

Nexus of Earnings Management and Financial Performance of Manufacturing Firms in Nigeria

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Abstract: The goal of the study was to examine the long run impact of Earning management on performance of manufacturing firms in Nigeria for the period 2013 to 2022. The study adopted cross sectional ex-post facto design and census sampling method. Earnings management was proxied as Real and accrual earnings management divided into Discretionary Accruals, Related party transactions, and Real earnings management while performance was measured using returns on asset, net profit margin and price earnings ratio. The dynamic panel data estimation framework was used and Hausman test for selection of model. The study found that discretionary Accruals, Related party transactions, and Real Earnings management all have significant effects on Returns on Asset. The effect of discretionary accrual is however positive while that of real earnings management is negative highlighting the trade-off effect of real and accrual earnings management on accounting performance. Earnings management exert significant impacts on Net profit margin. Discretionary Accruals, Related party transactions, and Real earnings management exert significant effects on market performance using Price earnings ratio. Based on findings we recommend that business owners should adopt policies that will improve quality of earnings and deter aggressive manipulation behavior by limiting Managers ability to indulge in aggressive accrual management. Firms that seek to improve their market performance do not need to overemphasize the need to manipulate earnings through accruals in order to influence investors' decisions but can as well employ real earnings management to generate the same outcome with less harmful effect on the survival of the firm

Keywords: Earnings Management, Returns on Asset, Price Earnings Ratio, Net profit Margin

I. INTRODUCTION

The traditional economic theory emphasizes maximization of shareholders wealth and perceives shareholders as the residual owners of the entity. Separation of ownership and control implies that managers must work in the interest of owners. The owners of a business evaluates the manager through financial reports. High performance is associated with management effectiveness and efficiency in deployment of resources. According to Iswatia and Anshoria (2007) financial performance of a firm depends on its ability to gain and deploy resources to leapfrog competition and achieve an edge. Due to intense competition among the firms, a firm is expected to be able to maintain and improve its performance to compete with others. Consequently, the firm can be able to increase its market share as well as reduce its operational costs.

Over the years the effectiveness of financial statements in serving the need of various stakeholders have been a subject of debate. The objectivity and validity of financial reports is currently scrutinized by users of accounting information. Certain loopholes in the accounting standards provide managers and accountants the latitude to indulge in earnings management. The latitude given to managers to make certain decisions at their discretion in terms of choice of accounting processes and policies resulting from many judgments at the same time are capable of causing manipulations which have resulted in falsified accounting information. These misapplication of accounting rules thereby make financial reports incapable of satisfying the truth and fairness criteria which embodies fair presentation of all the material and immaterial facts concerning the financial transactions of an entity.

Management of earning is a global phenomenon and the echoes reverberate globally resulting in many corporate failures and scandals such as Enron, Xerox, Tyco; WorldCom. In Nigeria, the failure of Intercontinental, Oceanic bank, African express, Afribank, Skye bank, Main Stream Bank Plc, African Petroleum and Cadbury Nigeria are clear cases of earnings management involving falsification of financial statements and intentional overstatement of profit and wrong classification of liabilities and expenses. The danger of such actions are numerous such as loss of investment by shareholders and creditors, dividend paid out of profit, loss of job. The Nigerian institutional environment is another motivation for the study. First there is the problem of weak corporate governance, poor adherence to accounting rules, poor regulatory oversight, weak legal framework and enforcement of laws with delayed justice as often said justice delayed is justice denied. The weak institutional environment create loopholes for managers to exercise discretion on accounting processes and given the latitude, indulge in earnings management. This unique feature of the Nigeria institutional framework in comparison to other research settings coupled with the present economic challenges faced by the country motivates this study

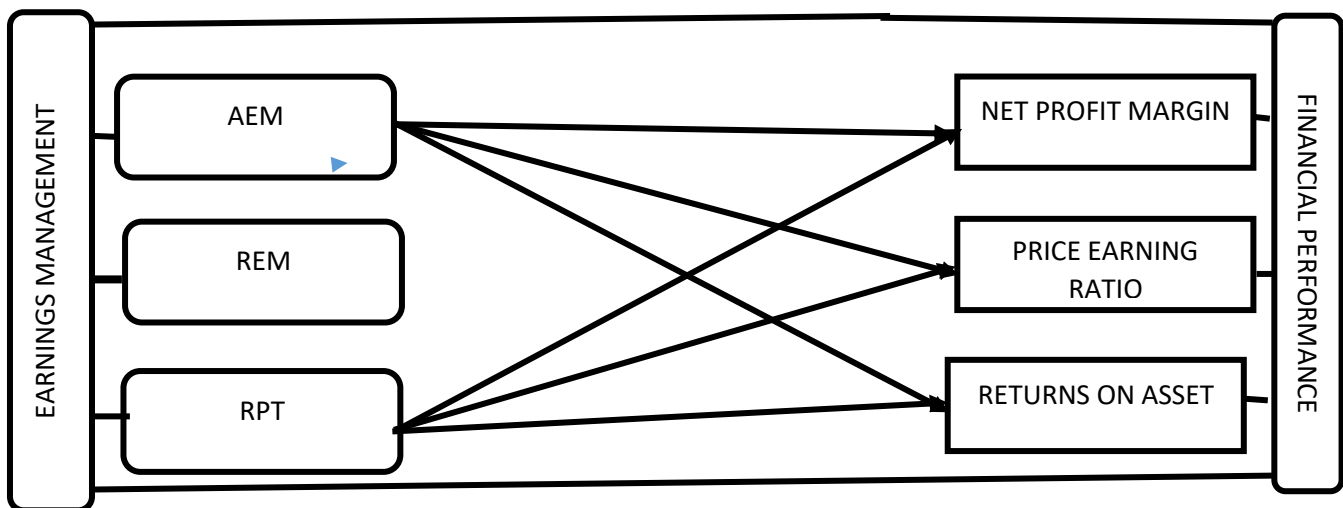
II. LITERATURE

2.1 Theoretical Underpinning

This study is anchored on agency theory, positive accounting theory, signaling theory and efficient transaction hypothesis. **Agency theory** popularized by Jensen and Meckling (1976) recognized the lack of goal congruence between agent and principal. The agent hired for an assignment by the owners (the principal) fails to accomplish the task within the rules stipulated by the principal and instead pursue goals and objective for self-aggrandizement and different from the goals of the owners of the business. This self-cantered behaviour of the agent does not achieve goal congruence and give rise to agency conflict. This agency lacuna has been debated by scholars in many fields (Watts & Zimmerman, 1983; Fama & Jensen, 1983; Jensen & Meckling, 1976; Agency theory in the context of this study argues that managers not acting in the best interest of the owners of the business will indulge in falsification of financial reports either to present a rosy picture of a high performing organization to the stock holders or present a positive outlook to potential investors. Similarly, their self-opportunistic behaviour of falsification of financial statement and earnings to present picture of high performance to ensure maximum bonus where such bonuses are tied to profit

2.2 Conceptual Framework

According to Creswell (2003) categorization, mapping and description of concepts and inter relationships amongst variable of study can be achieved through conceptual framework. The framework assist the researcher to establish the research, scope, identify gaps in literature and establish relationships among the concepts of study. In the case of this study we link the variables of the study through the conceptual framework below



2.3 Empirical Review

The debate and findings of prior literature on the subject of earnings management is mixed and continue to attract attention globally. Prior empirical studies showed a significant but negative association exists between earnings management and firm performance while other studies show positive and significant relationships. This study reviewed prior literature and identified gaps for further studies.

Chukuka and Ogbodo (2023) studied the effect of earnings management on financial performance of listed manufacturing firms in Nigeria from 2012-2021. The results revealed that discretionary accrual has a positive and significant effect on returns on assets, returns on equity, earnings per share and net profit margin. Agbata, Oranum, Ndum and Eze (2023) investigated Earnings Management (EM) and Financial Performance of the Nigerian Deposit Money Banks (DMBs) for the period 2012 – 2018. The research findings disclosed significant effect of EM on DMBs' financial measures - Earnings before Interest, Tax, Depreciation and Amortization; Dividend Payout Ratio; and Net Profit Margin. The study concluded that earnings management exists in DMBs and it has significant negative and positive effects on their financial performance

Chakroun, Amar and Amar (2022) examined the impact of earnings management on financial performance of French companies listed on the CAC-All-Tradable index over the period 2008–2018.

Feasible generalized least square regression method was used to estimate the econometric models. Based on panel data of 3,003 French firm-year observations, the authors demonstrate that earnings management has a negative and significant

impact on financial performance while corporate social responsibility moderates positively the negative impact of earnings management on financial performance in the French context. Baochie and Mensah (2022) investigates the relationship between earnings management and financial performance of firms in Anglophone sub-Saharan African Countries in a dynamic framework. The study shows how this relationship is moderated by aggregate disclosure and best-practice corporate governance quality metrics. The findings indicate that earnings management's performance effects persist even after controlling for dynamic endogeneity, simultaneity, and unobserved time-invariant heterogeneity inherent in the earnings management and performance relationship.

Rafizadeh (2016) in a study of real earnings management examined the relationship between related party transactions and financial performance of companies listed in Tehran Stock Exchange during the period of 2009-2013. Using the Morgan Table to select 78 companies and Eviews 7 for analysis, the research results showed that a significant relationship existed between related party transactions and financial performance of companies listed in Tehran Stock Exchange. Venuti and Pozzoli (2014) investigated the relation between related party transactions and companies' financial performance for the period 2008 to 2011. With the use of related data analysis, the findings showed that related party transactions and companies' financial performance are not correlated and that there is no evidence of a course-effect relation.

III. METHODOLOGY

3.1 Variables

3.1.1 Independent variables

The independent variable in the study is classified into accrual based earnings management (AEM) and real based earnings management (REM).

Accrual Based Earnings Management

Many studies have employed different models in measuring accrual-based earnings management (Akhgar, 2015; Arkan, 2015; Beslic, Beslic, Jaksic & Andric 2015). Literature review has shown that the modified Jones model (1991) is the most favored model when measuring accrual-based earnings management, which is consistent with the study of Dechow and Skimmer (2000). For the purpose of this study therefore, the modified Jones model (1995) was adopted to measure accrual-based earnings management (AEM).

Real Activity Earnings Management (REM)

Real activity-based earnings management (REM): Roychowdhury (2006), Zang (2006) and Gunny (2005) considered three measures in studying the degree of real earnings management: the cash flow from operating activities abnormal levels, expenses discretionary in nature and costs of production. In this study, cost of production measure was used as a degree of real earnings management

Related Party Transactions

RPT is another measure of Real earnings management is related party transactions. Efficient transaction hypothesis states that a firm can indulge in related party transactions to enhance the performance of the business. However, some other studies suggest that it can be used to massage earnings through favoritism and tunneling. Based on this we assume that related party transaction is used in this study to represent negative and massaging of income, thus we proxy related party transaction as real earnings management

Dependent Variable

The dependent variables represent the measure of firm performance that may be influenced by audit quality and earnings management. We adopt both accounting and market performance measures in this study. The performance variables employed are Net Profit Margin, Returns on Asset and Price earnings ratio

Net Profit Margin: The financial perspective is considered as the most important perspective among the others, particularly in relation to key strategy implementation and assessment of organizations' performance. This study used net profit margin as the measure of firm performance in line with BSC dictates and this was calculated thus:

$$\frac{\text{Net profit for the period} \times 100}{\text{Sales Revenue}}$$

Returns on Asset

Following Liargovas & Skandalis (2008); Hifza (2011); Ahsen et al. (2012); Sayeda (2011), Amal et al. (2012) and Khalaf (2013) we adopt Returns on asset as a proxy for financial performance. The ratio is expressed as earnings before interest and taxes divided by total asset. By formula it is

$$\text{ROA ratio} = \frac{\text{Earnings before interest and taxes}}{\text{Total Assets}}$$

Price to Earnings Ratios (PERR)

This ratio is a yardstick for measuring times share price cover earnings per share in a particular period thus providing an indication for payment by investors for each financial unit of measurement. The method is popular in judging or evaluating financial results. The ratio gives an indication of market perception of a firm's share and is calculated using current price and earnings.

$$\text{PE ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}}$$

Measurement of Variables summarized on Table .1 below:

Independent Variable	Measurement	Expected Sign
Accrual Earnings management	Modified Jones Model 1995	Negative
Real Earnings Management	cost of production measure changes in sales divided by total asset (Roychowdhury (2006), Zang (2006) and Gunny(2005)	Negative
Related Party Transactions	The natural logarithm for related party transactions as published in the annual financial statements of listed manufacturing firms in Nigeria between 2002 to 2022as reported according to the International Accounting Standards (IAS 24).	Positive/Negative
Dependent Variable		
Net Profit Margin	$\frac{\text{Net profit for the period}}{\text{Sales Revenue}} \times 100$	Positive
Return on Assets	$\frac{\text{Net Profit}}{\text{Total Assets}} \times 100$	Negative
Price earnings ratio	$\text{P/E ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}}$	Negative

Model specification

From the functional relationship we derive the estimation thus:

$$\text{ROA} = \beta_0 + \beta_1 \text{ARM} + \beta_2 \text{REM} + \beta_3 \text{LogRPT} + U_{1,t} \dots \dots \dots \text{(vi)}$$

$$\text{NPM} = \beta_0 + \beta_1 \text{ARM} + \beta_2 \text{REM} + \beta_3 \text{LogRPT} + U_{2,t}$$

$$\text{PER} = \beta_0 + \beta_1 \text{ARM} + \beta_2 \text{REM} + \beta_3 \text{LogRPT} + U_{3,t} \dots \dots \dots \text{(vii)}$$

IV. RESULTS

4.1 Descriptive Statistics

The descriptive statistics show that, for performance variables, average return on assets (ROA) for the firms is 0.06 with a maximum of 6.17 and a minimum of negative 10.19. This shows that on average, return on assets for the companies has been quite low over the study period. This also indicates that there is weak efficiency of asset management among the firms. The standard deviation value of 0.67 is quite larger than the mean value, suggesting that there is a high level of variability in the ROA among the companies. In particular, the highly negative skewness value indicates that most of the companies in the sample had ROA values that are larger than the reported mean value. Essentially, it is very large extreme negative ROA values that led to the low mean value. Average net profit margin is close to the ROA at 0.07, also indicating low financial performance of the firms.

Table 2: Descriptive Statistics of the Panel Data for Firms

Variable	Mean	Max.	Min.	S.D.	Skewn.	Kurt.	J-B	Obs.
ROA	0.06	6.17	-10.19	0.67	-6.66	151.24	384001.2 (0.00)	416
NPM	0.07	5.96	-2.87	0.61	4.58	46.26	33891.4 (0.00)	416
PER	15.08	1284.0	0.02	76.27	14.52	223.03	853801.0 (0.00)	416
ARM	11.37	18.41	5.94	1013.20	-0.02	2.60	2.81 (0.24)	416
REM	-0.67	90.85	-191.37	13.34	-10.54	158.21	425273.9 (0.00)	416
RPT	16.58	20.43	10.96	2.08	-0.34	2.78	8.89 (0.00)	416

Like the ROA, the standard deviation of NPM is also large and indicates wide variability of recorded NPM values for individual firms in the sample. In terms of price earnings ratio (PER), average value for the firms is 15.08 percent, which is relatively high. The standard deviation of PER is also very large at 77.27, which indicates that many of the firms reported PER that are quite different from the reported mean. Also note that the kurtosis for each of the performance variables is quite large and suggests that there are large extreme values among the firms. For each of the firm performance variables, the J-B statistics are high and easily passed the significance tests at the 1 percent level indicating that the datasets are non-normally distributed. These show clear cases of heterogeneity of performance among the firms. Essentially, the non-normal distribution shows that there are strong firm-specific influences on the outcome of each of the performance and determinant datasets reported in the Table.

For the accruals, variable average discretionary accruals is 11.37 with a maximum of 18.14 and minimum of .94. The standard deviation also shows that most of the companies had AEM scores that are quite different from the mean value. In terms of the measures of earnings management, average real earnings management (REM) is -0.67 which is generally, although the standard deviation score of -10.2 indicates that the actual firm scores are highly variable across the firms. The second measure of earnings management is related party transactions which has a mean value of 16.58 and a low standard deviation of 2.08.

4.2 Correlation

The correlation matrix for the variables in the study is shown Table 3 below. From the Table, it is seen that, apart from AEM and RPT which has a significant and positive correlation coefficient, the three accruals and earnings management variables do not appear to be highly correlated. This shows that when each of the earnings management quality factors among the companies are increasing, the other indicators do not appear to be changing in the same direction. Thus, there is evidence that accruals and earnings management among the firms take different dimensions in terms of intensity and strategic focus.

Table 3: Correlation Matrix

Variable	ARM	REM	RPT	ROA	NPM	PER
AEM	1					
REM	-0.02 (0.74)	1				
RPT	0.11 (0.03)	0.07 (0.17)	1			
ROA	0.05 (0.30)	-0.25 (0.00)	0.07 (0.17)	1		
NPM	0.09 0.07	-0.03 0.54	0.07 0.13	0.13 0.01	1	
PER	0.07 0.14	0.01 0.87	0.05 0.27	-0.01 0.77	-0.08 0.08	1

The correlations among the selected firm performance variables are also presented in this section. There is a positive and significant correlation between ROA and NPM, which shows that for every increase in the return on assets for the firms, net profit margins also increase concurrently.. The correlation tests indicate that performance measures among the firms that are used in the study vary significantly.

4.3. Cross-sectional Dependence Test

Given that the non-financial firms (manufacturing firm) sampled in the study may possess certain similar characteristics that generate certain levels of interdependencies among each of the companies. The Pesaran (2004) cross-sectional dependence (CD) teste is implemented in this study However, we include results of the Breusch-Pagan LM test to improve on the robustness.. The Pesaran cross-section dependence test results are presented in Table 4.4.

Table 4 Cross-section Dependence Test Results

Variables series tested	Pesaran CD	P-value	Breusch-Pagan LM	P-value
<i>ROA equation</i>	7.63	0.00	300.8	0.00
<i>NPM equation</i>	3.28	0.00	275.4	0.00
<i>PER equation</i>	3.04	0.01	277.6	0.00

Source: Author's computations

From the results reported in Table 4, it is seen that the statistics of both of the test components (Pesaran CD and Breusch-Pagan) passed the significance tests at the 1 percent level ($p < 0.01$). This shows that there is the presence of cross-sectional dependence in the estimates. The presence of cross-sectional dependence indicates that the data may produce consistent but non-efficient regression estimates thus rendering the standard errors biased. There is therefore the need to extend the analysis technique to a method that takes cognizance of the cross-sectional dependence in the panel dataset.

4.4 Unit Root and Cointegration Tests

Firm-specific characteristics (or individual and heterogeneity) and common (or homogenous) characteristics of the companies included in the sample for the study reflect in the data employed for this study. This calls for the use of panel unit root tests to check for the stationarity of the data, in order to avoid incidence of "spurious" inference. The test developed by Levin, Lin and Chu (LLC) was used to examine the stationarity properties of the homogenous panel. In order to account for the differences exhibited by individual firms, the Im, Pesaran and Shin (IPS, 2003) and the Augmented Dickey-Fuller tests are also conducted. All the unit root test results are presented in table 5.

Table 4.5: Panel Data Unit Root Tests Results in levels

Variables	<i>Common unit process</i>	<i>individual unit root process</i>		
	LLC	IMP	ADF	PP-Fisher
<i>ROA</i>	-4.15	-0.31	159.21	98.98
<i>NPM</i>	-9.74	-1.78	97.47	111.1
<i>PER</i>	-157.00	-27.38	111.57	79.06
<i>AEM</i>	1.77	-1.15	109.6	29.82
<i>REM</i>	-11.32	-3.60	135.1	155.1
<i>RPT</i>	-1.29	1.86	58.48	154.1

Source: Estimated by the Author. Note: ** and * indicate significant at 1% and 5 % levels respectively; IPS = Im, Pesaran & Shin; LLC = Levin, Lin & Chu

In the unit root analysis, only the tests for level variables are reported in the results since the variables are essentially stationary at their levels. Considering that unit root results strongly indicate that the stationarity status of the variables are equal with each of the variables being $I[0]$. The long run conditions of the variable interactions can however be established to present a stronger background for a dynamic relationship among the variables. Only the results of the Kao cointegration tests are reported since these tests accommodate lesser degrees of freedom.

Table 6 shows the outcomes of the Kao panel cointegration test for each of the Equations. The coefficients of each of the Kao test in each Equation are all significant at the 5 percent level. Thus, there is strong evidence of panel cointegration. Based on the Kao residual-based cointegration test shown in Table 6, the null hypothesis of no cointegration can be rejected at the 5 percent level for each of the equations. Thus, the cointegration tests results show that there is a strong long run relationship among the variables in the study. The dynamic panel data estimation framework can therefore be employed in the empirical analysis.

Table 6: Panel Cointegration Test Result

Equation	Kao statistic	Prob.
ROA	-4.72	0.00
NPM	-4.71	0.00
PER	7.02	0.00

Note: **, * indicates the rejection of the null hypothesis of no cointegration at the 0.01 and 0.05 level of significance respectively

4.5 Regression Analysis

4.5.1 Test of Panel Estimation Framework

The standard Hausman test for random/fixed effects test is therefore used for identifying the time-varying conditions of the panel data in order to determine the method of panel analysis to be adopted. The result of the Hausman tests for each of the equations of the study are reported in Table 7. The test result shows that the fixed effects estimation procedure is the most efficient procedure for estimating the relationships since misspecification cannot occur when the fixed effect procedures are employed in the estimation.

Table 7: Result of Hausman Test of Random/Fixed Effect

Model	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
ROA equation	12.41	6	0.019
NPM equation	12.25	6	0.016
PER equation	13.47	6	0.00

Source: Author's computations

However, the previous analysis has confirmed the presence of cross-sectional dependence in the dataset. Hence, the fixed effect regression alone may produce biased standard errors, thus making the estimates inefficient. In order to address the issue of cross-sectional correlation therefore, the panel corrected standard error (PCSE) is also employed as an estimation strategy.

4.5.2 Accruals Earnings Management, Real Earnings Management and Performance of Firms

In this section the effects of accruals and real earnings management on performance of the sampled firms in the study are estimated and reported.

The panel data-based estimates of the effects of accruals and earnings management on return on assets (ROA) of the firms are presented in Table 4.8. Both the fixed effects OLS and the panel correlated standard errors estimates are reported in order to demonstrate the robustness of the PCSE. The estimates are similar only in terms of the signs of the coefficients, suggesting that the estimates for the study are robust in terms of different estimation techniques. However, the PCSE reports robust standard and corrects for cross-sectional dependence. Moreover, the diagnostic tests of the PCSE estimates are also more robust than that of the OLS. These show that the PCSE estimates are more efficient than those of the OLS. The focus of the analysis is therefore on the PCSE results. From the results in Table 4.8, it is seen that the adjusted R-squared is 0.825 which indicates that over 82 percent of the systematic variations in ROA for the companies was explained by the independent variables in the study. This indicates that the model has a high overall performance in explaining the relationship between the ROA and both accruals and earnings management for the firms.

Table 8: Accruals, earnings management and ROA

The Variable	Panel OLS			Panel Correlated Standard Errors		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
ARM	0.011	0.80	0.43	0.010	10.66	0.00
REM	-0.013	-5.43	0.00	-0.012	-42.94	0.00
RPT	0.015	0.91	0.36	0.013	7.26	0.00
Adj. R-sq.	0.073			0.825		

Source: Author's computations

The particular effects of each of the explanatory variables on ROA of the firms is determined by considering the individual coefficients of the estimates. Based on this consideration, it is seen that the coefficient of accruals earning management (AEM) is significant at the 1 percent level and is also positive. This result reveals that accruals earnings management has a significant positive impact on return on assets for the manufacturing firms. Essentially, the result indicates that efficiency in asset management of the firms is higher for firms that more engage in accruals earnings management. Thus, the form of earnings management is shown to significantly improve return on assets for the firms. The coefficient of real earnings management (REM) is also significant at the 1 percent level, but it is negative. This shows that real earnings management has a different impact on ROA than the effect of accruals earnings management. Increased real earnings management is shown to significantly reduce ROA for the firms. The coefficient of related party transactions (which is another indicator of real earnings management) is significant and positive. This implies that other forms of real earnings management significantly improve the firm performance in terms of efficiency in asset management in Nigeria. While firms that focus on accruals exhibit higher ROA, firms that focus on real earnings exhibit lower ROA.

The results of the effects of the different earnings management strategies of the firms on the net profit margins are presented in Table.9. The results from the panel correlated standard errors (PCSE) estimates are also more robust than those of the panel OLS estimates.. In the PCSE result, coefficient of variation is relatively moderate at 0.585. This shows that over 58 percent of the variations in net profit margins of firms was explained in the model. A close look at the individual coefficients of the explanatory variables in the estimated models reveals that the coefficient of all the earnings management variables pass the significance test at the 1 percent level. This shows that all the each of the earnings management strategies has a significant impact on net profit margins of the sampled firms. Changes in any of the variables will exert significant shifts in the financial of the manufacturing firms in terms of net profit margins.

Table 9: Accruals, earnings management and NPM

Variable	Panel OLS			Panel Correlated Standard Errors		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
AEM	0.021	1.66	0.10	0.018	12.46	0.00
REM	-0.001	-0.64	0.52	-0.001	-14.10	0.00
RPT	0.014	0.89	0.37	0.013	5.85	0.00
Adj. R-sq.	0.019			0.585		

Source: Author's computations

The coefficient of AEM is however positive which shows that an increase in accruals earnings management leads to an increase in the net profit margin of the firms. Thus, a more aggressive accruals strategy in earnings management tends to improve the profit margins of the selected firms in the study. The coefficient of REM is however negative and shows that as real earnings management increases in the firms, net profit margins tend to decrease significantly. In particular, firms that pursue accruals earnings management tend to report higher net profit margins, while firms that pursue real earnings management tend to report lower net profit margins.

The result of the effects of accruals earnings management and real earnings management on price earnings ratio (PER) of firms is presented in Table 10. Recall that PER relates to the quality of the performance of firms in the market for investors. Again, the results for PCSE have more relevant diagnostic indicators than the result of OLS estimates. For the PCSE results, the goodness of fit statistic of adjusted R squared value indicates that over 65 percent of the variations in PER was captured in the model, indicating that the model has an impressive prediction capacity. The coefficients of all the explanatory variables in the model are significant at the 1 percent level. This shows that each of these variables exerts significant effects on price earnings ratios of the companies.

Table 10: Accruals, earnings management and PER

Variable	Panel OLS			Panel Correlated Standard Errors		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
AEM	2.165	1.37	0.17	1.818	19.54	0.00
REM	0.023	0.08	0.94	0.026	3.82	0.00
RPT	3.021	1.56	0.12	2.577	16.19	0.00
Adj. R-sq.	0.017			0.653		

Source: Author's computations

The main issue is to consider the direction of effects of each of the explanatory variables on PER, especially the earnings management variables. From the results in Table 10, it is seen that all the three earnings variables have positive coefficients. This shows that while accruals earnings management has significant positive impact on PER, real earnings management and related party transactions also exert positive effects on PER of the firms.

4.6 Robustness Test

A test on multicollinearity was conducted. The results of the multicollinearity test are presented in Table 11. In the result, the focus is on the output of the uncentred variance inflation factors (VIF) variables. The VIF value must be less than 5.0 for the variable in an equation to be free from collinearity. In the report, the VIF values for all the variables are less than 5.0. Thus, it can be seen that the estimated coefficients for the equations do not integrate excessively among themselves and the estimates are therefore reliable. The heteroskedasticity test (reported in the appendix) also shows that there is presence of heteroskedasticity in the PCSE estimates.

Table 11: Variance Inflation Factor and tolerance levels of the independent variables

Variable	VIF	1/VIF
ARM	1.46	0.686704
REM	1.43	0.71372
RPT	1.21	0.824935
Mean VIF	1.22	

Source: Author's computations

4.7 Discussion of Findings

H01: There is no significant effect of Discretional Accruals, Related party transactions, and Real earnings Management on Return on Assets of manufacturing companies in Nigeria

The test of this hypothesis is based on the result of the coefficient of ARM, REM, and RPT in the PCSE estimates in Table 4.8. The coefficient of ARM is 0.011 with p-value that is less than 0.01, the coefficient of REM is -.013 with p-value that is less than 0.01, while the coefficient of RPT is 0.015 with p-value that is less than 0.01. In each of the cases, coefficient of the variables passes the significance test at the 1 percent level. Hence, the null hypothesis is rejected, which implies a significant effect of discretional accruals, related party transactions, and real earnings management on Return on Assets of manufacturing companies in Nigeria actually exists.

Firms that focus on accruals exhibit higher ROA, firms that focus on real earnings exhibit lower ROA. This result is in line with findings by Baochie and Mensah (2022), Greiner et al (2016), Commerford, et al. (2018) and Odo and Ugwu (2020).

H02: There is no significant effect of Discretionary Accruals, Related party transactions, and Real earnings management on Net profit margin of manufacturing companies in Nigeria

In order to test the second hypothesis, the focus is on the coefficients of ARM, REM and RPT in the PCSE estimates in Table 4.9. In the results, the coefficient of ARM is 0.018 ($p < 0.01$), that of REM is -0.001 ($p < 0.01$), and it is 0.013 ($p < 0.01$) for RPT. Based on these estimates, the null hypothesis is rejected in this case, since each of the variables passed the significance test at the 1 percent level. This indicates that Discretionary Accruals, Related party transactions, and Real earnings management all exert significant effects on Net profit margin of manufacturing companies in Nigeria. This finding is consistent with the findings of Chukuka and Ibodo (2023). Firms that pursue accruals earnings management tend to report higher net profit margins, while firms that pursue real earnings management tend to report lower net profit margins.

H03: There is no significant effect of Discretionary Accruals, Related party transactions, and Real Earnings Management on price earnings ratio of manufacturing companies in Nigeria

The test of this hypothesis is based on the result of the coefficient of ARM, REM, and RPT in the PCSE estimates in Table 4.10. The coefficient of ARM is 1.818 with p-value that is less than 0.01, the coefficient of REM is 0.026 with p-value that is less than 0.01, while the coefficient of RPT is 2.577 with p-value that is less than 0.01. In each of the cases, coefficient of the variables passes the significance test at the 1 percent level. Hence, the null hypothesis is rejected, which implies There is a significant positive effect of Discretionary Accruals, Related party transactions, and Real Earnings Management on price earnings ratio of manufacturing companies in Nigeria.. Siyanbola et al. (2020) and Qatawneh and Alqtish (2017) found similar results in terms of how earnings management influences market outcomes of firms. Essentially, the main goal of accrual accounting is the focus on investors in terms of aiding their assessment of the firm's performance with the use of basic accounting principles such as revenue recognition and matching. Thus, the result in this study shows that, in relation to market evaluation by investors, there is no difference between the accounting strategies by the firms.

V. CONCLUSION

The goal of the study was to examine the impact of Discretionary Accruals, Related party transactions, and Real earnings management on performance of manufacturing firms in Nigeria. Based on findings we made the following conclusions:

1. That Discretionary Accruals, Related party transactions, and Real Earnings management all have significant effects on Returns on Returns on Asset of Manufacturing companies in Nigeria. The effect of discretionary accrual is however positive while that of real earnings management is negative.
2. That Discretionary Accruals, Related party transactions, and Real earnings management all exert significant impacts on Net profit margin of manufacturing companies in Nigeria. The effect of discretionary accrual is however positive while that of real earnings management is negative.
3. That Discretionary Accruals, Related party transactions, and Real earnings management exert significant and positive effects on Price earnings ratio of manufacturing companies in Nigeria.

5.2 Recommendations

First, the study found, there is evidence the financial performance of firms are not influenced in the same way if the firm chooses to adopt either of the earnings management strategies. It is observed that firms that seek to improve their financial position adopt more of accruals earnings management. By adopting aggressive and manipulative measures, our study demonstrates that financial performance will improve for the firms. This result therefore indicate that Managers can use accrual to falsify earnings. The study also showed that net profit margin improves for firms that engage in accruals earnings management, but not for firms that engage in real earnings management. Thus, there is clear evidence that financial performance of manufacturing firms is hinged generally on more aggressive earnings management over time. We therefore recommend that regulators should design measures to curtail accrual earnings management activities in Nigeria manufacturing firms through formulation of accounting rules that will limit management latitude in implementing discretionary accounting rules.

5.2 Contribution to Knowledge

The goal of the study was to examine the effect of Real and Accrual earnings management on performance of manufacturing firms and also to determine whether real and accrual earnings management is mutually exclusive. The study achieved its goal and contributes to knowledge by identifying the responses of accrual and real earnings management to performance. The study found that Real and accrual earnings management complement each other in terms of market performance while the reverse is the case in accounting performance.

The study further contributes to knowledge by showing that real and accrual earnings management exert positive effect on Price earnings ratio. These complementary effects imply that the duo can be used to massage earnings. This finding will aid regulators and standard setters in policy formulation to curtail the earnings management by firms. The study contributes to knowledge by adding to the fledgling literature on the subject.

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