR, on the other hand, is associated with lower levels of employee morale among managers whose participation in CSR is reflective of their ethical convictions. It is not possible to properly attribute opportunistic and ethical behaviors to managers in a company environment without also taking into consideration the relationship between EM and CSR and the goal that companies try to achieve as economic entities, which is to produce value. As a result, we offer financial performance, which is denoted by Tobin's Q, as an endogenous

variable that has an effect on the level of engagement that managers have in ethics and corporate social responsibility. Our evaluation of the intricate directional relationships that exist between CSR, EM, and Q is accomplished by the estimation of a panel vector auto-regression (PVAR) model. We discover that EM has a favorable impact on CSR, which is in line with the concept of reputation-building; nevertheless, we do not discover any directional association between CSR and EM. We find that firm performance (Q) has a positive influence on EM, which suggests that EM may be economically motivated. Additionally, we discover that corporate social responsibility (CSR) has a positive influence on Q, which is consistent with the idea that economic incentives are driving involvement in CSR.

Semsomboon et al. (2024) investigate the impact of managerial ownership on the performance of a company during the pre- and post-initial public offering (IPO) years. They look at the influence of managerial ownership on firm performance both directly and indirectly through real profits management as a mediating variable. An examination is conducted on Thai companies that were listed on the Market for Alternative Investment (MAI) during the years 2012 and 2017. The research indicates that prior to the year of the first public offering (IPO), a higher level of managerial ownership is associated with a favorable link with business performance. Furthermore, this association is fully mediated by real earnings management. However, after the initial public offering (IPO), the influence of managerial ownership on the performance of the company is no longer important, and actual earnings management serves as a mediating variable.

Lajnef and Ellouz (2024) investigated whether earnings management approaches have the ability to control the impact of corporate social performance on both the current and

future performance of the organization. In point of fact, the effectiveness of sustainable actions on the performance of a company is mostly investigated as a mediating variable through the use of earnings management tools. 9772 firm-year observations are included in the sample, and they pertain to 698 companies that are listed in nations that have a civil law system. The findings indicate that organizations with a focus on corporate social responsibility are less likely to engage in actions related to earnings management on both the current and future performance of the organization.. Additionally, actions related to corporate social responsibility lead to a reduction in the trade-off between the AEM strategy and the REM strategy. According to the findings, corporate social responsibility (CSR) activities continue to be prejudiced and are dependent on the interests of managers.

Banerjee et al. (2024) explores the impact that peer performance has on the decisions that are made regarding earnings management within publicly traded Indian enterprises. The literature has a variety of contradictory pieces of evidence, with the influence of peer performance on earnings management in emerging markets being notably underexplored. Furthermore, the research investigates whether or not strong corporate governance procedures can reduce the prevalence of earnings management methods. The idiosyncratic returns of peer companies were utilized as an external measure of peer performance in our research, which was conducted using a longitudinal panel dataset spanning the years 2011 through 2020. This strategy is improved even further by the utilization of alternative discretionary accrual metrics, which have the potential to serve as a reliable measurement for both market leaders and market followers. For the purpose of evaluating earnings management, our research makes use of two distinct approaches: accrual earnings management and real earnings management. In light of the findings, earnings management within peer groups is triggered by peer performance,

which demonstrates managerial opportunism in financial reporting in order to match with peer achievements. Furthermore, the research implies that robust corporate governance successfully curtails profits management, especially in industries where peer influence is significant.

Nguyen's (2024) explores the connection between the performance of corporations in terms of sustainability and earnings management in the economies of growing East Asian countries. The authors conduct their evaluation of the performance of corporations in terms of sustainability using the triple bottom line technique. The detection of real activities manipulation and discretionary accruals is accomplished through the application of two models in the context of earnings management. A panel data study of 410 listed non-financial enterprises in rising East Asian economies from 2016 to 2020 is utilized by the writers. These firms are gathered from the Thomson Reuters Eikon database with the purpose of conducting the analysis. An unfavorable influence is discovered by the writers.

Within the context of firm performance (FP), Elmashtawy et al. (2024) investigate the impact that real earnings management (REM) has. Furthermore, it analyzes the moderating impact of board gender diversity (BDIV), which is represented by the percentage of females on the board, in this relationship for the purpose of determining how it affects the relationship. The research utilized a quantitative methodology to investigate 87 non-financial companies in Egypt over the course of a number of years, beginning in 2014 and continuing through 2021. Following the findings, a favorable influence of REM on FP was determined to exist. Furthermore, the presence of females on the board had a moderating effect on this association, which meant that the positive

effects of REM on FP was negatively impacted. As a result of the presence of males on the board, the beneficial effect of REM on FP was also strengthened.

Duarte et al. (2024) investigated the influence that the quality of earnings has on the financial performance of companies. An analysis was performed on an unbalanced panel data consisting of 237 small and medium-sized Portuguese enterprises operating in the mold sector. The data was collected across the years 2010–2018. When it comes to evaluating earnings quality, the majority of studies only concentrate on earnings management. However, this particular study makes use of six different proxies for earnings quality. These proxies include accruals quality, which is a proxy for earnings management, earnings persistence, earnings predictability, earnings smoothness, earnings timeliness, and earnings conservatism. In addition, the return on assets and the economic value contributed are taken into consideration as two proxies for the success of the financial institution. An econometric model was estimated by employing either a fixed-effects or a random-effects specification. This was done in order to take into account the effects that were distinctive to each individual firm and to guarantee that the results were corrected for heteroscedasticity. According to the findings, managers should be worried about the quality of reported earnings since it has the potential to positively improve the financial performance of companies, particularly with regard to the quality of accruals for the company. It has been demonstrated that the characteristics of persistence, predictability, smoothness, timeliness, and conservatism do not impose a substantial influence on the sample's financial performance.

The research conducted by Shittu and Oladipo (2025) examines the impact that Real Earnings Management (REM) has on the profitability of businesses in six different nations located in sub-Saharan Africa. Companies that are not in the banking sector and

are listed in Ghana, Kenya, Nigeria, South Africa, Tanzania, and Zimbabwe are included in the sample. Return on assets (ROA) and Tobin's Q are utilized in order to measure profitability, whilst the Rowchowdhury model is utilized in order to evaluate REMisassessment. Panel data regression techniques were utilized in order to conduct an analysis on secondary data obtained from the yearly financial reports of the companies that were chosen. According to the findings, REM has a large and detrimental impact on both ROA and Tobin's Q in the geographical regions of Nigeria, Ghana, and South Africa. In Tanzania and Zimbabwe, on the other hand, REM has a strong and positive impact on rates of performance. On the other hand, REM results in a negative impact on ROA and Tobin's Q in Kenya, but this impact is statistically small. According to the findings of the study, REM has a considerable impact on the profitability of organizations located in sub-Saharan Africa.

2.8 Research Gap

A review of existing literature reveals that substantial work has been done globally on the relationship between environmental, social, and economic (ESE) disclosures, audit committee financial expertise, and earnings management (EM). However, notable gaps persist, particularly within the East African context. These gaps span four primary dimensions: geographical location, methodological approaches or models used, time period covered, and the specific variables examined. Analyzing the cited studies individually highlights these gaps more clearly.

Chen and Jaggi (2000) studied firms in Hong Kong and concluded that better governance disclosure is associated with lower earnings manipulation. While the findings were significant, the study did not distinguish between environmental, social, and economic disclosures, and the model used was cross-sectional. The developed

context of Hong Kong also makes the findings less generalizable to East Africa, where regulatory enforcement and investor activism differ significantly. Similarly, Cornett, Marcus, and Tehranian explored governance disclosures in the U.S. and linked them to reduced opportunistic earnings management. However, like Chen and Jaggi, they focused on aggregated governance disclosure and did not disaggregate ESE components or include audit committee expertise.

Rao, Tilt, and Lester also emphasized the role of governance transparency in reducing EM, but did not isolate the individual contributions of ESE disclosures. Furthermore, their study, like the others, was conducted in a developed country, limiting its applicability to less mature markets. In contrast, Siregar and Utama (2008) provided an alternative perspective by reporting no significant effect of governance structures and disclosure on earnings management in Indonesia. While offering diversity in outcomes, this study still did not address ESE dimensions individually or consider the moderating role of audit committee expertise.

Panjaitan and Suranta (2024) focused on ESG scores and their effect on earnings management in Indonesian manufacturing firms. The study used a relatively small sample of 20 firms and employed basic statistical analysis (SPSS), without accounting for endogeneity. The study context, again, limits its generalizability to East Africa, and it did not explore the interaction between audit committee financial expertise and disclosure practices. Similarly, Trisnawati and Setiawati (2016) examined sustainability reporting and EM among ISRA participants in Indonesia. Although the study employed the GRI G4 disclosure index to assess environmental, social, and economic disclosures, it lacked an examination of internal governance mechanisms

such as audit committee financial expertise. It also focused on a short time period (2013–2015), limiting the insights into long-term impacts.

Olagunju et al. (2023) contributed African evidence by examining the impact of sustainability disclosures on earnings management in Nigerian firms. The study used panel regression over a seven-year period and disaggregated the ESE dimensions. However, it still did not incorporate audit committee financial expertise and was restricted to Nigerian data, which may not reflect the conditions in East African countries with different economic and institutional frameworks. Cho and Patten (2007) added that poor environmental performers tend to increase environmental disclosure to mitigate public scrutiny, suggesting a compensatory motivation. While this provides useful behavioral insights, the study focused solely on environmental disclosure in a U.S. context, excluding other dimensions and governance structures.

Clarkson et al. (2008) found that environmental disclosure constrains EM. However, they conducted their study in a developed market and did not examine the roles of social or economic disclosures. Likewise, De Villiers, Naiker, and Van Staden explored how poor environmental performance correlates with earnings management but did not consider East African firms or local governance characteristics. Luo, Wang, and Zhang found similar results in China, where firms with higher emissions disclosed more to counteract stakeholder criticism. These studies largely ignore the full ESE framework and omit governance variables like audit committee expertise.

Gerged et al. (2023) examined Jordanian firms and found that corporate governance can moderate the environmental disclosure–earnings management relationship. Their findings are relevant to emerging economies but did not explore the role of audit committee financial expertise specifically. Shang and Chi (2023) introduced an

innovative distinction between “hard” and “soft” environmental disclosures in Chinese polluting industries and found that hard disclosures are more effective in mitigating EM. Yet again, the study was limited to environmental aspects and excluded social and economic disclosures, as well as governance structures like audit committees.

Almubarak et al. (2023) assessed the relationship between ESG disclosure and EM in Saudi Arabia, showing that distressed firms may use ESG to mask earnings manipulation. While this highlights the dual role of ESG reporting, the study used composite ESG scores without disaggregating the ESE dimensions and omitted audit committee dynamics. Gerged et al. (2020) investigated Kuwaiti firms and used advanced models (2SLS, GMM) to address endogeneity, finding a significant negative link between environmental disclosure and earnings management. Although methodologically robust, the study still focused only on environmental disclosure and failed to consider audit committee expertise or East African applicability.

Shahwan and Esra'a (2021) explored the effect of social and environmental cost disclosures on financial performance with earnings management as a moderator. This provides a different angle but ignores economic disclosure and audit governance structures. Brahmana et al. (2018) examined the relationship between environmental disclosure and EM in Indonesia and found a positive effect. However, the data only covered up to 2014 and did not account for evolving ESG expectations or governance practices. The study was also limited to environmental disclosure, without considering audit committees.

Maas and Rosendaal (2016) proposed that firms increase social disclosure when engaging in EM, treating disclosure as a reputational shield. The study lacked empirical modeling, did not consider regional context, and failed to integrate governance

variables. Prado-Lorenzo and Garcia-Sanchez (2011) similarly found that firms with higher CSR disclosure had greater earnings manipulation, suggesting a legitimization motive. Conducted in Europe, the study did not analyze audit committee influence and lacked generalizability to East Africa.

Sun et al. argued that companies with higher EM tend to provide greater social disclosure to divert stakeholder attention. The study did not incorporate regional variations, governance characteristics, or multiple disclosure types. Roychowdhury and Watts reported no significant relationship between social disclosure and EM, highlighting the need to examine firm-specific conditions. Yet, their analysis lacked a comprehensive model that includes ESE and governance variables.

Ningsih et al. (2023) analyzed 408 firm-year observations in Indonesia and found a connection between sustainability social reporting and EM. While the time span was extensive (2010–2021), the study did not disaggregate disclosures or include audit committee expertise. Pakawaru et al. (2021) examined the recursive relationship between CSR disclosure and EM in Indonesian mining firms but did not include economic or environmental disclosures and excluded governance variables. Faisal et al. (2018) used 2SLS and found a negative relationship between CSR and EM. Though methodologically sound, the study did not include the broader ESE framework or audit expertise.

Christina and Alexander (2019) found that CSR disclosure negatively affected EM, while corporate governance had no impact. However, the study lacked a focus on audit committee financial expertise and did not disaggregate disclosure dimensions. Borralho et al. (2022) explored ESG's impact on EM in French and Spanish firms, distinguishing between family and non-family businesses. While insightful, their study used

composite ESG scores and operated in a different governance context from East Africa. Laksmi and Kamila (2018) investigated the influence of state ownership and audit committee membership on CSR disclosure but did not assess earnings management or include economic and environmental disclosures.

From the collective assessment of these studies, several major research gaps emerge. First, there is a clear geographical gap. Most studies are conducted in Asia, Europe, or North and West Africa, with virtually no comprehensive research addressing how ESE disclosures and audit committee financial expertise affect earnings management in East African countries. The region's unique institutional, economic, and regulatory environments remain underexplored, making generalizations from other regions problematic. Second, there is a methodological gap. Many studies rely on simple regression models and fail to address endogeneity, which undermines causal inference. Very few studies use robust models such as Generalized Method of Moments (GMM), Two-Stage Least Squares (2SLS), or Structural Equation Modeling (SEM), especially in African settings.

Third, there is a temporal gap. The majority of studies rely on data from the early 2000s to mid-2010s, which does not reflect recent developments such as post-2015 ESG mandates, UN Sustainable Development Goals (SDGs), or the Nairobi Securities Exchange's ESG disclosure guidelines. There is a need for longitudinal studies that cover recent years and can better capture dynamic regulatory and market changes. Finally, there is a variable-related gap. Many studies do not disaggregate environmental, social, and economic disclosures, instead using composite ESG indices. Similarly, audit committee financial expertise is either ignored or measured simplistically, without accounting for depth, experience, or industry knowledge. Real

earnings management is also often overlooked, with most studies focusing only on accrual-based measures.

In conclusion, the reviewed literature demonstrates that while there is growing global interest in the relationship between sustainability disclosures, audit governance, and earnings management, significant gaps remain in East Africa. These include the absence of empirical evidence from the region, limited use of advanced econometric models, outdated time frames, and insufficiently defined variables. A study that addresses these shortcomings by applying robust methodologies to recent data in East Africa, while disaggregating ESE disclosures and integrating audit committee expertise, would make a substantial contribution to both academic knowledge and practical policymaking.

2.9 Conceptual Framework

A conceptual framework is a diagrammatical illustration of the relationship between the research concepts and their impact on the phenomenon being investigated (Robert, Yu & Lewis 2021). While Huberman and Miles (1994) assert that, a conceptual framework shows either graphically or in a narrative form the aspects that was studied. In this study corporate sustainability disclosures is the independent variable, audit committee financial expertise the moderator and earnings management the dependent variable. The study incorporates firm size, leverage, firm performance and firm age as control variables.

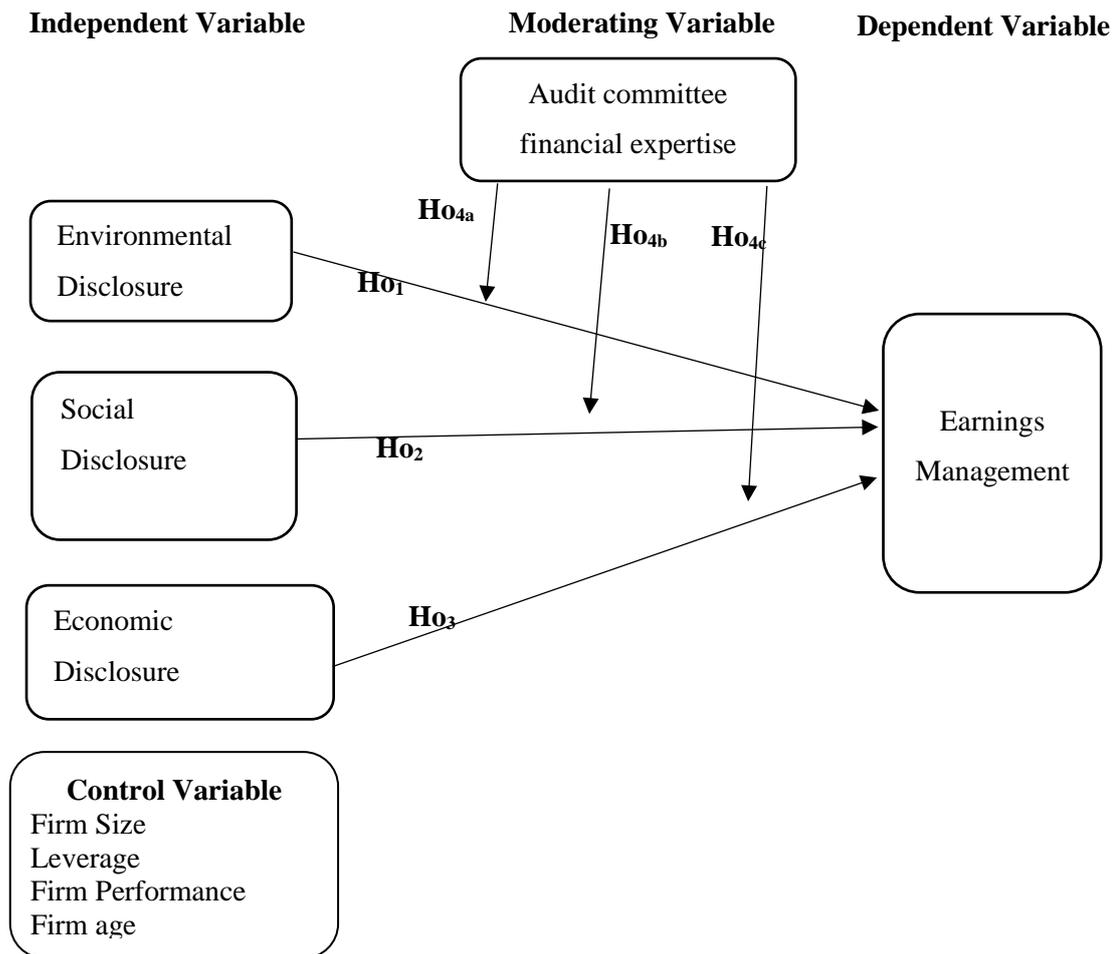


Figure 2. 1: Conceptual Framework Diagram

Source: Researcher, 2024

2.10 Summary of Literature

Authors	Topic of the Research	Methodology Used	Findings	Research Gap
Chen & Jaggi (2000)	Corporate governance disclosure and earnings management	Cross-sectional analysis in Hong Kong	Better governance disclosure is linked to less earnings management	Did not analyze ESE disclosures separately; developed economy context
Cornett, Marcus & Tehranian	Governance quality and earnings management	Quantitative study in the U.S.	Quality governance reduces opportunistic EM	No focus on ESE disclosures; context differs from East Africa
Rao, Tilt & Lester	Governance transparency and earnings management	Quantitative; Developed country data	Transparent disclosures reduce EM	No disaggregated ESE disclosure; no audit committee analysis
Siregar & Utama (2008)	Governance disclosure and EM in Indonesia	Panel data analysis	No significant effect found	Contextually limited to Indonesia; excluded audit expertise
Panjaitan & Suranta (2024)	ESG scores and earnings management	SPSS; 20 Indonesian manufacturing firms	High ESG scores reduce EM	Small sample; no audit governance variables; limited model
Trisnawati & Setiawati (2016)	Sustainability reporting and EM	GRI-based indices; panel data 2013–2015	ESE disclosures reduce EM	Short time span; no audit committee variables
Olagunju et al. (2023)	Sustainability reporting and EM in Nigeria	Panel regression (2015–2021)	ESE disclosures negatively related to EM	No audit expertise; different African context than East Africa
Cho & Patten (2007)	Environmental disclosure and earnings manipulation	Comparative analysis in the U.S.	Poor performers disclose more to compensate	Only environmental disclosure studied; advanced economy
Clarkson et al. (2008)	Environmental disclosure and EM	Quantitative U.S. study	Transparency constrains EM	Excludes social/economic disclosure and audit oversight
De Villiers, Naiker & Van Staden	Environmental performance and EM	Theoretical framework	Poor performers use disclosure as legitimation	No empirical model; lacks East African relevance
Luo, Wang & Zhang	Carbon emissions and EM	Chinese panel data	High emissions tied to EM; disclosures used to divert	Limited to environmental disclosure; excludes governance
Gerged et al. (2023)	Corporate governance and environmental disclosure in Jordan	Panel data; moderation analysis	CG moderates CED-EM link	No audit committee financial expertise studied
Shang & Chi (2023)	Hard vs soft disclosure in environmental reporting	Chinese polluting firms; longitudinal	Hard disclosure more effective than soft	Focused on environmental only; no governance controls

Authors	Topic of the Research	Methodology Used	Findings	Research Gap
Almubarak et al. (2023)	ESG and earnings manipulation under financial distress	Saudi firms; panel regression	ESG can mask EM under distress	Composite ESG used; audit committee ignored
Gerged et al. (2020)	CED and EM in Kuwait	2SLS, GMM, fixed effects	CED reduces EM	Only environmental disclosure studied; audit expertise omitted
Shahwan & Esra'a (2021)	Disclosure of social/environmental costs and performance	Quantitative; Amman SE firms	Positive effect on financial performance	No audit governance; economic disclosure ignored
Brahmana et al. (2018)	CED and EM in Indonesian sectors	Panel data (2008–2014)	CED increases EM	Outdated data; no governance variables
Maas & Rosendaal (2016)	Social disclosure as a response to EM	Conceptual paper	Firms disclose socially to obscure EM	No empirical model; not contextualized to East Africa
Prado-Lorenzo & Garcia-Sanchez	CSR and discretionary accruals	European firm data	High CSR disclosure linked to high EM	No governance mechanisms tested; European focus
Sun et al.	EM and social disclosure	Quantitative analysis	High EM firms increase social disclosure	No governance or regional specificity
Roychowdhury & Watts	EM and CSR disclosure	Empirical study	No significant relationship	Excluded audit governance; no regional customization
Ningsih et al. (2023)	Sustainability social reporting and EM	Fixed effect regression; Indonesia	Link between EM and sustainability reporting	Audit committee expertise not examined
Pakawaru et al. (2021)	CSR and EM in mining	Multiple regression; Indonesia	CSR positively linked with EM	No environmental/economic disclosure; no governance test
Faisal et al. (2018)	CSRD and EM in Indonesia	2SLS regression	High CSRD linked to less EM	Governance and ESE breakdown not included
Christina & Alexander (2019)	Corporate governance and CSR disclosure impact on EM	Multiple regression; IDX firms	CSR reduces EM; governance had no effect	Audit committee expertise not isolated
Borrvalho et al. (2022)	ESG and EM in family vs non-family firms	France and Spain; panel data	Effects vary by firm type and ESG element	Western context; ESG not disaggregated; East Africa excluded
Laksmi & Kamila (2018)	Governance and CSR disclosure	Purposive sampling; IDX	Audit committee membership improves CSR disclosure	No EM variable analyzed; ESE separation missing

Source, Researcher, (2024)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Overview

This chapter focuses on the research design, target population, data collection, and measurement of the study's variables, research model, data analysis, and diagnostic tests.

3.1 Research Paradigm

The idea of a research philosophy or paradigm has its roots in the history of scientific exploration. As per Bryman (2014), this term was formerly used to define a set of theories that guided what topics to investigate, what research methods to use, and how to evaluate the findings. The choice of a paradigm by a researcher shows their ontological and epistemological viewpoints. According to Rubin and Rubin (2015), it acts as a lens through which to view the world, examines the subject under investigation, and provides instructions on who should conduct research and the extent of their studies.

According to Ogula and Onsongo (2019), a research paradigm provides guidance and obliges the researcher to adhere to a particular methodology, data representation, and interpretation of results as a framework for contemplating the concept of truth. The study employed the positivist hypothesis, which posits that corporations and other social entities possess a reality akin to that of physical objects and natural phenomena. The notion that the existence of reality is unaffected by human perception underscores the significance of engaging in empirical research and exploration in the formulation and advancement of ideas (Walliman, 2017).

Furthermore, the positivism paradigm, often associated with quantitative, conventional, and objective research, particularly when dealing with pre-established and meticulously organized data, is relevant to this research context (Scotland, 2012). According to Scotland, the generation of accurate and meaningful data relies on processes that are observable and measurable. Epistemology, in this context, is focused on identifying and investigating empirical facts and discernible patterns.

It is suggested that scientists may arrive at generalizations resembling laws by identifying causal connections within the data (Gill & Johnson, 2002). The alignment with positivism in this statement aligns with the principles of neo-empirical research and positive accounting theory, both of which are firmly grounded in empiricism and objective positivism.

The objective of this study was to analyze social phenomena by identifying laws, causal relationships, and patterns within various components of the social environment. Although it may not encompass all facets, the analysis concentrated on these specific elements. As a result, knowledge is predominantly viewed as objective in nature, serving the purpose of accurately representing reality.

This paradigm is suitable for this study because the study is grounded on theory, used quantitative data to test hypotheses and the findings were used to make generalizations.

3.2 Research Design

According to Bloomfield and Fisher (2019), a research design is the predetermined plan or blueprint that researchers employ to address a specific research question. It serves as the overarching framework for the collection, measurement, and analysis of data (Kothari, 2004). The components of a research design encompass the strategies for

conducting the study, the tools utilized for data collection, the methods for interpreting the data, and the approaches for drawing inferences.

For this study, both the longitudinal and explanatory research designs were employed. As suggested by Jöreskog, Olsson, and Wallentin (2016), this design is particularly suitable when the same measurement instruments are administered to the same individuals on two or more occasions. Hopwood, Bleidorn & Wright, (2022) highlights one of the key advantages of a longitudinal design, which lies in its capacity to monitor changes and establish various types of causal relationships. Such designs enable researchers to observe alterations and assess how a system responds to a stimulus, and how this response evolves over time.

Therefore, a longitudinal research design was suitable for this study because data was collected for each firm over the period between 2013-2023. According to Creswell (2012), an explanatory research design is “a correlational design in which the researcher is interested in the extent to which two variables co-vary.” An explanatory research design is usually employed to deduce the cause-and-effect relationship between variables (Kassa, 2021). An explanatory research design is ideal since this study seeks to examine whether audit committee financial expertise moderates the relationship between CSD and the earnings management among listed firms in EAC.

3.3 Target Population

According to Ngechu (2017), a population is a defined set of people, services, elements, events and groups or households being investigated, According to Alexander (2015), a target population is a group "about which conclusions are to be made." Therefore, the target population comprised a collection of elements upon which research findings were generalized. The study population consisted of all listed firms in East Africa partner

states. Rwanda 10, Kenya 67, Uganda 17 and Dar-es-salaam Stock Exchange 28 and Somalia Securities Exchange 7. Exclude Burundi and Democratic Republic of Congo because there are no stock exchanges operating in these countries. The study period was between 2013 -2023, the study period is ideal for several reasons. First, the Rwanda Stock Exchange opened its doors in January 2011. Second, the Nairobi Securities Exchange Limited was established in 2011 to support trading, clearing, and settlement of equity, debt, derivatives, futures and Real Estate Investment Trusts. The FTSE NSE Kenya 15 and FTSE NSE Kenya 25 Indices was introduced in November 2011. The Nairobi Securities Exchange joined the Software and Information Industry Association's (SIIA) and the Financial Information Services Division (FISD) in 2012. Third, the Uganda Securities Exchange implemented the electronic trading system for the Settlement and Clearing Depository in 2010. Fourth, the study period offers sufficient time for the EAC's stock/securities market recovery following the Global Financial Crisis (GFC) of 2008 also known as the Great Recession, which was a severe worldwide including Europe, Africa, Asia, and other regions economic crisis. Finally, there has been a number of cases relating to earnings management such as those reported from Mumias and Uchumi firms which necessitated the CBK and the CMA to enact new regulations and policies to prevent such occurrences.

3.3.1 Selection Criteria

The selection of firms depended on three main selection criteria. The first criteria were whether the firm has been operational throughout the specified research period from 2013 to 2023. The second criteria require the firm to have complete data and not have experienced significant restructuring like mergers or acquisitions during that time, as this could affect the consistency of the data. The final criterion considers cross-listed firms in the EAC, where this analysis used their data obtained from their consolidated

accounts in the country of origination. Hence target population consists of all 122 listed firms in East Africa partner states which meets the criteria for the period 2013- 2023 was used.

3.3.2 Data Collection

Pandey & Pandey, (2021) defines data collection as "the process of gathering evidence to address research questions or test research hypotheses." Similarly, Arun *et al.* (2022) characterize it as "the process of gathering, measuring, and analyzing accurate research data using standardized methods." For this study, secondary data was utilized, obtained through a structured data collection schedule. Scholars have contended that secondary data tends to be more reliable and impartial compared to primary data (Sekaran & Bougie, 2019; Vartanian, 2010). The financial reports were sourced from the companies' websites, the capital markets authority, and the African financials database.

3.4 Measurement of Variables

3.4.1 Dependent Variables

Drawing on previous literature, this study used the modified Jones model proposed by Dechow *et al.* (1995) to estimate discretionary accruals as a measure for EM behavior. A large body of earlier studies has examined EM using abnormal accruals as a proxy for earnings manipulation (Jones, 1991; Dechow *et al.*, 1995; Defond and Subramanyam, 1998; Kasznik, 1999). Therefore, in line with prior research (Carmo *et al.*, 2016; Chen *et al.*, 2011; Houque *et al.*, 2017; Karjalainen, 2011; Orazalin and Akhmetzhanov, 2019), this study uses the modified Jones model (Dechow *et al.*, 1995) to estimate EM.

$$\frac{TAt}{At - 1} = \alpha_1 \left(\frac{1}{At - 1} \right) + \alpha_2 \left[\frac{(\Delta REV_t - \Delta REC_t)}{At - 1} \right] + \alpha_3 \left(\frac{PPE_t}{At - 1} \right) + \varepsilon_{it}$$

where:

TA_t – total accruals, measured as the difference between net profit and operating cash flows from activities; A_{t-1} - total assets at the end of year t-1; ΔREV_t – the difference in operating revenues in year t and year t -1; ΔREC_t - the difference in net receivables in year t and year t-1; PPE_t - property plant and equipment at the end of year t.

As a consequence, scholars have examined two instances of earnings management: accruals management and the choice of accounting methods. Prior investigations have employed two models in their endeavor to examine accruals: Jones (1991), Dechow, Sloan and Sweeney (1995), Rangan (1998), and Teoh *et al.* (1998a, 1998b) use discretionary accruals as a measure of earnings management, whereas Healy (1985) and DeAngelo (1986) use total accruals as an alternative for earnings management. Non-discretionary accruals may be excluded from the studies on the grounds that they are utilized to reflect the condition of the business, are subject to the condition and sales growth of the firm, and are therefore beyond the control of management. Standard Jones (1991) developed the most prevalent discretionary model. Discretionary and non-discretionary accruals can be distinguished using this model. The modified Jones model, as proposed by Dechow *et al.* (1995), is achieved by adjusting changes in sales to account for changes in receivables. When discretionary accruals are implemented in place of sales, the modified model is intended to reduce measurement error. In contrast to Healy DeAngelo's industry model and the standard Jones model, Dechow *et al.* (1995) find that a modified Jones model offers the most robust examination of earnings management.

3.4.2 Independent Variables

3.4.2.1 Corporate Sustainability Disclosure

Corporate sustainability disclosure is the dependent variable. Corporate sustainability disclosure index is constructed by using “Global Reporting Initiatives (GRI)” descriptive and quantitative sustainability reporting indicators. GRI indicators employed in this study regarded as the global benchmark for sustainability disclosure (Brown *et al.*, 2009) number of firms practicing GRI standards for sustainability reporting exposure are increasing in EAC, similar to other developing economies (Mirza, 2016). Content analysis is used to identify the existence and non-existence of a specific exposure in the year wise sustainability reports, by the disclosure index constructed.

The independent variables in this study include economic, environmental and social dimensions of SR and an overall SR index. By following prior studies (Allegrini and Greco, 2013; Mahmood and Orazalin, 2017), we construct individual dimensions of SR based on a dichotomous approach assigning a value of 1 if a corresponding information is reported and 0 otherwise.

In particular, we calculate subindices for economic (ECON), environmental (ENVI) and social (SOCI) indicators of sustainability through the application of the globally recognized GRI guidelines and standards. The GRI guidelines address the importance of economic, environmental, and social performance aspects applicable for all entities (Brown *et al.*, 2009; Yadava and Sinha, 2016). Thus, the study followed the GRI-reporting standards that consist of 79 items from three main GRI-based performance indicators including economic contribution (9 items), environmental performance (30 items) and social responsibility (40 items). CSD index is calculated as the total number

of indicators received from all three individual dimensions of SR divided by the total number of indicators presented in the GRI. Thus, the total sustainability score ranges between 0 and 79, and was calculated in percentages. To measure the level of sustainability disclosure for sample companies, content analysis is performed on their respective reports. While doing content analysis, these 79 items depicting performance indicators as outlined by disclosure index are rationed a maximum score of 2 each making the total possible score of 158 (79*2). Coding is undertaken manually and focused on the analysis of the GRI content index which is necessary to be included in the sustainability report as per GRI guidelines. The scoring is done as 2: indicator fully reported; 1: indicator partially reported and 0: indicator not reported. Cases where companies stated that a specific indicator was “not material” is taken as 0 while “not applicable” is considered NA and is excluded for this reason. Therefore, all indices are presented in percentages and range from 0 to 100. The latest version of the GRI reports that GR4 guidelines were issued in 2013 and had set a 2-year period for transformation from GR3.1 to GR4. In other words, sustainability reporters must follow GR4 guidelines, effectively from January 1, 2017. Since our study covers the period 2013–2023, the study adopted the GR 4 guidelines for analysis.

The detail of GRI standards of sustainability reporting and measures of sustainability disclosure are given in appendix (Adopted from Bhatia & Tuli, 2017; Mahmood, Kouser, Ali, Ahmad & Salman, 2018).

3.4.3 Moderator Variable

3.4.3.1 Audit Committee Financial Expertise

Audit committee financial expertise is viewed as key element in audit committee characteristics, and it denotes the number of committee members with knowledge in

any business course such as accounting, finance, CPA, CIFA, MBA et.c. Consistent with Bala and Gugong (2015), this variable was measured as the ratio of the number of committee members with financial expertise to the total number of the committee members.

$$AFE = \frac{\text{Number of committee members with financial expertise}}{\text{Total number of committee members}}$$

3.4.4 Control Variables

3.4.4.1 Firm Size

Firm size, is gauged via the natural logarithm of the book value of total assets. Large firm size may affect the performance of the companies due to more official involvement and lesser growth opportunities. Following prior studies, firm size is defined as the natural log of the total firm's assets (Hirdinis, 2019). The study measured firm size as natural logarithm of Total assets.

3.4.4.2 Firm Leverage

The level and fluctuation of a company's after-tax earnings, and consequently the company's overall risk and return, are both impacted by the firm's financial leverage. The degree to which a company uses operating leverage is directly proportional to the amount of fixed operating costs it incurs; a higher amount of fixed operating costs signals a higher degree of operating leverage and, consequently, a higher level of operating risk for the company. When sales are increasing, high operating leverage is beneficial, but when sales are decreasing, it poses a concern. A company's financial leverage can be calculated by dividing the whole amount of its debts by the total amount of its equity (Abubakar, 2015).

3.4.4.3 Firm Performance

Profitability ratios are financial measurements that assess a company's capacity to produce profits by successfully and efficiently utilizing the resources at its disposal. Profitability ratios demonstrate a company's capacity for revenue generation and shareholder value. Profitability ratios have been employed in a number of studies to predict nonfinancial firm bankruptcy or financial distress (Siriopoulos & Tziogkidis, 2010; Rashid & Abbas, 2011; Dar & Qadir, 2019). This study used return to asset (ROA) as a proxy measure of profitability.

3.4.4.4 Firm Age

Firm age, is quantified as the current year's log minus the incorporation year. Older firms have more expertise and learnings, so they enjoy economies of scale (Loderer & Waelchli, 2010). New firms have to build their image in the market and bear huge costs, whereas the older firms have already reached the end stage of the product life cycle. The age of the firm is the number of years the entity has survived since its incorporation. Based on extant literature, this study measured firm age as the period of time in years the firm has served since incorporation.

Table 3. 1: Measurement of the Study Variables

Variable	Category	Symbol	Measurement	Source
Earnings Management	Dependent Variable	EM	modified Jones model	Dechow <i>et al.</i> , 1995
Economic disclosure	Independent variable	ECON	CSD index	GRI4
Environmental disclosure	Independent variable	ENVI	CSD index	GRI4
Social disclosure	Independent variable	SOCI	CSD index	GRI4
Audit Committee financial expertise	Moderating variable	ACFE	Number audit committee members with financial expertise	Badolato, Donelson & Ege, (2014).
Firm size	Control variable	FS	Natural logarithm of total assets.	Raimo <i>et al.</i> , 2020; Al-Najjar and Kilincarslan (2016).
Leverage	Control variable	LEV	Ratio of the book value of debt over the book value of equity.	Raimo <i>et al.</i> , 2020; Al-Najjar and Kilincarslan (2016).
Firm age	Control Variable	FA	current year's log minus the incorporation year.	(Loderer & Waelchli, 2010).
Firm performance	Control variable	ROA	Net income divided by net assets.	Al-Najjar and Kilincarslan (2016).

Source researcher (2024)

3.4 Data Analysis

Data analysis is described by Sharma (2008) as "the method of deriving responses to queries through the examination and interpretation of data." Data analysis involves applying logical reasoning to understand data, where consistent patterns are identified, and key findings from the investigation are summarized. The process of data analysis involves preceding steps such as data entry, data cleaning, and transforming raw data into proxies to measure research variables. Data interpretation was executed via both descriptive and inferential statistics. Descriptive statistics are utilized to summarize data through means, minimum and maximum values, and standard deviation. This study deployed Pearson's pairwise correlation to gauge the direction and size of the research variables. The hypotheses of this study were evaluated by interpreting the beta coefficients and ρ -values of the multivariate regression estimation equations.

3.5 Testing for Moderation

The study's goal was to investigate if audit committee financial expertise moderates the effect of Economic disclosure, Environmental disclosure and Social disclosure on earnings management. To test the direct and moderating effects multiple hierarchical regression with 6 estimation models were used. The first model regressed the dependent variable against the control variables. The second model regressed the dependent, controls and the predictor variables. The third regressed dependent variable on the controls, the predictor variables and moderator. The predictor variables and the moderator were mean centred before interacting them to avoid multicollinearity (Kanadli et al., 2020). The interaction terms were added hierarchically from model 4-6. Model 6 was used to test for moderation.

3.5.1 Conditions for Moderation

According to Baron and Kenny (1986), establishing a moderation effect requires meeting three critical conditions that clarify the nature of the interaction between the independent variable (IV), the dependent variable (DV), and the moderator variable (MV). First, there must be a statistically significant relationship between the independent and dependent variables, indicating a baseline association. Second, the independent variable must also demonstrate a significant relationship with the moderator. Third, and most importantly, when the interaction term—created by multiplying the independent variable and the moderator—is included in the regression model, it should significantly predict the dependent variable. This suggests that the relationship between the IV and DV varies at different levels of the moderator, confirming the presence of a moderation effect.

The significance of the interaction term goes beyond the individual effects of the IV and MV, as it captures how the MV alters or influences the strength or direction of the IV-DV relationship. Aiken and West (1991) recommend probing the interaction through simple slopes analysis and interaction plots to gain deeper insights. These techniques visually and statistically reveal how different levels of the moderator alter the primary relationship, enabling intuitive and empirical understanding of the moderation dynamics.

In this study, moderation effects were examined using Modgraphs, a specialized tool for modeling and graphing moderation interactions. Modgraphs assist in illustrating how the slope of the IV-DV relationship changes across varying levels of the moderator. There are three main types of moderation: enhancing, buffering, and antagonistic. Enhancing moderation amplifies the relationship between the IV and DV, indicating that the effect becomes stronger at higher levels of the moderator. Buffering moderation weakens or reduces the strength of the relationship, while antagonistic moderation reverses the direction of the relationship, suggesting that the IV has opposite effects on the DV depending on the level of the moderator. Identifying the type of moderation helps interpret the nature of the interaction and informs theoretical and practical implications of the findings.

3.6 Model Specification

The study used panel data for the period between 2013–2023. To examine the direct and moderating effects, the study adopted a hierarchical multiple regression model (Baron & Kenny, 1986). A series of hierarchical linear regression analysis were used to examine the hypotheses. The following model parameters and regression equations were used.

Model 1. Testing the effect of the control variables on Earnings Management.

$$EM_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 LEV_{it} + \beta_3 ROA_{it} + \beta_4 FA_{it} + \varepsilon_{it}$$

Model 2. Testing the effect of independent variable on Earnings Management.

$$EM_{it} = \beta_0 + C + \beta_1 ECON_{it} + \beta_2 ENVI_{it} + \beta_3 SOCI_{it} + \varepsilon_{it}$$

Model 3. Testing the effect of the moderator (Audit committee financial expertise) on the outcome variable (Earnings Management).

$$EM_{it} = \beta_0 + C + \beta_1 ECON_{it} + \beta_2 ENVI_{it} + \beta_3 SOCI_{it} + \beta_4 ACFE_{it} + \varepsilon_{it}$$

Model 4. Introducing the first interaction term between economic disclosures and audit committee financial expertise.

$$EM_{it} = \beta_0 + C + \beta_1 ECON_{it} + \beta_2 ENVI_{it} + \beta_3 SOCI_{it} + \beta_4 ACFE_{it} \\ + \beta_5 ECON * ACFE_{it} + \varepsilon_{it}$$

Model 5. Introducing the second interaction term between environmental disclosures and audit committee financial expertise.

$$EM_{it} = \beta_0 + C + \beta_1 ECON_{it} + \beta_2 ENVI_{it} + \beta_3 SOCI_{it} + \beta_4 ACFE_{it} \\ + \beta_5 ECON * ACFE_{it} + \beta_6 ENVI * ACFE_{it} + \varepsilon_{it}$$

Model 6. Introducing the third interaction term between social disclosures and audit committee financial expertise.

$$EM_{it} = \beta_0 + C + \beta_1 ENVI_{it} + \beta_2 SOCI_{it} + \beta_3 ECON_{it} + \beta_4 ACFE_{it} \\ + \beta_5 ECON * ACFE_{it} + \beta_6 ENVI * ACFE_{it} + \beta_7 SOCI * ACFE_{it} + \varepsilon_{it}$$

EM = Earnings Management

ENVI = Environmental disclosures of firm i at year t

SOCI = Social disclosures of firm i at year t

ECON = Economic disclosures of firm i at year t

ACFE = Audit Committee Financial expertise of firm i at year t

FS= Firm size

LEV=Leverage

ROA= Firm performance

FA=Firm age

C= Control variables

$\beta_1 \dots \beta_7$ = Coefficients of the equations

t = Time

i = Firm

ε = error term

3.7 Regression Assumptions and Diagnostic Tests

Before conducting regression analysis, it is essential to ensure that the underlying assumptions of the linear regression model and panel data estimators are not violated, as this directly affects the accuracy and validity of the results. Regression analysis relies on several key assumptions, including linearity, normality, independence (no autocorrelation), homoscedasticity (constant variance of errors), absence of multicollinearity, and correct model specification (Baltagi, 2008). When these assumptions do not hold, the resulting estimates may be biased or inefficient, leading to invalid conclusions, especially in long-term time series or panel data analyses.

According to Fox (1991), regression diagnostic tests serve as critical tools for examining the adequacy of a model by identifying potential violations of these assumptions. These diagnostics help researchers determine whether the assumptions are reasonably satisfied, thereby guiding appropriate model specification and

refinement. For instance, tests for multicollinearity help detect redundancy among predictors, while heteroscedasticity tests evaluate whether the variance of residuals remains constant across observations. Autocorrelation tests assess the independence of residuals, and model specification tests check whether the functional form of the model is correct.

Hayes (2018) also emphasizes that linear regression models require the assumptions of linearity between independent and dependent variables, multivariate normality of the residuals, no multicollinearity among predictors, and homoscedasticity. Violations of these assumptions can lead to inefficient estimators, increased standard errors, and incorrect statistical inferences.

Given that the study was based on panel data, additional diagnostic tests specific to panel structures were performed to ensure data suitability and methodological rigor. These included panel unit root tests to assess stationarity of the variables, such as Levin-Lin-Chu and Fisher-type tests; heteroscedasticity tests like the Breusch-Pagan test; and tests for autocorrelation, including the Wooldridge test for serial correlation. These panel-specific diagnostics ensured that the chosen estimation techniques—whether fixed effects, random effects, or generalized least squares—were appropriately applied, minimizing bias and improving the reliability of the results.

3.7.1 Unit Root

Unit root testing is a critical preliminary step in regression analysis, particularly when dealing with time series or panel data. This is because standard econometric techniques, such as ordinary least squares (OLS), rely on the assumption that the variables involved are stationary. Stationarity implies that the statistical properties of a variable—such as its mean, variance, and autocorrelation structure—remain constant over time

(Phinyomark et al., 2014). When a series is non-stationary, it exhibits a unit root, meaning that shocks to the series have a permanent effect, and the series may exhibit trends or random walks. The presence of a unit root violates key regression assumptions and can result in misleading statistical inferences, including spurious regression results, unreliable coefficient estimates, and invalid hypothesis testing using t-tests and F-tests.

To ensure the validity of the regression model, this study conducted multiple unit root tests to assess the stationarity of the panel data. The tests used included the Levin-Lin-Chu (LLC) test (Levin, Lin, & Chu, 2002), the Fisher-type Augmented Dickey-Fuller (ADF) test, and the Breitung test. Each of these tests has its methodological advantages and is suited for different panel data structures. The null hypothesis (H_0) for all three tests states that the panels contain unit roots, implying non-stationarity, while the alternative hypothesis (H_1) suggests that the panels are stationary. According to the decision rule, if the p-value for the test result is less than 0.05, the null hypothesis is rejected, and it is concluded that the data is stationary. Establishing stationarity through these tests was essential to proceed with regression analysis, ensuring that the statistical estimates generated were robust, valid, and reliable.

3.7.2 Multicollinearity

Multicollinearity refers to a statistical phenomenon in which two or more independent variables in a regression model are highly correlated, making it difficult to isolate the individual effect of each predictor on the dependent variable. Zweifel, Felder, and Werblow (2004) define multicollinearity as a "near-perfect linear dependence among explanatory variables that hinders the ability to differentiate between them – as indicated by high standard errors of coefficients and consequent lack of significance." When multicollinearity is present, it inflates the variance of the coefficient estimates

and undermines the reliability of statistical inferences, such as hypothesis tests. As a result, even though variables may have a genuine relationship with the dependent variable, they may appear statistically insignificant due to distorted standard errors.

In this study, the Variance Inflation Factor (VIF) was employed as the primary diagnostic tool for detecting multicollinearity. VIF measures how much the variance of a regression coefficient is inflated due to multicollinearity. A commonly accepted rule of thumb is that VIF values exceeding 10 suggest problematic levels of multicollinearity (Gujarati & Porter, 2009). Additionally, tolerance, which is the reciprocal of VIF, was also assessed, with values greater than 0.10 indicating acceptable levels of collinearity (Fidell, 2001). When VIF values were found to exceed the threshold, indicating multicollinearity, appropriate corrective measures were taken. These included removing or combining highly correlated variables or redefining the variables to reduce redundancy. These steps ensured the stability and validity of the regression results and enhanced the interpretability of the model coefficients.

3.7.3 Homoscedasticity

Homoscedasticity is a fundamental assumption in linear regression analysis which implies that the variance of the error terms remains constant across all levels of the independent variables. According to Al-Juaidi (2018), homoscedasticity assumes that the error is uniform for all values of the predictors, meaning that the spread or dispersion of the residuals does not vary with changes in the values of the independent variables. When this assumption is violated, heteroscedasticity arises, whereby the error term exhibits unequal variances across different values of the regressors. The presence of heteroscedasticity poses several challenges to the validity of statistical inference. It does not bias the coefficient estimates, but it renders the standard errors unreliable, leading

to invalid hypothesis tests, incorrect confidence intervals, and compromised statistical power (Wooldridge, 2013).

To assess whether homoscedasticity holds in this study, the Breusch-Pagan test was utilized. This test specifically detects whether the residuals from a regression model have constant variance. The null hypothesis (H_0) of the Breusch-Pagan test asserts that the residuals are homoscedastic, while the alternative hypothesis (H_1) suggests the presence of heteroscedasticity. If the p-value of the test's Chi-square statistic is greater than 0.05, the null hypothesis cannot be rejected, indicating that the assumption of constant variance holds. Conversely, a p-value below 0.05 signals the presence of heteroscedasticity.

In cases where heteroscedasticity was detected in this study, the problem was addressed using the White correction method, also known as heteroscedasticity-consistent standard error correction (Chatagny & Soguel, 2012). This method adjusts the standard errors to account for heteroscedasticity, allowing for valid hypothesis testing and confidence interval estimation even when the assumption of constant error variance is violated.

3.7.4 Autocorrelation

Autocorrelation, also known as serial correlation, occurs when the residuals or errors in a regression model are not independent across time but instead exhibit correlation with their own past values. Gujarati (2012) defines autocorrelation as the "correlation among observations in a series, arranged according to time." This phenomenon commonly arises in time series and panel data where the assumption of independence among error terms is violated. The presence of autocorrelation in a model has serious implications as it can lead to biased and inefficient estimates of standard errors, which

in turn distorts the validity of inferential statistics such as the t-test, F-test, and χ^2 (chi-square) test. These distortions increase the risk of making incorrect conclusions regarding the significance of explanatory variables.

To detect autocorrelation in this study, the Wooldridge test for autocorrelation in panel data was employed. The null hypothesis (H_0) of the Wooldridge test posits that there is no first-order serial correlation in the idiosyncratic errors, while the alternative hypothesis (H_1) suggests the presence of such correlation. A p-value greater than 0.05 indicates that the null hypothesis cannot be rejected, implying the absence of autocorrelation. However, if the p-value is less than 0.05, the null is rejected and autocorrelation is confirmed. In instances where autocorrelation was detected, the issue was addressed through the method of first differencing. This technique involves transforming the data by subtracting the previous observation from the current one, effectively eliminating the autocorrelation and ensuring the model's assumptions are met for reliable estimation.

3.7.5 Model Misspecification

Ramsey (1969) advanced the "Regression Specification Error Test" (RESET) for the linear regression model as a conventional misspecification test. This test was developed to detect both omitted variables and incorrect functional form. In order to determine whether the model specification is erroneous, the testing approach compares the residuals' distribution under the correct model specification against that under the alternative hypothesis. The null hypothesis of no misspecification conjectures there will exist an efficient, consistent, and asymptotically normal estimator of the regression parameters. Conversely, the alternative hypothesis of model misspecification, hold that the estimator was biased and inconsistent (Hausman, 1978). The null (H_0) of the

Ramsey RESET test is that there is no mis-specification in the model, while the alternative (H_a) is that there is mis-specification. Therefore, we fail to reject the null hypothesis if the p-value of the test is greater than 0.05. If there are omitted variables, the treatment is to introduce more predictor variable or to change the estimation model.

The selection between fixed effect and random effect regression is reliant on the Hausman test outcomes. The fixed effect regression allows for the control of time-invariant unobserved effects that could correlate with observed independent variables. The fixed-effect model supposes that any time-invariant attributes are individual specific and will not correlate with others' traits. The random effect model assumes that the variation across entities is random and unrelated to independent variables (Greene 2003). The Hausman test entails two hypotheses:

Ho. (Null hypothesis) where the preferred model is random-effect

Ha. (The alternative hypothesis) where the preferred model is fixed-effect.

If p -value < 0.05 , the null hypothesis was rejected, and the fixed-effect model should be used; otherwise, the random-effect model.

3.8 Ethical Considerations

This study was conducted in strict adherence to ethical research standards. The primary data sources were financial reports of firms listed and traded on the stock market, which are publicly available for investor analysis and general public use. As such, the data utilized were not confidential or privately held, eliminating the risk of breaching proprietary or sensitive information. This public availability of data aligns with ethical guidelines that prioritize transparency and respect for privacy. Moreover, all secondary data and information drawn from published materials were appropriately cited within

the study, and corresponding references were included in the reference list, ensuring intellectual honesty and avoiding plagiarism. In compliance with regulatory requirements for conducting academic research in Kenya, the researcher obtained formal ethical approval through a research permit issued by the National Commission for Science, Technology and Innovation (NACOSTI). This process involved submitting a comprehensive research proposal and securing endorsement from the affiliated academic institution. Seeking the NACOSTI permit demonstrated the researcher's commitment to accountability, research integrity, and adherence to legal frameworks governing research conduct in Kenya. By fulfilling these ethical obligations, the study safeguarded the rights of institutions involved and upheld the integrity of the research process from inception to completion.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Overview

This chapter presents the results from all those procedures and analyses. The findings are presented in five key sections; descriptive statistics, diagnostic tests, correlation analysis, hypotheses testing, and mediation results.

4.1 Descriptive Statistics

The descriptive statistics for the research variable over the period 2013 to 2023 are presented in table 4.1 as shown below.

Table 4.1: Summary Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
EM	715	.0316329	.3376265	-1.015912	.976693
FA	715	1.470013	.384888	0	2.103804
FS	715	7.767341	1.647555	4.04914	12.96864
FP	715	.0713753	.3483157	-8.18046	.7726612
FL	715	2.315173	5.951875	-25.90048	96.61061
ECO	715	.3557289	.2385377	0	.9230769
ENVI	715	.1473339	.1795663	0	.859375
SOCI	715	.2547552	.196816	0	.8
ACFE	715	2.709091	1.843108	0	7

Source: Researcher 2024

The descriptive statistics for the untransformed data are presented in Table 4.1. The mean value of earnings management is 0.0316329, which indicates that, on average, firms slightly engage in earnings manipulation. However, the standard deviation of 0.3376265 signifies a notable variation among firms. The minimum value is -1.015912, and the maximum is 0.976693, showing that while some firms significantly underreport earnings, others overreport them, leading to a wide range of practices in earnings management.

The firm age variable, measured in its logarithmic form, has a mean of 1.470013. This suggests that the firms in the dataset are relatively well-established on average. The standard deviation of 0.384888 reflects moderate variability in the age of the firms. The minimum value of 0 represents newly established firms, while the maximum value of 2.103804 indicates the presence of older firms in the sample. The spread of values highlights the inclusion of both new and long-standing firms, providing a broad perspective on the age distribution within the dataset.

The firm size variable, also measured logarithmically, has a mean of 7.767341. This suggests that the firms in the sample tend to be relatively large. The standard deviation of 1.647555 indicates significant variability in firm sizes. The minimum value of 4.04914 and the maximum value of 12.96864 demonstrate a wide range of firm sizes, from smaller to very large firms. This considerable range suggests that the dataset encompasses firms of various sizes, which can provide insights into how firm size affects other variables such as performance and leverage.

With a mean of 0.0713753, firm performance on average is slightly positive. The standard deviation of 0.3483157 shows moderate variability among firms. The performance ranges from a minimum of -8.18046 to a maximum of 0.7726612, indicating that while some firms experience significant negative performance, others perform quite well, contributing to a broad performance spectrum.

The mean firm leverage is 2.315173, indicating that on average, firms have a moderate level of debt. However, the high standard deviation of 5.951875 points to significant variability in leverage levels among firms. The minimum value of -25.90048 suggests some firms have net cash positions, while the maximum value of 96.61061 indicates that some firms are highly leveraged, resulting in a wide range of leverage ratios.

The mean score for economic disclosures is 0.3557289, showing that firms, on average, disclose a moderate amount of economic information. The standard deviation of 0.2385377 suggests there is variability in the extent of these disclosures. With a range from 0 to 0.9230769, it is evident that some firms do not disclose any economic information, while others disclose extensively, highlighting diverse disclosure practices.

The mean value for environmental disclosures is 0.1473339, indicating that environmental information disclosure is relatively low among firms. The standard deviation of 0.1795663 reflects moderate variability in disclosure levels. The minimum value is 0, and the maximum value is 0.859375, showing that while some firms do not engage in environmental disclosures, others provide significant information, reflecting a range of environmental transparency.

The mean score for social disclosures is 0.2547552, suggesting that firms tend to disclose a low moderate amount of social information. The standard deviation of 0.196816 indicates moderate variability in these disclosures. The range from 0 to 0.8 signifies that some firms do not engage in social disclosures at all, while others disclose extensively, indicating a wide range of practices.

The mean number of audit committee members with financial expertise is 2.709091, indicating that most firms have several members with financial expertise on their audit committees. The standard deviation of 1.843108 reflects considerable variability in the expertise levels across firms. The minimum value of 0 and the maximum value of 7 show that while some firms have no financial experts on their audit committees, others have up to seven, demonstrating a wide range of audit committee expertise.

4.2 Robustness Checks

Prior to regression analyses, the data was subjected to several robustness tests. Namely, the multicollinearity, unit root test, test for heteroscedasticity, autocorrelation test, and specification error test

4.2.1 Unit Root Test

Econometric models produce non-sensible or spurious regression results if data is non-stationary (Gujarati, 2012). Non-stationary data refers to a data series that does not have a constant mean, variance, and auto-covariance at various lags over time (Hossain & Hossain, 2015).

Though recent, it is increasingly becoming essential to check stationarity in panel data (Maddala & Wu, 1999). Testing for stationarity means that the mean and variance of variables are time-invariant. In economics and finance, time related or seasonal shocks of one period may strongly influence subsequent periods. This study applied Harris-Tzavalis unit-root test. The following hypotheses were considered in conducting the unit root test.

Null hypothesis (H₀): Panel data contains unit root [non-stationary].

The alternative hypothesis (H_a): Panel data is stationary.

Considering the p - values shown in Table 4.2, the null hypothesis was rejected at all conventional significance levels for all the study variables; implying that there was no unit root in the panel data and that the data was suitable for statistical analysis.

Table 4. 2: Results of Unit Root Test

		Harris-Tzavalis
FA		-0.1615
	p value	0.00
FS		-0.7858
	p value	0.00
FP		-0.1615
	p value	0.00
FL		-0.5136
	P value	0.00
ECO		0.1700
	p value	0.00
ENVI		0.5940
	p value	0.00
SOCI		0.1893
	p value	0.00
ACFE		0.5912
	p value	0.00

Source: Researcher 2024

4.2.2 Autocorrelation Test

Wooldridge test for autocorrelation was used to check for autocorrelation. The Wooldridge test for autocorrelation in panel data is used to detect the presence of first-order autocorrelation, where the null hypothesis (H_0) asserts that there is no first-order autocorrelation in the data. In the given results, the F-statistic is 0.024 with a probability ($\text{Prob} > F$) of 0.8775. This p-value is significantly higher than the 5 percent level of significance indicating that we fail to reject the null hypothesis. Therefore, based on the Wooldridge test, there is no evidence of first-order autocorrelation in the panel data. This result suggests that the residuals from the panel data regression model are not significantly correlated with their own lagged values, implying that the model does not suffer from autocorrelation issues. Consequently, the assumptions of the regression model regarding the independence of residuals are likely satisfied, enhancing the reliability of the model's estimates. Therefore, the test's null hypothesis that there is no first order correlation cannot be rejected.

Table 4. 3: Wooldridge test for autocorrelation

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
$F(1, 64) = 0.024$
Prob > F = 0.8775

Source: Researcher 2024

4.2.3 Multicollinearity

Multicollinearity implies that two or more of the predictor variables are highly correlated. The study used the Variance inflation factor (VIF) and the correlation matrix to check for the presence or absence of multicollinearity. Multicollinearity is present if the VIF value is higher than 10 (Gujarati, 2012) or the pairwise correlation coefficients are greater than 0.8. Table 4.5 indicates that the VIF values range between 1.01 and 3.77; which, are less than 10, implying the research variables do not suffer from multicollinearity. The mean VIF of 2.11 indicates that, on average, the variables in the model exhibit low to moderate multicollinearity. This overall low mean value supports the conclusion that multicollinearity is not a significant issue for this regression model. The variables can be included without major concerns about inflated standard errors or unreliable coefficient estimates.

Table 4. 4: Variance Inflation Factor

Variable	VIF	1/VIF
FA	1.51	0.664078
FS	1.01	0.991445
FP	1.68	0.593975
FL	2.05	0.486657
ECO	2.62	0.382289
ENVI	2.17	0.461754
SOCI	3.77	0.265059
ACFE	2.06	0.486032
Mean VIF	2.11	

Source: Researcher 2024

4.2.4 Test for Heteroskedasticity

The Breusch-Pagan/ Cook-Weisberg test were used to test for heteroskedasticity, and the results are presented in Table 4.6. The test uses a cluster-robust standard error estimator to control heteroskedasticity. Using this robust standard error estimator (cluster), the study assumed that observations should be independent across clusters. The Breusch-Pagan / Cook-Weisberg test for heteroscedasticity yields a chi-square value of 3.18 with a p-value of 0.0746. Since the p-value is greater than the common significance level of 0.05, we fail to reject the null hypothesis of homoscedasticity. This suggests that there is no strong evidence of heteroscedasticity in the regression model at the 5% significance level.

Ho: **Constant variance**

Table 4. 5: Breusch-Pagan / Cook-Weisberg Test for Heteroscedasticity

Variables: residuals	
chi2(1) =	3.18
Prob > chi2 =	0.0746

Source: Author 2024

4.2.5 Specification Error Test

Table 4.6 highlights the results of the Ramsey RESET test. The Ramsey RESET test evaluates whether a regression model has omitted variables by testing the null hypothesis (H0) that the model has no omitted variables. In this case, the test yields an F-statistic of 1.63 with a p-value of 0.1811. Since the p-value is significantly greater than the common significance level of 0.05, we fail to reject the null hypothesis. This indicates that there is no strong evidence of omitted variable bias in the model, suggesting that the model is correctly specified in terms of including all relevant variables.

Table 4. 6: Ramsey RESET

Ho:	model has no omitted	Variables
	F(3, 710) =	1.63
	Prob > F =	0.1811

Source: Researcher 2024

4.2.6 Correlation Analysis

The purpose of correlation analysis is to understand the nature and magnitude of the relationship between research variables. The pairwise correlation coefficients for the study variables are presented in table 4.8. The positive correlation between earnings management and firm age ($r = 0.2410$, $*p < 0.05$) suggests a moderate positive relationship. This indicates that older firms tend to engage more in earnings management practices, and this result is statistically significant at the 5% level. There is a very strong positive correlation between earnings management and firm size ($r = 0.9308$, $*p < 0.05$). This significant relationship suggests that larger firms are more likely to engage in earnings management, with the result being highly statistically significant at the 5% level. The correlation between earnings management and firm performance is moderately positive ($r = 0.2979$, $*p < 0.05$), indicating that better-performing firms are somewhat more likely to engage in earnings management, and this relationship is statistically significant at the 5% level. The correlation between earnings management and firm leverage is very weak ($r = 0.0323$), and not statistically significant. This suggests that the level of debt in a firm has little to no relationship with its earnings management practices.

The correlation between earnings management and economic disclosures (GRI) is positive ($r = 0.1085$, $*p < 0.05$), indicating that firms with more economic disclosures tend to have slightly higher earnings management. This relationship is statistically

significant at the 5% level, though the effect size is small. There is a positive correlation between earnings management and environmental disclosures (GRI) ($r = 0.1469$, $*p < 0.05$), suggesting that firms with higher levels of environmental disclosures are more likely to engage in earnings management. This relationship is statistically significant at the 5% level. The correlation between earnings management and social disclosures (GRI) is also positive ($r = 0.0878$, $*p < 0.05$), but weak. This suggests that while there is a slight positive relationship between social disclosures and earnings management, the effect is minimal and statistically significant at the 5% level. The correlation between earnings management and audit committee financial expertise is very weak ($r = 0.0091$) and not statistically significant. This suggests that the level of financial expertise in the audit committee does not have a notable impact on earnings management practices.

Table 4. 7: Pairwise Correlation Matrix

	EM	FA	FS	FP	FL	ECO	ENVI	SOCI	ACFE
EM	1.0000								
FA	0.2410*	1.0000							
FS	0.9308*	0.0163	1.0000						
FP	0.2979*	0.5705*	0.0408	1.0000					
FL	0.0323	0.0044	0.0520	0.0009	1.0000				
ECO	0.1085*	0.2229*	-0.0422	0.2855*	0.0028	1.0000			
ENVI	0.1469*	0.2394*	-0.0098	0.4041*	0.0018	0.5067*	1.0000		
SOCI	0.0878*	0.1628*	-0.0327	0.3235*	0.0027	0.7772*	0.6985*	1.0000	
ACFE	0.0091	-0.0138	0.0262	-0.0049	0.7141*	-0.0511	-0.0265	-0.0489	1.0000

* $p < .05$

Source: Researcher, 2024

4.3 Regression Analysis

Several regression analyses were done since the study was testing the moderating effect of audit committee financial expertise on the relationship between corporate sustainability disclosures and earnings management. The first model tested for the

effect of the control variables on the outcome variable. The second model was used to determine the effect of the predictor variables on the outcome variable. The third model was used to determine the effect of the moderator variable on the outcome variable. The model 4,5 and model 6 were used to ascertain the significance of the moderation by interacting the moderator variable with each of the independent variables respectively in a hierarchical manner.

4.3.1 The Effect of the Control Variables on Earnings Management

The regression results for earnings management and the control variables are presented in table 4.8. Based on the results of the Hausman Test (Appendix IV), the random effect model is used for interpretations. The random-effects generalized least squares (GLS) regression results provide insights into the relationship between various control variables (firm age, firm size, firm performance, and firm leverage) and the dependent variable, earnings management (EM). The overall fit of the model is strong, with an R-squared value of 0.9428, indicating that the model explains approximately 94.28% of the total variance in earnings management. The within-group R-squared is 0.9722, and the between-group R-squared is 0.8373, suggesting that the model accounts for a significant proportion of both within-group and between-group variations. The Wald chi-squared test for the overall significance of the model is highly significant (Wald $\chi^2(6) = 16739.55$, $p < 0.0000$), confirming that the control variables collectively have a statistically significant effect on earnings management. The random-effects component of the model shows that a significant portion of the variance in earnings management is explained by differences between firms ($\sigma_u = 0.13179708$), with the remaining variance coming from within firms ($\sigma_e = 0.17170177$). The Rho value of 0.37075219 indicates that approximately 37.1% of the total variance in

earnings management is attributable to unobserved, firm-specific factors, suggesting a substantial degree of heterogeneity across firms that influences earnings management.

Table 4.8: Testing the effect of control variables on earnings management

Random-effects GLS regression	Number of obs	=	585			
Group variable: companyid	Number of groups	=	65			
R-sq: within = 0.9722	Obs per group: min	=	9			
between = 0.8373	Avg	=	9.0			
overall = 0.9428	Max	=	9			
	Wald chi2(6)	=	16739.55			
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000			
EM	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
FA	.0428849	.0102358	4.19	0.000	.0228232	.0629467
FS	.9608435	.0075288	127.62	0.000	.9460874	.9755997
FP	.243245	.0153533	15.84	0.000	.2131531	.273337
FL	-.0184558	.0075655	-2.44	0.015	-.033284	-.0036277
_cons	.0046515	.0189483	0.25	0.806	-.0324865	.0417894
sigma_u	.13179708					
sigma_e	.17170177					
Rho	.37075219	(fraction of variance due to u_i)				

Source: Researcher (2024)

Based on the findings older firms are more likely to engage in earnings management compared to younger ones. The results are similar to those reported by Khanh and Nguyen (2018) among Vietnamese listed firms and Wang and Campbell (2012) who examined Chinese domestically listed firms. The findings can be attributed to information asymmetry and agency problem that encourage managers to engage in earnings manipulations. As a results, managers have tendency to engage in real earnings management, which can be concealed as normal business transactions and more difficult to be discovered. Firm size had a positive effect on earnings management. Alves (2011) found similar findings among Portugal firms; however, Khanh and

Nguyen (2018) claim a negative association. Large firms have huge discretionary accruals than smaller companies; therefore, more likely to engage in earnings management. Firm profitability (as measured by ROA) has a significantly positive effects on earnings management. The findings are consistent with those by Chen, Elder and Hsieh (2007) who studied Taiwanese listed companies. However, a study by Orazalin (2019) claims that profitable companies are less likely to engage in earnings management. The positive association between ROA and EM support the argument that managers are motivated to engage in earnings manipulations to dress up the firm performance and lengthen the increasing series of earnings or forecasts by financial analysts.

Firm leverage, often measured by the debt-to-equity ratio, may have a significantly negative effect on earnings management for several reasons related to the monitoring and financial constraints associated with high levels of debt. Firms with high leverage are typically subject to stricter scrutiny from lenders, investors, and regulatory bodies, which reduces the ability and incentive for managers to engage in earnings manipulation. Increased leverage raises the financial risk of the firm, making accurate and transparent financial reporting crucial for maintaining credibility and minimizing the risk of default (Jones, 1991).

One important aspect is the role of debt covenants, which are clauses in loan agreements that require firms to meet certain financial metrics, such as minimum earnings levels, liquidity ratios, or debt service coverage ratios. When firms have higher leverage, the likelihood of violating these covenants increases, which can lead to penalties, higher borrowing costs, or even default. To avoid breaching such covenants, firms are incentivized to report earnings transparently, rather than manipulating them. Thus, high

leverage might encourage firms to adopt more conservative accounting practices, as they seek to maintain a clean financial record and avoid the consequences of failing to meet debt covenants (Watts & Zimmerman, 1986).

Additionally, the discipline imposed by debt holders may limit earnings management practices. Lenders and bondholders often have more power to monitor and influence a firm's financial reporting, particularly when the firm has substantial debt obligations. These stakeholders typically prefer transparent financial statements, as they are more concerned with the firm's ability to service its debt in the long run. As a result, managers in highly leveraged firms may face greater pressure to provide accurate, consistent earnings reports that reflect the firm's true financial condition, which can reduce the temptation or opportunity for earnings manipulation (Beneish, 2001).

4.3.2 Testing the effect of corporate sustainability disclosures on earnings management

The regression results for corporate sustainability disclosures on earnings management are presented in table 4.9. The Hausman Test (Appendix IV) supported the use of the random effect model to test the direct hypotheses. The random-effects generalized least squares (GLS) regression results reveal significant insights into the relationship between independent variables and earnings management (EM). The model exhibits a high overall fit, with an R-squared value of 0.9499, indicating that the model explains 94.99% of the total variance in earnings management. The within-group R-squared value is 0.9717, and the between-group R-squared value is 0.8722, suggesting that both individual firm characteristics and differences between firms are important in explaining earnings management practices. The Wald chi-squared test for the overall significance of the model is highly significant (Wald $\chi^2(10) = 16408.89$, $p < 0.0000$),

indicating that the independent variables together have a strong statistical influence on earnings management. The random-effects component of the model shows that a portion of the variance in earnings management is attributable to firm-specific characteristics ($\sigma_u = 0.10958684$), with the remainder due to within-firm variation ($\sigma_e = 0.17184802$). The Rho value of 0.2890944 suggests that approximately 28.91% of the total variance in earnings management is due to unobserved, firm-specific factors.

Table 4.9: Testing the Direct Effects

Random-effects GLS regression	Number of obs	=	585			
Group variable: companyid	Number of groups	=	65			
R-sq: within = 0.9717	Obs per group: min	=	9			
between = 0.8722	Avg	=	9.0			
overall = 0.9499	Max	=	9			
	Wald chi2(10)	=	16408.89			
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000			
EM	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
FA	.0451153	.0103188	4.37	0.000	.0248907	.0653398
FS	.9625128	.0077882	123.59	0.000	.9472483	.9777773
FP	.2256339	.0151174	14.93	0.000	.1960044	.2552634
FL	-.018542	.0076961	-2.41	0.016	-.033626	-.003458
ECO	.0818228	.0233831	3.50	0.000	.0359929	.1276528
ENVI	.066122	.0192427	3.44	0.001	.028407	.103837
SOCI	-.0843455	.0264211	-3.19	0.001	-.1361299	-.0325612
_cons	.0038229	.016574	0.23	0.818	-.0286615	.0363073
sigma_u	.10958684					
sigma_e	.17184802					
Rho	.2890944	(fraction of variance due to u_i)				

Source: Researcher (2024)

The results of the random effect regression presented in Table 4.9 were used to test the three direct hypotheses as discussed below

Hypothesis (H₀₁) stated that : *Economic disclosures has no significant effect on earnings management among listed firms in East Africa:* The results presented in Table 4.9 show that economic disclosures has a significant positive effect on earnings management ($\beta_1 = 0.0818$ and $\rho\text{-value} < 0.05$); hence, (H₀₁) was rejected. Further, a unit increase in economic disclosure led to a 0.0818 unit increase in earnings management. Leuz & Wysocki, (2016); Salem et al., (2021); Yuan, Li, Xu & Shang, (2022) found similar results; however, the findings of this study suggests that economic disclosures create opportunities for management to manipulate earnings to present the company in a favorable light.

Hypothesis (H₀₂) stated that: *Environmental disclosures has no significant effect on earnings management among listed firms in East Africa* The results indicate a significantly positive association between environmental disclosures and earnings management ($\beta_2 = 0.0661$, $\rho < 0.05$); therefore H₀₂ is rejected. The results are supported by previous studies (Flammer, 2013; Sun, Salama, Hussainey & Habbash, 2010; Christofi, Christofi & Sisaye, 2012). Based on the regression results a unit increase in environmental disclosures increases earnings management by 0.0661 units. Outside directors perform an important monitoring function in public companies. Management may be incentivized to engage in earnings management to align the financial performance with the positive environmental narrative they are promoting. By manipulating earnings, companies can create a perception of financial stability and profitability that supports their claims of being environmentally responsible, thereby enhancing their reputation and potentially attracting environmentally conscious investors (Wedari, Jubb & Moradi-Motlagh, 2021).

Hypothesis (H₀₃) stated that; *social disclosures expertise has no significant effect on earnings management among listed firms in East Africa*. The regression results in Table 4.9 illustrate that social disclosures had a negative significant effect on EM ($\beta_3 = -0.084$ and $p < 0.05$); thus, H₀₃ is rejected. The results are supported by previous empirical studies (Hess, 2008; Muttakin, Khan & Azim, 2015; Choi, Lee & Park, 2013). From the results, a unit increase in social disclosures would lead to a 0.084 decrease in the EM. These disclosures typically include information on labor practices, community engagement, human rights, and social equity. When companies provide detailed social disclosures, they commit to higher standards of ethical behavior and corporate governance, which discourages earnings manipulation. Transparent social reporting requires companies to align their financial reporting with their ethical and social commitments, reducing the likelihood of deceptive financial practices (Dhaliwal, Li, Tsang, & Yang, 2011).

4.3.3 The moderating effect of audit committee financial expertise

Since the study's main objective was to examine whether audit committee financial expertise moderates the relationship between corporate sustainability disclosures and earnings management. This is in accordance with Baron and Kenny (1986) who contend that the moderator must be significantly related to the outcome variable. To achieve this, the study regressed the outcome variable against the moderating variable while controlling for the independent variable. The regression results are presented in table 4.10 as shown below.

Table 4.10: Regression of audit committee financial expertise on earnings management

Random-effects GLS regression	Number of obs	=	585				
Group variable: companyid	Number of groups	=	65				
R-sq: within = 0.9728	Obs per group: min	=	9				
between = 0.8647	Avg	=	9.0				
overall = 0.9492	Max	=	9				
	Wald chi2(7)	=	16831.9				
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000				
EM	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]	
FA	.0448477	.0102002	4.40	0.000	.0248556	.0648398	
FS	.9629355	.0076947	125.14	0.000	.9478543	.9780168	
FP	.225833	.0150605	15.00	0.000	.196315	.255351	
FL	-.0479602	.0114196	-4.20	0.000	-.0703421	-.0255782	
ECO	.0820711	.0233919	3.51	0.000	.0362238	.1279184	
ENVI	.065494	.0191991	3.41	0.001	.0278645	.1031236	
SOCI	-.0832595	.0263839	-3.16	0.002	-.1349711	-.031548	
ACFE	.0389244	.0112828	3.45	0.001	.0168106	.0610382	
_cons	.0036285	.0166647	0.22	0.828	-.0290338	.0362908	
sigma_u	.10987655						
sigma_e	.16825702						
Rho	.29895679	(fraction of variance due to u_i)					

Source: Researcher (2024)

According to table 4.11 above, audit committee financial expertise have a positive and significant effect on earnings management ($\beta = 0.0389244$ and $p < 0.05$). The positive and significant effect of audit committee financial expertise on earnings management suggests that firms with financially knowledgeable audit committee members are more likely to engage in earnings management. Financially skilled audit committees may have a better understanding of complex financial reporting techniques and accounting rules, potentially allowing them to manipulate earnings to meet firm objectives or stakeholder expectations (Chen & Komal, 2018). This expertise could provide the

committee with the tools necessary to identify opportunities for earnings manipulation while still maintaining the appearance of compliance with regulatory standards (Agrawal & Chadha, 2005). As a result, the higher the financial expertise within the audit committee, the more likely the firm is to engage in earnings management practices. These findings contradict a study that was done by Badolato, Donelson & Ege, M. (2014).

4.3.4 The moderating effect of audit committee financial expertise on the relationship between corporate sustainability disclosures and earnings management

Hypothesis H₀₄ to H_{06s} sought to determine whether audit committee financial expertise moderates the relationship between corporate sustainability disclosures and earnings management. To establish the moderating effect the interaction terms were entered in a stepwise manner from model 4-model 6. The random effect results of model 6 were used to test the moderating effect. The summarized moderation results are reported in model 6 shown in table 4.11 and the hypotheses tested as follows:

Hypothesis (H_{4a}) stated that; *Audit committee financial expertise does not significantly moderate the relationship between Economic disclosure and earnings management among listed firms in EAC.* The regression results show that audit committee financial expertise significantly moderate the relationship between economic disclosures and earnings management ($\beta = -1.125$ and $p < 0.05$); hence hypothesis H_{04a} was rejected. The moderation results are further analyzed using a modgraph as shown below.

Figure 4.1 below shows that earnings management is minimal with high audit committee financial expertise and high economic disclosures. Earnings management is minimized when there is high audit committee financial expertise and robust economic

disclosures because these elements collectively enhance corporate governance and transparency. Financially knowledgeable audit committees are adept at identifying and mitigating accounting irregularities due to their deep understanding of financial reporting and accounting standards (Goh, 2009). Their expertise allows them to effectively oversee the financial reporting process, reducing the likelihood of earnings manipulation. Additionally, extensive economic disclosures increase transparency, providing a clear and detailed view of the company's financial health and performance to stakeholders. This transparency acts as a deterrent to earnings management by increasing the scrutiny from external parties such as investors, regulators, and analysts (Healy & Palepu, 2001). Therefore, the combination of rigorous oversight by a skilled audit committee and the pressure to maintain transparency through detailed economic disclosures creates an environment where earnings management is less likely to occur.

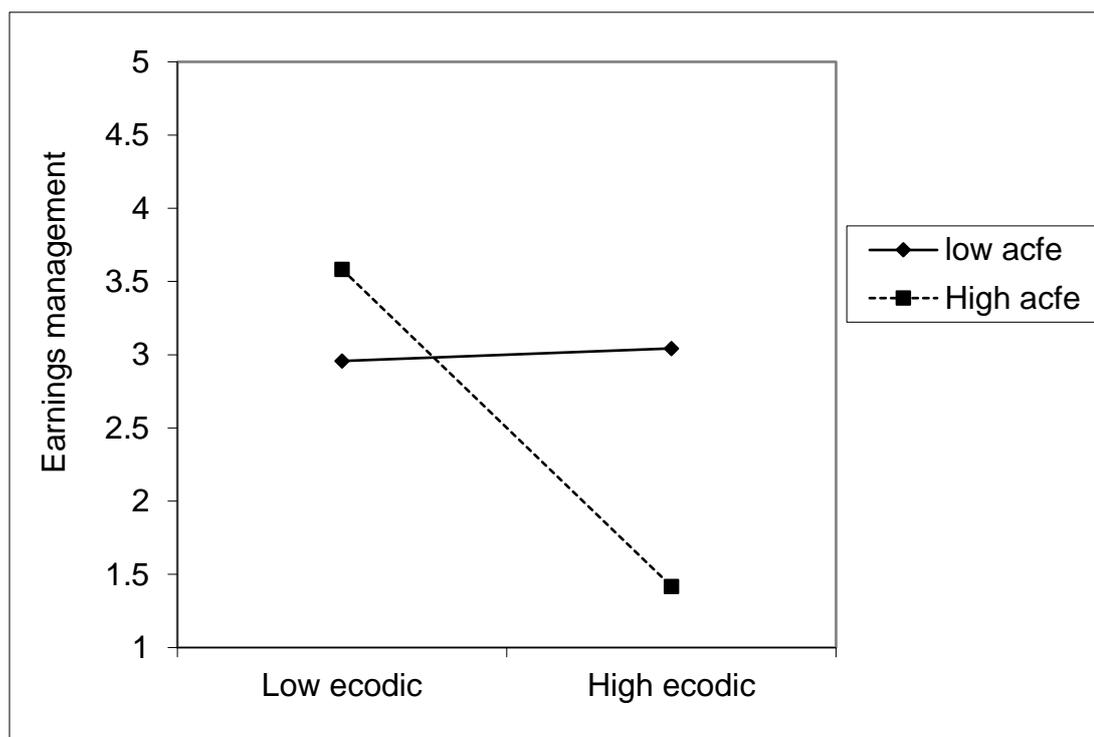


Figure 4.1: Modgraph for economic disclosures, audit committee financial expertise and earnings management

Hypothesis (H4_b) stated that; *Audit committee financial expertise does not significantly moderate the relationship between environmental disclosures and earnings management among listed firms in EAC.* The results audit committee financial expertise does not moderate the relationship between environmental disclosures and earnings management ($\beta = -0.0546$ and $\rho > 0.05$). Consequently, hypothesis H04_b was accepted.

Hypothesis (H4_c) stated that; *Audit committee financial expertise does not significantly moderate the relationship between social disclosures and earnings management among listed firms in EAC.* Based on the regression results of model 6 ($\beta = 0.0785986$ and $\rho < 0.05$) H04_c was rejected and the study concluded that audit committee financial expertise moderated the relationship between social disclosures and earnings management. Therefore, hypothesis H4_c is rejected. Figure 4.2 below shows that earnings management is low where social disclosures is low and audit committee financial expertise is high. Earnings management is typically low in scenarios where social disclosures are low, and audit committee financial expertise is high because the rigorous financial oversight provided by an expert audit committee compensates for the lack of extensive social disclosures. Audit committees with substantial financial expertise are highly effective in scrutinizing financial reports and identifying any attempts at earnings manipulation due to their in-depth knowledge of accounting and financial reporting standards (Carcello, Hollingsworth, Klein, & Neal, 2006). Even when social disclosures, which provide information about a company's social and ethical practices, are minimal, the strong governance and vigilant monitoring by a financially skilled audit committee ensure that financial integrity is maintained. This stringent oversight reduces the opportunity for earnings management, as any attempts

to manipulate earnings are likely to be detected and corrected by the knowledgeable audit committee members (Krishnan & Visvanathan, 2008).

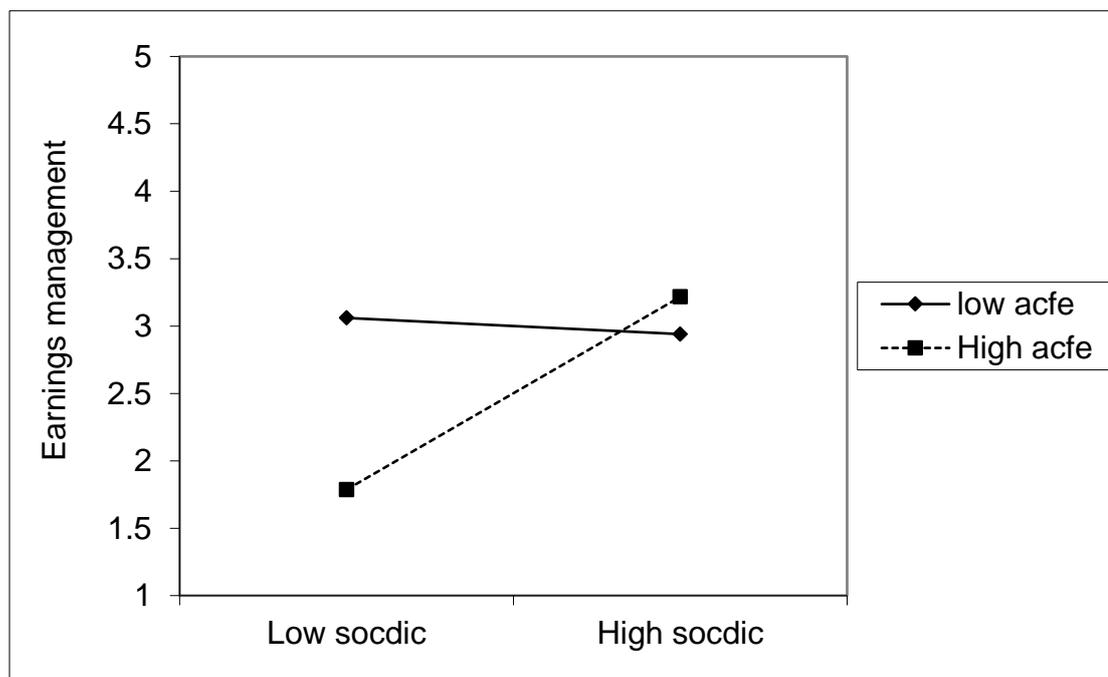


Figure 4. 2: Modgraph for social disclosures, audit committee financial expertise and earnings management

4.3.5 Findings and discussions

The first objective was to determine whether economic disclosures has influence earnings management among listed firms in EAC. Economic disclosures have a significant positive effect on earnings management because they provide a comprehensive overview of a company's financial health, operational performance, and economic activities. When companies engage in detailed economic disclosures, they often have to present a substantial amount of financial data, including revenue, expenses, investments, and economic outlook. This transparency can create opportunities for management to manipulate earnings to present the company in a favorable light (Leuz & Wysocki, 2016). By selectively emphasizing positive financial information and de-emphasizing or obscuring negative aspects, management can

influence stakeholders' perceptions, potentially inflating stock prices or achieving performance targets (Healy & Wahlen, 1999). This manipulation can be particularly tempting in times of financial pressure or when there are strong incentives tied to financial performance.

Furthermore, the pressure to maintain or enhance stakeholder trust and investor confidence can lead to earnings management through economic disclosures. Companies might use these disclosures to smooth earnings, reduce volatility, or meet analysts' forecasts, all of which can be achieved through various earnings management techniques such as income smoothing, cookie jar reserves, or big bath accounting. Despite the apparent transparency, the complexity and volume of disclosed information can obscure subtle manipulations, making it challenging for external auditors and analysts to detect inaccuracies. This situation underscores the importance of robust internal controls and the role of skilled audit committees in mitigating the risk of earnings management (Dechow, Ge, & Schrand, 2010). Therefore, while economic disclosures are intended to increase transparency, they can paradoxically facilitate earnings management when not adequately monitored and regulated (Salem et al., 2021)

The second objective was to determine whether environmental disclosures has influence earnings management among listed firms in EAC. Environmental disclosures can have a significant positive effect on earnings management because they involve reporting on a company's environmental impact, sustainability initiatives, and compliance with environmental regulations. These disclosures often contain qualitative and quantitative information that can be selectively presented to portray a favorable image of the company's environmental performance. Management may be incentivized

to engage in earnings management to align the financial performance with the positive environmental narrative they are promoting (Flammer, 2013). By manipulating earnings, companies can create a perception of financial stability and profitability that supports their claims of being environmentally responsible, thereby enhancing their reputation and potentially attracting environmentally conscious investors (Clarkson, Overell, & Chapple, 2011). This positive perception can be strategically used to mitigate the impact of any negative financial news or to maintain investor confidence during periods of economic uncertainty.

Additionally, the complexity and evolving nature of environmental reporting standards provide opportunities for earnings management. Environmental disclosures often involve estimates and judgments related to the valuation of environmental liabilities, future environmental costs, and the benefits of sustainability initiatives (Sun, Salama, Hussainey & Habbash, 2010). These estimates can be manipulated to smooth earnings or achieve financial targets without overtly violating accounting standards. For instance, management might overestimate the benefits of environmental initiatives or underestimate the costs associated with environmental liabilities to enhance reported earnings. This strategic use of environmental disclosures can be particularly effective in industries where environmental performance is closely scrutinized by stakeholders and regulators (Cho, Patten, & Roberts, 2006). Thus, while environmental disclosures aim to increase transparency and accountability, they can also be exploited as a tool for earnings management, highlighting the need for stringent oversight and robust auditing practices to ensure the accuracy and reliability of these reports (Christofi, Christofi & Sisaye, 2012).

The third objective was to determine whether social disclosures has influence earnings management among listed firms in EAC. Social disclosures have a significant negative effect on earnings management because they increase transparency and accountability regarding a company's social responsibility activities and ethical conduct. These disclosures typically include information on labor practices, community engagement, human rights, and social equity. When companies provide detailed social disclosures, they commit to higher standards of ethical behavior and corporate governance, which discourages earnings manipulation (Hess, 2008). Transparent social reporting requires companies to align their financial reporting with their ethical and social commitments, reducing the likelihood of deceptive financial practices (Dhaliwal, Li, Tsang, & Yang, 2011). This transparency can lead to increased scrutiny from stakeholders, including investors, regulators, and the public, who can hold the company accountable for discrepancies between their financial performance and social impact reports.

Moreover, companies that engage in comprehensive social disclosures often establish robust internal controls and governance mechanisms to ensure the accuracy and integrity of their reporting (Muttakin, Khan & Azim, 2015). These mechanisms include more rigorous oversight by the board of directors and audit committees, enhanced risk management practices, and stronger internal audit functions. These controls help detect and prevent earnings management by ensuring that financial statements reflect the true economic performance of the company (Michelon, Pilonato, & Ricceri, 2015). Additionally, a strong commitment to social responsibility and ethical behavior creates a corporate culture that values honesty and integrity, further reducing the motivation for management to engage in earnings manipulation. As a result, companies with extensive social disclosures are less likely to engage in earnings management, leading to more reliable and credible financial reporting (Choi, Lee & Park, 2013).

The fourth objective was to determine whether audit committee financial expertise moderates the relationship between economic, environmental and social disclosures has influence earnings management among listed firms in EAC. Audit committee financial expertise can have an antagonistic moderation effect on the relationship between economic disclosure and earnings management by enhancing the rigor and scrutiny applied to financial disclosures. Economic disclosures, which often include detailed information about a company's financial performance, market position, and strategic initiatives, can be manipulated by management to present a more favorable image. However, when an audit committee possesses high financial expertise, its members are better equipped to detect and question any inconsistencies or aggressive accounting practices. This heightened scrutiny can turn the positive relationship between economic disclosures and earnings management into a negative one. Essentially, while economic disclosures alone might tempt management to engage in earnings management to meet market expectations, the presence of a financially savvy audit committee acts as a deterrent, ensuring that the financial reports are more accurate and less prone to manipulation (Cohen, Krishnamoorthy, & Wright, 2004). Moreover, audit committee members with financial expertise are likely to be more knowledgeable about accounting standards and regulatory requirements, making it harder for management to justify dubious accounting practices. Their expertise allows them to critically evaluate the economic disclosures, thereby reducing the opportunities for earnings management. The shift from a positive to a negative relationship indicates that the audit committee's financial expertise effectively mitigates the incentives and opportunities for earnings manipulation that economic disclosures might otherwise present. This antagonistic moderation effect underscores the importance of having audit

committees with the necessary financial acumen to uphold the integrity of financial reporting (Klein, 2002).

Audit committee financial expertise did not have a moderating effect on the relationship between environmental disclosures and earnings management.

On the other hand, audit committee financial expertise had an antagonistic moderation effect on the relationship between social disclosures and earnings management by enhancing the credibility and accuracy of social reporting. Social disclosures typically include information on a company's social initiatives, labor practices, community engagement, and ethical conduct. While these disclosures are intended to improve transparency and demonstrate corporate social responsibility, they can sometimes be used by management to divert attention from financial misreporting or to create a more favorable corporate image. However, with a financially expert audit committee in place, these social disclosures are subject to more rigorous evaluation and validation. The audit committee's expertise ensures that social disclosures are not used as a smokescreen for earnings management, thus transforming a previously negative relationship into a positive one (Abbott, Parker, & Peters, 2004).

This shift indicates that when audit committees possess significant financial expertise, they can effectively oversee and enforce the accuracy of both financial and non-financial disclosures. Their ability to understand and interpret complex financial and social data means that they are better positioned to identify and challenge any discrepancies or manipulative practices. Consequently, the presence of a knowledgeable audit committee can turn social disclosures from being a potential tool for earnings management into a genuine reflection of the company's social and ethical performance. This antagonistic moderation underscores the critical role of audit

committees with financial expertise in maintaining the integrity of corporate reporting and ensuring that both economic and social disclosures contribute to transparent and accurate financial statements (Carcello, Hollingsworth, Klein, & Neal, 2006).

Table 4. 11: Hierarchical regression models

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
EM	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
CONSTANT	.005(0.019)	.004(0.016)	.004(0.017)	-.017(0.017)	-.020(0.018)	-.017(0.017)
FA	.043(0.010)**	.045(0.010)**	.045(0.010)**	.040(0.010)**	.037(0.010)**	.035(0.011)**
FS	.961(0.008)**	.963(0.008)**	.963(0.008)**	.964(0.008)**	.964(0.008)**	.965(0.008)**
FP	.243(0.015)**	.226(0.015)**	.226(0.015)**	.227(0.015)**	.229(0.015)**	.228(0.015)**
FL	-.018(0.009)**	-.019 (0.008)**	-.048(0.011)**	-.048(0.011)**	-.048(0.011)**	-.047(0.011)**
ECO	-	.082(0.023)**	.082(0.023)**	.067(0.023)**	.059(0.024)**	.043(0.025)**
ENVI	-	.066(0.019)**	.065(0.019)**	.075(0.019)**	.085(0.020)**	.074(0.021)**
SOCI	-	-.084(0.026)**	-.083(0.026)**	-.089(0.026)**	-.089(0.026)**	-.060(0.029)**
ACFE	-	-	-.039(0.011)**	-.512(0.169)**	-.531(0.169)**	-.499(0.170)**
ECO*ACFE	-	-	-	-.415(0.127)**	-.593(0.179)**	-1.125(0.297)**
ENVI*ACFE	-	-	-	-	.267(0.189)	-.054(0.237)
SOCI*ACFE	-	-	-	-	-	.775(0.342)**
sigma_u	.13179708	.10958684	.10987655	.10394593	.10499122	.09941072
sigma_e	.17170177	.17184802	.16825702	.1655937	.16517941	.16425904
Rho	.37075219	.2890944	.29895679	.28265441	.28775532	.26808322
R ²	0.9428	0.9499	0.9492	0.9495	0.9494	0.9498
Δ-R ²	-	0.0071	-0.0007	0.0003	-0.0001	0.0004
Chi2	16739.55	16408.89	16831.90	16937.53	17031.16	16909.6
Prob > chi2	0.000	0.000	0.000	0.000	0.000	0.000
No obs	585	585	585	585	585	585

**p<0.05; Standard error (Std. Err) in parentheses

Source: Researcher (2024)

Table 4. 12: Summary of hypothesis

Hypotheses	B	P<5%	Decision
H ₀₁ : Economic disclosures has no significant effect on earnings management among listed firms in EAC	0.082	0.000	Rejected
H ₀₂ : Environmental disclosures has no significant effect on earnings management among listed firms in EAC	0.066	0.001	Rejected
H ₀₃ : Social disclosures has no significant effect on earnings management among listed firms in EAC	-0.084	0.001	Rejected
H _{04a} : Audit committee financial expertise does not moderate the relationship between economic disclosures and earnings management among listed firms in EAC	-1.125	0.000	Rejected
H _{04b} : Audit committee financial expertise does not moderate the relationship between environmental disclosures and earnings management among listed firms in EAC	-0.054	0.818	Accepted
H _{04c} : Audit committee financial expertise does not moderate the relationship between social disclosures and earnings management among listed firms in EAC	0.775	0.023	Rejected

Source: Researcher (2024)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of the findings, conclusions, recommendations limitations and suggestions for further studies.

5.1 Summary of Findings of the Study

This study sought to examine whether audit committee financial expertise moderates the relationship between corporate sustainability disclosures and earnings management. The main predictor variables were economic, environmental and social disclosures. The target population consisted of all listed firms in East Africa. The study period was 2013 to 2023. The findings of the study indicate that corporate sustainability disclosures significantly affect earnings management among listed firms. Besides the study found that audit committee financial expertise moderates the relationship between economic, social disclosures and EM but it does not moderate the relationship between environmental disclosures and EM.

5.1.1 Effect of economic disclosures on earnings management

The first hypothesis (H_{01}) posited that economic disclosures have no significant effect on earnings management among listed firms in East Africa. The empirical results presented in Table 4.10 contradict this hypothesis, demonstrating that economic disclosures exert a significant positive effect on earnings management ($\beta_{01} = 0.0818$, ρ -value < 0.05). Consequently, H_{01} is rejected based on the statistical evidence. The data indicates that a one-unit increase in economic disclosures is associated with a 0.0818 unit increase in earnings management. These findings align with previous research conducted by Leuz and Wysocki (2016), Salem et al. (2021), and Yuan, Li, Xu, and

Shang (2022), which similarly identified a significant positive relationship between economic disclosures and earnings management. The results of this study suggest that economic disclosures may inadvertently provide opportunities for management to engage in earnings manipulation, aiming to present the company's financial performance more favorably. This underscores the potential for economic disclosures to be used as tools for impression management, thereby raising concerns about the transparency and integrity of financial reporting practices.

5.1.2 Effect of environmental disclosures on earnings management

The second hypothesis (H_{02}) proposed that environmental disclosures have no significant effect on earnings management among listed firms in East Africa. However, the empirical results reveal a significant positive association between environmental disclosures and earnings management ($\beta_2 = 0.0661$, $\rho < 0.05$), leading to the rejection of H_{02} . Specifically, the regression analysis indicates that a one-unit increase in environmental disclosures results in a 0.0661 unit increase in earnings management. These findings are consistent with prior studies conducted by Flammer (2013), Sun, Salama, Hussainey, and Habbash (2010), and Christofi, Christofi, and Sisaye (2012), which also observed a significant positive relationship between environmental disclosures and earnings management. The evidence suggests that management may be incentivized to manipulate earnings to align financial performance with the positive environmental narrative they promote. Moreover, the role of outside directors in public companies is highlighted as crucial in monitoring these activities. Management might engage in earnings management to present a facade of financial stability and profitability that complements their environmental claims, thus enhancing their reputation. This strategy can attract environmentally conscious investors by creating a perception of the company as both financially robust and environmentally responsible.

(Wedari, Jubb, & Moradi-Motlagh, 2021). The implications of these findings stress the need for stringent oversight and transparent reporting practices to mitigate the risks of earnings manipulation in the context of environmental disclosures.

5.1.3 Effect of social disclosures on earnings management

The third hypothesis (H_{03}) posited that social disclosures have no significant effect on earnings management among listed firms in East Africa. Contrary to this hypothesis, the regression results presented in Table 4.10 demonstrate that social disclosures have a significant negative effect on earnings management ($\beta_3 = -0.084$, $\rho < 0.05$). As a result, H_{03} is rejected. The analysis indicates that a one-unit increase in social disclosures corresponds to a 0.084 unit decrease in earnings management. These findings are corroborated by prior research conducted by Hess (2008), Muttakin, Khan, and Azim (2015), and Choi, Lee, and Park (2013), which also found a significant negative relationship between social disclosures and earnings management. The study suggests that social disclosures, which typically encompass information on labor practices, community engagement, human rights, and social equity, play a crucial role in fostering ethical behavior and robust corporate governance. By committing to transparent and comprehensive social disclosures, companies adhere to higher ethical standards, thereby discouraging earnings manipulation. Such disclosures necessitate that companies align their financial reporting with their social and ethical commitments, thereby reducing the propensity for deceptive financial practices. This alignment ensures that financial statements reflect true performance, reinforcing the company's dedication to ethical governance and enhancing stakeholder trust (Dhaliwal, Li, Tsang, & Yang, 2011). The implications of these findings highlight the importance of promoting detailed social reporting to uphold the integrity of financial reporting and curb earnings management.

5.1.4 Effect of audit committee financial expertise on earnings management

The study's findings indicate that audit committee financial expertise has a positive and significant effect on earnings management ($\beta = 0.0389244$, $\rho < 0.05$). This relationship implies that firms with audit committees composed of financially knowledgeable members are more prone to engage in earnings management. The positive and significant effect observed suggests that audit committees with substantial financial expertise may leverage their deep understanding of complex financial reporting techniques and accounting standards to manipulate earnings in alignment with the firm's objectives or to meet stakeholder expectations (Chen & Komal, 2018). The financial acumen of these audit committee members equips them with the necessary skills to identify and exploit opportunities for earnings manipulation while still appearing to comply with regulatory requirements. This expertise enables them to navigate the intricacies of financial reporting, potentially allowing them to present the firm's financial performance in a more favorable light without overtly violating accounting rules (Agrawal & Chadha, 2005). Consequently, the greater the financial expertise within the audit committee, the higher the likelihood that the firm will engage in earnings management practices. These findings are contrary to those of Badolato, Donelson, and Ege (2014), who suggest that financially expert audit committees are more effective in curbing earnings management. The divergence in findings underscores the complex role that audit committee expertise plays in financial governance. While financial expertise is intended to enhance oversight and ensure accurate reporting, it can also provide the knowledge necessary to manipulate financial statements subtly. This duality highlights the need for further research to explore the conditions under which audit committee expertise may either mitigate or exacerbate earnings management practices.

5.1.5 The moderating effect of audit committee financial expertise on the relationship between economic disclosures and earnings Management

Hypothesis H_{04a} proposed that audit committee financial expertise does not significantly moderate the relationship between economic disclosures and earnings management among listed firms in East Africa. However, the regression results reveal a significant moderating effect of audit committee financial expertise on this relationship ($\beta = -1.125$, $\rho < 0.05$), leading to the rejection of H_{04a}. The moderation analysis, further illustrated by the moderation graph in Figure 4.1, indicated that earnings management is minimized when both audit committee financial expertise and economic disclosures are high. This finding suggests that the combination of robust economic disclosures and high audit committee financial expertise enhances corporate governance and transparency, thereby reducing the likelihood of earnings management. Financially knowledgeable audit committees play a crucial role in identifying and mitigating accounting irregularities due to their comprehensive understanding of financial reporting and accounting standards (Goh, 2009). Their expertise enables them to effectively oversee the financial reporting process, thus reducing the propensity for earnings manipulation. Additionally, detailed economic disclosures increase transparency by providing stakeholders with a clear and thorough view of the company's financial health and performance. This heightened transparency acts as a deterrent to earnings management by subjecting the company's financial reports to greater scrutiny from external parties such as investors, regulators, and analysts (Healy & Palepu, 2001). Therefore, the synergistic effect of diligent oversight by a skilled audit committee and the pressure to maintain transparency through comprehensive economic disclosures creates an environment where earnings management is significantly less likely to occur.

5.1.6 The moderating effect of audit committee financial expertise on the relationship between environmental disclosures and earnings Management

The analysis of hypothesis H_{04b}, which proposed that audit committee financial expertise does not significantly moderate the relationship between environmental disclosures and earnings management among listed firms in East Africa, reveals that audit committee financial expertise does not significantly moderate this relationship ($\beta = -0.0546$, $\rho > 0.05$). Therefore, hypothesis H_{04b} is accepted, indicating that audit committee financial expertise does not have a statistically significant effect on the relationship between environmental disclosures and earnings management in this context.

5.1.7 The moderating effect of audit committee financial expertise on the relationship between social disclosures and earnings Management

Hypothesis H_{04c} suggested that audit committee financial expertise does not significantly moderate the relationship between social disclosures and earnings management among listed firms in East Africa. However, the regression results from model 6 ($\beta = 0.0785986$, $\rho < 0.05$) indicate that audit committee financial expertise does significantly moderate this relationship, leading to the rejection of H_{04c}. The findings, further illustrated in Figure 4.2, demonstrated that earnings management is minimal when social disclosures are low and audit committee financial expertise is high. This suggests that even in the absence of extensive social disclosures, the presence of a financially skilled audit committee effectively curtails earnings management. Audit committees with high financial expertise provide rigorous oversight of financial reporting, helping to identify and prevent earnings manipulation through their deep understanding of accounting standards and financial reporting practices (Carcello, Hollingsworth, Klein, & Neal, 2006). Thus, the strong governance framework provided

by these audit committees compensates for the lack of detailed social disclosures, ensuring that financial integrity is upheld. The expert oversight minimizes the likelihood of earnings management, as any potential manipulation is likely to be detected and addressed by the knowledgeable audit committee members (Krishnan & Visvanathan, 2008). These results emphasize the importance of audit committee financial expertise in enhancing the effectiveness of corporate governance in controlling earnings management.

5.2 Conclusions

This study explored the relationships between various types of disclosures, audit committee financial expertise, and earnings management among listed firms in East Africa. The results revealed several critical insights regarding how economic, environmental, and social disclosures, in conjunction with the financial expertise of audit committees, influence earnings management practices. The findings shed light on the nuances of corporate governance, financial reporting, and the potential for earnings manipulation in East African listed firms, providing valuable implications for stakeholders, regulators, and corporate managers.

Firstly, the study examined the effect of economic disclosures on earnings management. The results showed a significant positive relationship between economic disclosures and earnings management, leading to the rejection of Hypothesis H01, which stated that economic disclosures do not affect earnings management. A unit increase in economic disclosures was associated with a 0.0818 unit increase in earnings management. This suggests that economic disclosures may create opportunities for management to manipulate earnings, aiming to present a more favorable financial performance to stakeholders. This finding is consistent with prior studies, such as those by Leuz and

Wysocki (2016), Salem et al. (2021), and Yuan, Li, Xu, and Shang (2022), which similarly found that economic disclosures could be used strategically to manage perceptions of a company's financial health. Consequently, firms may use economic disclosures for impression management, raising concerns about the integrity of financial reporting. The study calls for greater transparency and oversight to mitigate the risks of earnings manipulation linked to economic disclosures.

The second hypothesis examined the relationship between environmental disclosures and earnings management. Contrary to the null hypothesis, the results revealed a significant positive relationship between environmental disclosures and earnings management, leading to the rejection of Hypothesis H₀₂. A unit increase in environmental disclosures was associated with a 0.0661 unit increase in earnings management. This finding indicates that firms may be incentivized to manipulate earnings to align their financial performance with positive environmental narratives. This is consistent with the work of Flammer (2013), Sun, Salama, Hussainey, and Habbash (2010), and Christofi, Christofi, and Sisaye (2012), who also found a positive relationship between environmental disclosures and earnings management. The study highlights that management may engage in earnings manipulation to present a facade of financial stability, supporting the company's environmental claims and attracting environmentally conscious investors. This underscores the need for stringent oversight and robust reporting practices to prevent the misuse of environmental disclosures in financial reporting.

The third hypothesis investigated the relationship between social disclosures and earnings management. The results revealed a significant negative effect, indicating that as social disclosures increase, earnings management decreases. Therefore, Hypothesis

H₀₃ was rejected. A unit increase in social disclosures led to a 0.084 decrease in earnings management. This finding aligns with the work of Hess (2008), Muttakin, Khan, and Azim (2015), and Choi, Lee, and Park (2013), suggesting that detailed social disclosures, which cover areas such as labor practices, human rights, and community engagement, promote ethical behavior and discourage earnings manipulation. By committing to transparent and ethical reporting, companies align their financial practices with their social commitments, reducing the likelihood of deceptive financial reporting. The study highlights the importance of promoting detailed social disclosures to uphold the integrity of financial reporting and ensure that companies adhere to higher standards of corporate governance.

In terms of audit committee financial expertise, the study found that firms with audit committees composed of financially knowledgeable members were more likely to engage in earnings management. This contradicts prior research, such as that by Badolato, Donelson, and Ege (2014), which suggested that financial expertise within audit committees reduces earnings management. The findings of this study indicate that audit committee financial expertise ($\beta = 0.0389$, $\rho < 0.05$) had a positive and significant effect on earnings management, suggesting that such committees may possess the skills needed to identify opportunities for earnings manipulation while maintaining an appearance of regulatory compliance. This duality underscores the complex role of audit committee financial expertise in corporate governance. While audit committees are intended to improve financial oversight, their expertise may also enable them to engage in or overlook earnings manipulation. Further research is needed to explore the conditions under which audit committee financial expertise might either mitigate or exacerbate earnings management practices.

The study also explored the moderating role of audit committee financial expertise on the relationships between different types of disclosures and earnings management. The results revealed that audit committee financial expertise significantly moderates the relationship between economic disclosures and earnings management. When both economic disclosures and audit committee financial expertise are high, earnings management is minimized. This finding emphasizes the importance of combining robust financial oversight with detailed disclosures to enhance transparency and reduce the likelihood of earnings manipulation. Audit committees with high financial expertise can identify accounting irregularities, ensuring that the financial reporting process is more accurate and trustworthy. Moreover, comprehensive economic disclosures increase transparency, subjecting the company's financial statements to greater scrutiny from stakeholders, thereby acting as a deterrent to earnings manipulation. The study suggests that the synergy between audit committee expertise and economic disclosures fosters an environment of greater corporate governance, reducing the opportunities for earnings management.

However, the study found that audit committee financial expertise does not significantly moderate the relationship between environmental disclosures and earnings management. This finding suggests that the presence of financial expertise in audit committees may not be sufficient to counteract the potential for earnings manipulation arising from environmental disclosures. The study also found that audit committee financial expertise significantly moderates the relationship between social disclosures and earnings management. When social disclosures are low and audit committee financial expertise is high, earnings management is minimal. This result highlights the importance of financial expertise in curbing earnings manipulation, even when social disclosures are not comprehensive. The study suggests that a strong governance

framework, supported by expert oversight, can mitigate the risks of earnings manipulation in such situations.

5.3 Recommendations

5.3.1 Theoretical Implications

From the perspective of agency theory, the positive significant relationship between economic and environmental disclosures on earnings management suggests that managers might be using these disclosures strategically to align with shareholders' interests and reduce agency costs. By enhancing the company's perceived economic and environmental performance, managers may manipulate earnings to meet short-term financial targets, thereby securing their positions and compensations. On the other hand, the negative relationship between social disclosures and earnings management indicates that social responsibility initiatives might align management's interests with long-term value creation, reducing the tendency for earnings manipulation. Social disclosures may act as a mechanism to build trust and demonstrate a commitment to broader stakeholder interests, thereby reducing agency conflicts.

To mitigate the issues identified by agency theory, firms should develop and implement incentive structures that reward long-term performance and ethical behavior, rather than short-term financial gains, to align management's interests with those of shareholders and other stakeholders. Secondly, strengthen the internal audit function and enhance financial oversight to ensure that economic and environmental disclosures are accurate and reflective of true performance. Moreover, foster a corporate culture that emphasizes ethical behavior, transparency, and genuine engagement in social responsibility activities, which can help in reducing earnings management and aligning the interests of managers with those of stakeholders.

Stakeholder theory emphasizes the importance of balancing the interests of all stakeholders, not just shareholders. The study's findings that economic and environmental disclosures are positively related to earnings management suggest that management may be prioritizing the interests of investors and regulatory bodies through selective and possibly manipulative disclosures. This could be at the expense of other stakeholders. Conversely, the negative relationship between social disclosures and earnings management highlights the role of genuine stakeholder engagement in promoting transparency and ethical conduct. Social disclosures appear to mitigate earnings management by aligning corporate actions with the broader interests of stakeholders, fostering a culture of accountability and trust.

To enhance stakeholder value and minimize earnings management, companies should implement comprehensive stakeholder engagement practices that ensure the interests of all stakeholders are considered in decision-making processes. Ensure that all disclosures, particularly social disclosures, are genuine and reflective of the company's true commitment to social responsibility and ethical conduct. Develop robust governance frameworks that integrate stakeholder perspectives and promote a culture of transparency, accountability, and ethical behavior, which can help reduce the tendency for earnings manipulation.

According to legitimacy theory, organizations seek to conform to societal norms and values to maintain their legitimacy. The positive relationship between economic and environmental disclosures and earnings management suggests that these disclosures may be used strategically to gain or maintain legitimacy by managing societal perceptions. However, this could be superficial compliance rather than an indication of true performance. In contrast, the negative relationship between social disclosures and

earnings management implies that genuine social responsibility efforts can enhance a company's legitimacy by demonstrating a commitment to ethical conduct and transparency, reducing the likelihood of earnings manipulation.

To strengthen legitimacy and reduce the risk of earnings manipulation, companies should promote transparency and authenticity in all disclosures, ensuring they accurately reflect actual performance and commitments to societal values. Engage in consistent and genuine social responsibility initiatives that go beyond mere compliance, demonstrating a true commitment to ethical conduct and societal norms. Establish strong governance and oversight mechanisms, particularly by enhancing the role and expertise of audit committees, to ensure the accuracy and integrity of disclosures and detect any signs of earnings management, thereby enhancing the company's legitimacy and trust with stakeholders.

The antagonistic effect of audit committee financial expertise on the relationship between disclosures and earnings management underscores the critical role of audit committees in corporate governance. Audit committees with financial expertise are better equipped to scrutinize disclosures and detect earnings management, thereby enhancing the integrity of financial reporting and promoting ethical behavior. This implies that financial expertise within the audit committee can counteract the positive relationship between economic and environmental disclosures and earnings management by providing rigorous oversight and ensuring that these disclosures are not used for manipulative purposes. To maximize the benefits of audit committee financial expertise, companies should ensure that audit committees are composed of members with substantial financial expertise and independence to provide effective oversight. Provide ongoing training and development for audit committee members to

stay updated on best practices and emerging issues in financial reporting and governance. Empower audit committees with the necessary authority and resources to effectively oversee disclosures and detect earnings management, thereby safeguarding the interests of all stakeholders and enhancing the integrity and transparency of corporate reporting.

5.3.2 Policy Implication

Given the study's findings that economic and environmental disclosures are positively associated with earnings management, policy makers should consider enhancing regulatory frameworks to ensure greater transparency and accuracy in these disclosures. Stricter guidelines and standards for economic and environmental reporting can help mitigate the risk of manipulation. For instance, introducing mandatory independent audits for these disclosures could provide an additional layer of scrutiny, ensuring that the information presented is accurate and reflective of the company's true performance.

The negative relationship between social disclosures and earnings management suggests that promoting social responsibility disclosures can help curb manipulative practices. Policy makers should encourage or mandate comprehensive social responsibility reporting, emphasizing its importance in corporate governance. This could include the introduction of incentives for companies that demonstrate genuine commitment to social responsibility, such as tax benefits or public recognition programs.

The antagonistic effect of audit committee financial expertise on the relationship between disclosures and earnings management highlights the importance of having qualified financial experts on audit committees. Policy makers should enforce regulations that require a minimum number of financially literate members on audit

committees. Additionally, continuous professional development and certification programs for audit committee members can ensure they remain well-equipped to oversee financial reporting and disclosures effectively.

Practitioners should focus on strengthening internal controls to ensure that economic and environmental disclosures are not used for earnings management. This includes developing comprehensive policies and procedures for the preparation and review of disclosures, as well as conducting regular internal audits to detect and prevent manipulative practices.

Given the study's findings, practitioners should place a greater emphasis on social disclosures. These disclosures should be detailed, transparent, and reflective of the company's genuine commitment to social responsibility. Companies can adopt global reporting standards, such as the Global Reporting Initiative (GRI) guidelines, to ensure consistency and comparability in their social responsibility reporting.

To maximize the effectiveness of audit committees, companies should ensure that these committees are composed of members with significant financial expertise. Practitioners should facilitate regular training sessions for audit committee members to keep them updated on the latest developments in financial reporting and governance. Additionally, audit committees should be empowered with the authority and resources necessary to conduct thorough reviews of all disclosures, thereby enhancing their ability to detect and prevent earnings management.

Companies should strive to create a corporate culture that prioritizes ethical behavior and transparency. This can be achieved through regular training programs on corporate ethics, clear communication of ethical standards, and the establishment of mechanisms

for reporting unethical behavior. By fostering a culture that values integrity and accountability, companies can reduce the likelihood of earnings management and build trust with stakeholders.

Practitioners should engage with a broad range of stakeholders to ensure that disclosures reflect the interests and concerns of all parties, not just shareholders. This involves regular communication with stakeholders, seeking their input on key issues, and incorporating their feedback into corporate reporting and decision-making processes. By adopting a stakeholder-centric approach, companies can enhance the credibility and transparency of their disclosures, thereby mitigating the risk of earnings management.

5.3.3 Managerial Implication.

Managers should critically assess their current practices related to economic, environmental and social disclosures. Given the positive significant relationship between these disclosures and earnings management, it is imperative to enhance the transparency and accuracy of these reports. Managers should implement rigorous internal controls and audit processes to ensure that economic and environmental disclosures are accurate and not used as tools for earnings manipulation. Regular training sessions for staff involved in the preparation of these disclosures can help ensure compliance with best practices and regulatory requirements.

The negative significant relationship between social disclosures and earnings management indicates that genuine social responsibility initiatives can help mitigate earnings manipulation. Managers should therefore prioritize and invest in social responsibility programs that reflect the company's commitment to ethical practices and stakeholder engagement. This involves not only reporting on social initiatives but also

actively integrating social responsibility into the company's core business strategies. Regularly communicating these efforts and their impacts to stakeholders can further enhance the credibility and ethical standing of the company.

The study's findings on the antagonistic effect of audit committee financial expertise highlight the importance of having knowledgeable and experienced audit committee members. Managers should ensure that their audit committees include individuals with substantial financial expertise who can effectively oversee disclosures and detect earnings management. Providing ongoing professional development opportunities for audit committee members can keep them abreast of the latest developments in financial reporting and governance, enhancing their ability to perform their oversight functions effectively.

To address the issues identified in the study, managers should bolster the internal audit functions within their organizations. This includes hiring or developing skilled internal auditors who can independently review and verify economic, environmental, and social disclosures. Regular internal audits can help identify and rectify any discrepancies or manipulative practices, thereby improving the overall integrity of the company's financial reporting.

Managers play a crucial role in setting the tone for corporate ethics and behavior. It is essential to foster a corporate culture that prioritizes ethical conduct and transparency. This can be achieved by establishing clear ethical guidelines, providing regular ethics training to employees, and setting up mechanisms for reporting unethical behavior. By promoting a culture of integrity, managers can reduce the propensity for earnings management and build a more trustworthy relationship with stakeholders.

Managers should adopt a proactive approach to stakeholder engagement, ensuring that all disclosures are not only accurate but also meaningful to stakeholders. This involves regular communication with stakeholders to understand their concerns and expectations, and integrating their feedback into the company's reporting practices. Transparent engagement with stakeholders can help build trust and reduce the likelihood of earnings management, as stakeholders can hold the company accountable for its actions and disclosures.

To ensure that all types of disclosures, economic, environmental, and social are handled with the same level of rigor and transparency, managers should develop and implement comprehensive reporting frameworks. These frameworks should align with recognized standards and best practices, such as the Global Reporting Initiative (GRI) or the Sustainability Accounting Standards Board (SASB) guidelines. By adhering to these standards, managers can ensure that their disclosures are comparable, consistent, and credible, thereby enhancing the overall transparency and integrity of their reporting practices.

5.4 Limitations and Future Research

Despite the novelty of this study's findings, there are several limitations. First, the data in the study are limited to listed companies in East Africa and expanding the study to include data from other developed and emerging economies is beneficial for corporate sustainability disclosures, audit committee financial expertise and earnings management literature, as it would provide insight on how differences in contexts affects the relationship among the variables. Second, financial expertise is just one dimension of audit committee. Consequently, it would be appropriate to analyze other attributes associated to audit committee for instance audit committee gender, size,

independence, frequency of meeting and investigate the association between corporate sustainability disclosures and earnings management. Sustainability disclosures and audit committee financial expertise, there are other factors that determine earnings management such as board characteristics, ownership structure among others, therefore, there is need for further studies to unearth additional internal and external factors on earnings management in emerging economies. Finally, the current study relied on published annual reports and the GRI check list as the source of corporate sustainability reporting. Perhaps, future research could include the disclosure on websites or consider using qualitative methods (such as interviews, case studies etc.) which may shed more insights and explanations on the current state of corporate sustainability reporting among listed firms in East Africa.

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APPENDICES

Appendix I: Target Population: Firms Listed in East Africa

Appendix I (a): Nairobi Security Exchange

No.	Company	Sector	Year listed
1	Eaagads Limited	Agriculture	1972
2	Kakuzi Limited	Agriculture	1951
3	Kapchorua Tea Factory Limited	Agriculture	1972
4	Limuru Tea Kenya Limited	Agriculture	1967
5	Sasini Limited	Agriculture	1965
6	Williamson Tea Kenya Limited	Agriculture	1972
7	Rea Vipingo Plantations Limited	Agriculture	1998
8	Car and General (Kenya) Limited	Automobiles and Accessories	1950
9	Sameer Africa	Automobiles and Accessories	1994
10	Marshalls (E.A) Limited	Automobiles and Accessories	1987
11	Barclays Bank of Kenya Limited	Banking	1986
12	CFC Stanbic of Kenya Holdings Limited	Banking	1970
13	Diamond Trust Bank of Kenya Limited	Banking	1972
14	Equity Group Holdings Limited	Banking	2006
15	Housing Finance Group Limited	Banking	1992
16	I&M Holdings Limited	Banking	2013
17	KCB Group Limited	Banking	1989
18	National Bank of Kenya Limited	Banking	1994
19	NIC Group PLC	Banking	1971
20	Standard Chatered Bank Kenya Limited	Banking	1988
21	The Cooperative Bank of Kenya Limited	Banking	2008
22	Atlas African Industries Limited	Commercial and Service	2014
23	Express Kenya Limited	Commercial and Service	1978
24	Kenya Airways Limited	Commercial and Service	1996
25	Longhorn Publishers Limited	Commercial and Service	2012
26	Nairobi Business Ventures Limited	Commercial and Service	2016
27	National Media Group Limited	Commercial and Service	1973
28	Standard Group Limited	Commercial and Service	1954
29	TPS Eastern Africa Limited	Commercial and Service	1997
30	Uchumi Supermarket Limited	Commercial and Service	1992
31	WPP Scan Group Limited	Commercial and Service	2006
32	Deacons East Africa PLC	Commercial and Service	2016
33	Hutchings Biemer Limited	Commercial and Service	1993

34	Athi River Mining Cement Limited	Construction & Allied	1997
35	Bamburi Cement Limited	Construction & Allied	1951
36	Crown Paints Kenya Limited	Construction & Allied	1992
37	E.A Cables Limited	Construction & Allied	1973
38	E.A Portland Cement Company Limited	Construction & Allied	1972
39	Ken Gen Company Limited	Energy and Petroleum	2006
40	Kenol Kobil Limited	Energy and Petroleum	1959
41	Kenya Power & Lighting Company Limited	Energy and Petroleum	1954
42	Total Kenya Limited	Energy and Petroleum	1988
43	Umeme Limited	Energy and Petroleum	2012
44	Britam Holdings Limited	Insurance	2011
45	CIC Insurance Group Limited	Insurance	2012
46	Jubilee Holdings Limited	Insurance	1984
47	Kenya Reinsurance Corporation Limited	Insurance	2006
48	Liberty Kenya Holdings Limited	Insurance	2007
49	Pan Africa Insurance Holdings Limited	Insurance	1963
50	Centum Investment Company Limited	Investment	1977
51	Home Afrika Limited	Investment	2013
52	Kurwitu Ventures Limited	Investment	2014
53	Olympia Capital Holdings Limited	Investment	1974
54	Trans-Century Limited	Investment	2011
55	Nairobi Securities Exchange Limited	Investment Services	2014
56	B.O.C Kenya Limited	Manufacturing and allied	1969
57	British American Tobacco Kenya Limited	Manufacturing and allied	1969
58	Carbacid Investments Limited	Manufacturing and allied	1972
59	East African Breweries Limited	Manufacturing and allied	1972
60	Eveready East Africa Limited	Manufacturing and allied	2006
61	Flame Tree Group Holdings Limited	Manufacturing and allied	2015
62	Kenya Orchards Limited	Manufacturing and allied	1959
63	Mumias Sugar Company Limited	Manufacturing and allied	2001
64	Baumann Company limited	Manufacturing and allied	1976
65	Unga Group Limited	Manufacturing and allied	1971
66	Safaricom Limited	Telecommunication and Technology	2008
67	Stanlib Fahari I-Reit	Real Estate Investment Trust	2015

Appendix 1 (b); Uganda Security Exchange

No.	Company	Sector	Year
1	BAT Uganda Ltd	Consumer Goods	2000
2	East African Breweries Ltd	Consumer Goods	2001
3	Kenya Airways	Consumer Services	2002
4	Nation Media Group	Consumer Services	2010
5	Uchumi Supermarkets	Consumer Services	2013
6	Vision Group	Consumer Services	2004
7	Bank of Baroda (Uganda) Ltd	Banking	2002
8	Centum Investment	Investment	2011
9	DFCU Ltd	Banking	2004
10	Equity Group	Banking	2009
11	Jubilee Holdings Ltd	Insurance	2006
12	Kenya Commercial Bank Ltd	Banking	2008
13	NIC Holdings	Banking	2010
14	Stanbic Bank Uganda Ltd	Banking	2007
15	Cipla Quality Chemical Industries Ltd	Health Care	2018
16	Uganda Clays Ltd	Industrials	2000
17	Umeme Ltd	Utilities	2012

Appendix 1 (c); Tanzania Security Exchange

<u>No</u>	<u>Company</u>	<u>Sector</u>	<u>Year</u>
1	TOL Gases	Basic Materials	1998
2	East African Breweries	Consumer Goods	2005
3	Jatu	Consumer Goods	2020
4	Tanzania Breweries	Consumer Goods	1998
5	Tanzania Cigarette Company	Consumer Goods	2000
6	Tanzania Tea Packers (TATEPA)	Consumer Goods	1999
7	Kenya Airways	Consumer Services	2004
8	Nation Media Group	Consumer Services	2011
9	Precision Air Services	Consumer Services	2011
10	Uchumi Supermarket	Consumer Services	2014
11	CRDB Bank	Banking	2009
12	Dar es Salaam Commercial Bank	Banking	2008
13	KCB Group	Banking	2008
14	Maendeleo Bank	Banking	2013
15	Mkombozi Commercial Bank	Banking	2015
16	Mucoba Bank	Banking	2016
17	Mwalimu Commercial Bank	Banking	2015
18	National Microfinance Bank Plc	Banking	2008
19	Yetu Microfinance	Banking	2016
20	Jubilee Holdings	Insurance	2006
21	National Investments Company (NICOL)	Mutual Fund	2018
22	TCCIA Investment	Mutual Fund	2018
23	Dar es Salaam Stock Exchange	Stock Exchange	2016
24	Swissport Tanzania	Industrials	2003
25	Tanga Cement Company	Industrials	2002
26	Tanzania Portland Cement Company	Industrials	2006
27	Swala Oil and Gas (Tanzania)	Oil & Gas	2014
28	Vodacom Tanzania	Telecom	2017

Appendix 1 (d); Rwanda Security Exchange

<u>No.</u>	<u>Company</u>	<u>Sector</u>
1	Bralirwa	Consumer Goods
2	Nation Media Group	Consumer Services
3	Uchumi Supermarkets	Consumer Services
4	BK Group	Financials
5	Equity Group	Financials
6	I&M Bank Rwanda	Financials
7	KCB Group	Financials
8	RH Bophelo	Health Care
9	CIMERWA	Industrials
10	Crystal Telecom	Telecommunications

Appendix 1 (e); Moderator variable (Board financial expertise)

Variable	1
	No. Audit committee members with financial expertise (proportion of the audit committee members with financial expertise)
Years	
2013	
2014	
2015	
2016	
2017	
2018	
2019	
2020	
2021	
2022	
2023	

Appendix 1 (g) CSD Score Sheet

I	ECONOMIC PERFORMANCE INDICATORS
1	EC1 Direct economic value generated and distributed
2	EC2 Financial implications and other risks & opportunities due to climate change
3	EC3 Coverage of org defined benefit plan obligations
4	EC4 Significant financial assistance received from govt.
5	5 EC5 Range of ratios of standard entry level wage compared to local minimum wage
6	EC6 Policy, practices and proportion of spending on locally based suppliers
7	EC7 Procedures for local hiring and proportion of senior mgt. hired from local community
8	EC8 Development and impact of infrastructure investments and services (for public benefit)
9	EC9 Understanding and describing significant indirect economic impacts
II	ENVIRONMENTAL PERFORMANCE INDICATORS
1	EN1 Materials used by weight or volume.
2	EN2 Percentage of materials used that are recycled input materials.
3	EN3 Direct energy consumption by primary energy source
4	EN4 Indirect energy consumption by primary energy source.
5	EN5 Energy saved due to conservation and efficiency improvements
6	EN6 Initiatives to provide energy efficient products and services
7	EN7 Initiatives to reduce indirect energy consumption
8	EN8 Total water withdrawal by source.
9	EN9 Water sources significantly affected by withdrawal of water.
10	EN10 Percentage and total volume of water recycled and reused
11	EN11 Location and size of land (in protected areas & areas of high biodiversity)
12	EN12 Description of significant impacts of activities on biodiversity.
13	EN13 Habitats protected or restored.
14	EN14 Strategies, current actions, and future plans for managing impacts on biodiversity.
15	EN15 Number of IUCN Red List species and national conservation list species affected by operations.
16	EN16 Total direct and indirect greenhouse gas emissions by weight
17	EN17 Other relevant indirect greenhouse gas emissions by weight
18	EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved
19	EN19 Emissions of ozone depleting substances by weight.
20	EN20 C NO, SO, and other significant emissions by type and weight.
21	EN21 Total water discharge by quality and destination.
22	EN22 Total weight of waste by type and disposal method.
23	EN23 Total number and volume of significant spills.
24	EN24 Weight of transported waste deemed hazardous
25	EN25 Identity, size, protected status, and biodiversity value of water bodies and related habitats affected by organization.

26	EN26 Initiatives to mitigate environmental impacts
27	EN27 Percentage of products sold and their packaging materials that are reclaimed by category.
28	EN28 Monetary fines and non-monetary sanctions for non-compliance with environmental laws & regulations
29	EN29 Environmental impacts of transporting.
30	EN30 Total environmental protection expenditures and investments by type
III	SOCIAL PERFORMANCE INDICATORS
(i) Labour Practices and Decent Work	
1	LA1 Total workforce
2	LA2 Total number and rate of employee turnover
3	LA3 Benefits provided exclusively to full-time employees
4	LA4 Percentage of employees covered by collective bargaining agreements.
5	LA5 Minimum notice period(s) regarding operational changes
6	LA6 Percentage of Workforce presented in formal joint management-worker health & safety committees
7	LA7 Rates of injury, occupational diseases etc.
8	LA8 Education, training, etc. to assist workforce.
9	LA9 Health and safety topics
10	LA10 Average hours of training per year per employee by employee by category.
11	LA11 Programmes for skills management and lifelong learning
12	LA12 Percentage of employees receiving regular performance and career development review.
13	LA13 Composition of governance bodies and breakdown of employees per category
14	LA14 C Ratio of basic salary of men to women by employee category.
(ii)	Human Rights
15	HR 1 Investment agreements that include human rights clauses
16	HR2 Percentage of significant suppliers and contractors (have undergone screening on human rights)
17	HR3 Total hours of employee training on human rights aspects. 57
18	HR4 Total number of incidents of discrimination and actions taken
19	HR5 Operations identified (in freedom of association and collective bargaining)
20	HR6 Operations identified of having risk (child labor)
21	HR7 Operations identified of having risk (compulsory labor)
22	HR8 Percentage of security personnel trained.
23	HR9 Total number of incidents of violations involving rights of indigenous people and actions taken
(iii)	Society
24	SO1 Nature, scope, and effectiveness of any programmes
25	SO2 Percentage and total number of business units analyzed for corruption.
26	SO3 Percentage of employees trained in anticorruption
27	SO4 Actions taken in response to incidents of corruption.

28	SO5 Public policy positions and participation in public policy development and lobbying
29	SO6 Total value of financial and in-kind contributions (political)
30	SO7 Total number of legal actions for anti –competitive behaviour
31	SO8 Monetary fines and non-monetary sanctions for non compliance with laws etc.
(iv)	Product Responsibility
32	PR1 Life cycle stages in which health & safety impacts of products and services are assessed for improvement
33	PR2 Total number of incidents of non-compliance, health and safety impacts
34	PR3 Product and service information required by procedures
35	PR4 Total number of incidents of non-compliance with laws (products & services)
36	PR5 Practices related to customer satisfaction
37	PR6 Programs for adherence to laws, standards etc. related to marketing communications
38	PR7 Incidents of non compliance with regulations (marketing communications)
39	PR 8 Substantiated complaints regarding breaches of customer privacy & losses of customer data)
40	PR9 Fines for non compliance with laws (products & services)

Appendix 1 (h) Earnings Management Sheet

Variable	1	2	3	4	5	6
Years	Total assets =At	PPE	Net profit	Operating Cashflow	Total Accruals=T A (3-4)	Operating revenue
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						

Appendix 2 Stata output

```
. sum jones_1995 firmage firmsizelogs totalassets roa leveragede econindex enviindex
sociindex acfe
```

Variable	Obs	Mean	Std. Dev.	Min	Max
jones_1995	715	.0316329	1.101851	-1.215005	28.02254
firmage	715	1.470013	.384888	0	2.103804
firmsizelogs	715	7.767341	1.647555	4.04914	12.96864
roa	715	.0713753	.3483157	-8.18046	.7726612
leveragede	715	2.315173	5.951875	-25.90048	96.41061
econindex	715	.3557289	.2385377	0	.9230769
enviindex	715	.1473339	.1795663	0	.859375
sociindex	715	.2547552	.196816	0	.8
acfe	715	2.709091	1.843108	0	7

```
. pwcorr erningmgt deltafirmage deltafirsize deltafirmperf deltafirmlev ecodis envdis
socdis deltaau
> dfinexp, star(0.05)
```

	erningmgt	deltafirmage	deltafirsize	deltafirmperf	deltafirmlev	ecodis	envdis
erningmgt	1.0000						
deltafirmage	0.2410*	1.0000					
deltafirsize	0.9308*	0.0163	1.0000				
deltafirmperf	0.2979*	0.5705*	0.0408	1.0000			
deltafirmlev	0.0323	0.0044	0.0520	0.0009	1.0000		
ecodis	0.1085*	0.2229*	-0.0422	0.2855*	0.0028	1.0000	
envdis	0.1469*	0.2394*	-0.0098	0.4041*	0.0018	0.5067*	1.0000
socdis	0.0878*	0.1628*	-0.0327	0.3235*	0.0027	0.7772*	0.6985*
deltaaudfi	0.0091	-0.0138	0.0262	-0.0049	0.7141*	-0.0511	-0.0265

	socdis	deltaau
socdis	1.0000	
deltaaudfi	-0.0489	1.0000

Random

Control

```
. xtreg erningmgt deltafirmage deltafirsize deltafirmperf deltafirmlev
```

Random-effects GLS regression	Number of obs	=	585
Group variable: companyid	Number of groups	=	65

R-sq:	Obs per group:
within = 0.9722	min = 9
between = 0.8373	avg = 9.0

Moderator

```
. xtreg erningmgt deltafirmage deltafirsiz deltafirmperf deltafirmlev ecodis envdis
socdis deltaaud
> finexp
```

```
Random-effects GLS regression      Number of obs   =   585
Group variable: companyid          Number of groups =   65
```

```
R-sq:                               Obs per group:
  within = 0.9728                     min =      9
  between = 0.8647                    avg =     9.0
  overall = 0.9492                    max =      9
```

```
Wald chi2(8)   = 16831.9corr(u_i, X) = 0 (assumed)
Prob > chi2    = 0.0000
```

```
-----+-----
      erningmgt |   Coef.   Std. Err.   z   P>|z|   [95% Conf. Interval]
-----+-----
deltafirmage | .0448477   .0102002   4.40  0.000   .0248556   .0648398
deltafirsiz | .9629355   .0076947  125.14  0.000   .9478543   .9780168
deltafirmperf | .225833   .0150605   15.00  0.000   .196315   .255351
deltafirmlev | -.0479602  .0114196   -4.20  0.000  -.0703421  -.0255782
ecodis | .0820711   .0233919   3.51  0.000   .0362238   .1279184
envdis | .065494   .0191991   3.41  0.001   .0278645   .1031236
socdis | -.0832595  .0263839   -3.16  0.002  -.1349711  -.031548
deltaaudfinexp | .0389244  .0112828   3.45  0.001   .0168106   .0610382
_cons | .0036285   .0166647   0.22  0.828  -.0290338   .0362908
-----+-----
sigma_u | .10987655
sigma_e | .16825702
rho | .29895679 (fraction of variance due to u_i)
-----+-----
```

```
. xtreg erningmgt deltafirmage deltafirsiz deltafirmperf deltafirmlev ecodis envdis
socdis deltaaud
> finexp ecoaudfinexp
```

```
Random-effects GLS regression      Number of obs   =   585
Group variable: companyid          Number of groups =   65
```

```
R-sq:                               Obs per group:
  within = 0.9736                     min =      9
  between = 0.8633                    avg =     9.0
  overall = 0.9495                    max =      9
```

```
Wald chi2(9)   = 16937.53
corr(u_i, X) = 0 (assumed)          Prob > chi2    = 0.0000
```

```
-----+-----
```

```

erningmgt |   Coef.  Std. Err.   z  P>|z|  [95% Conf. Interval]
-----+-----
deltafirmage | .0396487 .0103495   3.83  0.000   .0193641   .0599333
deltafirsize | .9637383 .0076742 125.58  0.000   .9486972   .9787795
deltafirmperf | .2271024 .0148232  15.32  0.000   .1980495   .2561552
deltafirmlev | -.0481833 .0113967  -4.23  0.000  -.0705203  -.0258463
  ecodis | .0674492 .0233597   2.89  0.004   .021665   .1132333
  envdis | .0753581 .0190276   3.96  0.000   .0380647   .1126515
  socdis | -.0886451 .0258807  -3.43  0.001  -.1393704  -.0379198
deltaaudfinexp | -.5123203 .1688694  -3.03  0.002  -.8432983  -.1813423
ecoaudfinexp | -.4149168 .1269874  -3.27  0.001  -.6638076  -.1660261
  _cons | -.0174779 .0173781  -1.01  0.315  -.0515383   .0165826
-----+-----
sigma_u | .10394593
sigma_e | .1655937
rho | .28265441 (fraction of variance due to u_i)
-----+-----

```

```

. xtreg erningmgt deltaxfirmage deltaxfirsize deltaxfirmperf deltaxfirmlev ecodis envdis
soddis deltaxaud
> finexp ecoaudfinexp envaudfinexp

```

```

Random-effects GLS regression           Number of obs   =    585
Group variable: companyid              Number of groups =    65

```

```

R-sq:                                     Obs per group:
  within = 0.9737                          min =          9
  between = 0.8628                         avg =         9.0
  overall = 0.9494                         max =          9

```

```

Wald chi2(10) = 17031.16
corr(u_i, X) = 0 (assumed)                Prob > chi2    = 0.0000

```

```

erningmgt |   Coef.  Std. Err.   z  P>|z|  [95% Conf. Interval]
-----+-----
deltaxfirmage | .0369077 .0104562   3.53  0.000   .016414   .0574015
deltaxfirsize | .9637203 .0076539 125.91  0.000   .948719   .9787216
deltaxfirmperf | .2285563 .0148707  15.37  0.000   .1994102   .2577024
deltaxfirmlev | -.0483342 .0113638  -4.25  0.000  -.0706068  -.0260616
  ecodis | .0594766 .0240383   2.47  0.013   .0123624   .1065908
  envdis | .0853937 .0204174   4.18  0.000   .0453763   .1254111
  socdis | -.0891908 .0259633  -3.44  0.001  -.140078   -.0383036
deltaxaudfinexp | -.5309373 .1688209  -3.14  0.002  -.8618201  -.2000544
ecoaudfinexp | -.5934343 .1786344  -3.32  0.001  -.9435512  -.2433173
envaudfinexp | .2665736 .1893304   1.41  0.159  -.1045071   .6376544
  _cons | -.0195922 .0175314  -1.12  0.264  -.0539531   .0147688
-----+-----
sigma_u | .10499122
sigma_e | .16517941

```

rho | .28775532 (fraction of variance due to u_i)

```
-----
. xtreg erningmgt deltafirmage deltafirsize deltafirmperf deltafirmlev ecodis envdis
socdis deltaaud
> finexp ecoaudfinexp envaudfinexp socaudfinexp
```

```
Random-effects GLS regression      Number of obs   =   585
Group variable: companyid         Number of groups =   65
```

```
R-sq:                               Obs per group:
  within = 0.9740                    min =      9
  between = 0.8631                   avg =     9.0
  overall = 0.9498                   max =      9
```

```
Wald chi2(11) = 16909.60
corr(u_i, X) = 0 (assumed)          Prob > chi2    = 0.0000
```

```
-----
erningmgt |   Coef.  Std. Err.   z  P>|z|   [95% Conf. Interval]
-----+-----
deltafirmage | .035076  .0105948   3.31 0.001   .0143105  .0558414
deltafirsize | .964848  .007691  125.45 0.000   .949774  .979922
deltafirmperf | .2282656 .0146758  15.55 0.000   .1995015  .2570297
deltafirmlev | -.0473536 .0114158  -4.15 0.000  -.069728  -.0249791
  ecodis | .0429955 .0249316   1.72 0.085  -.0058695  .0918605
  envdis | .0739787 .0208285   3.55 0.000   .0331556  .1148019
  socdis | -.059588  .0287329  -2.07 0.038  -.1159036  -.0032725
deltaaudfinexp | -.4990528 .1700415  -2.93 0.003  -.8323281  -.1657776
ecoaudfinexp | -1.124905 .2971544  -3.79 0.000  -1.707317  -.5424931
envaudfinexp | -.0545771 .2367271  -0.23 0.818  -.5185537  .4093994
socaudfinexp | .7753414 .3419419   2.27 0.023   .1051476  1.445535
  _cons | -.0172897 .0170904  -1.01 0.312  -.0507861  .0162068
-----+-----
sigma_u | .09941072
sigma_e | .16425904
rho | .26808322 (fraction of variance due to u_i)
-----
```



```

-----
    erningmgt |   Coef.  Std. Err.   t  P>|t|   [95% Conf. Interval]
-----+-----
    deltafirmage | .0211322 .0101431   2.08  0.038   .0012052 .0410593
    deltafirsize | .9566204 .0075156  127.28  0.000   .9418552 .9713855
    deltafirmperf | .2329157 .0219481  10.61  0.000   .1897966 .2760348
    deltafirmlev | -.0183011 .0071236  -2.57  0.010  -.0322961 -.0043061
    ecodis | .0051148 .0426138   0.12  0.905  -.0786042 .0888338
    envdis | .0072052 .0299565   0.24  0.810  -.0516473 .0660578
    socdis | -.0325585 .0439353  -0.74  0.459  -.1188737 .0537567
    _cons | .004818 .0071168   0.68  0.499  -.0091636 .0187997
-----+-----
    sigma_u | .22234394
    sigma_e | .17184802
    rho | .6260317 (fraction of variance due to u_i)
-----

```

F test that all u_i=0: F(64, 513) = 9.63 Prob > F = 0.0000

```

. xtreg erningmgt deltafirmage deltafirsize deltafirmperf deltafirmlev ecodis envdis
  socdis deltaaud
> fin , fe

```

```

Fixed-effects (within) regression      Number of obs   =   585
Group variable: companyid              Number of groups =    65

```

```

R-sq:                                Obs per group:
  within = 0.9738                      min =          9
  between = 0.8080                     avg =         9.0
  overall = 0.9370                      max =          9

```

```

                                F(8,512)   =  2377.65
corr(u_i, Xb) = 0.0671           Prob > F   =  0.0000

```

```

-----
    erningmgt |   Coef.  Std. Err.   t  P>|t|   [95% Conf. Interval]
-----+-----
    deltafirmage | .021709 .0099318   2.19  0.029   .0021969 .0412212
    deltafirsize | .9571568 .0073594  130.06  0.000   .9426984 .9716151
    deltafirmperf | .2328358 .0214894  10.83  0.000   .1906175 .2750541
    deltafirmlev | -.0569965 .010648  -5.35  0.000  -.0779156 -.0360773
    ecodis | .0061024 .0417238   0.15  0.884  -.0758686 .0880733
    envdis | .0068812 .0293306   0.23  0.815  -.0507419 .0645044
    socdis | -.0325244 .0430172  -0.76  0.450  -.1170364 .0519875
    deltaaudfin | .0511668 .0106388   4.81  0.000   .0302658 .0720679
    _cons | .0045578 .0069683   0.65  0.513  -.0091322 .0182477
-----+-----
    sigma_u | .2284093
    sigma_e | .16825702
    rho | .64823568 (fraction of variance due to u_i)
-----

```



```

envaudfinexp | -.0099916 .2164092 -0.05 0.963 -.4351568 .4151736
socaudfinexp | .8091479 .3118743 2.59 0.010 .1964286 1.421867
  _cons | -.0205808 .009146 -2.25 0.025 -.0385493 -.0026122

```

```

-----+-----
sigma_u | .23326774
sigma_e | .16425904
rho | .66851681 (fraction of variance due to u_i)

```

```

-----+-----
F test that all u_i=0: F(64, 509) = 11.21          Prob > F = 0.0000

```

```

. Hausman test

```

```

. estimates store re

```

```

. hausman fe re

```

```

-----+-----
---- Coefficients ----
| (b)      (B)      (b-B)  sqrt(diag(V_b-V_B))
| fe      re      Difference  S.E.
-----+-----
firmage | .0176006 .0030527 .0145479 .0100061
firmsize | .0150087 .1278687 -.11286 .1298279
roa | .0133421 .075251 -.0619089 .0580138
leveragede | -.0014472 -.0009514 -.0004959 .0032323

```

```

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

```

```

Test: Ho: difference in coefficients not systematic

```

```

chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
          = 5.50
Prob>chi2 = 0.2395

```

```

. estimates store re

```

```

. hausman fe re

```

```

-----+-----
---- Coefficients ----
| (b)      (B)      (b-B)  sqrt(diag(V_b-V_B))
| fe      re      Difference  S.E.
-----+-----
fage | .2197992 .0559509 .1638483 .2688729
fsize | .0577486 .2191744 -.1614258 .2055291
fprm | .0276008 .0285115 -.0009107 .0164359
flev | -.0048334 .0013148 -.0061482 .0156529
ecodis | .1677025 .0422583 .1254442 .1896781
envdis | .2269816 .1807323 .0462493 .1096836
socdis | -.8771497 -.2002812 -.6768685 .1930121
audfin | .0642 -.0768592 .1410592 .0406668

```

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned}\chi^2(8) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 4.80 \\ \text{Prob}>\chi^2 &= 0.1865\end{aligned}$$

Unit root

. xtunitroot ht jones_1995

Harris-Tzavalis unit-root test for jones_1995

 Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 10

AR parameter: Common Asymptotics: N -> Infinity
 Panel means: Included T Fixed
 Time trend: Not included

	Statistic	z	p-value
rho	-0.1615	-25.9938	0.0000

. xtunitroot ht deltafirmage

Harris-Tzavalis unit-root test for deltafirmage

 Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 10

AR parameter: Common Asymptotics: N -> Infinity
 Panel means: Included T Fixed
 Time trend: Not included

	Statistic	z	p-value
rho	0.0377	-20.1688	0.0000

. xtunitroot ht deltafirsize

Harris-Tzavalis unit-root test for deltafirsize

 Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 10

Time trend: Not included

	Statistic	z	p-value
rho	0.1700	-18.4305	0.0000

. xtunitroot ht envdis

Harris-Tzavalis unit-root test for envdis

Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 11

AR parameter: Common Asymptotics: N -> Infinity
 Panel means: Included T Fixed
 Time trend: Not included

	Statistic	z	p-value
rho	0.5940	-4.9563	0.0000

. xtunitroot ht socdis

Harris-Tzavalis unit-root test for socdis

Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 11

AR parameter: Common Asymptotics: N -> Infinity
 Panel means: Included T Fixed
 Time trend: Not included

	Statistic	z	p-value
rho	0.1893	-17.8163	0.0000

. xtunitroot ht audfin

Harris-Tzavalis unit-root test for audfin

Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 11

AR parameter: Common Asymptotics: N -> Infinity
 Panel means: Included T Fixed
 Time trend: Not included

	Statistic	z	p-value
rho	0.5912	-5.0464	0.0000

.

Lenvinchu

. xtunitroot llc deltafirmage

Levin-Lin-Chu unit-root test for deltafirmage

Ho: Panels contain unit roots Number of panels = 65
Ha: Panels are stationary Number of periods = 10

AR parameter: Common Asymptotics: N/T -> 0
Panel means: Included
Time trend: Not included

ADF regressions: 1 lag
LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)

	Statistic	p-value
Unadjusted t	-37.3908	
Adjusted t*	-33.0718	0.0000

. xtunitroot llc deltafirsize

Levin-Lin-Chu unit-root test for deltafirsize

Ho: Panels contain unit roots Number of panels = 65
Ha: Panels are stationary Number of periods = 11

AR parameter: Common Asymptotics: N/T -> 0
Panel means: Included
Time trend: Not included

ADF regressions: 1 lag
LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)

	Statistic	p-value
Unadjusted t	-18.8181	
Adjusted t*	-15.1049	0.0000

. xtunitroot llc deltafirmperf

Levin-Lin-Chu unit-root test for deltafirmperf

 Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 10

AR parameter: Common Asymptotics: N/T -> 0
 Panel means: Included
 Time trend: Not included

ADF regressions: 1 lag
 LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)

	Statistic	p-value
Unadjusted t	-17.5174	
Adjusted t*	-16.5601	0.0000

. xtunitroot llc deltafirmlev

Levin-Lin-Chu unit-root test for deltafirmlev

 Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 9

AR parameter: Common Asymptotics: N/T -> 0
 Panel means: Included
 Time trend: Not included

ADF regressions: 1 lag
 LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)

	Statistic	p-value
Unadjusted t	-33.4697	
Adjusted t*	-21.6497	0.0000

. xtunitroot llc ecodis

Levin-Lin-Chu unit-root test for ecodis

 Ho: Panels contain unit roots Number of panels = 65
 Ha: Panels are stationary Number of periods = 11

AR parameter: Common Asymptotics: N/T -> 0
 Panel means: Included
 Time trend: Not included

ADF regressions: 1 lag
 LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)

```

-----
                Statistic   p-value
-----
Unadjusted t    -16.2967
Adjusted t*     -8.3717    0.0000
-----

. xtunitroot llc envdis

Levin-Lin-Chu unit-root test for envdis
-----
Ho: Panels contain unit roots      Number of panels = 65
Ha: Panels are stationary          Number of periods = 11

AR parameter: Common                Asymptotics: N/T -> 0
Panel means: Included
Time trend: Not included

ADF regressions: 1 lag
LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)
-----
                Statistic   p-value
-----
Unadjusted t    -7.2378
Adjusted t*     4.5372    1.0000
-----

. xtunitroot llc socdis

Levin-Lin-Chu unit-root test for socdis
-----
Ho: Panels contain unit roots      Number of panels = 65
Ha: Panels are stationary          Number of periods = 11

AR parameter: Common                Asymptotics: N/T -> 0
Panel means: Included
Time trend: Not included

ADF regressions: 1 lag
LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)
-----
                Statistic   p-value
-----
Unadjusted t    -5.2516
Adjusted t*     7.9989    1.0000
-----

```

```
. xtunitroot llc audfin
```

Levin-Lin-Chu unit-root test for audfin

```
-----
Ho: Panels contain unit roots      Number of panels = 65
Ha: Panels are stationary          Number of periods = 11
```

```
AR parameter: Common              Asymptotics: N/T -> 0
Panel means: Included
Time trend: Not included
```

```
ADF regressions: 1 lag
LR variance: Bartlett kernel, 7.00 lags average (chosen by LLC)
```

```
-----
Statistic    p-value
-----
Unadjusted t  -10.2084
Adjusted t*   -0.2181    0.4137
```

```
. xtunitroot ht jones_1995
```

Harris-Tzavalis unit-root test for jones_1995

```
-----
Ho: Panels contain unit roots      Number of panels = 65
Ha: Panels are stationary          Number of periods = 10
```

```
AR parameter: Common              Asymptotics: N -> Infinity
Panel means: Included              T Fixed
Time trend: Not included
```

```
-----
Statistic    z    p-value
-----
rho          -0.1615  -25.9938  0.0000
```

fisher-type

```
. xtunitroot fisher deltafirmage, lag(1) trend dfuller
(65 missing values generated)
```

Fisher-type unit-root test for deltafirmage
Based on augmented Dickey-Fuller tests

```
-----
Ho: All panels contain unit roots  Number of panels = 65
Ha: At least one panel is stationary Number of periods = 10
```

```
AR parameter: Panel-specific      Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included          ADF regressions: 1 lag
```

```
-----
Statistic    p-value
-----
```

```

Inverse chi-squared(130) P    328.2011    0.0000
Inverse normal      Z    -2.7851    0.0027
Inverse logit t(329) L*    -5.6563    0.0000
Modified inv. chi-squared Pm    12.2919    0.0000

```

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

```
. xtunitroot fisher deltafirsize, lag(1) trend dfuller
```

Fisher-type unit-root test for deltafirsize
Based on augmented Dickey-Fuller tests

```

-----
Ho: All panels contain unit roots      Number of panels =   65
Ha: At least one panel is stationary    Number of periods =   11

```

```

AR parameter: Panel-specific           Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included                ADF regressions: 1 lag

```

```

-----
Statistic      p-value
-----
Inverse chi-squared(130) P    281.5512    0.0000
Inverse normal      Z    -1.4196    0.0779
Inverse logit t(314) L*    -3.8935    0.0001
Modified inv. chi-squared Pm    9.3988    0.0000

```

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

```
. xtunitroot fisher deltafirmperf , lag(1) trend dfuller
(65 missing values generated)
```

Fisher-type unit-root test for deltafirmperf
Based on augmented Dickey-Fuller tests

```

-----
Ho: All panels contain unit roots      Number of panels =   65
Ha: At least one panel is stationary    Number of periods =   10

```

```

AR parameter: Panel-specific           Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included                ADF regressions: 1 lag

```

	Statistic	p-value
Inverse chi-squared(130)	P	679.4623 0.0000
Inverse normal	Z	-7.9290 0.0000
Inverse logit t(314)	L*	-18.5953 0.0000
Modified inv. chi-squared	Pm	34.0762 0.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

. xtunitroot fisher deltafirmlev , lag(1) trend dfuller
(130 missing values generated)

Fisher-type unit-root test for deltafirmlev
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 65
Ha: At least one panel is stationary Number of periods = 9

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

	Statistic	p-value
Inverse chi-squared(130)	P	785.4343 0.0000
Inverse normal	Z	-14.2233 0.0000
Inverse logit t(329)	L*	-24.9116 0.0000
Modified inv. chi-squared	Pm	40.6483 0.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

. xtunitroot fisher ecodis , lag(1) trend dfuller

Fisher-type unit-root test for ecodis
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 65
Ha: At least one panel is stationary Number of periods = 11

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

	Statistic	p-value
Inverse chi-squared(130) P	102.1034	0.9664
Inverse normal Z	1.2123	0.8873
Inverse logit t(129) L*	-1.1998	0.1162
Modified inv. chi-squared Pm	-1.7301	0.9582

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

. xtunitroot fisher envdis , lag(1) trend dfuller

Fisher-type unit-root test for envdis
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 65
Ha: At least one panel is stationary Number of periods = 11

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

	Statistic	p-value
Inverse chi-squared(130) P	62.5858	1.0000
Inverse normal Z	-0.6592	0.2549
Inverse logit t(104) L*	-1.1367	0.1291
Modified inv. chi-squared Pm	-4.1809	1.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

. xtunitroot fisher socdis , lag(1) trend dfuller

Fisher-type unit-root test for socdis
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 65
Ha: At least one panel is stationary Number of periods = 11

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

	Statistic	p-value
Inverse chi-squared(130) P	38.3817	1.0000
Inverse normal Z	0.9817	0.8369
Inverse logit t(119) L*	0.7344	0.7679
Modified inv. chi-squared Pm	-5.6819	1.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

. xtunitroot fisher audfin , lag(1) trend dfuller

Fisher-type unit-root test for audfin
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 65
Ha: At least one panel is stationary Number of periods = 11

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

	Statistic	p-value
Inverse chi-squared(130) P	59.9156	1.0000
Inverse normal Z	3.6552	0.9999
Inverse logit t(199) L*	3.3547	0.9995
Modified inv. chi-squared Pm	-4.3465	1.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

. xtunitroot fisher jones_1995 , lag(1) trend dfuller
(65 missing values generated)

Fisher-type unit-root test for jones_1995
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 65
Ha: At least one panel is stationary Number of periods = 10

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

	Statistic	p-value
Inverse chi-squared(130)	P	561.7727 0.0000
Inverse normal	Z	-9.6195 0.0000
Inverse logit t(329)	L*	-16.1554 0.0000
Modified inv. chi-squared	Pm	26.7774 0.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

Autocorrelation

. xtserial erningmgt fage fsize fprm flew ecodis envdis socdis audfin
Wooldridge test for autocorrelation in panel data

H0: no first order autocorrelation

F(1, 64) = 0.024
Prob > F = 0.8775

Multicollinearity

. vif

Variable	VIF	1/VIF
socdis	3.77	0.265059
ecodis	2.62	0.382289
envdis	2.17	0.461754
daudfin	2.06	0.486032
deltafirmlev	2.05	0.486657
deltafirm~f	1.68	0.593975
deltafirmage	1.51	0.664078
deltafirsize	1.01	0.991445
Mean VIF	2.11	

Heteroscedasticity

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of erningmgt

chi2(1) = 3.18

Prob > chi2 = 0.0746

Model specification

estat ovtest

Ramsey RESET test using powers of the fitted values of erningmgt

Ho: model has no omitted variables

F(3, 710) = 1.63

Prob > F = 0.1811

Appendix 3: Plagiarism Awareness Certificate



SR864

ISO 9001:2019 Certified Institution

THESIS WRITING COURSE

PLAGIARISM AWARENESS CERTIFICATE

This certificate is awarded to

CHARLES GITHINJI KABIRU

PHD/BM/6076/22

In recognition for passing the University's plagiarism

Awareness test for Thesis entitled: CORPORATE SUSTAINABILITY DISCLOSURES, AUDIT COMMITTEE FINANCIAL EXPERTISE AND EARNINGS MANAGEMENT AMONG FIRMS LISTED IN EAST AFRICA COMMUNITY with similarity index of 14% and striving to maintain academic integrity.

Word count:53070

Awarded by

Prof. Anne Syomwene Kisilu

CERM-ESA Project Leader Date: 04/06/2025