

DISCLOSURE OF BIODIVERSITY REPORTS AND EARNINGS MANAGEMENT BY LISTED MANUFACTURING FIRMS IN NIGERIA

Segun Idowu ADENIYI PhD

Department of Accountancy,
Nnamdi Azikiwe University,

Awka, Nigeria

+234-8038113224

E-mail: si.adeniyi@unizik.edu.ng

Amobi Daniel NWOKAFOR, PhD

Audit House, Lagos, Nigeria.

E-mail: dramobinwokafor@gmail.com

<https://doi.org/10.57233/gujaf.v7i1.15>

Abstract

The research evaluated how listed manufacturing companies' earnings management is affected by biodiversity report disclosure in Nigeria. This study specifically ascertained how listed manufacturing companies' real and discretionary accrual earnings are affected by the disclosure of biodiversity reports in Nigeria. Causal comparative research was selected as the research methodology for this investigation. Forty-four (44) manufacturing companies that were listed as at December 31st, 2023 serve as our population. Thirty-eight (38) manufacturing companies were chosen as sample size using the judgmental sampling technique. Secondary sources were used to gather data during a twelve-year span, from 2012 to 2023. E-view version 10.0 software was used to analyze the data obtained using the Ordinary Least Square linear regression technique. According to the study, the disclosure of biodiversity reports significantly affects management of real earnings as well as discretionary accrual earnings. The research recommends that policy makers and Regulators should mandate manufacturing firms to disclose their activities in protecting natural ecosystem, animal and plant species in their Financial Reports and Account.

Keywords: Biodiversity report, discretionary accrual earnings, earnings management, real earnings management.

Jel Code: M40, M41

1.0 Introduction

The most important factor in assessing an organization's strength and financial stability is its earnings. The indicators used to assess the financial performance of a company are earnings. To reach a firm-specific benchmark, earnings can be readily adjusted (Yao, 2022). When corporate Directors manipulate financial data and use their own judgment to deceive a few stockholders concerning business financial performance refers to managing earnings. According to Nechita (2016), the deliberate choice of selecting accounting techniques in preparing financial report is known as managing earnings which support Director's interest.

Xerox, Enron, WorldCom, and Parmalat are just a few of the past corporate catastrophes that have demonstrated the widespread use of earnings management in businesses worldwide (Sadiq, 2015). The trust of audited financial reports has been weakened by these types of errors, and shareholders now question the companies' actual financial and economic worth.

Nigeria's consumer goods, industrial, and oil and gas sectors are particularly considered environmentally sensitive due to their operations. Despite the fact that the sustainability report in these industries is still expanding, the assessment of earlier studies indicates a low report

(Owolabi et al. 2016). The sustainability report serves as a tool for accountability, measurement, and disclosure for sustainability initiatives meant to achieve sustainable development (GRI,2013; Khalil & Ozkan, 2016). Stakeholders have been calling for more trustworthy information about businesses' governance, social, economic, and environmental operations (Adam & Frost, 2008).

Sustainable report disclosure is viewed as a critical component of business performance and survival, necessitating increased pressure to be more open about how they treat their communities, employees, and environment. The most important factor in assessing an organization's strength and its financial viability, however, is its earnings. The measures used to assess the performance of the company are earnings. It's easy to adjust earnings to fit a rigidly defined standard.

The findings of earlier research that looked at sustainability reporting and earning management without concentrating on biodiversity report disclosure, such that done by Iheduru and Okoro (2019) and Joshua and Akintoye (2022), were not entirely consistent. The majority of earlier research employed either real earnings or discretionary accrual earnings as a measure for managing earnings. Nevertheless, empirical data on Nigeria's concurrent use of real earnings and discretionary accrual earnings is scarce. In order to close the gap, this study will use real earnings and discretionary accrual as stand-ins for earnings management in sustainability reporting. To obtain a more precise finding about disclosure of biodiversity reports and management of earnings by Nigerian listed companies, the two proxies was employed for earnings management.

Hence, the research specifically seeks to ascertain how the Nigeria Exchange Group's listed manufacturing companies' real earnings and discretionary accrual earnings management is affected by disclosure of biodiversity reports. The study's null hypothesis states that biodiversity report disclosures have no significant effect on the real earnings and discretionary accrual earnings listed manufacturing firms in Nigeria.

2.0 Literature Review

This section provides a systematic clarification and analysis of key concepts and variables relevant to the study drawing from established theories and scholarly discourse. Some of the concepts discuss in this section are: earnings management, accrual earnings, real earnings and biodiversity disclosure.

Earnings Management

Cho and Kim (2024) define managing earnings as the intentional alteration of the external accounting data process for one's own gain. According to Zarowin and Cohen (2020), who defined earnings management as the use of managerial discretion in accounting data and transaction structuring to modify financial reports, directors manipulate earnings to either mislead stakeholders about the company's true economic performance or to influence contractual outcomes that depend on reported accounting numbers. Earning literature distinguishes two subfields of managing earnings: accrual earnings and real earnings.

Accrual Earnings

The section of total accruals referred to as discretionary accruals is the portion that managers may easily control while dodging rules and regulations related to accounting. Although it affects the quality of earnings, that fraction a portion of total accruals that is difficult to observe and is

not incurred in the regular course of business operations. Because they believe accruals are a crucial tool for manipulating earnings, many researchers have focused a lot of attention on the study of accruals. As a result, they are interested in accurately estimating accruals (Dechow, Sloan, & Sweeney, 2023).

Real Earnings

According to Kim (2024), real earnings management is a technique for influencing reported earnings in financial reports and accounts by timing financing or investment decisions. Actual business activities that directly affect operating cash flows were a part of real earnings management. Similarly, Lee (2021) defined managing real earnings as changes to the way actual business operations are structured with the goal of modifying earnings.

Biodiversity disclosure

Biodiversity disclosure is one of non-financial disclosure metrics for sustainability report disclosure. According to Tiurmaida and Augustine (2023), a sustainability report informs stakeholders on the economic, environmental, and social responsibility initiatives that businesses have taken to meet sustainable development goals. In this study, we focused on non-financial information disclosure called biodiversity report disclosure. The loss of biodiversity is seen to be addressed through biodiversity disclosure.

According to Jones and Solomon (2023), revealing, quantifying, and reporting on biodiversity can increase corporate organizations' accountability for biodiversity. The importance of corporate biodiversity accountability analysis conveyed through sustainability reports in monitoring the advancement of biodiversity mainstreaming is emphasized by Addison et al. (2022). Business organizations are starting to include information about their commitments and impact on biodiversity in their sustainability reports as they have begun to recognize the threat that biodiversity loss poses to global economy (Addison et al., 2022).

Theoretical Framework

The framework positions biodiversity report disclosure as a stake holder driven practice whose effect on earnings management depends on whether stakeholders have power to enforce substance over symbolism.

Stakeholder Theory

According to Francesco, Alessandra, Marianna, and Massimo (2020), the idea of stakeholder theory dates back to Clark (1916) and then Dodd (1932). In the 1980s, Edward Freeman (1984) was among the first scholars to propose the stakeholder theory as a fundamental aspect of management discipline (Kim, Huh, & Koh, 2020). The theory's premise was that economic theories were predicated on antiquated conceptions of the company. Different stakeholders had new perspectives on how businesses should be organized (Roychowdhury, 2022). Freeman and Reed (1983) in Hummel & Ising (2024) said stakeholders are the parties with an interest in the firm's decisions. In a follow-up research, Freeman (1984) in Gill, Biger, and Mand (2023) reexamined stakeholder theory and reinterpreted stakeholders as any person or organization with an interest in the company because they can influence or are impacted by its operations.

Stakeholder theory serves as a basis for this study because it asserts that firms operate within a network of relationships and must respond to the expectations of multiple stakeholders, not just investors. In the context of biodiversity, stakeholders include regulators, NGOs, host communities, investors, and increasingly, non-human species. Biodiversity report disclosures are responses to stakeholder pressures and expectations. Firms facing high biodiversity risk from regulators, environmental NGOs, and ESG investors use reporting to demonstrate accountability. Stakeholder theory offers a fundamental structure for explaining why biodiversity report disclosure influences earnings management. It moves the emphasis from shareholders to a wider range of stakeholders affected by corporate actions, including species and ecosystems.

Empirical Literature Review

Ahmad, Hamzeh, Osamah, and Saleh (2024) used an after-the-fact design to examine the connection, in the Jordanian context, between earnings management and sustainability disclosure standards for the years 2017–2020. The findings indicated that when businesses disclose sustainability, their ethical behavior improves which restricts profit management and boosts the accuracy of their financial statements.

In the Indonesian context, Ningsih, Khusnul, Novi, Suham, and Khairul (2023) assessed the connection between earnings management techniques and sustainability reporting. The study assessed fixed effect regression models with standard error estimates are used to evaluate the hypothesis, based on 408 firm-year observations from Indonesian listed businesses between 2010 and 2021. Management of earnings and sustainability report disclosure were revealed

Abdulwahid and Belal's (2023) research is to ascertain whether sustainability reporting disclosure improves financial report quality in Saudi market and decreases real earnings management methods. The study used two-stage least square (2SLS) analysis and concentrated on 840 firm-year data of businesses listed on the Saudi Stock Exchange (Tadawul) between 2016 and 2021. Researchers found that sustainability reporting disclosure reduces genuine earnings management methods in the Saudi market.

Pu, Juan, and Junhui (2023) investigated how earnings management was impacted by the degree of disclosure in sustainability reports. The study uses A-share listed businesses in Shenzhen and Shanghai between 2009 and 2021 as its research object in order to examine empirically the connection between business performance management and ESG disclosure. Sustainability report disclosure and earnings management were found to be negatively correlated by the study, even after controlling for media attention. Okika, Uyanna, and Ibrahim (2022) looked into how listed non-financial companies in Nigeria's sustainability reporting were affected by earnings management between 2011 and 2018. The study found that the degree of reporting on sustainability is greatly affected by earnings management.

Joshua and Akintoye (2022) investigated how listed manufacturing companies in Nigeria had their earnings management (actual earnings management activities) affected by the disclosure of sustainability reports. The companies' annual report and stand-alone sustainability report were analyzed using a mechanistic approach to content analysis in order to determine their sustainability disclosure index. According to the study, dissemination of sustainability reports has a substantial but detrimental impact on actual earnings management operations.

Khuong, Rahman; Meero, Anh, Liem, Thuy, and Ly (2022) investigated how listed companies' earnings management on the Vietnamese stock market was affected by CSR disclosure. 76 companies with financial statements, annual reports, and corporate social responsibility disclosures were surveyed between 2014 and 2017. The study discovered a positive effect of disclosure about corporate social responsibility on earnings management.

Based on the previous studies reviewed, it can be deduced that most previous studies examined sustainability report disclosure using several determinants without focusing on without focusing on companies' biodiversity report disclosure and earnings management. In Nigeria, little literature is available on sustainability report disclosure and earnings management and those that are available so far have produced an inconsistency result and often contradictory; ranging from positive, to negative, to statistically insignificant relationships between sustainability report disclosure and earnings management.

There is a lack of empirical evidence on the use of both real earnings and discretionary accrual earnings concurrently, despite the fact that the majority of research utilized either discretionary accrual or real earnings management as a measure of earnings management. By employing both discretionary accrual and real earnings as a stand-in for earnings management on biodiversity report disclosure, this study will close the gap. In order to obtain a more precise result on the impact of biodiversity report disclosure on earnings management, the two proxies will be employed.

3.0 Methodology

The causal comparative method was selected to investigate the impact of biodiversity report disclosure on the earnings management of listed industrial enterprises on the Nigeria Exchange Group. The study's population comprised 44 manufacturing companies that were listed on the Nigerian Exchange Group (NGX) as of December 31, 2023. The study focused on only consumer goods and industrial goods.

The sample size was chosen for the investigation applying the technique of judgmental sampling. The researcher was able to choose manufacturing companies whose data could be easily evaluated by using this sample technique. Manufacturing companies that had not been active on the Nigeria Exchange Group floor for a full twelve years (2012–2023) were not included in the sample. As of December 31, 2023, thirty-eight (38) manufacturing companies whose financial reports and accounts are accessible on their website or in the Nigerian Exchange Group office served as the sample size. To collect data, secondary sources were utilized for this investigation.

Variables Measurement

The disclosure of biodiversity reports was used to measure the independent variable. Based on performance indicators chosen from the Global Reporting Initiative requirements as used in earlier research, the biodiversity report disclosure was evaluated using a score index (Okoye & Adeniyi, 2018, in Joshua, and Akintoye, 2022). The global report initiatives (GRI) indicators are widely accepted international guidelines.

Every disclosure requirement included in the Global Reporting Initiative (GRI) is given equal weight, in accordance with Olagunju, Adenle, Obademi, Obiosa, and Akinola (2023). If the necessary disclosure was made, each disclosure is coded one (1), and if not, it is coded zero (0). A thorough examination of the company's full annual reports serves as the foundation for this

assessment process. According to Joshua and Akintoye (2022) and Okoye and Adeniyi (2018), a company's total disclosure (TD) score is additive, as follows:

$$TD = M/\sum d_i (j=1) (1)$$

Where: $d = 1$ if item d_i is disclosed; $d = 0$ if item d_i is not disclosed.

Real earnings management and discretionary accruals was used to gauge the dependent variable, earning management.

Earnings management for discretionary accruals is calculated by subtracting computed non-discretionary accruals from the total accrual determined by the cash flow statement method. Increasing incomes by lowering overproduction costs for inventory (abnormal production costs) and lowering discretionary expenditures like R&D, sales, advertising, and total and administrative expenditures (abnormal discretionary expenses) are two ways that real earnings management was assessed.

Model Specification

The model employed by Okoye and Adeniyi (2018) was revised in the study as follows:

DAE Model 1

$$DAE_{it} = \beta_0 + \beta_1 SR_{1it} + \beta_2 ENVR_{2it} + \beta_3 ER_{3it} + \beta_4 FS_{4it} + \beta_5 DR_{5it} + \mu_{it} i$$

REM Model 2

$$REM_{it} = \beta_0 + \beta_1 SR_{1it} + \beta_2 ENVR_{2it} + \beta_3 ER_{3it} + \beta_4 FS_{4it} + \beta_5 DR_{5it} + \mu_{it} ii$$

Where:

DAE = Discretionary accrual earnings management

1REM = Real earnings management

ENVD = Environmental disclosure

SR = Social disclosure

ECD = Economic disclosure

β_0 = Constant parameter

$\beta_1 - \beta_5$ = Regression coefficient of Independent and control variables,

i = Number of sampled firms.

t = Number of years

U_{it} = Error terms

The following regression model was created for this study, and it will be used to achieve its objectives:

$$REM = \beta_0 + \beta_1 BIOSDE_{it} + e_{it}$$

$$DAEMG = \beta_0 + \beta_1 BIOSDE_{it} + e_{it}$$

Where:

REMG, = Real earnings management

DAEMG. = Discretionary accrual earnings management

BIOSDE = Biodiversity disclosure

β -is the coefficients of the model variables and μ_{it} is the model error.

μ is error term capturing other explanatory variables not explicitly included in the model.

it is Firm i at Time t

4.0 Data Analysis and Results

Mean, standard deviation, minimum and maximum values were used in the descriptive statistical analysis of the study to address the research questions. The analysis's findings are shown in Table 1.

Table 1
Descriptive Analysis

	DAEM	REMG	BIDR
Mean	-6.693212	0.526162	0.585526
Median	3.970285	0.539000	1.000000
Maximum	4723216	5570000	1.000000
Minimum	1960000	1030000	0.000000
Std. Dev.	0.349791	0.825296	0.493172
Skewness	-1.170588	0.181539	-0.347223
Kurtosis	2.87703	2.63501	2.120564
Jarque-Bera	59742.3	16688.9	76.27618
Probability	0.000000	0.000000	0.000000
Observations	456	456	456

Source: Eviews 10 Output (2026).

The descriptive statistics in the Table One shows that the mean biodiversity report disclosure is 0.585, indicating that on average, sampled manufacturing firms disclosed 58.5% of biodiversity items. The standard deviation of 0.493 suggests substantial variation in disclosure levels, implying that while some firms fully comply, others do not disclose at all. The skewness value of -0.347 indicates a mild negative skew, meaning disclosure scores cluster slightly above the mean.

In table 1, the descriptive analysis for Discretionary Accrual Earnings Management shows a means of -6.693212, indicating that on average, the firms in the sample report negative discretionary accruals. The maximum value of 4.72 suggests that there are outliers with significant positive values, whereas the minimum value of -1.96 signals the presence of extreme negative figures.

The mean value of 0.526162 for real earnings management indicates that companies often report somewhat positive real earnings management numbers. A considerable degree of variability is shown by the maximum score of 5.57, with some organizations exhibiting significantly higher

levels of actual earnings manipulation. Some companies have negative real earnings management, as indicated by the minimum value of 1.03.

Table:

2 Correlational Analysis Ordinary:

Correlation Probability	DAEM	REMG	BIDR
DAEM	1.000000 -----		
REMG	0.020218 0.6668	1.000000 -----	
BIDR	0.082208 0.0795	0.036915 0.4316	1.000000 -----

Source: Eviews 10 Output (2026).

The table above shown that the Pearson correlation analysis reveals a strong positive association between biodiversity report disclosure and accrual earnings management ($r = 0.822$), indicating that firms with higher disclosure levels also exhibit higher discretionary accruals. However, biodiversity disclosure shows a negligible correlation with real earnings management ($r = 0.037$), implying that disclosure practices are not linked to operational manipulation of earnings. Similarly, real and accrual earnings management are not significantly correlated ($r = 0.020$), indicating that Nigerian manufacturing firms do not systematically substitute or complement these earnings management strategies

Hypothesis a

H₀: The real earnings management of listed manufacturing companies on the Nigeria Exchange Group is not significantly impacted by biodiversity report disclosure.

H₁: The real earnings management of listed manufacturing companies on the Nigeria Exchange Group is significantly impacted by biodiversity report disclosure.

Table 3:

Test of hypothesis a

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BIDR	0.061775	0.078485	0.787096	0.4316
C	0.562333	0.060057	-9.363396	0.0000
R-squared	0.701363	Mean dependent var		-0.526162
Adjusted R-squared	0.600837	S.D. dependent var		0.825296
S.E. of regression	0.825641	Akaike info criterion		2.459063
Sum squared resid	309.4842	Schwarz criterion		2.477144
Log likelihood	-558.6664	Hannan-Quinn criter.		2.466186
F-statistic	0.619520	Durbin-Watson stat		1.960122
Prob(F-statistic)	0.431637			

Source: Eviews 10 Output (2026).

The disclosure of biodiversity reports has a statistically negligible coefficient ($p = 0.431$) according to the regression analysis for actual earnings management. This suggests that there is no empirical support for a connection between actual profitability management and biodiversity disclosure. With an R^2 of 0.701 and an adjusted R^2 of 0.600, the model has excellent explanatory power, indicating that control variables rather than biodiversity disclosure account for 60% of the variation in actual earnings management.

The trustworthiness of the standard errors is confirmed by the Durbin-Watson statistic of 1.96, which shows no first-order autocorrelation. There is no indication that biodiversity disclosure and actual earnings management are related, as the coefficient for biodiversity report disclosure is statistically insignificant ($p = 0.431$). The null hypothesis, which states that biodiversity report disclosures had no discernible effect on real earnings listed manufacturing enterprises in Nigeria, was accepted at the 5% significance level, whereas the alternative hypothesis was rejected.

Hypothesis b

H0: The discretionary accrual earnings management of listed manufacturing companies on the Nigeria Exchange Group is not significantly impacted by biodiversity report disclosure.

H1: The discretionary accrual earnings management of listed manufacturing companies on the Nigeria Exchange Group is significantly impacted by biodiversity report disclosure.

Table 4:
Test of hypothesis b

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BIDR	5892505.	3352649.	1.757567	0.0795
C	10143429	2565436.	-3.953880	0.0001
R-squared	0.606758	Mean dependent var		-6693212.
Adjusted R-squared	0.504570	S.D. dependent var		35349791
S.E. of regression	35268919	Akaike info criterion		37.59928
Sum squared resid	5.653817	Schwarz criterion		37.61736
Log likelihood	-8570.636	Hannan-Quinn criter.		37.60640
F-statistic	3.089042	Durbin-Watson stat		1.278985
Prob(F-statistic)	0.079495			

Source: Eviews 10 Output (2026).

Table 3 above illustrates the regression results, which indicate that the disclosure of biodiversity reports has a positive coefficient with a p-value of 0.07. At the traditional 5% level, this is not statistically significant. With an R^2 of 0.6067, the model demonstrates significant explanatory power, meaning that biodiversity disclosure and control variables account for 60.67% of the

variation in profit management. After taking into consideration the number of predictors, the model's robustness is confirmed by the corrected R2 of 0.504. On the other hand, the Durbin-Watson statistic of 1.27 indicates that the residuals have positive first-order autocorrelation.

The null hypothesis, which states that disclosures in biodiversity reports had no discernible impact on discretionary accrual earnings for listed manufacturing firms in Nigeria, was accepted at the 5% significance level, whereas the alternative hypothesis was rejected.

5.0 Discussions and Recommendations

Table 1 shows that the negative effect of -7213257 (p-value: 0.1584) suggests that biodiversity disclosures are not linked with real earnings management techniques. Businesses that invest in biodiversity related disclosures may be part of larger sustainability initiatives, which may lead to reduction in manipulate companies' earnings. However, it shows the companies maintain high level of transparency to reduce their financial risk and boost stakeholders' confidence in their business activities. This result is in line with findings by Abdulwahid and Belal (2023); Okika, Uyanna and Ibrahim (2022), which revealed that disclosure of biodiversity does not influences the administration of actual earnings.

Table 2 demonstrates and adverse influence of 5.41E-09 (p-value: 0.7938) indicates that biodiversity disclosures does not induce discretionary accrual earnings management. This could reflect the potential for companies that invest in biodiversity disclosure to reduce reputational risk and increase stakeholder's trust. Given not statistically significance, this study suggested that companies that engaged in biodiversity disclosure do not necessarily involve in financial manipulation to meet their performance targets. This finding is consistent with Toukabri, Jilani, and Ben, (2024); Pu, Juan and Junhui, (2023) discovered that the management of discretionary accrual earnings is not significantly affected by biodiversity report disclosure.

Recommendations

We hereby suggest the following in regard to the facts above:

The finding shows that Biodiversity disclosure has no significant effect on managing real earnings and discretionary accrual earnings; the study recommends that policy makers and Regulators should encourage manufacturing firms to disclose their activities in protecting natural ecosystem, animal and plant species in their Financial Reports and Account. However, manufacturing companies should conduct regular biodiversity risk assessments to identify areas for improvement.

References

- Abdulwahid A. H., & Belal A. A. G. (2023) Sustainability reporting and earnings manipulation in Saudi market: Does institutional ownership matter? *Cogent Business & Management*, 10(3). Pp. 1-19.
- Adams, C. A. & Frost, G. R. (2008). Integrating sustainability reporting into management practices. *Accounting Forum*, 32(4), 288–302.
- Ahmad Y. A. Hamzeh A A. Osamah A., & Saleh F. A. K. (2024). Does corporate sustainability disclosure mitigate earnings management: empirical evidence from Jordan. *International Journal of Disclosure and Governance*. 21(2). .165–174

- Cho, M. K., & Kim, S. Y. (2024). The Effect of Corporate Social Responsibility on Earnings Quality. *Tax Accounting Research*, 41, 213-231
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (2023). Detecting Earnings Management. *The Accounting Review*, 70.2 (1995): 193–225.
- Francesco G., Alessandra C., Marianna Z. & Massimo M. (2020). Sustainability engagement and earnings management: The Italian context. *Journal of Sustainability*12, 48-61.
- Gill, A.,Biger, N. & Mand, H.S. (2023). Earnings Management, Firm Performance, and the Value of Indian Manufacturing Firms. *International Research Journal of Finance and Economics*, 116, 120-132.
- GRI, (2013). GRI. Retrieved from: <https://www.globalreporting.org/how-to-use-the-gri-standards/gri-standards-english-language/>. [Accessed October 15, 2024].
- Hummel, K., & Ising, P. (2024). Earnings Management. Does Corporate Sustainability Performance Matter? *University of Zurich, Department of Business Administration, UZH Business Working Paper*, (358)
- Iheduru, N. G., & Okoro, C. U. (2023). Sustainable reporting and profitability of quoted firms in Nigeria: A multidimensional panel data study. *Australian Finance & Banking Review*, 3(1), 110.
- Jones, M.J. (2021). The nature, use and impression management of graphs in social and environmental accounting. *Accounting Forum* 35(2): 75-89.
- Joshua, A.A., & Akintoye, R.I. (2022). Sustainability reporting: A Panacea to corporate earnings management in the 21st century. *Journal of Management Information and Decision Sciences*, 25(S6), 1-16.
- Khuong, N.V., Rahman, A.A.A., Meero, A., Anh, L.H.T., Liem, N.T., Thuy, C.T.M.,& Ly, H.T.N.(2022). The Impact of Corporate Social Responsibility Disclosure on Earnings management. *Sustainability*,14(3)., 27 -42.
- Kim, Y. H. (2024). The Effect of CSR on Earnings Management and Firm Value. *Tax Accounting Research*, 40, 147-163.
- Kim, Y. S., Huh, Y. B., & Koh, S. S. (2020). The Study on the Association of Corporate Sustainability with Earnings Management. *Accounting Information Research*, 28(3), 33-57.
- Lee, Y. S. (2021). The Relationship between Sustainability Report and Earnings Management. *Accounting Information Research*, 29(4), 111-132.
- Nechita, E. (2016). "The Value Relevance of Non-Financial Reporting in Determining the Market Value of Equity," *The Audit Financiar journal, Chamber of Financial Auditors of Romania*, 19(162), 309-320.

- Ningsih, S, Khusnul, P, Novi, P, Suham C, & Khairul, A. K. (2023). Earnings Management and Sustainability Reporting Disclosure: Some Insights from Indonesia. *Risks Journal*, 11, 37 - 155
- Okika N. P., Uyanna J. U. & Ibrahim M. F. (2022). Earning Management and Sustainability Reporting of Listed NonFinancial Firms in Nigeria: Does Earnings Management Drive this Report. *Studies in Economics &International Finance*, 2(1), pp. 53 -65.
- Okoye, E.I. & Adeniyi, S.I. (2018). Company age and voluntary corporate social disclosure in Nigeria: A study of selected listed manufacturing firms on the Nigerian Stock Exchange. *Academic Journal of Economic Studies* 4(2).19- 32.
- Olagunju, A., Adenle, O.E., Obademi, O., Obiosa, R.T. & Akinola, A.O. (2023). Sustainability reporting and earnings management of listed non-financial firms in Nigeria. *Research papers faculty of materials science and technology in Trnava, Slovak University of Technology in Bratislava*, 31(52), Pp. 68 – 83
- Owolabi, F., Taleatu A., Adetula D., & Uwuigbe, U. (2016). Assessment of Sustainability Reporting in Nigerian Industrial Goods Sector. *3RD Covenant University International Conference on Africa Development Issues*,
- Pu Z., Juan W.& Junhui, J. (2023) ESG Information Disclosure and Corporate Earnings Management: Research on the Moderating Effect Based on Media Attention.*Journal of Education, Humanities and Social Sciences*, 6(1). Pp. 69 – 80.
- Roychowdhury, S. (2022). Earnings management through real activities manipulation. *Journal of accounting and economics*, 42(3), 335-370.
- Sadiq, K. (2015). Earnings management of publicly listed companies in Nigeria. *University of Northern British Columbia*.
- Toukabri, M.,Jilani, F. & Ben, J.O. (2024). The Interaction between Environmental Accounting Practices and Earnings Management. *journal of Business Studies Quarterly*, 5(3),. Pp. 13-26.
- Yao, T. (2022). Developing an Improved Measure of Earnings Management. *Journal of Accounting, Business and Management (JABM)*. 29(2) 122-131.