

Earnings Management and Its Implications on Management of Quoted Manufacturing Firms in Nigeria

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Abstract: This study is motivated by concerns investors and other financial reports users have shown after observing many business failures shortly after declaring impressive financial performance. The relationship that may subsist between diverse performance measurements and earnings management in selected manufacturing companies in Nigeria is explored. Twenty-seven (27) firms listed on the Nigerian Stock Exchange (NSE) were purposively drawn for the study using published financial statements for the period 2008-2015. Further, a questionnaire was designed and administered to customers and staff of the companies included in the study. Pooled regression and panel data analysis were carried out and the results show that financial variables of leverage and growth, as well as the non-financial variable perceived quality, significantly influence Discretionary Accruals. Consequently, users of financial reports are encouraged to use both financial and non-financial measures to evaluate companies. The research also emphasized the need for the financial and regulatory authorities to intensify efforts in ensuring that firms manage their earnings properly.

Keywords: Earnings Management, Business Failures, Financial Reports, Financial and Non-Financial Performance Measures

1. Introduction

Financial statements are corporate reports prepared and presented to various stakeholders to help them make informed decisions on financial and non-financial matters. These reports serve as the medium through which people with diverse expectations carry out an assessment of the firm management in terms of accountability and effectiveness, efficiency and stewardship, including efficient allocation of resources entrusted to them. The objective of financial statements is to provide useful information regarding the financial position, performance and cash-flows of an entity that will guide users in formulating decisions. A complete financial statement includes a statement of financial position, a statement of profit or loss and other comprehensive income, a statement of changes in equity, a statement of cash-flows

and the relevant accounting policies and explanatory notes adopted in preparing the statements. The link between this information of performance assessment is earnings generated over a period of time, usually one financial year.

Investors use earnings as a measure of business success and as a guide to future actions regarding their investment in the reporting entity. Earnings are the basis upon which external obligations such as dividend declaration, tax liability and future expansion and contracts are hinged. It does necessitate that earnings must be reliably measured and reported to faithfully reflect economic realities. However, earnings are sometimes manipulated by managers to reflect good performance even when actual performance is to the contrary. This action by management may mislead investors and other users of the reports, especially when the evaluation of the firm's performance is solely based on financial performance measures and earnings attained.

Earnings have been used as a basis for rewards to managers in the form of productivity bonuses, stock options and other forms of incentives. Consequently, earnings management is carried out by the directors of companies to satisfy their self-interest [5]. The direct impact of these is a modification of the apparent performance in the form of earnings management to the desired level [8]. Copeland [4] refers to it as the ability to increase or decrease reported net income at will. This implies that managers often take steps to ensure that earnings reach a level that will earn them a reward and also project them as effective workers. However, this practice has led to a number of business failures at the national and global levels noting several well-publicized cases of corporate reporting improprieties like that of Enron, Marconi, Parmalat, Worldcom, African Petroleum Plc, Cadbury Nigeria Plc and many others. Since earnings management may involve the creation of misleading financial statements that suit or protect management interests, most of these firms were falsifying publicly available documents until they were caught up in the act, which eventually led to the liquidation of some of the companies.

Although the managers of the liquidated firms prepared and distribute their financial statements annually, stakeholders lack the ability to detect the failures early (agency cost) and were only using the financial performance indicators or evaluation measures to assess the performance of the firm. Moreover, the financial performance measures are under the control of the managers of the firm and thus have a considerable influence on the nature of financial information disseminated. As observed by Daferighe [5], accounting numbers as presented in traditional financial statements seem to be losing relevance for investment, credit and management decision making. The erosion of public trust and investors' confidence in financial reports and audit services can be explained by the unethical financial actions of managers [8]. Thus, there is a need to complement the financial performance measures with non-financial performance measures to assess their implications on earnings management by manufacturing companies, listed on the Nigerian Stock Exchange (NSE). This unethical behaviour of managers is a cost to the business owners who have entrusted their businesses to the managers thus, resulting in information asymmetry.

The manufacturing sector plays an increasingly significant role in the economic emancipation of any nation, acting as a driver of economic growth in both developing and developed economies. Industrialization drives transformation and diversification of the economy to accelerate growth and discourages over-dependency on foreign products and encourages sustainable development while enabling the state to achieve self-sufficiency.

Manufacturing companies in Nigeria play a vital role in this respect. Although it is acknowledged that the sector is yet to fully harness its potential to further the economic growth of Nigeria, it has proven to play a very significant role in the nation's Gross Domestic Product (GDP) growth rate [5]. Likewise, the sector's employment potentials and

economic impact on households are enormous as it is the third-largest contributor to GDP growth of Nigeria after oil and agriculture. It accounted for around 8.81% of total real GDP after the oil sector which contributed approximately 10.04% in the third quarter of 2017 [17]. The declining trend in the price of oil in the global market in the last couple of years as well as the inability of Nigeria to produce enough food for its increasing population has made the Nigerian manufacturing sector an attractive alternative source of growth. The population of Nigeria is now close to 200 million and is only surpassed by six other countries in the world [22]. From an economic perspective, this represents a huge market potential that needs to be provided for through industrialization that reduces over-dependence on foreign products and takes advantage of the benefits of a flourishing manufacturing sector. It is envisaged that the gain will include but not limited to;

- 1) Increased job opportunities.
- 2) More value-added to local resources.
- 3) Creation of products that are in line with local requirements.
- 4) Active participation in the global economy.
- 5) Sustainable development.

As stated earlier, accounting values contained in the financial statements of firms are only useful for financial performance measurement. However, operations of firms are oftentimes also affected by other variables not quantifiable in monetary terms. Many of these non-financial variables impact the productivity and earnings of the firms. Thus, this study is combining both financial and non-financial performance measures in evaluating manufacturing firms in Nigeria. This approach is undertaken as the combination of these two measures may assist investors and other stakeholders in evaluating the validity of reported earnings by managers and the going-concerns of the firms. Hence, the primary objective of this study is to ascertain the financial and non-financial measures that influence earnings management of manufacturing firms listed in Nigeria's stock exchange.

Specifically, the research question and hypothesis are as follows:

Research question: Which financial and non-financial performance measures significantly influence the earnings management of listed manufacturing firms in Nigeria?

Research hypothesis: Financial and non-financial performance measures influence earnings management of publicly listed manufacturing firms in Nigeria.

2. Literature Review

Conceptually, earnings information is relevant to accountants, shareholders, creditors and other users of accounting reports in the assessment of corporate performance and is capable of altering decisions if the information is reliable [3]. Earning is a measure of a firm's performance but may have questionable reliability as they are sometimes created through creative accounting or window

dressings or any other possible techniques to achieve some dissipated outcome.

Doorn [6] states that earnings management is a manager's choice of accounting policies or actions affecting earnings, to achieve some specific reported objectives.

Similarly, [16] describe earnings management as the manipulation of reported earnings that do not represent economic earnings at every point in time. The implication is that earnings management involves the adjustment of earnings data to ensure that it reaches the desired level. In other words, it is an attempt at concealing the actual operating performance of an entity while using created artificial accounting records. In general, it involves the adjustment of real numbers either to favour the manager's interest or to enhance the company's value in the eyes of outsiders. In the literature, earnings management is described as the use of accounting techniques to produce financial reports that present an overly positive view of the company's business activities and financial position [20]. Smith and Pennathur [20] investigated the manipulation of earnings through discretionary accruals and real earnings before the release of cash reserves to shareholders in order to ascertain whether management is manipulating earnings downward to circumvent the discipline imposed by dividends in the coming year or whether they are simply signalling to the market. Their findings show that earnings are managed to preserve financial flexibility, create a reserve and postpone shareholders' expectations rather than simply reduce earnings.

According to Fiserova [9], the two striking reasons for the pervasiveness of earnings management are either deliberate action or lack of knowledge. The rationale behind either of these reasons could be the desire to reduce tax liability, obtain favourable loan terms, seek and win contracts among others for owner-managed firms; or incorporate entities where principal-agent relationship subsists. Furthermore, the American Institute of Certified Public Accountants (AICPA) identified motives for earnings management to include: investors desire for decreased risk but high returns, increased rewards when income continuously increase, enhanced market value when analysts' forecast is met, as well as a risk reduction when the variability of earnings decreased. The possible implications of this action as identified by Popescu and Nisulescu [19] are the changes in the value and structure of costs, revenue and assets and liabilities.

Earnings management reporting can be as diverse as the number of firms in the sector. AICPA [2], specifies some of the techniques used in earnings management as (i) not recording accounts payable (ii) not recording accrued liabilities (iii) recording unearned revenues, as earned and (iv) not recording loans or keeping liabilities off the books. Similarly, Odia and Ogiedu [18] identified some earnings management techniques as (i) change in accounting policy (ii) management of discretionary accruals (iii) timing of social transactions to smoothen revenue based on the level of income and (iv) reclassification and presentation of financial statements to obtain a good level of profitability.

Consequently, when performance measurements are

anchored on financial information only, such measurements may be distorted. In most cases, financial performance measurements used are profitability; leverage; liquidity and activity assessment as well as ratios associated with these financial measures. Earnings represent the profit declared by the firm during a specific period. This has an impact on most of the computed ratios on earnings or profit is the numerator variable showing a better position of the firm's performance than is portrayed.

Non-financial measures are evaluation measures that do not involve the use of monetary values but will add value to organizational performance [18]. They include indicators impacting human resources, customer satisfaction and product quality. Expatriating on these measures, Spencer, Joiner and Salmon [21] post six non-financial variables to include the development of new products, sales volume, market share, personnel development and political-public affairs as fundamentals for performance measurement. Their study finds that firms seeking product flexibility or focus on customer service makes use of both financial and non-financial measures and that it is associated with higher organizational performance via the mediating role of combining both financial and non-financial variable which ultimately results in a positive association between firms' strategic emphasis (on service delivery and product flexibility) and organizational performance using path-analysis.

Non-financial measures impact on earnings of firms through productivity and revenue generation [7]. It is, therefore, necessary not to avoid non-financial measures in performance measurement. Thus, a combination of these will identify factors that have the most implications on the earnings management of firms that can be used for performance assessment and evaluation.

This study is built on the agency theory of Jensen and Meckling [13], which explained agency theory as the relationship wherein a contract between one or more persons, the principal engages another person, the agent, to perform some services on his/her behalf which involves delegating some decision making authority to the agents. Nadurata [15] states that agent, having been employed, follow accounting procedure that tends to deliberately overstate assets, understate liabilities and overstate capital or deliberately understate assets, overstate liabilities or understate capital resulting in secret reserves. The problem of agency theory is that of how to ensure goal congruence between the two primary stakeholders because management may have selfish interests that are against investors' interests [3]. The evaluation of performance using financial and non-financial measures by the principal will expose earnings management practice by the agent manager.

There are empirical studies that deal with earnings management and allied issues as they affect organizational performance. For example, Al-Hababi and Al-Abbadi [1] investigated the impact of applying financial performance indicators on earnings management in manufacturing companies listed on the Amman Stock Exchange. The study adopted a descriptive approach, using 52 manufacturing

companies from 2007 to 2011. Their results show that their Earnings Per Share (EPS) and the current ratio has no impact on the process of earnings management. Return on Equity (ROE) however positively affects earnings management.

Eltinay and Masri [7] investigated the impact of financial and non-financial measurements in a Sudanese bank's performance using a survey. Nine financial measures and nine non-financial measures were included in the analysis, using structural equation modelling and correlation analysis. The result indicates that some banks use diverse performance measurements to improve their performance measurement systems. The result further shows that using non-financial measures contributes significantly to organizational performance.

Likewise, Gill, Biger, Mand and Mathur [11] examined the effect of earnings management on the firm's performance and other stakeholders. A weighted least square regression model was applied for four years (2009-2012). The results of the study reveal that the more intense the practice of earnings management, the greater its adverse effects on the corporate rate of return on assets in the following year. Gargouri, Shabou and Francoeur [10] investigated the relationship between corporate social performance (as non-financial performance measurement) and earnings management using 109 Canadian companies. Multivariate analysis was employed and results reveal that the level of corporate social performance is positively associated with earnings management and that environment and employees as variables of corporate social performance are positively related to earnings management over the two years of 2004 and 2005.

Additionally, HassahElnaby *et al.*, [12] examined non-financial performance measures and earnings management in executive compensation contracts. Panel data covering the period of 1992 to 2005 were used. Earnings management behaviour for a sample of firms that used both financial and non-financial measures was compared with those that based their performance measurement solely on financial measures. The results show that there was a reduction in earnings management behaviour for those firms that rely on non-financial performance

measures in their compensation contracts.

3. Methodology

The specification of the model that was tested with the data is discussed in this section. To investigate the relationship between the variables, a series of regressions were used. First, a pooled Ordinary Least Squares approach was applied to search for a relationship between the variables that is broadly consistent with the theoretical framework discussed earlier. The structure of the model itself can be introduced in its standard simplified form:

$$Y_{it} = \alpha + \sum \beta_i X_i + \sum \gamma_i W_i + u_i \quad (1)$$

Where,

Y_i is the dependent variable, where i =entity.

β_i is the coefficient of the financial variable (s) of interest.

X_i is the set of the financial variable (s) of interest.

γ_i is the coefficient of the non-financial variable (s) of interest.

W_i is the set of the non-financial variable (s) of interest.

α is the unknown intercept.

u_i is the error term.

More specifically, a combined research design involving ex-post facto and survey research was adopted in this study. Twenty-seven (27) companies were purposively selected out of the 41 manufacturing companies listed in the Nigerian Stock Exchange (NSE) as of December 2015. This is premised on the availability of audited accounts and a completed set of reports needed in the study. In addition, five members of staff and ten consumers of each selected companies were selected for the survey. Secondary financial data from financial statements and responses from the survey designed to gather non-financial measures were assembled and specified as follows:

Using financial data, the model is specified as:

$$DA_{it} = \beta_0 + \beta_1 LEVERAGE_{it} + \beta_2 GROWTH_{it} + \beta_3 ROE_{it} + e_{it} \quad (2)$$

Where

DA_{it} = Discretionary accruals (Earnings Management) of firm i in year t

$LEVERAGE_{it}$ = ratio of total liability to total assets of firm i in year t

$GROWTH_{it}$ = percentage change in revenues of firm i in year t .

ROE_{it} = Return on Equity of firm i in year t

Likewise, with non-financial data the equation becomes:

$$DA_{it} = \beta_0 + \beta_1 PERLITY_{it} + \beta_2 PERVA_{it} + \beta_3 EMTRA_{it} + \beta_4 DEMENT_{it} + e_{it} \quad (3)$$

Where:

DA_{it} = Earnings Management of firm i in time t

$PERLITY_{it}$ = Perceived Quality of firm i in time t

$PERVAPERVA$ = Perceived Value of firm i in time t

$EMTRA$ = Employee Training of firm i in time t

$DEMENT$ = Degree of Empowerment of firm i in time t

By combining equations (2) and (3), the aggregated model is now expressed as:

$$DA_{it} = \beta_0 + \beta_1 PERLITY_{it} + \beta_2 PERLITY_{it} + \beta_3 PERVA_{it} + \beta_4 EMTRA_{it} + \beta_5 DEMENT_{it} + \beta_6 ROE_{it} + \beta_7 LEVERAGE_{it} + \beta_8 GROWTH_{it} + e_{it} \quad (4)$$

Following the Pooled Ordinary Least Squares approach

outlined above, the data will be tested using panel analysis in

the form of both fixed effects and random effects regression analysis. The strength of panel data analysis is the ability to follow individual units over time to identify parameters that control for individual unit characteristics, such as culture or different practices across countries or firms. The first model, the fixed-effect model is specified below in equation 5. The key feature of this model specification is that the change of dependent variable occurs due to influences other than the fixed entities (Stock and Watson, 2013).

$$Y_{it} = \beta_1 X_{it} + \alpha_i + U_{it} \quad (5)$$

Where,

Y_{it} is the dependent variable, where i=entity and t=time

β_1 is the coefficient of the independent variable

X_{it} is one independent variable

α_i is the unknown intercept of each entity (n entity-specific intercepts)

U_{it} is the error term

In the case of the random-effects model, any of the variation across the primary entities in the data (e.g., individuals, firms, countries) is assumed to be random and uncorrelated with the independent variables tested in the model [10]. Therefore, the key difference between equations (5) and (6) is the inclusion of the within entity error. In other words, the error in the prediction for each entity is recognised in the model, rather than being assumed away. The key assumption, however, is that this error term for each entity is not correlated with the independent variables tested in the model.

$$Y_{it} = \beta X_{it} + \alpha + U_{it} + \varepsilon_{it} \quad (6)$$

$$Y_{it} = \beta X_{it} + \alpha + U_{it} + \varepsilon_{it}$$

Here,

Y_{it} is the dependent variable, where i=entity and t=time

U_{it} is between entity error

ε_{it} within entity error

β is the coefficient of the independent variable

X_{it} is one independent variable

Both fixed and random effect modelling regression analysis was carried out using the variables specified in equation (4).

To identify which of these two models delivers the best estimate of the effects of the independent variables, it is standard procedure to apply the Hausman test. Accordingly, this test will be applied to select which of the two approaches

(fixed or random effects) generates the strongest model [14].

4. Results and Discussion

Table 1 reports descriptive statistics of all the variables included in the study. The variables are divided into two subgroups. The first group includes variables financial variables designed to motivate earnings management.

Table 1. Descriptive Statistics.

Variable	Mean	Std Deviation	Minimum	Maximum
DA _{it}	-0.7557	0.4581	-4.052	0.031
Group 1: Financial Variables				
ROE	0.1682	0.7651	-8	5.8
LEV	0.5994	0.2662	0.1779	1.9751
GROWTH	0.0849	0.2417	-0.5639	1.5547
Group 2: Non-Financial Variables				
PQ	18.1898	2.6649	13.10	22
PV	12.6333	2.2286	7.70	16.6
EMPTR	18.4713	1.0502	16.25	21
DEGEMP	17.9333	0.8937	16.25	19.33

Source: SPSS Output.

Discretionary accruals (DA) has a mean value of -0.75 with a standard deviation of 0.45; while the non-financial variable EMPTR has the highest mean value of 18.47 with a standard deviation of 2.66. These results suggest that managers are downwardly in managing earnings. This is similar to the findings of Smith and Pennathur [20]. Although they conclude that the managers' aim of earnings management is not necessarily to reduce earnings, this study does not have sufficient evidence to say the same based on the findings with Nigeria manufacturing companies. The lowest mean value is recorded for GROWTH at 0.08 with a corresponding standard deviation of 0.24. All the non-financial measures have high mean values with an average mean value of 16.81, very close to the highest mean value of 18.47 while in contrast, all the financial measures have mean values less than 1. This result indicates that some businesses are present and similar to the findings of Smith and Pennathur [20]. The spread of non-financial performance measures could be seen as an indication of their relevance or its predictive powers towards earnings management. Other than the descriptive statistics, unit root tests were administered to ascertain whether variables were stationary or not. The Levin –Lin-Chu unit root test results show that all variables included in the study are stationary.

Table 2. Correlation Matrix Pearson Correlation.

	DA	ROE	LEV	GROWTH	PERLITY	PERVA	EMTRA	DEMENT
DA	1.000	-.216	-.420	-.495	-.316	.420	.172	.143
ROE	-.216	1.000	0.152	.223	.248	.196	.365	.239
LEV	-.420	.152	1.000	.316	-.592	-.481	-.137	-.107
GROWTH	-.495	.223	.316	1.000	-.334	-.504	-.250	-.274
PERLITY	.316	.248	-.592	-.334	1.000	.686	.132	.016
PERVA	.420	.196	-.481	-.504	.686	1.000	.438	.370
EMTRA	.172	.365	-.137	-.250	.132	.438	1.000	.750
DEMENT	.143	.239	-.107	-.274	0.016	.370	.750	1.000

Source: Author's computation using SPSS 17.0 version

In addition, a correlation analysis was undertaken to check the degree of relationship between variables. The outcome is summarized in table 2, the results indicate that a negative correlation exists between Earnings Management (DA) and financial performance measures – ROE, Leverage and Growth, but a positive correlation between DA and non-financial performance measures- PERLITY, PERVA, EMTRA AND DEMENT.

Specifically, the highest correlation coefficient among the explanatory variables is 0.75 which is between employee's training and employees' degree of empowerment. This is less than the critical value of 0.80. Hence, multicollinearity does not constitute a serious problem affecting the analysis. Likewise, the variance inflation factor (VIF) records the highest value of 3.238 further confirming the absence of multicollinearity problems among the variables.

Table 3. Summary of Results of Pooled Regression and Panel Data Analysis.

Variable Name	Pooled Regression	Panel Data Analysis	
		Fixed Effect	Random Effect
ROE _{it}	-0.0242 (0.362)		
LEV _{it}	-0.2670 (0.005)***	-0.0084 (0.722)	-0.0125 (0.591)
GROWTH _{it}	-0.5628 (0.000)***	-0.1057 (0.381)	-0.1788 (0.085)*
PQ _{it}	-0.0077 (0.540)	-0.5022 (0.000)***	-0.5172 (0.000)***
PV _{it}	0.0288 (0.067)*	-0.0312 (0.732)	-0.0046 (0.811)
EMPTR _{it}	-0.0054 (0.864)		0.0297 (0.241)
DEEMP _{it}	-0.0145 (0.692)	-0.2690 (0.791)	-0.0147 (0.707)

***, **, * significant at 1%, 5% and 10% respectively, () p value

Table 4. Estimation of Influence.

Variables	Coefficients	t	P-value	Tolerance	VIF
(constant)	1	-.641	.529		
ROE	-.216	-.722	.479	.537	1.864
LEVERAGE	-.420	-.784	.443	.513	1.950
GROWTH	-.495	-1.185	.251	.593	1.686
PERLITY	.316	.006	.995	.309	3.238
PERVA	.420	.616	.545	.346	2.890
EMTRA	.172	.325	.749	.370	2.700
DEMENT	.143	-.201	.843	.397	2.518

R²=355; F (7.19)=1.491, F_{tab}=2.544, DW=1.788, S.e=.22; SL=5%

Source: Author's computation using SPSS 17.0 version

Table 3 summarizes the results of the pooled and panel regression analysis. From the table, it is noted that leverage is highly significant with a p-value=0.005. This result does not only suggest that the companies are highly levered and are highly dependent on borrowed funds for their operation but that the profitability is questionable. Potentially, this also signifies several possibilities including not recording account payable, loans and or accrued liabilities as identified in the literature [2]. This result is similar to the findings of Daferighe [8]. He suggests that the declared earnings are itself borrowed and manipulated to look like actual earnings of the firm in order to impress shareholders. On the other hand, he argues that the result may also mean that the firm has accumulated more debt than equity over the years. The consequence of this is that investors may suffer in the long run unknowingly. Manufacturing industry is the primary driver of development in many developing countries seems to be in decline in Nigeria despite the efforts of the government to revive the sector. This finding is consistent with that of Eltinay and Masri [7] on Sudanese Banks. The variable Growth is highly significant with a p-value=0.000. The organisations seem to be growing but not in real terms, this could partly be explained by the fact that the roe which is a

measure of net income to shareholder's equity is negative (suggestive of borrowed funds at their disposal). This result indicates that there is some manipulation of earnings management through the management of discretionary accruals (DA) as well as reclassification and presentation of financial statements to achieve a good level of profit [18]. It shouldn't be a problem if leverage increases productivity but that does not seem to be the case here. Furthermore, the perceived value (PV) is significant at p=0.067, suggesting that people perceive them to be doing well and progressing due to huge profits declared, however, PQ, EMPTR as well as DEEMP which is expected to deepen alongside corporate growth is not significant at any level. This implies that there is some concealment by the management team. It further establishes the presence of information asymmetry between what the public knows and is capable of hinging their investment decisions on is different from what the firm management know. All signs are consistent with the study of HassahElNaby et al., [12] and Smith and Pennathur [20] for both financial and non-financial measures with exception of perceived value (PV). Though this is not the right sign it is expected since the earnings of the firms are already manipulated to give a good impression to the public/investors. The findings indicate that there is an urgent need to address the over-dependence of financial measures of performance especially in countries with poor regulatory structures. To help address the daunting problem of youth unemployment in Nigeria, the manufacturing sector of the economy needs to be out on the path of progress, not in terms of profits declared profits but in terms of real growth as measured by both financial and non-financial variables. PQ, EMPTR & DEEMP are not significant, the results are contrary to that of Smith and Pennathur [20] and Leuz [14]. However, while the latter study was conducted on 31 counties of the world excluding countries in Africa, the former was conducted in a

developed country, the US. The right signs validate the result of HassahElnaby et al., [12] who examined non-financial performance measures and earnings management in executive compensation contracts and found it to reduce

$$DA=1 + -.216ROE + -.420Leverage + -.495Growth +.316PERLITY +.420PERVA +.172EMTRA +-.143DEMENT$$

Besides, all the financial performance measures negatively impact earnings management while the non-financial performance measures positively impact earnings management. The increase in ROE, Leverage, Growth in revenue and employees' degree of empowerment will bring about a reduction in earnings management. ROE has a 21.6% negative influence on earnings management, Leverage 42% while growth has a 49% negative impact on earnings management. However, customers' perceived quality, customers' perceived value, degree of empowerment and employees' training positively impact earnings management. This implies that the higher the perception of customers about the quality and value of the products of a firm, the higher the earnings management practices. The same applies to employees training.

The financial performance measures impact on earnings management is in line with apriori expectations except for leverage that was expected to have a positive influence but resulted in a negative impact. Also, the influence of employees' degree of empowerment is in line with apriori expectation that it will negatively impact earnings management, but customers' perceived quality, perceived value and employee training did not conform to apriori expectation.

In line with the pooled regression analysis, the panel data analysis was conducted. This was done in two phases, the random effect (RE) and the fixed effect (FE). However, the result of the panel data analysis is similar to the pooled regression result. Houseman test was conducted which indicates RE result rather than FE.

5. Conclusion

The increasing rate of business failures globally and in Nigeria, in particular, has prompted investors and other users of financial reports to query the reliability of financial statements for decision making. This study was designed to examine the relationship between diverse performance measurements and earnings management in quoted manufacturing companies in Nigeria in the light of Agency Theory. A composite model incorporating financial and non-financial models was developed and tested using twenty-seven (27) companies drawn from the NSE.

It was revealed that firms in Nigeria engage in earnings management as the coefficients of financial measures show a negative relationship while non-financial measures on earnings management show a positively correlated relationship. It is therefore concluded that financial and regulatory authorities should do better in the monitoring of firms to deter earnings management. Investors and other stakeholders should evaluate a firm's performance using both financial and non-financial performance measures.

earnings management behaviour for firms that rely on non-financial performance measures in their compensation contracts.

From Table 3, the estimated model is shown as:

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