# EARNINGS MANAGEMENT AND SHAREHOLDERS WEALTH MAXIMIZATION OF LISTED NIGERIAN BANKS

BY

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### Abstract

The broad objective of this study was to examine the effect of earnings management on shareholder's wealth maximization of banks listed on the Nigeria Stock Exchange. To achieve this broad objective, the following variables; sales growth index, depreciation index, assets quality index and market value added were examined as factors explaining the effects of earnings management on shareholder's wealth. Ex-post factor research design was adopted for this study. The data used in this study was obtained from the annual reports of 10 quoted financial banks on the Nigerian Stock Exchange which was sampled using the purposive sampling technique from the population of 15 banks. The study covered the period of eight years (2010- 2017). A model was specified and descriptive statistics, correlation analysis and regression analysis were carried. In order to ensure the reliability and validity of the results, the determinant of coefficient test and test for autocorrelation was also carried out. The study found out that earnings management variables; sales growth index has a positive insignificant relationship with market value added, growth index has a positive insignificant relationship with market value added. Also, asset quality index was found to be statistically insignificant with market value added. Finally, depreciation index was also found to be statistically insignificant with market value added. The study concludes that earnings management (sales growth index, deprecation index and asset quality index) is statistically insignificant with shareholders wealth (market value added) of listed banks; it was therefore recommended among others that earnings management is among the core issues of accounting and as such accounting bodies and other regulatory authorities need to adopt strict measure to harnessed the practice.

# **BACKGROUND TO THE STUDY**

Earnings management is the use of accounting techniques to produce financial reports that present an overly positive view of a company's business activities and financial position. Many accounting rules and principles require company management to make judgments following these principles. Earnings management takes advantage of how accounting rules are applied and creates financial statements that inflate earnings, revenue, or total assets. Earnings management has been studied from many perspectives and methods. As a result, Mulford and Comiskey (2002) report that different characterizations have arisen, such as income smoothing, the reduction of current profits for the sake of future profits (big bath), creative accounting, and cosmetic financial statements (window-dressing), among others. Earning management is an assembly of techniques, options and freedom room left by accounting regulation, without moving away from laws or accounting requirements, allowing the managers to change the financial result or the financial statements (Shabou & Boulika, 2002). Earnings management can also be seen as an assembly of procedures in order to change the profit, by increasing or decreasing, or to misrepresent the financial statements, or both of them (Stolowy, 2000). It is defined as the transformation of financial accounting figures from what they actually are to what preparers desire by taking advantage of the existing rules and/ignoring some or all of them (Kamel, 1993). Managers will not be able to manipulate their accounting figures if accounting rules will not allow them to do so.

In Nigeria, the financial information is prepared using the International Accounting Standards (IAS) prepared by International Accounting Standard Board (IASB). However, these rules are not sufficient as they still allow flexibility in accounting. There exists no standard formula for converting numbers into cash flows. The objectives of account manipulation are to alter the two bases of wealth transfer - The earnings per share and the debt/equity ratio (Breto &Taffler, 1995). Earnings per share can be modified into two ways: first, by modifying the revenues or expenses, either by adding or removing

them (modification of net income). The second way is by reporting an item before or after the profit used to get the earning per share (classificatory manipulations).

Corporate organization owes the duty to fully disclose matters concerning their operations so as to aid investors and other stakeholders in making informed decisions. Both large and small organizations in addition to satisfying the legislative requirements also intends to retain existing investors and to attract potential ones through the publication of their financial statements, where the capital stock of the corporation is widely held by the public and its affairs are of interest to the general public. The separation of ownership from management and the stewardship function of accounting emphasizes its basic goals as that of reporting on the resources and obligation of the entity to the owners. Through the medium of financial statements, it communicates to the interested parties of the contributions and relative rights of the economy segment – the shareholders/owners, creditors and others, hence, allowing management to be responsible for the financial statement prepared by them and allows to some extent, to exercise their personal judgment in carrying out this responsibility.

Financial statements are the medium used by mangers to show the results of their stewardship towards the resources entrusted to them. The statements are prepared to convey information regarding the financial position, performance and cash flows of a firm. Since stockholders have no access to a firm's accounting records, they depend heavily on such financial statements when making investment judgements and decisions (Okove, 2008). They are interested in the performance of the firm, as this signals the ability of the entity to exist as a going concern, thus, meeting its maturing obligations and fulfilling its debt covenants. Research have shown that investors tend to patronize firms with stability of earnings as this will reduce risk and guarantee income from the investment, thereby ensuring shareholders wealth maximization. The behaviour of management in the preparation of financial statement and presentation of the performance of the firm will determine the extent of reliance which the various users make on the financial statement. The emergence of earnings management which occurs when manager use judgement in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Ahn & Linh, 2016) and other creative accounting techniques allows managers to 'cook the book' and 'window-dress' their firm by taking advantage of the loopholes in accounting standards has continued to attract research interest in contemporary times. "Creative accounting" is the more preferred term in Europe, whereas it more common to use :earnings management" in USA (Amat & Gowthorpe, 2004) and in the context of this work, the two will be used interchangeably. There are also other terms used to present the accounts manipulation and used synonymously with creative accounting or earnings management, such as financial engineering, cosmetic accounting, cooking-the-books, window dressing, innovative accounting or income smoothing.

Firms with high volatility in earnings are known to be riskier than others with stable earnings. Managers having been aware of the behaviour of investors are more inclined to earnings management so that investor's perception about the company could be plausible. With stability of earnings, management believes patronage and good reputation of the company can be guaranteed within the framework of acceptable accounting principles. The flexibility and freedom of choice of accounting methods implies that Managers will choose accounting methods that impact on timing of income and revenue to suit the purpose of stability of earnings so as to motivate investors and increase the market price per share of the entity (Osisioma and Enahoro, 2006).

Shareholder wealth is the appropriate goal of a business firm in a capitalist or equity-based society. When business managers try to maximize the wealth of their firm, they are actually trying to increase their stock price. As the stock price increases, the individual who holds the stock wealth increases (Pratiwi, 2008). As the stock price goes up, the value of the firm increases and the net worth of the individual who owns the stock increases. Considering this issue, managers are inclined to level the earnings of their companies in order to visualize them with high levels of stability in earnings, leading to promotion within a flexible framework of the Generally Accepted Accounting Principles. Earnings

management, they believe, results in a company's better performance and the possibility of selecting an accounting procedure provides an opportunity for the manager to decide on the timing, recognition and on estimating the earnings and expenses. Thus, managers are motivated to implement a nonconservative accounting procedure to stabilize a company's income growth and to achieve the shareholders wealth maximization objectives. Because of this, managers tend to report favourable accounting numbers in their financial statements and since the financial statements contain manipulated information, they become less reliable.

Although creative accounting is not against the law, the Generally Accepted Accounting Principle (GAAP) of most countries allows for income smoothing but in the hands of less scrupulous management, it can be a highly dangerous instrument of deception (Naser, 2003). The users of financial statements can be misled when making decisions based on manipulated accounting numbers. To some extent, the existence of creative accounting distorts the usefulness of financial statements. Income smoothing has been a topic of interest in the accounting and finance literature for decades. In most studies, the income smoothing practice was viewed as "immoral", "cheating" and "misleading" on the part of the firm's management, (Ronen and Sadan, 2005). This research tries to investigate whether shareholders wealth in terms of the market value added of the banks listed on the Nigerian Stock Exchange can be influenced by earnings management.

# STATEMENT OF THE PROBLEM

As the global economy is grappling slowed economic recovery, BREXIT, the Trump era, sanctions and volatile oil prices, its effect on corporate earnings is starting to startle investors and stakeholders. Firms are facing stiff global and national competition and are under pressure to turn things around and show good financial results through financial reporting. Some executives have gone the extreme, they tend to use income smoothing to boost up profit or manipulate assets and liabilities (to smoothen the financial statement) so as to make it appealing to shareholders. This implies reporting to the stakeholders an image that is better than the actual image of the financial statement.

This study was informed by disappointing earnings reports by financial service companies in Nigeria that has rattled investors and stakeholders. Some banks while reporting higher earnings and touting their safety, were bailed out by the Asset Management Cooperation of Nigeria (AMCON), hurried and shoddy mergers that has left investors wondering what is going on, acquisition, and recapitalization of many banks. There are many reports of price manipulation, profit overstatement, and accounts falsification by some dubious stewards which rendered financial reporting entity as a given time. The business failures in recent times, however, have been closely associated with corporate governance failures. Manipulation in financial reports benefits only in the short run, hence, susceptibility to future corporate collapse and scandals.

For many years researchers have debated about earnings management (Income smoothing, windowdressing etc.) which is widely used to describe accepted accounting techniques which permit corporations to report financial results that may not accurately portray the substance of their business activities. According to Osisoma and Enahoro (2006), accounting processes and choice of policies resulting from many judgements at the same time are capable of manipulation, which have resulted in earnings management. The difference which are observed in financial reporting are legitimately prepared from choice of varied accounting policies of the same organization for the same period, has brought about challenges of credibility to accounting.

It is upon this backdrop that this research work was carried out to assist the shareholders and other stakeholders by investigating the effect of earnings management on the shareholders' wealth before making decisions with regard to potential and current investments in the Nigerian Banking Sector.

#### **OBJECTIVES OF THE STUDY**

The main objective of this study was to examine the relationship between earnings management and shareholders' wealth maximization. The specific objectives are to;

- 1. examine if there is any relationship between sales growth index and market value added
- 2. ascertain the relationship between asset quality index and market value added
- 3. determine whether there is any relationship between depreciation index and market value added

### **Research Questions**

- 1. What is the relationship between sales growth index and market value added (MVA)?
- 2. How does changes in asset quality index influence the market value added (MVA) of a firm?
- 3. What is the relationship between depreciation index and the market value added (MVA) of an organization?

# **Statement of Hypotheses**

- 1. H<sub>0</sub>: There is no significant relationship between sales growth index and the market value added of a firm
- 2. H<sub>0</sub>: Asset quality does not significant influence the market value added of an entity
- 3. H<sub>0</sub>: There is no significant relationship between depreciation index and the market value added of an organization.

# **Research Methodology**

This study makes use of ex-post facto research design and the nature of the study tends to be mainly exploratory, descriptive and inferencial. The study was structured to source for data from secondary sources. The population of this study comprises of all the Fifteen (15) commercial banks listed on the floor Nigerian Stock Exchange (NSE) as at 2017. In order to have a sizable number for this study, purposive sampling design was used. Based on the purposive sampling technique ten (10) banks were selected. The section of the 10 banks out of 15 selected includes; First Bank Plc, Zenith Bank, Diamond Bank, Guaranteed Trust Bank (GTB), Access Bank, Union Bank, Stanbic IBTC, First City Monument Bank (FCMB), Ecobank and United Bank of Africa (UBA). With the ninety three percent (93%) of the population included in the as ample size, it is believed that the sample is a good representative of the working pupation under investigation. The data from the sampled banks covered a period of eight (8) years (2010 - 2017). The 10 banks is selected based on their dominance and contribution to the Nigerian Banking sector. In order to meet the objectives of the study, data were collected from secondary sources mainly from financial report of the selected companies which were listed on the Nigeria Stock Exchange (NSE).

# **Model specification**

This research model is developed based on the Beneish M Score model (Beneish, 1999) which proposes earning manipulation-detecting model. In order to find the effect of earnings management on shareholders' wealth of listed banks in the Nigerian Stock Exchange, this study made a few modification to the model used in their study and formulated the following equation to find the multiple regression results:

| MVA   | = | f (SGI, DI, AQI)   |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| The specific model for this study is as follows : |   |  |  |  |  |  |  |  |
| <b>MVA</b> <sub>it</sub>                          |   | $= \beta_0 + \beta_1 \text{ SGI}_{it} + \beta_2 \text{ GMI}_{it} + \beta_3 \text{ AQI}_{it} + \beta_4 \text{ DI}_{it} + e$ |  |  |  |  |  |  |
| Where   | : |  |  |  |  |  |  |  |
| MVA   | = | Market Value Added   |  |  |  |  |  |  |
| SGI   | = | Sales Growth Index   |  |  |  |  |  |  |
| AQI   | = | Asset Quality Index  |  |  |  |  |  |  |
| DI  | = | Depreciation Index   |  |  |  |  |  |  |
| e   | = | stochastic error   |  |  |  |  |  |  |

#### Table 1: Operational measurement of variables

| CODE | VARIABLE      | MEASUREMENT  | APOPRI SIGN |
|------|---------------|--|-------------|
| SGI  | Sales Growth  | Sales in year t/sales in year t-1                          | +           |
|      | Index         |  |             |
| AQI  | Asset Quality | [1 – (current assets (t) + PPE (t)/Total Assets (t)] / [1– | +           |
|      | Index         | (current assets-1 + PPE (t-1)/Total Assets (t-1)]          |             |
| DI   | Depreciation  | (Depr  (t-1)/(PPE(t-1) + Depr(t-1)))/(Depr  (t)/(PPE(t)))  | +           |
|      | Index         | + Depr(t))   |             |
| MVA  | Market value  | (MV of equity + debt) - (BV of equity + debt)              | +           |
|      | Added         |  |             |

# Sources: Researcher's compilation

The proxy for shareholders wealth is market value added, MVA which is the sub-variables of shareholders wealth is measured against the sub-variables of creative accounting which are sales growth index, asset quality index and depreciation index.

# **Data Analysis Techniques**

For the purpose of realizing the objectives of this study, statistical techniques were use for the presentation and analysis of data and research question. Descriptive and inferential statistics such as mean distribution, standard deviation and correlation were used to answer the research questions and regression analysis were used to test research hypotheses.

# DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS Data Presentation

| Table 2:     | Descriptive | statistics |            |           |
|--------------|-------------|------------|------------|-----------|
|              | MVA         | AQI        | DI         | SGI       |
| Mean         | 55.00375    | 9.693750   | 11.12750   | 11.86125  |
| Median       | 54.96500    | 9.435000   | 11.56000   | 11.76000  |
| Maximum      | 63.60000    | 13.42000   | 12.23000   | 13.94000  |
| Minimum      | 49.30000    | 7.310000   | 9.120000   | 10.55000  |
| Std. Dev.    | 4.412884    | 2.066225   | 1.249145   | 0.972500  |
| Skewness     | 0.687442    | 0.668269   | -0.687607  | 1.077269  |
| Kurtosis     | 2.960813    | 2.375604   | 1.895215   | 3.979351  |
| Jarque-Bera  | 0.630614    | 0.725401   | 1.037254   | 1.0867054 |
| Probability  | 0.729565    | 0.695795   | 0.595337   | 0.393165  |
| Sum          | 440.0300    | 77.55000   | 89.02000   | 94.89000  |
| Sum Sq. Dev  | . 136.3148  | 29.88499   | 10.92255   | 6.620287  |
| Observations | 8           | 8          | 8          | 8         |
|              |             |            | Source: E- | view 10.0 |

Table 2 presents the descriptive statistics showing that MVA was increasing on the average rate of 55.00375, the maximum increasing rate was 63.6000 while the minimum increasing rate was 49.30000 for the period under review (2010 - 2017) in the organization under review. Jacque-Bera value of 0.630614 and the probability value of 0.729565 shows that the rate of increase of MVA as normally distributed since the null hypothesis of normality is accepted at 72.96 percent.

The growth rate of asset quality index (AQI) stood on the average of 9.693750. The maximum growth rate was 13.42000 while the minimum growth rate was 7.310000. Jacque-Bera value of 0.725401 and the probability value of 0.695795 indicate that the rate of growth of AQU was normally distributed since the null hypothesis of normality is accepted at 69.58 percent.

Also, depreciation index (DI) was increasing on the average rate of 11.12750, the maximum rate of increase was 12.23000 while the minimum rate of increase remains 9.120000. Jacque-Bera value of 0.595337 implies that the increment on the rate of DI was normally distributed since the null hypothesis of normality is accepted at 59.53 percent.

Lastly increment on the rate of sales growth index (SGI) stood on the average of 11.86125, the maximum increase rate was 13.94000 while the minimum increase rate was 10.55000. Jacque-Bera value of 1.867054 and the probability value 0.393165 shows that the rate of increment on SGI was normally distributed since the null hypothesis of normality is accepted at 39.32 percent.

|     | MVA        | SGI        | AQI        | DI         |
|-----|------------|------------|------------|------------|
| MVA | 1          | 0.29842065 | 0.43012976 | -0.4352402 |
| SGI | 0.29842065 | 1          | -0.2335546 | -0.0082406 |
| AQI | 0.43012976 | -0.2335546 | 1          | -0.4635454 |
| DI  | -0.4352402 | -0.0082406 | -0.4635454 | 1          |

Table 3:Correlation Co-efficient Result

### Source: E-Views 10.0

Table 3 contains the correlation coefficient which shows the extent or degree of relationship between market value added (MVA), depreciation index (DI), sales growth index (SGI), and asset quality index (AQI). The simple correlation between market value added and depreciation index was negative while that of market value added and sales growth margin was positive and that of market value and asset quality index was also positive. This implies that as depreciation index increases, MVA decreases. As AQI increases MVA also increases. Also, as sales growth increases, MVA also increases. Based on this result, MVA was found negatively related to DI as indicated by correlation value of -0.4352402 and positively related to SGI and AQI as indicated by the correlation values of 0.29842065 and 0.43012976 respectively. This also confirms the regression results in table 4.3 and corroborated the theoretical expectation.

# Table 4Regression Result

Dependent Variable: MVA Method: Least Squares Date: 11/22/18 Time: 20:55 Sample: 2010 /2017 Included observations: 8

| VARIABLE           | COEFFICIENT | STD. ERROR            | <b>T-STATISTIC</b> | PROB.    |
|--------------------|-------------|-----------------------|--------------------|----------|
| С                  | 34.94907    | 35.05726              | 0.996914           | 0.3752   |
| AQI                | 0.874384    | 0.970127              | 0.901309           | 0.4184   |
| DI                 | -0.855731   | 1.560369              | -0.548416          | 0.6126   |
| SGI                | 1.778966    | 1.826421              | 0.974018           | 0.3852   |
| R-squared          | 0.398521    | Mean dependent        | t var              | 55.00375 |
| Adjusted R-squared | -0.052588   | S.D. dependent var    |                    | 4.412884 |
| S.E. of regression | 4.527429    | Akaike info criterion |                    | 6.165038 |
| Sum squared resid  | 81.99046    | Schwarz critetio      | n                  | 6.204759 |
| Log likelihood     | -20.66015   | Hannan-Quinn c        | eriter             | 5.897134 |
| F-statistic        | 0.883425    | Durbin-Watson         | stat               | 1.919755 |
| Prob(F-statistic)  | 0.521439    |                       |                    |          |
| C E V' 10.0        |             |                       |                    |          |

Source: E-Views 10.0

Table 4 above shows the regression result on earnings management and shareholders wealth maximization of listed banks under review from the period of 2010–2017. The result was analyzed with the use ordinary least square (OLS) method of analysis and made use of econometrics views (E-views 10) software. The regression result implies that the constant term and its coefficient 34.94907 is statically insignificant as indicated by its high probability value of 0.3752. The coefficient of asset quality index of 0.874384 isstatically insignificant base on its probability value 0.4126 and positively influence the market value added (MVA) of the organization under consideration. This is in confirmation to the expectation of this work. The coefficient of depreciation index DI -0.855731 is also

found to be statically insignificant as shown by its probability value of 0.6184, but negatively affects market value added of the organization under consideration. This is in line with the apriori expectation of this work. Lastly, the coefficient of sales growth index SGI 1.778966 is also found to be statistically insignificant as indicated by the probability value of 0.3852 but positively impacts on market value added which is consistent with the theoretical expectation of the study.

The result therefore implies that holding all other variables in the model constant, market value added will increase by 3.49 percent. A unit increase in AQI will increase market value added by 87 percent, a unit increase in sales growth index will increase the market value added by 178 percent and a unit increase in depreciation index will decrease market value added by 86 percent as shown in the regression results. Based on the model estimation in chapter three, by substituting the coefficient of the independent variables into the regression line we have that MVA = 34.94904 + 1.778966 SGI + 0.874384 AQI - 0.855731 DI + U.

The coefficient of Determinant (R2) shows the impact of earnings management on shareholders wealth of listed banks. The R2 value of 0.398521 implied that 39.85 percent total variation in market value added (MVA) was explained by sales growth index, depreciation index and asset quality index in the organization under review. The remaining 60.15 percent was explained by the stochastic variables.

On this basis, the goodness of fit of the regression model remained very low after adjusting for the degree of freedom as indicated by the adjusted  $R^2$  value of 0.052588. The Durbin-Watson value of 1.919755 was observed to be greater than the  $R^2$  value of 0.398521 indicating that the model is non-spurious, that is it is meaningful and can be used for policy making in the organizations under review.

|                                  | (D) and a local field of the local state of the loc |                      |
|----------------------------------|--|----------------------|
| NullHypothesis (H <sub>0</sub> ) | Decision   | Conclusion           |
| Positive autocorrelation         | Reject Ho  | $D^* < dl$           |
| Inconclusive                     | No decision  | $Dl < d^*$ , du      |
| No autocorrelation               | Accept H <sub>0</sub>  | Du < d* < 4 - du     |
| Inconclusive                     | No conclusion  | 4 - du < d* < 4 - dl |
| Negative autocorrelation         | Reject H <sub>0</sub>  | $4 - dl < d^*$       |
| C E L <sup>P</sup> 10.0          |  |                      |

Table 5Test for autocorrelation (Durbin-Watson)

Source: E-Views 10.0

Table 5 represent test for autocorrelation usually indicates that an important part of the variation of the dependent variables has not been explained. Therefore, this test is aimed at ascertaining if the error terms are correlated. To achieve this, we employed the technique of Durbin-Watson (DW) statistics. The decision rule for Durbin-Watson is represented in the table below:

From our Durbin-Watson table DI = 0.367 DU = 2.287Calculated Durbin-Watson value (d\*) = 1.92 Computability; dl < d\* < 2.287 This is to say, 0.376 < 1.92 < 2.287 Conclusion: the test is inconclusive since all dl (0.3670< d\* (1.92)< du (2.287). Therefore, we can neither accept nor reject the null hypothesis.

#### **Test of hypotheses**

The hypothesis formulated was tested using the student t-test. This test was carried out to find the significance of individual explanatory variables in the model. The decision rule for this test is that the

null hypothesis should be rejected if the t-calculated value is greater than the t-tabulated value at 5% level of significance. These hypothesis are tested as follows;

# Hypothesis one

**H**<sub>0</sub>: There is no relationship between sales growth index and the market value added of a firm

**H**<sub>1</sub>: There is a significant relationship between sales growth index and the market value added of a firm

Our results in table 4.3 shows that the calculated t-value in its absolute value of 0.974018 is less than table t-distributed value of 2.306, thus we accept the null hypothesis (H<sub>0</sub>) and reject the alternative hypothesis (H<sub>1</sub>) and therefore conclude that there is no significant relationship between sales growth index (SGI) and the market value added (MVA) of banks.

# Hypothesis two

Ho: Asset quality index does not influence the market value added of an entity

H1: Asset quality index influences the market value added of an entity

From our regression result, table 4 shows that asset quality index (AQI) is not statically significant with market value added (MVA) since the calculated t-value in its absolute value of 0.901309 is less than the table t-distributed value of 1.306, thus we therefore accept the null hypothesis (H<sub>0</sub>) and reject the alternative hypothesis (H<sub>1</sub>) and therefore conclude that asset quality index does not influence the market value added (MVA) of banks.

# Hypothesis three

- Ho: There is no relationship between depreciation index and the market value added of an organization
- **H1:** There is a significant relationship between depreciation index and market value added of an organization

Also, our result in table 3 shows that depreciation index is statistically significance since the calculated t-value in its absolute term of 0.54841 is less than the t-tabulated value of 2.306. The null hypothesis was accepted and the alternative hypothesis rejected. We thus conclude that there is no significant relationship between depreciation index and shareholders wealth. To ensure the reliability of result the test of hypothesis was also backed up with the following test;

# **DISCUSSION OF FINDINGS**

# RELATIONSHIP BETWEEN SALES GROWTH INDEX AND MARKET VALUE ADDED

The result obtained from our test of hypothesis reveals that there is no significant relationship between sales growth index and market value added as our t-statistics value calculated is less than our t-statistic value tabulated. That is, 0.974018 < 2.306 hence the null hypothesis accepted and the alternative hypothesis rejected even though it can be seen from the interpretation of the regression result that the coefficient of SGI stood at 1.778906 which implies that a unit increase in SGI will increase market value added by 178 percent but this is not statically significant. This is in line with the findings of Hassan & Ahmed (2012) and Chapman (2015).

# RELATIONSHIP BETWEEN ASSET QUALITY INDEX AND MARKET VALUE ADDED

Based on our findings from our regression result, AQI is not statistically significant with MVA as our t-statistics value calculated is greater than our t-statistic value tabulated. That is 2.901301 > 2.306. Therefore, the null hypothesis was accepted and the alternative hypothesis rejected even though the coefficient of the regression reveals that a unit increase in AQI will increase market value added by 87 percent, AQI only have a positive relationship with MVA but not statistically significant with market value added. This finding is consistent with the outcome recorded by some authors like Kamau (2015) and Saidu & Muktar (2017).

# RELATIONSHIP BETWEEN DEPRECIATION INDEX AND MARKET VALUE ADDED

The result obtained from our test of hypothesis reveals that there is no significant relationship between depreciation index and market value added as our t-statistics value calculated is less than our t-statistic value tabulated. That is, 0.548416 < 2.306 hence the null hypothesis accepted and the alternative hypothesis rejected even though it can be seen from the interpretation of the regression result that the coefficient of SGI stood at which implies that a unit increase in DI will decrease market value added by 86 percent but this is not statically significant. This is in line with the findings obtained by Munene (2014) and Gilbert (2016). The findings therefore established that there is no significant relationship between earnings management and shareholders wealth variables.

# CONCLUSION

The focus of this study is to examine the effect of earnings management and shareholders wealth of banks listed on the Nigerian stock exchange. The loopholes in accounting standards give room for earnings management, whose excessive use on the long run has negative effects on shareholders wealth. Earnings management practices include recognizing premature or fictitious revenue, off-balance sheet financing, aggressive capitalization, extended amortization/depreciation policies, misreported assets and liabilities etc. In the short run it appears to be attractive and beneficial, but it has long-term implications; the excessive use of earnings management techniques can lead to serious corporate failure. The study findings revealed that effects of sales growth index and asset quality index on market valued added (which is proxy for shareholders wealth) is statistically insignificant, while the effects of depreciation index on market value added is positively insignificant.

# RECOMMENDATIONS

Based on the findings, the following recommendations were made:

- i. Valuation of tangible assets should be followed strictly according to the laid rules of IAS 16 (plant, property and equipment).
- ii. Recognition and realization of revenue should be strictly computed based on the rule of IAS 18 (revenue).
- iii. Earnings management can influence an organization positively and negatively when carried out to the extreme and as such accounting bodies, and other regulatory authorities need to adopt strict measure to harness the practice.
- iv. Regulators should engage the service of Forensic Accountants and auditors to review the accounts of banks and other companies in general before they are published.

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#### Appendices

#### **Appendix 1**

| S/N | BANKS        | YEAR | INDEPE | NDENT VA | RIALES | DEPENDENT VARIABLES |
|-----|--------------|------|--------|----------|--------|---------------------|
|     |              |      | SGI    | AQI      | DI     | MVA                 |
| 1   | Zenith Bank  | 2010 | 0.87   | 1        | 1.18   | 7.3                 |
|     |              | 2011 | 1.27   | 2        | 1      | 6.4                 |
|     |              | 2012 | 1.26   | 0.5      | 0.84   | 4.2                 |
|     |              | 2013 | 1.14   | 2        | 0.94   | 3.4                 |
|     |              | 2014 | 1.15   | 0.5      | 0.93   | 5.1                 |
|     |              | 2015 | 1.07   | 1        | 1.01   | 3.5                 |
|     |              | 2016 | 1.17   | 0        | 1.05   | 4.3                 |
|     |              | 2017 | 1.47   | 0        | 1.28   | 2.7                 |
| 2   | First bank   | 2010 | 1.19   | 0        | 1.51   | 7.0                 |
|     |              | 2011 | 0.95   | 0        | 1.06   | 3.5                 |
|     |              | 2012 | 1.78   | 0        | 1.1    | 5.3                 |
|     |              | 2013 | 1.01   | 0        | 0.99   | 7.3                 |
|     |              | 2014 | 1.74   | 0        | 1.15   | 3.4                 |
|     |              | 2015 | 1.11   | 2        | 1      | 7.2                 |
|     |              | 2016 | 1.15   | 2        | 1      | 7.2                 |
|     |              | 2017 | 1.02   | 1        | 1      | 8.3                 |
| 3   | UBA          | 2010 | 1.08   | 1        | 1.02   | 3.8                 |
|     |              | 2011 | 1.04   | 2        | 0.92   | 7.1                 |
|     |              | 2012 | 1.19   | 2        | 1.04   | 6.7                 |
|     |              | 2013 | 1.2    | 0.25     | 0.53   | 3.4                 |
|     |              | 2014 | 1.1    | 2        | 0.95   | 4.6                 |
|     |              | 2015 | 1.09   | 0.5      | 1.37   | 8.7                 |
|     |              | 2016 | 1.22   | 1        | 1.07   | 3.1                 |
|     |              | 2017 | 1.15   | 1        | 1.16   | 9.2                 |
| 4   | FCMB         | 2010 | 1.09   | 1        | 1.2    | 6.4                 |
|     |              | 2011 | 1.21   | 2        | 0.95   | 9.1                 |
|     |              | 2012 | 1.54   | 1        | 1.38   | 7.3                 |
|     |              | 2013 | 1.12   | 0.5      | 0.8    | 8.4                 |
|     |              | 2014 | 1.13   | 1        | 1.05   | 6.3                 |
|     |              | 2015 | 1.03   | 1        | 1.17   | 3.7                 |
|     |              | 2016 | 1.16   | 2        | 1.01   | 7.4                 |
|     |              | 2017 | 1.12   | 1.35     | 1.2    | 3.8                 |
| 5   | Diamond bank | 2010 | 1.34   | 1.4      | 1.3    | 7.1                 |
|     |              | 2011 | 1.13   | 0.57     | 1.09   | 6.2                 |
|     |              | 2012 | 1.35   | 0.5      | 1      | 4.7                 |
|     |              | 2013 | 1.30   | 2        | 0.78   | 5.6                 |
|     |              | 2014 | 1.17   | 1        | 0.96   | 7.3                 |
|     |              | 2015 | 1.02   | 1.5      | 1      | 2.9                 |

#### Raw data obtained from the financial statement of banks

|    |              | 2016 | 0.98 | 1.33 | 1.12 | 6.4  |
|----|--------------|------|------|------|------|------|
|    |              | 2017 | 1.02 | 3    | 0.98 | 8.3  |
| 6  | Access bank  | 2010 | 1.07 | 0    | 1.39 | 5    |
|    |              | 2011 | 1.52 | 0    | 1.09 | 7.2  |
|    |              | 2012 | 1.49 | 1.5  | 1.7  | 3.6  |
|    |              | 2013 | 1    | 0.83 | 0.73 | 7.3  |
|    |              | 2014 | 1.19 | 2    | 1.05 | 9    |
|    |              | 2015 | 1.38 | 0.5  | 1.08 | 3.4  |
|    |              | 2016 | 1.13 | 0    | 1.05 | 2.7  |
|    |              | 2017 | 1.2  | 0    | 1.25 | 4.6  |
| 7  | GT Bank      | 2010 | 1.3  | 0    | 1.13 | 2.1  |
|    |              | 2011 | 1.23 | 0    | 1.03 | 7.5  |
|    |              | 2012 | 1.18 | 0    | 1.23 | 8.3  |
|    |              | 2013 | 1.09 | 1    | 1.15 | 2.7  |
|    |              | 2014 | 1.15 | 1.4  | 1.17 | 4.5  |
|    |              | 2015 | 1.08 | 0.87 | 1.03 | 6.2  |
|    |              | 2016 | 1.37 | 0.17 | 1.18 | 8.3  |
|    |              | 2017 | 1.05 | 0    | 1.1  | 2.6  |
| 8  | Union Bank   | 2010 | 1.16 | 6.46 | 0.77 | 3.6  |
|    |              | 2011 | 1.06 | 2.85 | 0.12 | 4.3  |
|    |              | 2012 | 1.24 | 1.15 | 1.44 | 4.7  |
|    |              | 2013 | 0.92 | 6.99 | 0.98 | 5.7  |
|    |              | 2014 | 1.19 | 0.24 | 1.86 | 6.8  |
|    |              | 2015 | 0.86 | 0.96 | 1.52 | 6.3  |
|    |              | 2016 | 1.11 | 0.76 | 1.25 | 7.2  |
|    |              | 2017 | 1.26 | 0.16 | 0.97 | 7.23 |
| 9  | Ecobank      | 2010 | 1.03 | 1    | 1.1  | 4.1  |
|    |              | 2011 | 1.33 | 3    | 1.2  | 5.6  |
|    |              | 2012 | 1.46 | 0.01 | 1.47 | 7.3  |
|    |              | 2013 | 1.83 | 1    | 1.04 | 5.2  |
|    |              | 2014 | 1.18 | 0.75 | 0.91 | 4.7  |
|    |              | 2015 | 0.92 | 1    | 0.89 | 6.3  |
|    |              | 2016 | 1.03 | 0.83 | 2    | 4.7  |
|    |              | 2017 | 1.08 | 1    | 1.15 | 7.3  |
| 10 | Stanbic IBTC | 2010 | 1.1  | 0    | 1.53 | 3.4  |
|    |              | 2011 | 1.12 | 1    | 0.99 | 6.7  |
|    |              | 2012 | 1.45 | 1    | 0.87 | 2.9  |
|    |              | 2013 | 1.21 | 1    | 1.18 | 3.7  |
|    |              | 2014 | 1.17 | 1    | 0.86 | 4.3  |
|    |              | 2015 | 0.99 | 0.36 | 2    | 5.7  |
|    |              | 2016 | 1.38 | 1.21 | 1.5  | 6.3  |
|    |              | 2017 | 1.25 | 1    | 0.98 | 5.9  |
| L  | l            |      | -    | ı    | 1    | 1    |

# Appendix 2 Descriptive statistic

|             | MVA      | AQI      | DI        | SGI       |
|-------------|----------|----------|-----------|-----------|
| Mean        | 55.00375 | 9.693750 | 11.12750  | 11.86125  |
| Median      | 54.96500 | 9.435000 | 11.56000  | 11.76000  |
| Maximum     | 63.60000 | 13.42000 | 12.23000  | 13.94000  |
| Minimum     | 49.30000 | 7.310000 | 9.120000  | 10.55000  |
| Std. Dev.   | 4.412884 | 2.066225 | 1.249145  | 0.972500  |
| Skewness    | 0.687442 | 0.668269 | -0.687607 | 1.077269  |
| Kurtosis    | 2.960813 | 2.375604 | 1.895215  | 3.979351  |
| Jarque-Bera | 0.630614 | 0.725401 | 1.037254  | 1.0867054 |
| Probability | 0.729565 | 0.695795 | 0.595337  | 0.393165  |
| Sum         | 440.0300 | 77.55000 | 89.02000  | 94.89000  |

| Sum Sq. Dev.      | 136.3148 | 29.88499 | 10.92255 | 6.620287 |  |  |  |
|-------------------|----------|----------|----------|----------|--|--|--|
| Observations      | 8        | 8        | 8        | 8        |  |  |  |
| Same - E 1/2 10.0 |          |          |          |          |  |  |  |

Source: E-Views 10.0

# **Appendices 3**

#### **Correlation Co-efficient Result**

|     | MVA        | SGI        | AQI        | DI         |
|-----|------------|------------|------------|------------|
| MVA | 1          | 0.29842065 | 0.43012976 | -0.4352402 |
| SGI | 0.29842065 | 1          | -0.2335546 | -0.0082406 |
| AQI | 0.43012976 | -0.2335546 | 1          | -0.4635454 |
| DI  | -0.4352402 | -0.0082406 | -0.4635454 | 1          |

Source: E-Views 10.0

# **Appendices 4**

Table 4.3 Regression ResultDependent Variable: MVA Method: Least Squares Date: 11/22/18 Time: 20:55 Sample: 2010 2017 Included observations: 8

| VARIABLE           | COEFFICIENT | STD. ERROR         | T-STATISTIC | PROB.    |
|--------------------|-------------|--------------------|-------------|----------|
| С                  | 34.94907    | 35.05726           | 0.996914    | 0.3752   |
| AQI                | 0.874384    | 0.970127           | 0.901309    | 0.4184   |
| DI                 | -0.855731   | 1.560369           | -0.548416   | 0.6126   |
| SGI                | 1.778966    | 1.826421           | 0.974018    | 0.3852   |
| R-squared          | 0.398521    | Mean dependent var |             | 55.00375 |
| Adjusted R-squared | -0.052588   | S.D. dependent     | 4.412884    |          |
| S.E. of regression | 4.527429    | Akaike info crit   | 6.165038    |          |
| Sum squared resid  | 81.99046    | Schwarz critetion  |             | 6.204759 |
| Log likelihood     | -20.66015   | Hannan-Quinn d     | 5.897134    |          |
| F-statistic        | 0.883425    | Durbin-Watson      | stat        | 1.919755 |
| Prob(F-statistic)  | 0.521439    |                    |             |          |

Source: E-Views 10.0