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FIRM CHARACTERISTICS AND EARNINGS MANAGEMENT OF LISTED INDUSTRIAL GOODS COMPANIES IN NIGERIA

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Abstract

This study delved into examining how specific firm characteristics impact Earnings Management (EM) in Nigerian quoted industrial goods businesses. The study focused on analysing the effects of debt, firm size, profitability, and liquidity on profit management among thirteen quoted industrial goods companies. These companies were selected using a census sampling technique from those actively and publicly traded on the Nigerian Exchange Group over ten years from 2012 to 2021. The data for the analysis was gathered from the audited annual reports of the chosen companies, and the methodology involved panel data estimation, correlation analysis, and descriptive statistics. According to the findings, profitability demonstrated a substantial negative impact on EM (t-val. =-2.210, p<0.05), implying that profitable companies engage in lower rates of earnings manipulation. Furthermore, the control variable of audit firm size (t-val. =-2.763, p<0.05) exhibited a substantial inverse effect on EM, while firm size (t-val. =-2.509, p<0.05) also showed a negative and significant influence on EM. This suggests that larger companies report reduced earnings manipulation, indicating a lower incidence of earnings manipulation in companies audited by the Big 4 auditing firms (audit firm size). Based on the study's findings, it can be concluded that firm characteristics such as profitability, size, and audit firm size significantly impact EM. It is recommended that to reduce EM, managers and shareholders of industrial products companies should grow their company by employing qualified and competent staff and strengthen the firm's financial performance

Key Words: *Audit Firm Size, Discretionary Accruals, Firm Size, Leverage, Profitability.*

Introduction

Numerous accounting scandals that have shaken the world over the last 20 years have served as a catalyst for research on Earnings Management (EM). Earnings tampering is problematic because it lowers the quality of financial information that is reported, thereby interfering with the economy's capacity to allocate resources effectively. This in turn modifies the link among the return of stocks and provided earnings. Cases of earnings manipulation have occurred in the Nigerian corporate sector, including the alleged fraudulent accounting scandals involving African Petroleum Plc, Cadbury Nigeria Plc in 2006, Oceanic Bank Plc, and Intercontinental Bank Plc. Industrial products companies are also affected by this issue (Isa & Musa, 2018).

In light of the numerous accounting scandals that have been published, it is necessary to determine what variables could be employed to lessen management's propensity to engage in

dishonest accounting practices (Isa & Musa, 2018). Scholars and professionals have directed their attention towards diverse matters related to EM, particularly about the scope of EM operations and the firm-specific elements that could impact it (Mohammad *et al*., 2016). Investors rely on financial statements for decision-making (Liu, 2012; Altarawneh, *et al*., 2020). However, Manipulative policy decisions can reduce the quality of reported earnings, undermining investor confidence (Egolum, & Onodi, 2021). Confidence in the accuracy of corporate information has been eroded by financial scandals. Instances of irregular reporting and unethical accounting practices have led to decreased trust in financial reports, even in reputable companies (Al-Sraheen & Alkhatib, 2016).

The issue of corporate financial reporting has garnered global attention due to business failures caused by inaccurate and deceptive financial reporting (Agrawal & Chadha, 2005). Deceptive financial statements aim to mislead users and lack key attributes like relevance, correctness, comparability, dependability, and compatibility. Falsifying records and misapplying accounting principles are common methods of deceit. The justifications for preparing deceptive financial statements are debated. Some believe they are created to meet shareholders' demands for high returns. In Nigeria, the quality of financial information is perceived as misleading, hindering the development of robust equities markets. Investors lament the unavailability or unreliability of financial data on company performance (Agrawal & Chadha, 2005). Okonda and Ojera (2015) capture the unique business characteristics contributing to variance in strategies and performance across industries and enterprises, known as firm characteristics.

Numerous rigorous studies have thoroughly examined the impact of firm-specific factors on EM, as demonstrated by Waweru & Riro (2013), Anagnostopoulou & Tsekrekos (2016), Magaji *et al* (2020), Sae-Lim & Jermsittiparsert (2019), and Osemene *et al* (2018). These comprehensive investigations, carried out in both developed and developing nations, unequivocally establish the positive effect of corporate governance and legal frameworks on the quality of earnings. Nonetheless, there are three prominent firm characteristics which are identified as influencing EM: leverage, firm size, and profitability control variables remains a significant gap in our understanding of the relationship between firm-specific features and profits management in developing nations, notably in Nigeria, relative to industrialised nations.

The interplay between firm size and leverage is a crucial focal point in the evaluation of FRQ for quoted manufacturing companies. Multiple studies (Asegdew, 2016; Wang *et al*., 2015) have consistently unearthed a robust and statistically significant favourable connection between these variables. Wang *et al*. (2015) also emphasised a particularly strong correlation between overinvestment and the financial reporting quality (FRQ) for companies with substantial free cash flow. While Egbunike and Okerekeoti (2018) underscored the significance of firm features, firm size, and leverage, Olowokure *et al* (2016) arrived at the contrasting finding of an absence of substantial association between firm size, leverage, and FRQ. This study fills a gap by considering audit fees and audit firm size as control variables. Additionally, outcomes of research in developing nations vary based on industry, sample size, data year, and economic climate.

The public believes Nigerian manufacturing managers prioritise their gains over stakeholders. This study investigates if quoted industrial companies in Nigeria use earning management to hide poor performance and mislead investors. It will also explore how company size, leverage, profitability, and liquidity impact earning management in Nigerian quoted industrial goods companies. The study's findings would be a valuable resource for future researchers and additional studies in the field. They are intended to benefit both internal and external stakeholders in the manufacturing industry, providing valuable insights for managers and investors in Nigeria's

manufacturing sector. Shareholders would be able to make informed decisions about their equity interests in respect to the financing choices available to their companies, and that working capital that will bring returns on time.

` The remainder of the paper is organized as follows. Section 2 critically reviews the existing studies on firm-characteristics determinants of earnings management in firms around the world. In Section 3, the methods used and data collected for the study are discussed. Next, the results of data analysis are presented, interpreted and discussed. The last section summarises and concludes the study with far-reaching policy recommendations.

Literature Review

Conceptual Review:

Earnings Management and Firm-specific characteristics

Earnings Management (EM) has different definitions. Rahman *et al* (2013) defines it as rational management with the goal of achieving steady financial results. Abolo (2022) describes it as any measure taken by a company's management to increase profit, benefiting executive directors over shareholders. Ahmad (2016) notes that EM is a strategy used by business management to increase profits, often serving the executive directors' objectives over the shareholders' interests. Alzoubi (2019) identifies two types of EM: opportunistic, where managers handle debt obligations and political costs as efficiently as possible.

EM grants managers the autonomy to protect the company's interests and navigate unforeseen challenges (Umobung & Ibanichuka, 2017). In times of uncertainty, EM becomes more prevalent, as shown by recent accounting scandals (Al-Shaer *et al*., 2017). In managerial situations, earnings are managed by manipulating financial records to present a favorable image of the company's operations. This includes aspects such as manipulating earnings through accruals and delaying the purchase and sale of fixed assets to boost current period profits (Akeju & Babatunde, 2017, Oyebamiji, 2021; Erna *et al*., 2022).

Managers may face pressure to engage in EM in order to meet financial expectations, boost the company's stock price, earn bonuses, and attract potential investors (Ahmad *et al*., 2022). This practice is employed to create a favourable impression of the company for the public, stakeholders, and investors, ultimately leading to better rewards. Managers use EM to influence investors' perceptions of their financial reporting discretion, employing tactics such as revenue and expense accumulation, changes in accounting policy, and accruals management (Erna *et al.*, 2022). However, certain corporate governance structures have been identified to curtail EM, with some ownership structures exerting significant influence in promoting truthful information and reducing EM (Kao *et al*., 2019; Erna *et al*., 2022).

Siyanbola *et al* (2020) emphasise that a firm's age, size, and profitability are crucial for its success. Oluwatayo *et al*. (2019) highlight firm size, liquidity, leverage, sales growth, board makeup, and institutional holdings as key attributes. Kogan and Tian (2012) stress the importance of turnover, asset growth, revenue growth, leverage, liquidity, and business size for understanding and improving firm performance.

A company's size is determined by its production potential, capabilities, and service variety. This influences its internal and external relationships, with larger companies more likely to maximise their value. In empirical corporate finance research, firm size is a significant variable, yet studies yield conflicting results on its impact. Lopez-Valeiras *et al* (2016) found that indebtedness inversely impacts the link between company size and financial success. Ishak *et al* (2018) observed that larger companies face more agency problems when managing diversified

operations. There is also a strong correlation between real earnings manipulation and firm size, suggesting potential profit manipulation within larger businesses due to the complexity of their transactions.

Leverage in a company's capital structure represents the ratio of debt to equity (Omondi & Mutur, 2013). This helps gauge the proportion of total assets to debt and assesses financial and business risks. Additionally, high debt reliance for new ventures is seen as risky, potentially scaring away investors and leading to earnings manipulation to meet debt covenant requirements (Ishak *et al*., 2018). The risk of bankruptcy pushes leaders to adopt better management techniques, including good governance practices

Profitability stands as return on Assets (ROA) which is a key measure of profitability, calculated as profit after taxes divided by total assets. It indicates a company's asset efficiency and overall yield. Profitability is crucial for corporate growth and is a significant concern for management, investors, and researchers (Ahmed, 2011). Maximising the wealth and profitability of business owners is the primary goal of financial management, which suggests better financial performance."

The company's ability to turn short-term assets into cash for daily operations, known as liquidity, is crucial for meeting current liabilities. In the absence of external financing, businesses can use liquid assets for funding. Liquidity ratios, such as quick and current ratios, assess a company's short-term financial health (Douglas, 2014; Katchova & Enlow, 2013)

The audit fee, the sum charged by auditors for reviewing an organisation's financial statements, is a critical control variable in this study. It is essential that these fees are affordable, as external auditors are required to maintain high audit quality by law. By ensuring adequate compensation, auditors can sustain the quality of their services, benefitting both the auditors and the organisations they audit. The public and shareholders must ensure the audit fee maintains the audit opinion's credibility for corporations and auditors.

The study used a key control variable, whether an audit company is part of the "Big 4". This is a well-studied indicator of audit characteristics (DeFond & Francis, 2005). Larger audit companies are less susceptible to client pressure to ignore accounting issues, and the reputations of Big 4 auditors are more valuable than those of smaller firms.

Underpinning Theory

Signaling theory

The study is built on signaling theory (Ross 1977), which argues that the presence of information asymmetry can justify the use of financial information by good companies to communicate with the market. According to Teixeira and Lima (2007) the market perceives manager-disclosed information as a positive signal because it reduces information asymmetry. Signaling theory explain information asymmetry in the labour market, has been subsequently applied to corporate reporting to explain voluntary disclosure. Due to the data falsification among management and owners, managers have the autonomy to select accounting methods and calculations that allow them to obscure the true economic value of the business.

Empirical Review

In order to evaluate the influence of firm characteristics on earnings management (EM) in Nigeria's pharmaceutical industry from 2012 to 2021, Bello *et al* (2023) examined data from five companies. Their multiple regression analysis revealed that audit quality and board independence significantly impact EM in Nigeria's quoted pharmaceutical sector, suggesting that strong corporate governance can mitigate earnings manipulation in the industry.

Johnson *et al* (2023) analysed panel data from 12 manufacturing firms to examine the relationship between firm traits and earnings predictability for Nigerian quoted companies from 2017 to 2021. The findings showed a weak but positive influence of firm characteristics on earnings predictability, suggesting that certain firm attributes might enhance earnings reliability to a limited extent.

Alyaarubi *et al* (2021) explored the relationship between internal audit quality and EM within Omani enterprises, using data from 80 companies across the industrial and service sectors on the Muscat Securities Market (MSM) in Oman. Utilising Smart PLS 3.0 for analysis, they found a positive relationship between internal audit quality and EM, indicating that enhanced audit quality improves EM practices in Omani companies.

Nwoye *et al* (2021) examined the impact of audit quality on EM in Nigerian insurance companies, focusing on accrual-based earnings manipulation metrics. Their multiple regression analysis demonstrated a significant effect of audit quality on EM, indicating that robust audit practices can reduce earnings manipulation in Nigeria's insurance sector.

Arif *et al* (2021) investigated the effect of corporate governance attributes, such as board size and gender diversity, on EM in Pakistan's non-financial sector. Using data from 2015 to 2020, they found that both board size and board gender diversity significantly influence EM practices, with larger boards and diverse board compositions associated with reduced earnings manipulation. These findings highlighted the potential for governance reforms to enhance earnings transparency. Chen and Lin (2022) explored the effect of board competencies on EM within Taiwan's manufacturing sector, analysing data from 2016 to 2021. Their study indicated that board members with strong financial expertise and industry knowledge significantly reduce EM practices, showing that board competence can serve as a safeguard against aggressive earnings manipulation.

Research Gaps

The reviewed literature provides significant insights into the interplay between earnings management (EM) and firm-specific characteristics. Most of the studies and literatures reviewed emphasise the impact of corporate governance (board independence, audit quality) on mitigating EM practices across various industries and regions. However, a notable research gap exists regarding the exploration of the influence of firm-specific characteristics, particularly in the context of Nigeria's manufacturing sector. While studies such as Bello *et al* (2023) and Nwoye *et al* (2021) focus on the pharmaceutical and insurance industries in Nigeria, limited attention has been given to the industrial goods companies, despite its critical role in the nation's economic development.

Furthermore, the empirical findings reveal mixed results on key firm-specific attributes like firm size, leverage, and profitability. For instance, while Lopez-Valeiras *et al* (2016) report an inverse relationship between indebtedness and firm size on financial success, Ishak *et al* (2018) identify agency problems in larger firms. These inconsistencies highlight the need for further investigation to clarify the dynamics between firm size, leverage, profitability, and EM, particularly in emerging markets.

Additionally, while governance mechanisms like board independence and audit quality have been extensively studied, there is insufficient focus on the interaction of these firm characteristics with other firm-specific characteristics in influencing EM. This interplay is particularly relevant in developing economies like Nigeria, where firm characteristics and firm dynamics differ significantly from developed markets.

The research aims to address these gaps by examining the relationship between firm-specific characteristics and earnings management in Nigeria's quoted industrial goods companies.

Methodology

Ex-post facto research design was used in this study because the data required for it already existed. The study's population consisted of 13quoted industrial goods companies in Nigeria. The technique to determine a sample size of 13 was census, since the entire population of the study was taken into consideration. Secondary data were obtained from the companies' annual financial reports for a period of 10years (2013 – 2022). The study employed descriptive statistics and panel regression.

The model specification for this study was adapted from (Kelvin, 2020) and was specified in functional and stochastic forms.

$$AEM = f(LEVE, FIS, PROF, LIQ, ADFES, AUDFS)$$

$$AEM_{it} = \beta_0 + \beta_1 LEVE_{it} + \beta_2 FIS_{it} + \beta_3 PROF_{it} + \beta_4 LIQ_{it} + \beta_5 ADFES_{it} + \beta_6 AUDFS_{it} + \varepsilon_{it} \quad (3.7)$$

Where:

AEM= Accrual EM; $LEVE$= Leverage; FIZ =Firm size; $PROF$= Profitability; LIQ= Liquidity; $AUDFS$= Audit firm size; $AUDFES$= Audit fees

ε_{it} = Error term; β_0, = Constant term, i- company; t- time; β_1 …β_6= Regression Coefficients

Measurement of Variables

Table 1: Summary of Measurement variables

Variables	Variable Labels	Measurement	Expected Sign	
Accrual EMs	AEM	Discretionary Accrual (DAC) $TCA_{it} = \delta_0 + \delta_1 CFO_{it-1} + \delta_2 CFO_{it-1} + \delta_3 CFO_{it+1} + \delta_4 \Delta REV_{it} + PPE_{it} + \omega_{it}$ where: $TCA_{it} = (\Delta CA_{it} - \Delta Cash_{it}) - (\Delta CL_{it} - \Delta STDBET_{it})$		The earning management metric i.e. DAC originates from Dechow & Schrand (2004),
Firm size	FSIZ	Natural log of total assets	Negative	
Leverage	LEVE	Total debt/ Equity	Positive	
Profitability	PROF	Percentage of net income to total asset	Negative	
Liquidity	LIQ	Ratio of current asset to current liability	Negative	
Audit Firm size	AUDFS	1 for businesses employing Big 4 auditors as outside auditors, and "0" otherwise	Negative	
Audit fees	ADFES	Natural log of all amounts paid for audits	Mixed	

Source: Authors' computation (2024)

Results and Discussion

The results displayed in Table 2 indicate that the average value of AEM stands at 0.092 with min. and max. Value of 0.001 and 0.413 with a SD of 0.095. Firm financial leverage (LEV) has an average of 0.439 with SD of 0.692indicating that has no wide variation in the EM with a min. and max. of 0.017and 5.175 respectively.

Table 2: Descriptive Statistics

	AEM	LEV	FSIZ	LIQ	PROF	ADFES	AUDFS
Mean	0.092	0.439	17.945	1.553	7.269	7.325	0.923
Median	0.060	0.268	18.160	1.060	5.686	7.418	1.000
Maximum	0.413	5.175	19.780	12.579	26.517	8.955	1.000
Minimum	0.001	0.017	15.732	1.240	-44.161	5.797	0.000
Std. Dev.	0.095	0.692	1.160	2.093	9.544	0.781	0.268
Skewness	1.832	4.318	-0.248	3.444	-1.128	0.001	-3.175
Kurtosis	5.956	25.068	1.879	15.574	8.803	1.983	11.083
Jarque-Bera	120.050	3041.778	8.139	1113.472	209.949	5.599	572.399
Probability	0.000	0.000	0.017	0.000	0.000	0.061	0.000
Observations	130	130	130	130	130	130	130

Source: Author's Computation (2024)

The firm size is found to have recorded 17.946on average with SD of 1.160 indicating no wide variation in the size of the sampled firms. The average liquidity was shown in the Table to be 1.5530 with an SD of 2.0928 and min. of 1.240 and max. of 12.579 respectively. This implies that the liquidity ratio of the sampled industrial goods firms was very poor and not encouraging because the average value less than the industrial norms of 2:1. The average return on asset is 7.3 percent with SD of 9.544indicating wide variation in the profitability of the sampled firms with a min. and max. of -44.2 percent and 26.5 percent respectively. The results also found the mean audit fees to be 7.325 with a SD of 0.781, min. Value of 5.798 and max. of 8.955 respectively. Average audit firm size documented 0.92. This implies that all the 92% of sample industrial goods companies were audited by Big four audit. The probabilities of Jarque-Bera of almost all the parameters are less than 0.05 significance level.

4.2 Correlation Analysis

Table 2: Correlation Matrix with VIF

	EM	LEV	FSIZ	LIQ	PROF	ADFES	AUDFS	VIF
EM	1.000							-
LEV	-0.164	1.000						1.109
FSIZ	-0.026	0.005	1.000					1.219
LIQ	-0.113	0.102	0.245	1.000				1.115
PRO	0.155	0.055	0.218	0.107	1.000			1.109
ADFES	0.076	-0.259	-0.257	-0.109	-0.081	1.0000		1.329
AUDFS	-0.257	0.037	0.043	0.045	0.125	0.312	1.000	1.175

Source: Author's Computation, 2024

The estimated correlation coefficients obtained for model are displayed in Table 2. The results in Table 2 revealed a weak inverse connection between leverage and EM given the estimated correlation coefficient of -0.164. The results also reveal a weak inverse connection between firm size and liquidity and EM given the estimated correlation coefficient. of -0.026 and-0.113 respectively. In addition, the results reveal a weak favourable connection between the profitability and audit fees and EM given the estimated correlation coefficient. of 0.155 and 0.076 respectively. In addition, inverse connection exists between audit firm size and EM with correlation coefficient. of -0.257. The results further reveal weak relationship among the explanatory variables as the correlation coefficient. Among the explanatory variables is relatively low with none of them even up to 0.5. The study demonstrates that no explanatory variable has a

VIF greater than 10.0. It exhibits a range between 1.109 and 1.329 indicating there is no multicollinearity among the explanatory variables in the model.

Test of Hypotheses

Table 3 Panel Regression Results of Model

Variables	POLS	R. E	F. E
C	-0.024	-0.044	0.770**
	(-0.138)	(-0.252)	(2.448)
LEV	-0.014	-0.013	-0.0397
	(-1.141)	(-0.567)	(-0.234)
FSIZ	0.006	0.007	-0.0397**
	(0.819)	(-0.930)	(-2.509)
PROF	-0.001	-0.0014	-0.001**
	(-1.490)	(-1.550)	(-2.210)
LIQ	-0.005	-0.005	0.002
	(-1.220)	(-1.215)	(0.396)
ADFES	0.016	0.017	0.007
	(1.375)	(1.445)	(0.334)
AUDFS	-0.098**	-0.099	-0.125 **
	(-3.036)	(-2.359) **	(-2.763)
Adj. R^2	0.286	0.288	0.37
F-stat	3.028 (0.009)	3.083(0.008)	3.8471(0.0001)
Durbin-Wat	1.509	1.492	2.083
Hausman Test			37.691 (0.0241)

t- stat. values in parentheses

P-val<0.05**

Source: Author's Compilation (2024)

The Hausman Test's P-value of (0.0241) in Table 4 suggests that the fixed effect is the most preferred. Given that the variables were chosen and incorporated appropriately, the model is fit and significant at the 5% level, as indicated by the probability value of 0.000 <0.05 and the F-statistic of 3.847. This suggests that the sampled Nigerian industrial products firms' EM is positively impacted by the firm. The explanatory variables account for approximately 37% of the overall variance in EM, while the remainder of the remaining 63% remains unexplained. The results of Durbin Watson's analysis of 2.08 show absence of auto-correlation.

Hypothesis One: *Leverage has no significant relationship with Earnings Management*

The study's findings in Table 3, indicate that leverage has an associated (t-val = -0.234; p-value >0.05) unfavourable but negligible influence on the EM of quoted industrial goods companies. This suggests that the management of earnings is largely unaffected by indebtedness. Due to the increased danger of insolvency, the auditors will usually spend more time (all other things being equal) providing auditing and advisory services to heavily leveraged organisations. This result is consistent with that of Olowokere *et al* (2021).

Hypothesis Two: *The firm size has no significant impact on the Earnings Management*

The study revealed a substantial inverse impact of company size on the EM of quoted industrial companies, with a (t-val = -2.509; p-v <0.05) signifying the significance at the 5 percent threshold. This suggests that larger corporation tend to disclose less manipulation of earnings.

Hypothesis Three: *The Profitability has no significant impact on the Earnings Management*

The study's findings in Table 4.4 revealed a substantial inverse impact of profitability on the EM of quoted industrial goods companies, with a (t-val = -2.2096; p-value <0.05) signifying

its significance at the 5 percent threshold. This implies that companies with higher profitability exhibit a lower propensity to manipulate their earnings.

Hypothesis Four: *The firm's Liquidity has no significant effect on the Earnings Management*

The study's findings in Table 4.4 indicate that the ability of quoted industrial goods businesses to control their earnings is marginally and positively impacted by liquidity. However, the (t-val = 0.396; p-val >0.05) suggests that this impact is not significant at the five percent level.

Regarding the control variables, it has been confirmed that audit fees do not have a bearing on EM (p-value > 0.05), but the size of the audit firm has a significant and negative impact on EM (t-val. = -2.7625; P-val. <0.05). This suggests that there is less accrual or earning manipulation in industrial products firms audited by the auditing firms. This finding is similar to Nwoye *et al.,* (2021).

Discussion of Findings

The impact of leverage on quoted industrial products businesses' ability to manage earnings is minimal and unfavourable, suggesting that EM is not significantly influenced by leverage. Increased insolvency risk may lead auditors to spend more time providing services to heavily leveraged organisations. These findings are consistent with previous research.

These findings align with Olowookere *et al* (2021) found that leverage had an insignificant impact on FRQ. However, Hassan and Bello (2013), who reported a significant favourable connection between leverage and FRQ in a sample of quoted manufacturing firms in Nigeria.

The FRQ by quoted industrial products companies was significantly negatively impacted by firm size, indicating that financial information reported by major companies was of inferior quality. This aligns with the findings of Asegdew (2016) and Ishaq *et al* (2018), who also observed a negative impact of firm size on the FRQ in their respective studies. The results contradict the study's initial expectations and the conclusions from Rehmanl *et al* (2019), who found a beneficial impact of business size on the FRQ in the banking sector in Pakistan. Additionally, leverage negatively and negligibly affects quoted industrial goods companies' ability to manage their earnings.

The results indicated a negative impact of profitability on the EM of quoted industrial goods companies, which was significant at the customary level of significance. These findings align with Kelvin (2020) study on the relationship between company traits and earnings quality of quoted manufacturing firms in Nigeria, which found a substantial impact of return on assets on earnings quality. Lastly, the ability of quoted industrial goods businesses to control their earnings is marginally and positively impacted by liquidity. These results contradict earlier empirical research (Soyemi & Olawale, 2019; Egbunike & Okerekeoti, 2018) that found a positive and substantial relationship between liquidity and the FRQ in a sample of quoted non-financial enterprises in Nigeria.

Conclusion and Recommendations

On the basis of the study's findings, it might be said that EM of quoted industrial goods companies is dependent upon firm features such as profitability, firm size, leverage and liquidity. Specifically, among Nigerian quoted industrial products companies, profitability, company size, and audit firm size significantly impacted EM.

It is recommended that for an Industrial goods firm to reduce EM, managers and shareholders of industrial products companies should grow their company by employing qualified and competent staff.

In order to prevent becoming idle and bankrupt, businesses should improve the efficacy and efficiency of their liquidity oversight. Additionally, for profitable firms to have lower EM, the companies should endeavor to strengthen their financial performance.
In the final analysis, the quoted industrial goods businesses should handle their debt owing to outside parties (creditors) more skillfully to prevent the urge to manipulate earnings.

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