ANUK COLLEGE OF PRIVATE SECTOR Accounting Journal

VOL. 2 NO. 1 APRIL, 2025

A Publication of College of Private Sector Accounting
ANAN University Kwall, Plateau State, Nigeria.

Published April, 2025.

Web Address: https://www.anukpsaj.com, Email: anukpsaj@gmail.com

Printed by:
MUSSAB Printers,
NB, 9 Muri road by gwari road, Kaduna State, Nigeria.
Phone contact: 07038776658,
Email: meetsuleiman009@gmail.com

Structure of Manuscript

Manuscripts must be typed on A size paper with 12 font size (Times New Roman), not more than 15 pages, double-spaced, and in English. The file name should include the corresponding author's name and a keyword from the title.

Sequence of Manuscript

I. Title page
II. Abstract (150-250 words)
III. Keywords (3-5)
IV. Introduction
V. Literature Review
VI. Methodology
VII. Results and Discussion
VIII. Conclusion and Recommendations
IX. References (APA 7th Edition)
X. Appendices (if necessary)
XI. Author Biographies (optional)

Plagiarism Policy

ANUK is committed to maintaining high standards through an indept peer-review process with sound ethical policies. Any infringements of professional ethical codes, such as plagiarism; including self-plagiarism, fraudulent use of data, are seriously frowned at by the journal with zero tolerance.

ANUK implements the Code of Conduct of the Committee on Publication Ethics (COPE), and uses the COPE Flowcharts for Resolving cases of suspected plagiarism or any publication misconduct.

In order to avoid plagiarism cases with the ANUK, the following guidelines must be strictly adhered to by authors:

Authors should ensure that they have written entirely original works, and if authors have used the work and/or words of others that this has been appropriately cited or quoted.

An author should not, in general, publish manuscripts describing essentially the same research in more than one journal or primary publication. Submitting the same manuscript to more than one journal concurrently constitutes unethical publishing behavior and is unacceptable.

Proper acknowledgment of the work of others must always be adhered to. Authors should cite publications that have been influential in determining the nature of the reported work.

Editorial Team

TABLE OF CONTENT

1. **Effect Of Digitalised Accounting Practices On Financial Accountability Of Ministries, Departments, And Agencies (Mdas) In Nigeria**
Abdulrahman Kadir, Mubaraq Sanni, Olusegun Opeyemi Oni …..............................….... 1

2. **The effect of digital accounting techniques training on detection of financial irregularity in deposit money banks in nigeria.**
Akinola Babatunde Moses, Ngereboa Tamunonimim And Ibrahim Abdullateef ……...… 14

3. **Determinants of Big Data Analytics Adoption Among Firms in the Hospitality Industry in Nigeria**
Akinyemi adebayo muideen, Dagwom yohanna dang, Abdullahi yau ………................... 26

4. **Moderating effect of agency cost on relationship between capital Structure and value of listed firms in Nigeria.**
Buhari Adeiza Yusuf and S.A.A Aruwa…... 35

5. **Moderating effect of company income tax on the relationship Between capital structure and financial performance of Listed multinational companies in Nigeria**
Christopher David Mbatuegwu, Banjamin Uyagu David, Daninya Michael Zeinaba.......... 46

6. **Moderating effect of strong institutions on the relationship Between public reforms and accountability in nigerian federal Ministry of finance and agencies**
Ogundele Gbenga Oladele, Saidu Ibrahim Halidu, Uyagu David Benjamin, Abdullahi Ya'u Usman…………………………………………………………………………...............… 58

7. **Effect of International Accounting Stanadards Two (ias 2) – Inventory on Firm Performance of listed consumer goods Manufacturing |Companies in Nigeria**
Dagwom Yohanna Dang, Deshi Nentawe Nengak, Samuel Nmaname Gozuk ....……… 70

8. **Moderating Role of Pension Fund Size on the Relationship between Financial Risk Management and Performance of Tier 3 (small) Pension Funds Administrators (PFAs) In Nigeria**
Dogo Polycarp, Sunday Mlanga ……………………………………………………......… 85

9. **Forensic accounting as a tool for effective fraud detection and prevention in the Nigerian economy**
Ejembi Victoria Okoma …………………………......……………………………… 95

10. **Effect Of Oil Spillage Disclosure on the Annual Report and Financial Statement of Listed Oil Companies In Nigeria.**
Fom Peter Dauda ………………………………………………………………........…… 100

11. **Effect of Corporate Governance on Financial Performance of Quoted Healthcare Firms in Nigeria**
Hamid Fatima Talatu …………………………………………........………………....… 109

12. **Effect of Firm-Specific Sharacteristics on Financial Performance of Listed Agricultural Firms in Nigeria.**
Joel Adeoye Christopher ………………………………...………………………...…… 118

13. **Determinants of Internal Audit Quality of Selected MDAs In Nigeria**
Junaidu Shehu and Saidu Ibrahim Halidu ……………………….....………………....… 127

14. **Effect of Corporate Social Responsibility Disclosure on Share Prices of Listed Consumer Goods Companies in Nigeria**
Khadija Udu, Musa Adeiza Farouk, Benjamin Uyagu ……………....………………........ 135

15. **Effect of Corporate Governance Characteristics on Financial Performance of Listed Oil and Gas Firms in Nigeria**
Kwayama Hadassah Jehu …………………………………………………………...........….. 145

16. **Effects of Asset Tangibility and Cash Flow Volatility on Dividend Policy of Listed Manufacturing Firms in Nigeria**
Maimako N. Wodung, Anietie C. Dikki, Abdullahi A. Ahmed, Isma'il T. Idris ......………. 157

17. **Effect of Biometric Technology Application on Fraud Prevention Among Listed Deposit Money Banks in Nigeria**
Makinde Funmilayo Topsy …………………………………………………...........…… 164

18. **Effect of Earnings Quality on Shareholders' Value of Listed Deposit Money Banks in Nigeria**
Musa Inuwa Fodio, Tamunonimim Ngereboa, Nwogbodo Chibueze Otozi ……….......... 182

19. **Moderating Effect of Financial Performance on the Relationship Between ESG Disclosure and Earnings Management: Evidence From the Industrial Goods Sector of the NGX**
Nkwonta Ifeoma Nnenna ……..........……………………………………………………… 193

20. **Impact of Environmental, Social, and Governance (ESG) Disclosures on the Financial Performance of Listed Manufacturing Firms in Nigeria**
Ogbu Godwin Otseme, Joseph Femi Adebisi, Salisu Abubakar ……..........………………. 205

21. **Effect of Information and Communication Technology (ICT) Software Expenditure on Financial Performance Among Listed Deposit Money Banks in Nigeria**
Okpe James Friday ……………………………………………………………….......... 216

22. **Forensic Investigation Techniques and Financial Reporting Fraud in Selected Beverage Firms in Nigeria**
Oluwatosin Adejoke Osanyinbola, Tamunonimin Ngerebo-A ……..........……………... 226

23. **The Influence of Corporate Governance Mechanisms on the Financial Performance of Quoted Fast-Moving Consumer Goods (FMCG) Companies in Nigeria.**
Owie Bright Osarenti ……..........…………………………………………………………….. 234

24. **Effects of Firm Characteristics on Financial Reporting Quality of Listed Deposit Money Banks in Nigeria**
Oyeboade Olaitan Folasayo ………………………………………………….........……. 243

25. **Do Board Strategies Enhance Electronic Fraud Detection? Evidence From DMBS in Nigeria**
Sadiya Ahmed Almustapha, Musa Adeiza Farouk, Saidu Ibrahim Halidu ………........... 254

26. **Taxation and Corporate Performance: Analyzing the Effective Tax Rate, Marginal Tax Rate, and Earnings Per Share (EPS) of Listed Industrial Goods Companies in Nigeria**
Sani Abdulrahman Bala, Yahaya Alhaji Hassan, Mande Kabiru Dambuwa ……........…… 262

27. **Risk Management and Financial Performance of Listed Financial Service Firms in Nigeria**
Usman Muhammad Adam, Aliyu Abubakar ……………………………….........…… 272

28. **Effect of Information Communication Technology (ICT) Costs on Financial Performance of Listed Industrial Goods Companies in Nigeria: the Moderating Role of Firm Size.**
Zainab Abdullahi …………………........………………………………………………. 284

29. **Impact of Forensic Accounting Techniques on Reducing Procurement Fraud in Listed Manufacturing Companies in Nigeria.**
Idegbesor Umoru, Musa Adeiza Farouk, Suleiman Abubakar …………………........…… 292

30. **Effect of Audit Pricing on Quality of Audit Amongst Deposit Money Banks in Nigeria.**
Habiba Ihiovi ………………………………………………………………........…… 300

MODERATING EFFECT OF FINANCIAL PERFORMANCE ON THE RELATIONSHIP BETWEEN ESG DISCLOSURE AND EARNINGS MANAGEMENT: EVIDENCE FROM THE INDUSTRIAL GOODS SECTOR OF THE NGX

NKWONTA IFEOMA NNENNA

ABSTRACT

This study investigates the influence of Environmental, Social, and Governance (ESG) disclosure on earnings management in the industrial goods sector of the Nigerian Exchange (NGX), with Return on Assets (ROA) serving as a moderating variable. Drawing on agency and stakeholder theories, the study applies the Kothari model (2005) to measure accrual-based earnings management. A balanced panel of 13 firms from 2012 to 2023 is analysed using three regression models, culminating in a moderated ordinary least squares (OLS) model. Findings reveal that social (SOCI), environmental (ENVI), and governance (GOVI) disclosures significantly influence earnings management. Specifically, ENVI and GOVI negatively affect earnings manipulation, supporting the view that transparent disclosures deter opportunistic behaviour. While ROA alone shows no significant direct effect, the interaction between ESG components and ROA suggests that firm performance has a conditional influence, particularly in the ENVI and SOCI dimensions. The joint significance of the interaction terms further validates the moderating role of ROA. The study contributes to emerging market literature by reinforcing the importance of non-financial disclosures and performance interplay in curbing earnings management. It recommends policy emphasis on ESG compliance and performance-linked monitoring to strengthen financial reporting integrity and investor confidence in the industrial goods sector.

Keywords: *ESG Disclosure, Earnings Management, Financial Performance, Kothari Model, Industrial Goods Sector.*

1. Introduction

Earnings management is a recurring concern in corporate financial reporting due to its implications for transparency, market efficiency, and the integrity of financial statements. Defined as the deliberate manipulation of accounting figures to meet internal or market-driven targets, earnings management distorts the actual financial performance of firms and may mislead investors and regulators alike (Kliestik et al., 2020). In response, several models have been developed to detect such manipulative practices, including heuristic approaches like the Beneish M-Score and econometric frameworks such as the Jones and Modified Jones models. However, the present study adopts the Kothari, et al. (2005) performance-adjusted accrual model as the preferred methodology for detecting earnings management. This choice is grounded in both empirical and theoretical considerations.

The Kothari model improves upon its predecessors by incorporating return on assets (ROA) as a control variable, thereby correcting for the endogeneity between performance and discretionary accruals. Unlike the Beneish M-Score, which functions primarily as a forensic flagging tool based on financial ratios, the Kothari model provides a continuous residual-based measure of discretionary accruals. This allows for greater precision in inferential analyses and supports more robust causal interpretations in a panel data setting. Its strength lies in the ability to isolate abnormal accruals after accounting for firm-level financial characteristics, making it more suitable for longitudinal analysis and the estimation of interaction effects such as moderation.

This study investigates the extent to which ESG disclosure, disaggregated into governance (GOVI), social (SOCI), and environmental (ENVI) components, affects earnings management among listed firms in Nigeria's industrial goods sector. More importantly, the study examines whether financial performance, proxied by return on assets (ROA), moderates the relationship between each ESG component and earnings management. The focus on profitability as a moderator stems from the notion that financially stronger firms may be more capable and more motivated to engage in credible ESG practices, thereby enhancing their deterrent effect on earnings manipulation.

In recent years, ESG disclosure has become a salient feature of modern corporate transparency, with implications for investor decision-making, firm behaviour, and long-term value creation. ESG disclosures are increasingly regarded not merely as symbolic gestures but as potential instruments of corporate discipline that can reduce information asymmetry and enhance stakeholder engagement (Aluchna et al., 2022; Zhu et al., 2024). However, the real impact of ESG practices on curbing earnings management remains contested. In institutional environments with weak regulatory enforcement, such as Nigeria, ESG disclosures may be deployed more for symbolic legitimacy than substantive governance (Emma and Jennifer, 2021).

In the Nigerian capital market, characterised by regulatory fragility and limited investor activism (Makinde, 2020), ESG disclosure may either serve as a mechanism for genuine behavioural transformation or as a strategic tool to obfuscate opportunistic practices. This dual potential raise critical empirical questions about whether ESG narratives genuinely constrain earnings management or simply camouflage it.

The study's objectives are fourfold. First, to examine the influence of governance disclosure on earnings management. Second, to assess the effect of social disclosure on earnings management. Third, to determine whether environmental disclosure affects earnings management practices. Fourth, to explore whether firm profitability moderates the relationship between each ESG component and earnings management. This layered design allows for a granular understanding of the ESG and earnings management nexus and the conditional role of financial performance in shaping that relationship.

The theoretical framework underpinning this research draws from agency theory, signalling theory, and legitimacy theory. Agency theory posits that governance disclosures reduce managerial opportunism by improving transparency and aligning interests (Jensen and Meckling, 1976). Signalling theory suggests that ESG disclosures may be employed as strategic differentiators, especially in contexts lacking stringent enforcement (Helfaya et al., 2023). Legitimacy theory, however, cautions that firms may adopt ESG disclosures symbolically to gain public approval without effecting real change (Dowling and Pfeffer, 1975; Lee and Raschke, 2022). These perspectives collectively explain how ESG can either act as a constraint on or a cover for earnings manipulation and why firm performance may shape these outcomes.

Empirical findings on the efficacy of ESG disclosure in constraining earnings management remain inconclusive. Some studies suggest a positive role for ESG in improving reporting quality (Velte, 2019; Hummel and Schlick, 2016), while others find evidence of symbolic compliance, particularly in emerging markets with weak enforcement (Brahmana et al., 2018). Furthermore, the bulk of literature often treats ESG as a single construct, thereby masking the potentially divergent effects of its constituent dimensions. This study addresses these gaps by disaggregating ESG and incorporating a moderating effect of firm performance, thus providing a nuanced empirical lens.

Methodologically, the study evaluates three econometric models to determine the most appropriate estimation strategy for the panel data: fixed effects, random effects, and pooled ordinary least squares (OLS). The Hausman specification test indicates that the random effects model is preferred over fixed effects, suggesting that the unique errors across firms are uncorrelated with the regressors. However, the Breusch and Pagan Lagrangian Multiplier test reveals that the random effects model does not significantly improve over pooled OLS, thereby supporting the use of the simpler pooled OLS estimator. Consequently, the study adopts pooled OLS as the primary estimation technique. The analysis is conducted using a balanced panel of Industrial Goods firms listed on the Nigerian Exchange (NGX) over the period 2012 to 2023. Earnings management is measured using the Kothari performance-adjusted accrual model, which estimates discretionary accruals as residuals from a regression incorporating firm-level financial performance. ESG disclosures are developed through structured content analysis of annual and sustainability reports and are categorised into environmental, social, and governance indices.

The remainder of this paper is structured as follows. Section 2 reviews relevant literature on ESG disclosure and earnings management. Section 3 outlines the research design, including data, variables, and analytical approach. Section 4 presents empirical results and discusses findings. Section 5 concludes with policy implications, limitations, and future research directions.

2. Literature Review

This section reviews existing literature relevant to the study. It is organised into three subsections: the conceptual review, which clarifies the key constructs of earnings management, ESG disclosure, and financial performance; the empirical review, which synthesises prior findings on the ESG disclosure and earnings management relationship and the moderating role of firm performance; and the theoretical framework, which outlines the guiding theories underpinning the study.

2.1 Conceptual Review

This section presents a conceptual understanding of the key constructs that underpin this study: earnings management, ESG disclosure (with its three components), the Kothari performance-adjusted model as a detection framework, and profitability as a moderating mechanism. These concepts form the basis for exploring the integrity of financial reporting within the Nigerian corporate landscape.

2.1.1 Earnings Management

Earnings management refers to the strategic alteration of financial information by managers to mislead stakeholders or achieve contractual outcomes (Kliestik et al., 2020). It can take the form of accrual-based manipulation or real activities management. Accrual manipulation affects accounting estimates such as provisions and depreciation, while real activities manipulation entails changes to actual business operations, such as the timing of sales, overproduction, or reduction in discretionary spending. In Nigeria, earnings management is particularly problematic due to factors such as ownership concentration, weak investor protection, and regulatory enforcement gaps.

2.1.2 Kothari Accrual Model

The Kothari model (Kothari et al., 2005) is an enhancement of earlier discretionary accrual models, particularly the Jones and Modified Jones Models, and serves as a refined tool for detecting accrual-based earnings management. It adjusts for firm performance by incorporating return on assets (ROA) as an explanatory variable, thereby controlling for the influence of economic performance on accruals. This adjustment reduces the likelihood of misclassifying normal accruals driven by genuine performance fluctuations as earnings manipulation. Compared to heuristic approaches such as the Beneish M-Score, which flags likely manipulators based on a composite of financial ratios, the Kothari model provides a parametric estimation of discretionary accruals, offering greater precision and suitability for panel data contexts.

While the Beneish M-Score remains a useful initial screening tool due to its reliance on publicly available data, it is less tailored to capturing nuanced discretionary reporting behaviour where legitimate and opportunistic accruals overlap. The Kothari model, by contrast, is grounded in regression-based estimation and allows researchers to isolate manipulation within a structured statistical framework. This makes it particularly valuable in research contexts that require more robust control for firm-specific performance effects, such as studies involving moderating variables or panel regressions.

2.1.3 ESG Disclosure

ESG disclosure denotes the voluntary or mandatory communication by firms concerning their environmental footprint, social practices, and governance mechanisms. Environmental disclosure includes details on emissions, energy consumption, and waste control (Tsang et al., 2022). Social disclosure relates to labour rights, workplace diversity, community engagement, and health and safety. Governance disclosure encompasses board composition, audit independence, ownership structure, and executive accountability.

This study adopts a disaggregated ESG perspective to investigate how each pillar may influence earnings quality independently. While ESG disclosure is often viewed as a reputational instrument, it is conceptualised in this study as a potential internal governance mechanism. Effective ESG disclosure, especially in the governance dimension, may reduce managerial latitude to manipulate financial outcomes by enhancing transparency and stakeholder oversight.

2.1.4 Profitability as a Moderating Concept

Moderation occurs when the strength or direction of a relationship between an independent variable and a dependent variable changes based on the level of a third variable, referred to as the moderator (Akpadaka et al., 2024). In this study, firm profitability, measured by return on assets (ROA), is posited as a moderating variable that can influence the effect of ESG disclosure on earnings management.

The rationale for this moderation is grounded in both theoretical and empirical considerations. According to signalling theory, high-performing firms are more likely to use ESG disclosures credibly as signals of long-term commitment and ethical orientation. Conversely, low-performing firms may deploy ESG narratives strategically to distract from poor financial outcomes, a practice aligned with legitimacy theory. In weak institutional environments like Nigeria, where ESG regulation is underdeveloped and investor monitoring is limited, profitability may act as a filter through which the authenticity and effectiveness of ESG disclosures are judged.

Empirical studies suggest that profitability affects managerial incentives and reporting behaviour. Firms under financial pressure may have greater incentive to manipulate earnings, possibly undermining any governance benefits derived from ESG disclosures. By contrast, profitable firms may be under less pressure to distort financial outcomes and may therefore be more likely to engage in substantive ESG practices.

By integrating profitability as a moderating construct, this study aims to uncover conditional dynamics that simple linear models may obscure. It also allows for a more context-sensitive evaluation of ESG disclosure in settings characterised by varying financial performance levels.

2.2 Empirical Review and Hypotheses Development

A growing body of empirical literature examines the relationship between Environmental, Social, and Governance (ESG) disclosure and earnings management. However, findings remain inconclusive, particularly in emerging markets like Nigeria, where institutional voids and largely voluntary sustainability reporting frameworks undermine enforcement. This section synthesises relevant empirical insights from global and Nigerian studies, while developing four testable hypotheses that reflect both the direct and conditional effects of ESG dimensions on earnings management, measured using the Kothari performance-adjusted accrual model.

2.2.1 Environmental Disclosure and Earnings Management

Environmental disclosure is theorised to reduce earnings management by subjecting firms to greater stakeholder scrutiny and reputational accountability. Gerged et al. (2021) found that environmental disclosure negatively influenced earnings management in Kuwaiti listed firms, while Masmoudi (2024) documented that firms with strong environmental reporting were less likely to manipulate earnings. However, other studies challenge this effect, especially in weak institutional environments. Brahmana et al. (2018) found a positive association between environmental reporting and earnings management in Malaysia, indicating potential greenwashing. A recent study in China by Cui et al. (2025) found that voluntary environmental disclosure did not significantly influence earnings management.

Given this divergence, and the voluntary nature of environmental disclosure in Nigeria, it is unclear whether such disclosure mitigates or masks unethical financial reporting. To address this ambiguity, the study tests the following hypothesis:

H01: Environmental disclosure does not significantly affect earnings management in listed industrial goods firms on the NGX.

2.2.2 Social Disclosure and Earnings Management

Social disclosure captures information related to labour practices, employee rights, diversity, and community initiatives. It is generally assumed to enhance trust among stakeholders and thus discourage opportunistic financial behaviour. Trisnawati et al. (2016) found a negative relationship between CSR and earnings management in Indonesia, while Wiyadi et al. (2019) observed that firms with family ownership and social reputational concerns were less likely to manipulate earnings. However, Abdelfattah and Elfeky (2021) reported a positive relationship between social disclosure and earnings management in Egyptian firms, suggesting that such disclosures can be exploited as symbolic tools when oversight is weak.

In Nigeria, empirical evidence is limited and inconsistent. Onubogu and Nwaorgu (2024) found no significant relationship between social disclosure and earnings persistence among listed consumer goods firms, though their proxy for manipulation (earnings persistence) diverges from the regression-based accrual methodology applied in this study.

This study, therefore, addresses this methodological gap by testing the following:

H02: Social disclosure does not significantly affect earnings management in listed industrial goods firms on the NGX.

2.3 Governance Disclosure and Earnings Management

Governance disclosure, which includes elements such as board composition, ownership structure, executive remuneration, and audit independence, has been widely recognised as a key determinant of earnings quality. Velte (2019) reported that firms with stronger governance structures tend to engage in lower levels of earnings management. Similarly, Edeh (2024), using a forensic model in a Nigerian context, found that governance disclosure had a significant negative effect on earnings management. However, most studies in Nigeria have focused on individual governance variables rather than employing a comprehensive governance disclosure index within an ESG framework. This study builds on existing literature by utilising a composite measure of governance disclosure and examining its association with earnings management, as stated below:

H03: Governance disclosure does not significantly affect earnings management in listed industrial goods firms on the NGX.

2.2.4 Profitability as a Moderator in the ESG and Earnings Management Relationship

Although many earlier studies have examined ESG disclosures as direct determinants of earnings management, there is increasing theoretical and empirical support for considering firm profitability as a moderating variable. Profitability may shape how ESG information is interpreted by stakeholders and the credibility with which it is disclosed. Firms with strong financial performance are more likely to substantiate ESG claims through genuine practices, which can build market trust and reduce the incentive for earnings manipulation. In contrast, firms with weaker profitability may use ESG disclosures symbolically to deflect attention from poor financial outcomes.

Empirical findings on this moderating role are beginning to accumulate. Al-Najjar and Kilincarslan (2016) presented evidence from emerging markets that profitability moderates the effect of financial decisions. Similarly, Fosu (2013) and Le et al. (2019) found that profitable firms can sustain dividend payments even under high leverage, suggesting that profitability can buffer against financial pressures and reduce the likelihood of opportunistic reporting. In a more recent Nigerian study, Akpadaka et al. (2024) demonstrated that profitability weakens the negative influence of leverage on dividend policy, reinforcing calls for further exploration of profitability as a strategic moderator in corporate behaviour.

Drawing from this line of reasoning, the current study posits that the impact of ESG disclosure on earnings management may be conditioned by the financial performance of the firm. Profitability is therefore considered a boundary condition that could either enhance or diminish the influence of ESG practices on reporting quality. This relationship is formally hypothesised as follows:

H04: Profitability does not significantly moderate the relationship between ESG disclosures and earnings management in listed industrial goods firms on the NGX.

2.3 Theoretical Framework

This study is anchored on three complementary theoretical perspectives: agency theory, signalling theory, and legitimacy theory. Together, these provide a robust conceptual basis for understanding the relationship between ESG disclosure, earnings management, and the moderating role of profitability within the industrial goods sector of the NGX.

Agency theory, as developed by Jensen and Meckling (1976), highlights the conflicts of interest that may arise between managers and shareholders, potentially leading to opportunistic behaviours such as earnings manipulation. Governance disclosure, as a core component of ESG, is expected to help reduce these agency conflicts by enhancing transparency, improving oversight, and aligning the interests of managers and shareholders. In the industrial goods sector, where firms often engage in large capital investments and operate under considerable risk, effective governance practices are particularly important for maintaining financial discipline and deterring manipulation.

Signalling theory, introduced by Spence (1973), suggests that firms disclose information to signal their quality and reliability to external stakeholders. ESG disclosures can be interpreted as signals of a firm's ethical stance, commitment to sustainability, and responsiveness to stakeholder concerns. Firms with strong financial performance may be better positioned to issue credible ESG signals, thus gaining reputational advantages and fostering trust in their financial reports. In Nigeria's industrial goods sector, this signalling function may play a key role in investor relations and access to capital.

Legitimacy theory, proposed by Dowling and Pfeffer (1975), explains that firms seek to align their operations with societal values and expectations in order to secure their legitimacy. ESG disclosures can be used strategically by firms to conform to societal and stakeholder norms. However, in institutional contexts like Nigeria, where enforcement of sustainability-related regulations may be inconsistent, firms might disclose ESG information more for appearance than for substantive engagement. This concern is especially relevant to the environmental and social aspects of ESG, which are more prone to symbolic use.

These theoretical perspectives collectively inform the expectation that ESG disclosure may either constrain or conceal earnings management, depending on the financial performance of the firm. Agency theory justifies the role of governance disclosure in reducing opportunism, signalling theory supports the idea that financially sound firms use ESG to distinguish themselves, and legitimacy theory cautions against potential misuse of ESG reporting in weak regulatory environments. The study, therefore, considers profitability as a crucial condition that may influence the effectiveness of ESG disclosure in the industrial goods sector.

3. Methodology

This study employs a longitudinal panel design to examine the relationship between ESG disclosure and earnings management, while assessing the moderating effect of financial performance within Nigeria's industrial goods sector. The panel data approach enables control for unobserved firm-specific characteristics while capturing temporal dynamics. The industrial goods sector provides a homogeneous sample, excluding financial firms that operate under different regulatory frameworks. The research period spans 2012 to 2023, encompassing Nigeria's post-IFRS adoption era and significant economic events, including the 2016 recession and COVID-19 pandemic, which influenced corporate reporting practices.

An ex post facto research design underpins this study, given the reliance on existing secondary data. The data were extracted from annual reports, sustainability disclosures and audited financial statements of companies listed on the Nigerian Exchange. From a population of 15 industrial goods firms, a purposive sampling technique was employed to select 13 firms with complete data across the variables under investigation, yielding a balanced panel suitable for econometric analysis. Firms with substantial missing data were excluded to ensure analytical rigour.

Earnings management is the dependent variable and is measured using the Kothari performance-adjusted accrual model. This model estimates discretionary accruals by regressing total accruals on firm-level financial predictors, thereby adjusting for performance and reducing estimation bias. The explanatory variables are the disaggregated ESG disclosure indices, environmental (ENVI), social (SOCI), and governance (GOVI), constructed through structured content analysis as earlier discussed. Profitability, proxied by return on assets (ROA), is introduced as a moderating variable. Additional control variables include firm size (FSize), financial leverage (LEV), and institutional ownership (INST), which help isolate the ESG effect on earnings management.

Three panel estimation models were tested to determine the most appropriate analytical approach: the pooled Ordinary Least Squares (OLS) model, the fixed effects model, and the random effects model. Both the Hausman specification test and the Breusch and Pagan Lagrangian Multiplier (LM) test were conducted to guide model selection. The Hausman test favoured the random effects model, suggesting that individual-specific effects were uncorrelated with the regressors. However, the Breusch and Pagan LM test indicated that the pooled OLS model was more efficient. Considering both statistical outcomes and the nature of the dataset, the pooled OLS model was ultimately selected for estimation.

Table 1: Variable Measurements and Definitions

Variable Name	Abbreviation	Measurement / Operational Definition	Type	Expected Sign	Supporting Literature
Earnings Management	EM (Kothari)	Discretionary accruals estimated using the Kothari et al. (2005) performance-adjusted accrual model.	DV	NA	Kothari et al. (2005)
Environmental Disclosure	ENVI	Composite score from coded disclosures on energy use, emissions, water usage, waste, and policies. Each item is binary coded (1 if disclosed, 0 otherwise).	IV	−	Gerged et al. (2021); Masmoudi (2024)
Social Disclosure	SOCI	Score based on coded disclosures about employee welfare, diversity, safety, community initiatives, and training. Each item scored 1 if disclosed.	IV	±	Wiyadi et al. (2019); Abdelfattah & Elfeky (2021)

To investigate the influence of ESG disclosure on earnings management and the moderating role of firm profitability, the study specifies three regression models. The dependent variable in all models is the discretionary accruals measure from the Kothari model (KEM). The independent variables are the disaggregated ESG dimensions which are Environmental (ENVI), Social (SOCI), and Governance (GOVI). Return on Assets (ROA) is first introduced as a direct predictor and later interacted with each ESG component to explore moderation. Control variables include firm size (FSize), and institutional ownership (INST).

Model 1: Baseline ESG and Earnings Management Model

This model examines the direct relationship between ESG disclosures and earnings management, controlling for firm-level attributes:

$$KEM_{it}=\beta_0+\beta_1 ENVI_{it}+\beta_2 SOCI_{it}+\beta_3 GOVI_{it}+\epsilon_{it}$$

Model 2: ESG and Earnings Management Model with Controls and Moderator

This model extends Model 1 by introducing financial performance (ROA) and relevant control variables to isolate their direct effects on earnings management:

$$KEM_{it} = \beta_0+\beta_1 ENVI_{it}+\beta_2 SOCI_{it}+\beta_3 GOVI_{it}+\beta_4 ROA_{it}+\beta_5 FSize_{it}+\beta_6 LEV_{it}+\beta_7 INST_{it}+\epsilon_{it}$$

Model 3: Moderated ESG Disclosure and Earnings Management Model (With Interaction Terms)

This model incorporates interaction effects to assess whether financial performance moderates the relationship between each ESG disclosures and earnings management:

$$KEM_{it}=\beta_0+\beta_1 ENVI_{it}+\beta_2 SOCI_{it}+\beta_3 GOVI_{it}+\beta_4 ROA_{it}+\beta_5 (ENVI_{it}\times ROA_{it})+\beta_6 (SOCI_{it}\times ROA_{it})+\beta_7 (GOVI_{it}\times ROA_{it})+\beta_8 FSize_{it}+\beta_9 INST_{it}+\epsilon_{it}$$

In thw models:

KEM_{it} is the Kothari's earnings management model score for firm i in year t.

$ENVI_{it}$, $SOCI_{it}$, and $GOVI_{it}$ are the ESG disclosure scores.

ROA_{it} is return on assets (moderating variable in Model 3)

$FSize_{it}$ is firm size (log of total assets)

$INST_{it}$ is institutional ownership.

ϵ_{it} is the error term.

4. Results and Discussion

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics for the variables used in the study, based on 156 firm-year observations from 13 industrial goods firms listed on the Nigerian Exchange over the period 2012 to 2023. The variables include the Kothari Earnings Management score (KEM), the three disaggregated Environmental, Social, and Governance (ESG) disclosure indices (ENVI, SOCI, and GOVI), Return on Assets (ROA), Institutional Ownership (INST), and Firm Size (FSIZE).

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
KEM	-1.726	0.875	-3.602	0.140
SOCI	62.753	23.533	20.109	99.980
ENVI	58.023	24.659	16.924	99.538
GOVI	78.561	12.515	57.287	99.665
ROA	5.591	21.178	-179.917	108.897
INST	52.827	24.214	15.140	95.000
FSIZE	15.819	2.358	12.064	22.094

Source: Processed data from Stata 19.5

The mean value of the Kothari Earnings Management score is -1.726, with a standard deviation of 0.875, suggesting moderate variation in discretionary accruals among firms in the sector. The minimum and maximum values range from -3.602 to 0.140, indicating the presence of both aggressive and conservative earnings management practices. The social disclosure index (SOCI) has a mean score of 62.75, with scores ranging from 20.11 to 99.98. This implies moderate to high levels of social disclosure, though with notable variability. Similarly, the environmental disclosure index (ENVI) records a mean of 58.02, with a standard deviation of 24.66, and values spanning from 16.92 to 99.54. Governance disclosure (GOVI) appears more consistent across firms, with a relatively higher mean of 78.56 and a narrower spread, indicating stronger emphasis or standardisation in corporate governance disclosures within the sector.

Return on Assets (ROA), used as a proxy for financial performance, has a mean of 5.59% and exhibits substantial dispersion (standard deviation = 21.18). The wide range from -179.92 to 108.90 underscores heterogeneity in profitability performance across the sample firms, including instances of significant losses.

Institutional ownership (INST) averages 52.83%, indicating that more than half of the equity in these firms is held by institutional investors. The standard deviation of 24.21 and range from 15.14% to 95% reflect the differing levels of institutional investor presence across firms.

Finally, the average firm size, proxied by the natural logarithm of total assets (FSIZE), is 15.82, with a minimum of 12.06 and a maximum of 22.09. The moderate variation suggests some diversity in the scale of operations within the sample, albeit within a relatively constrained sectoral band.

4.2 Correlation Matrix

Table 3 presents the Pearson correlation coefficients among the variables used in the study, based on 156 firm-year observations from industrial goods firms listed on the Nigerian Exchange (NGX) between 2012 and 2023. The correlation analysis provides preliminary insights into the relationships between Kothari-based earnings management (KEM), the three components of ESG disclosure (SOCI, ENVI, GOVI), and the control variables including return on assets (ROA), institutional ownership (INST), and firm size (FSIZE).

Table 3: Correlation Matrix of Key Variables (N = 156)

Variable	1	2	3	4	5	6	7
1. KEM	1.000						
2. SOCI	.447	1.000					
3. ENVI	–.609	–.006	1.000				
4. GOVI	–.401	–.121	.140	1.000			
5. ROA	–.087	.052	.138	.085	1.000		
6. INST	–.021	.010	.041	.020	.013	1.000	
7. FSIZE	–.147	–.072	.139	.095	.242	.431	1.000

Source: Processed data from Stata 19.5

The results indicate that KEM is negatively and moderately correlated with ENVI (r = –.609) and GOVI (r = –.401), suggesting that stronger environmental and governance disclosures may be associated with lower earnings management. A positive and moderate correlation is observed between KEM and SOCI (r = .447), implying that increased social disclosures might coincide with higher earnings management, which could reflect symbolic disclosure practices.

ROA exhibits weak correlations with all the variables, with its highest association being with FSIZE (r = .242). Institutional ownership (INST) is only weakly correlated with other variables, with its strongest relationship found with FSIZE (r = .431). These low to moderate correlations indicate a low risk of multicollinearity, which is further validated in subsequent regression diagnostics.

4.3 Regression Results and Discussion

Table 4 presents the regression results from three model specifications estimating the impact of ESG disclosures on KEM. Model 1 includes only the ESG variables: SOCI, ENVI, and GOVI. Model 2 extends the model by including ROA, INST, and FSIZE.

Model 3 incorporates interaction terms between ESG components and ROA to test for moderating effects. All models were estimated using pooled OLS, as previously justified.

The coefficient of SOCI remains positive and statistically significant across the three models. In Model 1, SOCI = 0.0153 (p = 0.000); in Model 2, SOCI = 0.0152 (p = 0.000); and in Model 3, SOCI = 0.0144 (p = 0.000). These results do not support the expected inverse association and may suggest that firms disclosing high social information may also be managing earnings, potentially to project a positive image.

ENVI shows a consistent and significant negative relationship with KEM, supporting the second hypothesis. In Model 1, ENVI = -0.0202 (p = 0.000); in Model 2, ENVI = -0.0201 (p = 0.000); and in Model 3, ENVI = -0.0189 (p = 0.000). These findings imply that firms engaging in robust environmental disclosure are less prone to earnings manipulation, likely due to enhanced transparency and accountability.

GOVI is also negatively associated with KEM, aligning with expectations. The GOVI coefficient is -0.0190 (p = 0.000) in Model 1, -0.0189 (p = 0.000) in Model 2, and -0.0184 (p = 0.000) in Model 3. This confirms that enhanced governance disclosure is effective in reducing the likelihood of earnings management.

In Model 3, the interaction terms test whether ROA moderates the ESG disclosure and KEM relationships. SOCI_ROA is positive but not significant (0.0002, p = 0.108). ENVI_ROA is negative and marginally significant (-0.0002, p = 0.091), indicating a weak moderation effect of profitability on the ENVI and KEM nexus. GOVI_ROA is not significant (-0.0001, p = 0.711), suggesting no moderation. Thus, the evidence for ROA as a moderator is limited, with only tentative support for ENVI. ROA on its own does not show any significant relationship with KEM in Models 2 and 3. Similarly, the control variables INST and FSIZE remain statistically insignificant across both extended models, indicating that they do not independently influence earnings manipulation within the sample.

The results from Model 3 provide empirical support for some of the study's hypotheses while challenging others, thereby offering a nuanced interpretation of ESG disclosures and their association with KEM in the context of listed industrial firms. In relation to H1, SOCI maintains a positive and statistically significant coefficient, contrary to the expectation that increased social disclosure should reduce EM. This outcome contradicts the normative view of stakeholder theory and instead supports the legitimacy perspective, suggesting that firms might disclose social initiatives opportunistically to obscure underlying manipulative accounting practices. This finding aligns with Velte (2019) and Wiyadi et al. (2019), who caution that SOCI is often used to appease external pressures rather than reflect internal ethical commitment. H2 and H3 are supported in the final model, as ENVI and GOVI exhibit consistently negative and significant effects on KEM. These results reinforce the agency theory view that ENVI and GOVI can serve as monitoring mechanisms, reducing managerial discretion and aligning corporate behaviour with shareholder interests. The negative coefficient of ENVI particularly confirms the position of Gerged et al. (2021) and Masmoudi (2024), who find that environmental transparency is inversely related to EM practices in emerging markets. Regarding H4, the inclusion of ROA and its interaction terms with ESG dimensions yields partial insights. While SOCI × ROA and GOVI × ROA are statistically insignificant, ENVI × ROA is weakly significant at the 10 percent level, indicating a tentative moderating effect of profitability. This suggests that high-performing firms may strengthen the inverse relationship between ENVI and KEM, a proposition consistent with signalling theory and supported by Le et al. (2019). However, the overall insignificance of the interaction terms implies that profitability may not be a robust moderator in this setting, possibly due to contextual inefficiencies and weak institutional environments in the Nigerian industrial sector.

Table 4: Regression Results for Models 1–3
Dependent Variable: KEM (Kothari Earnings Management)

Variable	Model 1 Coef. & (St.Error)	p-value (Model 1)	Model 2 Coef. & (St.Error)	p-value (Model 2)	Model 3 Coef.	p-value (Model 3)
SOCI	0.0153 (0.0182)	0.000	0.0152 (0.0019)	0.000	0.0144 (0.0020)	0.000
ENVI	-0.0202 (0.0175)	0.000	-0.0201 (0.0018)	0.000	-0.0189 (0.0019)	0.000
GOVI	-0.0190 (0.0035)	0.000	-0.0189 (0.0035)	0.000	-0.0184 (0.0039)	0.000
ROA			-0.0001 (0.0021)	0.955	0.0009 (0.0177)	0.961
SOCI × ROA					0.0002 (0.0001)	0.108
ENVI × ROA					-0.0002 (0.0001)	0.091
GOVI × ROA					-0.0001 (0.0003)	0.711
INST			0.0004 (0.0010)	0.846	0.0008 (0.0020)	0.700
FSIZE			-0.0062 (0.0212)	0.770	-0.0036 (0.0213)	0.868
Constant	-0.0230 (0.3143)	0.942	0.0467 (0.4281)		-0.0250 (0.4481)	0.956
R^2	0.6394		0.6397		0.6566	
Adj. R^2	0.6323		0.6201		0.6354	
F Stat	89.84		64.49		31.02	
P-value	0.000		0.000		0.000	
N	156		156		156	

Source: Processed via Stata 19.5

4.4 Robustness Diagnostics

The diagnostic tests conducted for the Ordinary Least Squares (OLS) model provide strong support for its suitability in estimating the relationship between ESG disclosure and earnings management. The model yielded a statistically significant F-statistic of 44.08 with a p-value of less than 0.001, confirming that the explanatory variables jointly explain variations in earnings management. The R-squared value of 0.640 indicates that approximately 64 per cent of the variation in the Kothari-based discretionary accruals measure is accounted for by the independent variables. This level of explanatory power is considered robust within the context of firm-level panel studies in emerging markets.

To assess the independence of the explanatory variables, the study conducted a multicollinearity test using the Variance Inflation Factor (VIF). All VIF values were below the commonly accepted threshold of 5, with a mean VIF of 1.14, suggesting that multicollinearity is not a concern in the model. The absence of strong linear dependencies among the independent variables enhances the reliability of the coefficient estimates.

The assumption of homoscedasticity was tested using the Breusch-Pagan/Cook-Weisberg procedure. The test returned a chi-squared statistic of 0.52 with a p-value of 0.470, leading to the acceptance of the null hypothesis of constant variance. This finding implies that the error terms do not exhibit heteroskedasticity, thereby validating the use of standard OLS inference procedures. Furthermore, the robustness of the OLS model was confirmed through joint significance tests. First, the interaction terms involving ESG dimensions and profitability (SOCI, SOCI_ROA, ENVI_ROA, GOVI_ROA) were jointly significant, with an F-statistic of 19.18 ($p < 0.001$), indicating that profitability significantly moderates the ESG disclosure and earnings management relationship. Second, all model predictors were jointly significant ($F = 31.02$, $p < 0.001$), affirming the explanatory strength of the full model. These outcomes validate the inclusion of both main and interaction effects in the model and reinforce the selection of the OLS estimation strategy.

Although alternative panel estimators such as fixed and random effects were considered, the Breusch and Pagan Lagrangian Multiplier test failed to support the presence of significant firm-specific effects, and the Hausman specification test did not indicate systematic differences in the coefficient estimates. These results further justify the use of pooled OLS as the most efficient and parsimonious model for this analysis. Given its statistical significance, explanatory strength, and diagnostic validity, the OLS model provides a credible framework for the study.

5. Conclusion and Recommendations

This study investigated the relationship between ESG disclosures and KEM among listed industrial firms in Nigeria, using panel data covering 2012 to 2023. The analysis adopted three regression models, with the final model incorporating ESG dimensions (SOCI, ENVI, GOVI), profitability (ROA), their interaction terms, and relevant controls. The findings reveal that ENVI and GOVI have a significant negative association with KEM, suggesting that environmental and governance transparency reduce earnings management practices. In contrast, SOCI shows a significant positive relationship with KEM, indicating the possible use of social disclosures as a symbolic tool rather than a substantive governance mechanism. The interaction effects of ESG dimensions with ROA are largely insignificant, implying a limited moderating role of firm performance in this context. Considering these findings, it is recommended that regulatory authorities such as the Financial Reporting Council of Nigeria and the Nigerian Exchange strengthen enforcement mechanisms to ensure ESG disclosures reflect actual corporate practices. Firms should be encouraged to integrate environmental and governance reporting into their strategic operations, while merely symbolic social disclosures should be discouraged through independent verification. Finally, future corporate governance reforms should consider profitability dynamics when designing ESG related regulatory frameworks.

REFERENCES

Abdelfattah, T., & Elfeky, M. (2021). Corporate social responsibility and earnings management: The moderating effect of audit quality. *Journal of Financial Reporting and Accounting, 19*(1), 1–27. https://doi.org/10.1108/JFRA-06-2019-0090

Akpadaka, O. S., Farouk, M. A., Dang, D. Y., & Fodio, M. I. (2024). Does profitability moderate the relationship between the leverage and dividend policy of manufacturing firms in Nigeria and South Africa? *Journal of Risk and Financial Management, 17*(12), 563. https://doi.org/10.3390/jrfm17120563

Al-Najjar, B., & Kilincarslan, E. (2016). Capital structure decisions of SMEs in emerging markets: Empirical evidence from Turkey. *Small Business Economics, 47*(1), 103–126. https://doi.org/10.1007/s11187-015-9627-x

Aluchna, M., Roszkowska-Menkes, M., & Kamiński, B. (2022). From talk to action: The effects of the non-financial reporting directive on ESG performance. *Meditari Accountancy Research, 31*(7), 1–25. https://doi.org/10.1108/MEDAR-12-2021-1530

Beneish, M. D. (1999). The detection of earnings manipulation. *Financial Analysts Journal, 55*(5), 24–36. https://doi.org/10.2469/faj.v55.n5.2296

Brahmana, R. K., Puah, C. H., & Memon, M. A. (2018). Testing the implication of ESG on earnings management: Empirical evidence from Malaysia. *Management & Marketing. Challenges for the Knowledge Society, 13*(4), 1390–1401. https://doi.org/10.2478/mmcks-2018-0037

Cui, X., Li, R., Xue, S., & Zhang, X. (2025). Mandatory versus voluntary: The real effect of ESG disclosures on corporate earnings management. *Journal of International Money and Finance,* 103323. https://doi.org/10.1016/j.jimonfin.2025.10332

3
Dowling, J., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review, 18*(1), 122–136.
Edeh, P. O. (2024). ESG disclosure and earnings management in Nigerian listed firms: Evidence from the consumer goods sector. *Nigerian Journal of Accounting and Finance, 18*(2), 65–81.
Emma, G., & Jennifer, M. (2021). Is SDG reporting substantial or symbolic? An examination of controversial and environmentally sensitive industries. *Journal of Cleaner Production, 298*, 126781. https://doi.org/10.1016/j.jclepro.2021.126781
Fosu, S. (2013). Capital structure, product market competition and firm performance: Evidence from South Africa. *The Quarterly Review of Economics and Finance, 53*(2), 140–151. https://doi.org/10.1016/j.qref.2013.02.004
Gerged, A. M., Albitar, K., & Al-Farraj, H. (2023). The role of ESG disclosure in mitigating earnings management: Evidence from an emerging market. *Journal of Business Research, 157*, 113572. https://doi.org/10.1016/j.jbusres.2022.113572
Gerged, A. M., Albitar, K., & Al-Haddad, L. (2021). Corporate environmental disclosure and earnings management—The moderating role of corporate governance structures. *International Journal of Finance & Economics, 27*(3), 3377–3397. https://doi.org/10.1002/ijfe.1919
Helfaya, A., Morris, R., & Aboud, A. (2023). Investigating the factors that determine the ESG disclosure practices in Europe. *Sustainability, 15*(6), 5508. https://doi.org/10.3390/su15065508
Hummel, K., & Schlick, C. (2016). The relationship between sustainability performance and sustainability disclosure—Reconciling voluntary disclosure theory and legitimacy theory. *Journal of Accounting and Public Policy, 35*(5), 455–476. https://doi.org/10.1016/j.jaccpubpol.2016.06.001
Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X
Kliestik, T., Belas, J., Valaskova, K., Nica, E., & Durana, P. (2020). Earnings management in V4 countries: The evidence of earnings smoothing and inflating. *Economic Research-Ekonomska Istraživanja, 34*(1), 1452–1470. https://doi.org/10.1080/1331677X.2020.1831944
Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics, 39*(1), 163–197. https://doi.org/10.1016/j.jacceco.2004.11.002
Kurawa, J. M., & Saheed, Z. S. (2024). Corporate governance and earnings quality of listed firms in Nigeria. *Journal of African Accounting and Finance, 11*(1), 40–55.
Le, H. T., Vo, X. V., & Ngo, T. T. (2019). Leverage and dividend policy: Empirical evidence from Vietnam. *Finance Research Letters, 29*, 175–180. https://doi.org/10.1016/j.frl.2018.07.011
Lee, M. T., & Raschke, R. L. (2022). Stakeholder legitimacy in firm greening and financial performance: What about greenwashing temptations? *Journal of Business Research, 155*, 113393. https://doi.org/10.1016/j.jbusres.2022.113393
Makinde, O. (2020). The Nigerian Corporate Governance Challenge: Inadequacy of Laws or Question of Enforcement? *The Gravitas Review of Business and Property Law*.
Masmoudi, S. M. (2024). ESG disclosures and earnings quality: Evidence from Middle Eastern and North African countries. *Journal of Sustainable Finance & Investment, 14*(1), 23–43. https://doi.org/10.1080/20430795.2022.2088712
Onubogu, A. N., & Nwaorgu, I. A. (2024). Social sustainability and earnings persistence in Nigeria's consumer goods sector. *International Journal of Accounting and Management, 11*(2), 91–105.
Sharif, D. M. J. (2023). Detecting earnings manipulation practice by the M-Score model: Evidence from the listed power companies of Bangladesh.
Trisnawati, E., Wulandari, R., & Muniroh, L. (2016). The influence of corporate social responsibility (CSR) disclosure toward earnings management. *International Journal of Economics and Financial Issues, 6*(2), 419–423.
Tsang, A., Frost, T., & Cao, H. (2022). Environmental, Social, and Governance (ESG) disclosure: A literature review. *The British Accounting Review, 55*(1), 101149. https://doi.org/10.1016/j.bar.2022.101149
Velte, P. (2019). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility, 10*(3), 307–328. https://doi.org/10.1108/JGR-11-2018-0074
Wiyadi, W., Irianto, G., Prasetyorini, B., & Putra, R. E. (2019). CSR disclosure and earnings management: Family-controlled firms in Indonesia. *Entrepreneurship and Sustainability Issues, 6*(4), 1897–1910. https://doi.org/10.9770/jesi.2019.6.4(11)
Zhu, N., Aryee, E. N. T., Agyemang, A. O., Wiredu, I., Zakari, A., & Agbadzidah, S. Y. (2024). Addressing environment, social and governance (ESG) investment in China: Does board composition and financing decision matter? *Heliyon, 10*(10), e30783. https://doi.org/10.1016/j.heliyon.2024.e30783