

An Assessment of Impact of Financial Statement Fraud on Profit Performance of Manufacturing Firm in Nigeria: A Study of Food and Beverage Firms in Nigeria

Wale Henry Agbaje* Sunday Rufus Oloruntoba

Department of Accounting, Adekunle Ajasin University Akungba-Akoko, Ondo State, Nigeria

Abstract

The aim of this research study is to assess the impact of financial statement fraud on profitability of some selected Nigerian manufacturing firms covering (2002-2016). The specific objectives focused on to ascertain the effect of incorrect asset valuation on return on assets (ROA) and to ascertain the relationship between improper expense recognition and return on assets (ROA). To achieve these objectives, descriptive research design was used for the study while secondary data were collected from the financial reports of the selected firms and website of security and exchange commission. The analysis of covariance (ANCOVA) was used and STATA II econometric method was used in the analysis of the data. Altman model and operating expenses ratio was adopted in the analysis of the financial reports to create a dummy variable for the selected firms from 2002-2016 and validation of the parameters were ascertained using various statistical techniques such as t-test, co-efficient of determination (R^2), F-statistics and Wald chi-square. Two hypotheses were formulated and tested using the t-statistics at 5% level of significance. The findings of the analysis revealed that there is a significant relationship between financial statement fraud and profitability in Nigerian manufacturing industry. It was revealed that incorrect assets valuation has a significant positive relationship and so also is the improper expense recognition on return on assets (ROA) which serves as a proxy for profitability. The implication of this is that distortion of asset valuation and expense recognition leads to decreasing profit in the long run in the manufacturing industry. The study therefore recommended that pragmatic policy options need to be taken in the manufacturing industry to effectively manage incorrect asset valuation and improper expense recognition in order to enhance manufacturing industry performance in the country and also stemming of financial statement fraud should be adequately inculcated into the internal control system of manufacturing firms for the effective running of the manufacturing industry in Nigeria.

Keywords: Altman's Model; Improper Expense Recognition; Incorrect Asset Valuation; Return on Asset.

1. Introduction

The financial reporting statement is made up of statement of financial position and statement of comprehensive income, statement of changes in equity (records of how revenue is generated and records of variations in capital structure, information on how revenue is earned especially as pertaining how monies used for business are realized). (Companies and Allied Matters Act 1990). However, such financial information is difficult to understand as it is usually followed by attached explanations about how decisions are made in the enterprise. (IASB, 2007b).

The understanding of the importance of financial statements is anchored on its ability to give true financial status of the enterprise and how such information can be applied to the day to day running of the establishment by different users of accounting information (Rezaee, 2005). Those who make use of financial statement are, managers of the firm, owners of the enterprise, people working for the enterprise, people who are likely to do business with the enterprise, people in government, journalists and everybody who have something to do with the company.

Khanh (2010), Rezaee (2005) defined financial statement fraud as “the *deliberate misrepresentation* of the financial condition of an enterprise accomplished through the *intentional misstatement* or *omission* of amounts or disclosures in the financial statements in order to *deceive* financial statement users.” Management fraud is usually seen as the same as the financial statement fraud due to the fact that the preparation and presentation of financial reporting information is the sole task of the management. Each time that there exit a financial statement fraud, the management is always aware of it, (Everette, 1998).

Bringing to the knowledge of the people about financial statement fraud and diversion of resources of enterprise has taken a centre stage by many researchers in the recent past (Aburime, 2012). Previously, incidence of financial statement frauds have risen greatly, (Rezaee, 2005). In the years past, fraud has gone up systematically both on frequency of occurrence and magnitude of losses. Frauds in financial dealings affect those that own the business, lenders and people that the business owes including the workers of the firm. As a result, those who do business with those enterprises expresses loss of confidence in financial information (Khanh, 2010).

Under reporting income, over reporting expenditure is done by firms that try to evade tax. It is clear from

available evidence that accounting for (fictitious revenue) income not earned, that is, non-existing income and bringing revenue from a different period to another are common in most financial statement, (Odunayo 2014). As much as financial statement fraud takes place, it becomes difficult to stop it along the line. If revenue is deliberately raised in a particular year, it would make the next year income to be smaller. Chief executives mostly continue this practice year after year, (Everette 2012).

Other scholars and writers like Everette (2012), Kanu and Okorafor (2013), Odunayo (2014) all concurred that the purpose of financial statement fraud more often than not speak about earning supervision, cash flow adjustment and sudden significant sales which stem on fictitious revenue, concealed expenses, third party related transactions and improper valuation of assets. Arakumar (2015) observe that financial reporting fraud appears in various ways, he further maintain that regular attempt in advancing financial statement involves: over reporting income, understating expenses and liabilities, timing differences, incorrect valuation of assets and third party related transactions.

Everette (2012), Odunayo (2014) gave analytical review of tracing the 'red flag' as the most powerful techniques of tracing any anomalies in the financial statement. Athur (2014) and Arunkumar (2015) explained analytical review method as comparing the current period with the prior period, compare income statement and cash flow. The role of financial statement fraud on the output and growth of manufacturing industry in Nigeria has raised a lot of concerns, despite the fact that most of all these financial statements are audited by registered accountants in Nigeria; managements have always find loopholes in perpetrating financial statement fraud.

Eze and Ogiji cited (Libiano 2006) defined manufacturing industry as the bedrock of increases in productive sector of an economy. Adebayo (2011) refers to this sector as industries involved in creating new commodities or adding values to the one already produced.

The major financial statement fraud in the manufacturing industry has been identified as fictitious revenue, incorrect asset valuation and improper expense recognition (Everette, 2012).

In this study, the basic principles or assumptions are; an inverse correlation among financial statement fraud and profitability; when the rate of companies profitability rises the level of financial statement fraud decreases and vice versa; factors which aggravate financial statement fraud situation are also responsible for low level of companies profitability; financial statement fraud on economic and social infrastructural facilities is implicitly targeted at increasing the level of companies profitability; and companies profitability translates into investment in projects and programmes, which enhances operations of the productive sectors and invariably reduces rate of financial statement fraud. In line with this, the study focuses on investigating the impact of financial reporting fraud on profitability in Nigerian manufacturing industry.

Deception in financial reporting is a major challenge on entire manufacturing industry (Olorunsegun 2010). The shareholders of manufacturing companies and the public expect accountability, fairness, transparency in their day to day operations for effective intermediation. Okoye and Alao (2008) observe that recent widespread financial statement fraud and resultant failures were primarily due to dishonest management decisions and outright cover up by notable accounting firms. Though there were known cases of fraud in the manufacturing industry, one major question still remain unanswered which is the nature and various methods through which financial reporting fraud can be perpetuated in manufacturing industry (Adeyemo, 2012).

The nature of financial statement fraud in manufacturing industry in Nigeria has been highlighted as fictitious revenue, incorrect asset valuation and improper expense recognition. (Everette, 2012), (Arunkuma, 2015), (Odunayo 2014) highlighted five different kinds of monetary report deceit to be fictitious sales, accepting expenditure wrongly, erroneous property estimation, undisclosed debt and inappropriate disclosure. Aburime (2012) listed the first three mentioned above as the most commonly financial statement fraud perpetrated in the manufacturing industry.

The Association of Certified Fraud Examiners Report (2010) revealed that fraud in monetary reporting constitutes about 5 percent of incidence of fraud reported, though it is adjudged to be expensive in terms of volume of losses with average of 1.7m dollars in each occupation. The fear of systemic market failure occasioned by inflating profits is achieved through manipulation of revenue, valuation of asset wrongly and improper expense recognition.

Profitability is expected to show how well a business is doing. Profit will not do this if variables that are used to determine the profit are manipulated; such as revenue, asset valuation and expense recognition. This will have a great impact on the reliability on profit as a measure of performance.

It is therefore worth evaluating to confirm impact of financial statement fraud on profitability of Nigerian manufacturing sector. Therefore the research seeks to fill up a fissure in examining the impact of financial statement fraud on profitability of selected manufacturing industry.

1.1 Objectives of the study

The general purpose for the study is to investigate empirically the impact of financial statement fraud on profitability in the Nigeria manufacturing industry; the precise objectives are:

1. To examine the effect incorrect asset valuation on return on assets (ROA) in Nigerian manufacturing industry
2. To determine the effect of improper expense recognition on return on assets (ROA) in Nigerian manufacturing industry.

1.2 Research Questions

Here are the research questions with a view to achieving the objectives of the research.

1. What is the effect of incorrect asset valuation on return on assets (ROA) in Nigerian manufacturing industry?
2. What is the effect of improper expense recognition return on assets (ROA) in Nigerian manufacturing industry?

1.3 Hypotheses

HO₁: Incorrect asset valuations do not affect return on assets (ROA) in Nigerian manufacturing industry.

HO₂: Improper expense recognition has no effect on return on assets (ROA) in Nigerian manufacturing industry.

2. Review of Related Literature

Fraud in financial reporting has been explained differently by researchers and practitioners. Elliott and Willingham (1980) see financial reporting fraud as executive deceit: "The deliberate fraud committed by management those injury investors and creditors through materially misleading financial statements." Apart from those who commit their money into the firm, also those the firm owes, them that examine the financial records are also affected by the fraud. They could be affected by losing money, position, integrity etc, (Rezaee, 2005). Deception in financial reporting appears in various means which includes over reporting income by acknowledging unearned revenue, increasing the value of asset, and improper expense recognition (Arthur 2014). Financial report scam like increase in income that does not go along with cash and sudden consistent growth in sales will automatically indicate a "red flag." Everette (2012) defined red flag as a warning sign in the financial statement which should be notice or dealt with.

Financial statement fraud is the deliberate fraud committed by management that injures investor and creditors with materially misleading financial statement (Kerwin 1995) cited in (Khahn 2009). Misstatement or accounting irregularities in financial statement can arise from error or fraud (Kwok 2005). It is therefore important to differentiate between financial statement error and financial statement fraud. Financial statement error refers to unintentional misstatement in financial statement, including the omission of an amount or a disclosure.

The financial report is the basic instrument in assessing the general activity of the firm and usually adopted as a means of getting early warning sign concerning the poor performance of the firm, (Mensah, 1984; Gentry, Newbold and Whitford 1985; Beaver, 1996; Wu and Jung-Zhi 2004).

Nevertheless, the reoccurrence of financial fraud involving firms from the manufacturing industry is an indication that traditional financial distress warning system has not been effective as an early detecting tool. This have led to many researchers advocating for the use of indicators to check fraud and risks associated with the manufacturing industry, (Dechow *et al.*, 1996; Beasley, 1996; Ward and Foster 1997; Abbott *et al.*, 2000). Hence, this research adopted the theory of monetary distress alert and firms' debt obligations inefficiency to develop fraud models for the manufacturing sector.

Nevertheless, the reoccurrence of financial fraud involving firms from the manufacturing industry is an indication that traditional financial distress warning system has not been effective as an early detecting tool. This have led to many researchers advocating for the use of indicators to check fraud and risks associated with the manufacturing industry, (Dechow *et al.*, 1996; Beasley, 1996; Ward and Foster and Ward 1997; Abbott *et al.*, 2000). Hence, this research adopted the theory of monetary distress alert and firms' debt obligations inefficiency to develop fraud models for the manufacturing sector.

Previous research concentrated on Beaver (1966) and Altman (1968) which introduced single and multiple discriminant analysis to evaluate whether monetary conditions are healthy. Other researches also centered on the predictability of some models like logistic model and reversed propagation neural network, (Martin, 1977; Ohlson, 1980; Zmijewski, 1984; Zavgren, 1985; Coats and Fant, 1993). The single model for analysis of variable may not be used to determine multifaceted variations. In the same way, representations developed by MDA may not be a good assessment tool for threat incidence.

Fraud detection in the manufacturing industry depends heavily on the application and development of early warning sign models that has the capacity of revealing the possibility of a fraud which may not be easily seen in the financial statement. Previous research had recommended the prediction ability of neural network which is practically preferred to common statistical approaches (Malhotra *et al.*, 1999; Salchenberger *et al.*, 1992; Chen

and Huang, 2003; Baesens *et al.*, 2005; Wang, 2009). This research adopted monetary indicators, public governance and fund flow variables to develop models on financial data fraud checks; with the application of logistic estimation.

2.1 The Evolution of the Nigerian manufacturing Sector

Since 1982, the contribution of the manufacturing sector as a proportion of national output has declined from 7.83%. A lot of reasons have been adduced to be responsible for changes in the share of the manufacturing sector in the national output, such as non-competitiveness of local products in the international market in addition to negative effect of policy formulation and implementation in the economy, (NBS, 2015)

Before the international increase in oil revenue in the 1970's, the manufacturing sector added about 10 percent to the nation's gross domestic product. Subsequently, rise in income from the oil sector affected negatively to the sector's share in GDP leading to lower rate of growth. With the decline in economic activities which also affected oil revenue in 1980s, there was an immediate policy shift aimed at revitalizing the manufacturing sector with clear emphasis on steel production. Before now, the Nigerian authorities through the indigenization policy has changed the ownership structure of industries from aligns to the indigenes which affected foreign capital inflow. The attendant rise in the prices of imported goods coupled with non-availability of foreign capital assisted the home industries in the manufacturing of the basic product like soap and salt, (NBS, 2015).

Alongside, variations in prices through import and export reduction policy stimulated the buying of raw material which is used for the manufacturing sector from abroad. As shown in figure one below, a positive change existed in the manufacturing sector, however, the constant changes in prices affected the home industry from producing necessary inputs that would have assisted infrastructural development and human capital, (NBS, 2015).

During the structural adjustment programme era, restrictions on the importation of raw materials did not help the manufacturing sector in stabilizing as expected. The twin effect of the privatization and commercialization policy of government stimulated activities in the manufacturing sector. A slight rise in the contribution of the sector in economic output of 0.62% points was observed from 1986-1988 as shown in Figure 1.

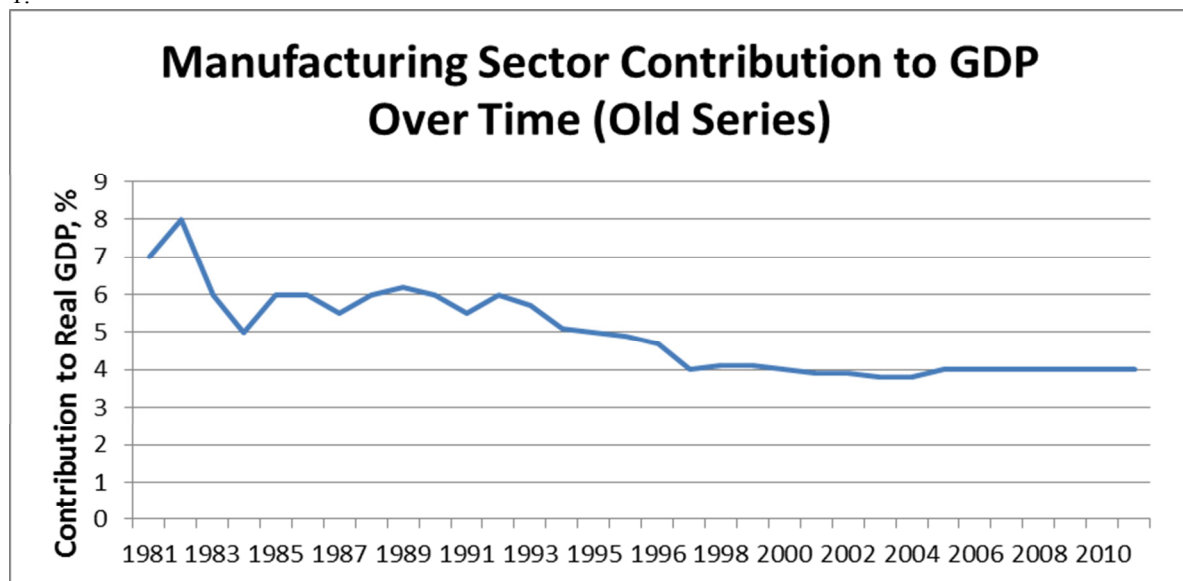


Figure 1: Manufacturing Sector Contribution to Real GDP over Time
Source: Nigeria Bureau of Statistics

All through 1990s and 2000's, the country depended solely on revenue from oil allowing manufacture remain in decrease. Firms failed to promote exportation of goods and services and are inefficient, leading to closure of domestic factories leaving only insignificant proportion of the home industry to sustain the sector, yet they operated below capacity. The situation is still prevalent till date that only Lagos, Kano, Kaduna still has few industries in operation. More so, the sector shows the likelihood of development with recent modern activities springing up across the nation.

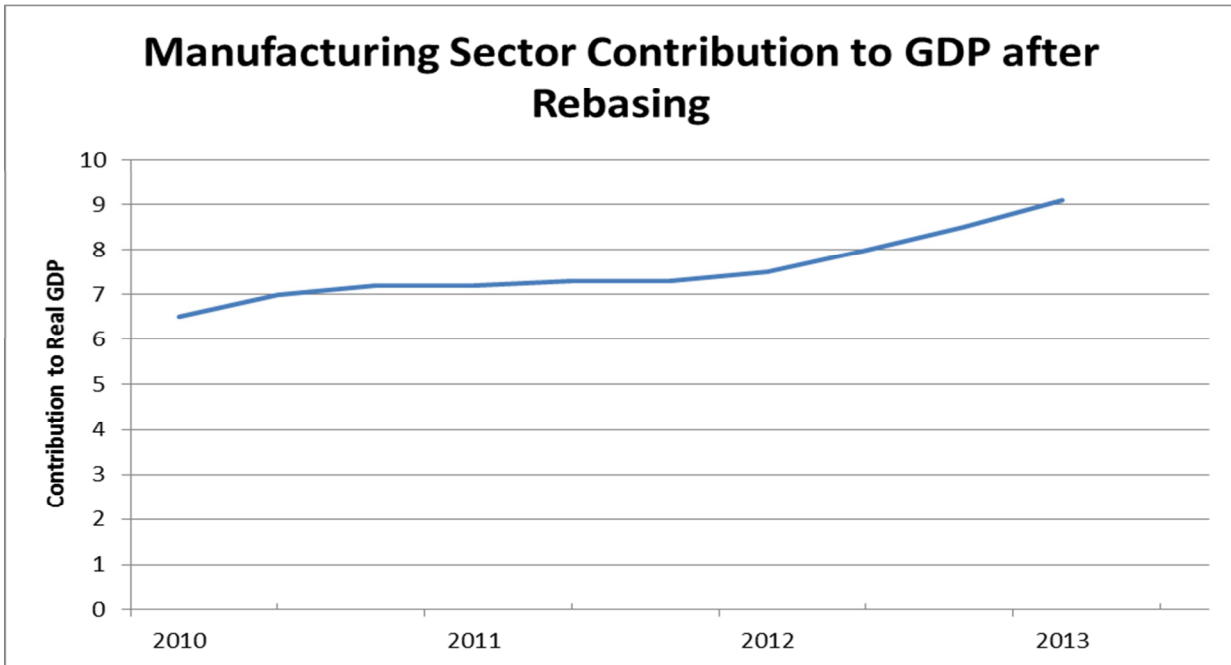


Figure 2: Manufacturing Sector Contribution to GDP after Rebasing
Source: Nigerian Bureau of Statistics

2.2 Concept of profitability in Manufacturing Sector

Aburime (2008) explained that profit is the difference between what is realized from sales and total opportunity cost of labour, land and capital employed in production. By the author, a business grows when the business uses its capacity and takes advantage of chances in the market place. Therefore, profitability as defined by Tsomocos (2003) is preferred since a business need to stabilize before generating gain, even as profit making is associated with income and expenditure.

The application of profit is related to the rate of sales that need to be realized so as to offset all cost and have a surplus. The earning of profit in companies can be improved when certain analytical tools is adopted which can assist management to take better decisions regarding production and cost control. The liquidity position of the country has been identified as influencing her chances of generating profits or her ability to improve production. When a company intends to raise profit by raising income, the company should understand what such is and guide jealously the preparation of financial statement following the GAAP (Agbaje et al, 2014).

Pandey (2005) explained profit to be the disparity among revenues and expenditure within a time period. Basic goal of business entity is profit and failure to neglect this fact will definitely impact the growth and future of the company. Management of an organization, a person owed and owners are keen profit making of the organization. The proprietors required rate of income from their asset or business while creditors too want to get interest repayment on their principal as at when due. This is achievable only when the organization earns profits Tsomoscos (2003).

Survival and growth of companies within a range of time is to earn profits. Even though profit is essential, maximizing profit without minding the social and financial consequences is wrong. Ahmed (2003) affirmed that Net Interest Margin (NIM), ROA and ROE were the three indicators identified to be widely employed in this literature to measure profitability. There are different views on best indicator to be used for measure of profitability.

Ogunleye (2010) believe that profit level should be measure from investment and assets earnings. Akinola (2008) as cited by (Uguru 2014) in his study believes profit should be measure using profit before tax and profit after tax, earnings records, financial records on capital employed and financial records on assets.

Javaid et al (2011) used return on assets (ROA) as indicator for profitability to investigate assets, loans, equity and revenue in manufacturing industry. Scot and Arias (2011) developed profits from properties, as

appropriate pointer for the assessment of profitability. Sanni (2009) used earning per share (EPS). He based his submission on the fact that the use of return on equity or return on capital employed will produce lesser amounts than those of earning per share for obvious reasons and so the superiority of profit on property and financial records on earnings cannot be over emphasized. What this means is that anyone or a combination of the indicators can be used to measure profitability in manufacturing industry.

3. Empirical Review

A study was conducted by Oduanyo (2014) in United Kingdom on fraudulent financial reporting: The Nigerian Experience Investigation possible prevalence of deceptive monetary statement with the registered companies in Nigeria. The study considered 212 registered firms in 2007. The research observed a link between monetary scam communication and weak internal control mechanism. The author recommendation that internal control system should be strengthened.

In a research conducted by Ikpefan (2006) on the increase in financial scam and its influence on the financial sector, the study showed that financial scam has been in the increase in recent time increasing to ₦8,309.83 billion in 2004 from ₦ 3399.39 billion in 1994 indicating 350% upward rise. The study revealed that financial institutions had refused to adopt necessary regulation and good control system in every aspect of the bank activities which has led to recurrent cases of financial scam. The study hence recommended that management of financial institutions ought to reinforce their inner operational procedure by hiring experts which will engender the confidence of the people on workings of the sector.

In the year 2009, Dabor and Adeyemi investigate public management and integrity of monetary report in Nigeria using both primary from two hundred and forty respondents and secondary data from quoted companies in Nigeria. The body found that the board of directors and strict compliance with corporate governance and regulatory frameworks will further enhance credibility of financial statements by constantly assessing the benefits accrue to them in relation to financial exposure.

Ogbonna and Ebimobowei (2012) examined the influence of principled financing standard on the value of monetary reports in the banking system of the Nigerian economy with original and calculated information. The data was analysed using econometrics models of diagnostics checks, ADF, OLS and Granger causality estimation. Findings of the research indicated that principled financing standards have reasonable influence on monetary reporting in banking sector of the country. The study recommends that financial experts as those entrusted with monetary information should abide by the principles and rules of the profession.

Olaoye and Dada (2014) examined the analysis of the fraud in Banks: Nigeria Experience. It specifically analyze the environment, reasons, consequences, discovery and preclusion measures for financial scam in the economy. The authors concluded that a sound internal management measure is necessary if financial scam must be prevented in addition to appreciating those who displayed high level of integrity; whereas the constant dismissal of financial workers should be minimized. The study recommended that those that are caught in scam practices should always be punished.

In a study carried out by Shehu and Abubakar in the year 2012 on public management, revenue generation and monetary activities in the manufacturing sector. The study revealed that financial experts and fiscal experts had agreed that public management influence monetary performance and the attitude of company administrators. In clear terms, the revealed that the structure of the management negatively affects actual performance of the firm. The study therefore recommended that appreciation of senior workers should be related to their performance and should not be a way of encouraging authorities to falsify financial report or over state its implications.

Ryerson (2009) studied the improper capitalization and the management of earnings. The study focuses on the current monetary violations, as it is possible to ignore several known approaches used in committing scam within the monetary sector. The outcome of an investigation by security and exchange commission within the period 1997 to 2002 identified manipulations of revenue figures by the authorities as a common scam. Though the report admitted that the greater part of abuse relates to recognizing unearned revenue, there were also issues of recognizing expenditure not done. The study therefore recommended that proper methods of managing earnings should be prioritized to avoid manipulation.

3.1 Summary of Literature Review

Based on the literature reviewed in the course of this study, it is pertinent to note that no study on financial statement fraud correlates it with profitability in the manufacturing industry.

An instance of study by Shehu and Garba, (2014) that examined the leadership qualities and true programme alterations of registered firms in the country. Another study by Odunayo, (2014) on fraudulent financial reporting: the Nigeria experience. A study conducted by Kuang, Ching and Yo (2010) on dangers in monetary reporting, caution for productive sector, and study by Ojeka, Mukoro and Kanu (2015) do monetary communication disclosure promote industrial activities in Nigeria mechanized firms?

However, one study is closely near the impact of financial statement fraud and profitability of Nigerian manufacturing industry. That study was conducted by Afolabi, (2013) on influence of monetary communication on investors' process of taking decision in the country. But the study emphasized on monetary communication on investor's decision process, which never explore the financial statement fraud of fictitious revenue, incorrect asset valuation and improper expense recognition.

Of great concern to the researcher is that none of the earlier literature or studies used existing models in detecting financial statement fraud in manufacturing industry. While Kanu and Okorafor, (2013) studied the environment, scope and influence of scam on income generated by financial institution in Nigeria, Aburime (2009) examined impacts of corruption on financial profitability in the country. None of the research was done in the manufacturing industry and identification of profitability variable was not considered in their study. The research adopted return on asset (ROA) as proxy for profitability. Ogunleye, (1995) believes that return on asset (ROA) could constitute a good measure of profitability.

In addition, it was noticed that several studies like Ikpefan, (2013), Nwankwo (2013), Ibrahim;et al (2014), Khanh (2013), Dabor and Adeyemi (2013), wrote extensively on fraud and financial statement fraud, but none was able to significantly used accepted models certify by ACFE to detect this scam in the financial statement of manufacturing industry.

Also the fraud and financial statement fraud reviewed in this study have many variants. For instance, the study by Odunayo (2014) asserts that fraudulent act in the financial statement is due to lack of adherence to corporate governance principles.

Ogbonna, (2012) and Mahdi (2011) anchor their study on professional ethics as the bane for distorted financial statement fraud. Kuang et al, (2010), Okaro, (2013) and Abdulraheem et al, (2012) used ratio analysis, technological advancement and inadequate internal control of an organisation as a means of financial statement fraud.

However, several manufacturing company always indicates ratio analysis in their in financial reports always prove that ethical adherence and good audit reports qualifying the financial statement.

Sequel to the above, this study decomposed financial statement fraud into fictitious revenue, incorrect asset valuation and improper expense recognition. With this decomposition, it is believed that all aspect of financial statement fraud are well taken into consideration and the impact these decomposed variables will have on return on assets (RAO) proxy of profitability.

Indisputably, there is a knowledge gap in understanding impact of financial statement fraud on profitability of Nigerian manufacturing industry. This study is a bold attempt to bridge the gap.

4. Theoretical Framework

The theoretical framework that will guide this study is rooted in legitimacy and the legitimacy theory.

4.1.1 Legitimacy Theory

"Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Schman, 1995). The theory believes that organization tries to carry out their activities within the context of what is acceptable by the people and those information disclosure are necessary ways for organizations to create acceptability through the provision of necessary information concerning the organization. Kaplan and Ruland (1991) expanded to propose that the acceptability concept should consider all necessary persons and their contributions in generating the resources needed for the organizations' activities which are mostly needed for their success and their acceptability by the public. Legitimacy theory better explained the rationale behind financial statement fraud; hence the study encapsulate this study.

5. Methodology

5.1.1 Population of Study

The population of the study comprises of the listed foods and beverages firms that are quoted on the Nigeria Stock Exchange.

The firms are listed below in no particular order:

* 7Up Bottling Company Plc, * Big Treat Company Plc, * Cadbury Nigeria Plc, * Dangote Flour Mills Plc, * Dangote Sugar Refining Plc, * Flour Mills Nigeria Plc, * Foremost Diaries Nigeria Plc, * Nationalist Salt Companies Nigeria Plc, * Nestle Foods Nigeria Plc, * Tate Industry Nigeria Plc, * Union Dicon Salt Nigeria Plc, * UAC Nigeria Plc

5.1.2 Sample Size

Firms to be selected for the reason of this research must satisfy the underlisted criteria:

Wider market control, Large scale of operation

Consistency in business overtime, Size of the firm (multinational in nature), Longer years of operation, Products variety.

The firms that satisfy these criteria are:

1. Cadbury Plc
2. Nestle Plc
3. UAC Plc.

5.1.3 Sources of Data

The study used secondary data. The data primarily consists of financial statement reports which include report of monetary status and report of total revenue. Three firms were selected from foods and beverages sector of manufacturing industry for the periods.

5.1.4 Model Specification

The model for this study is specified in the general form of ANCOVA (analysis of covariance) as shown in equation (i) below and it was properly modified in equation (1)

$$y = \beta_1 + \beta_2d_1 + \beta_3d_2 + \beta_4d_4 + \varepsilon \dots i$$

Specific modification on the model shown above,

$$ROA = f(FR) \dots 1$$

ROA – Return on asset, **FR** - fictitious Revenue,

This model can now be expressed mathematically as shown below

$$ROA = \alpha_0 + \alpha_1 FR \dots 2$$

5.2.1 Description of Research Variable

We have basically two variables used in this research, dependent variable and explanatory variable.

5.2.2 Dependent variable

The dependent variable is profitability. This is proxy by return on asset

5.2.3 Independent Variables

5.2.3.1 Objective 1

Incorrect Asset Valuation (**IAV_t**): It represents a cluster of Incorrect Asset Valuation variables. According to Okoye (2016), he asserts in his inaugural lecture that Altman is use as a fraud detecting model and it has 81 percent predictive accuracy for (Unequal population) and 86 percent accuracy for (Equal population).

Altman's Z-Score (2010) is a standard model in capturing incorrect asset valuation. Altman's Z-score remains a model to predict whether an industry's assets have been correctly recognized to avoid financial distress. It was first carried out in 1968 by Edward I. Altman, a professor at the business school of Stern at New York University. The model utilizes operational capital, totality of assets, market capitalization, and recorded total debt to determine if a firm's assets are properly recognized. The model was extremely accurate since the percentage of correct predictions was about 95% (Altman et al 2010).

Altman et al (2010) employed practical information and estimation in order to develop an algorithm made up of fraction where prearranged values are adopted. The Z-score is shown thus;

$$Z\text{-Score} = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

When calculation is done, the variables are joined to realize the Z-score for the firm. A Z-score >2.99 mistakably fall into correct asset valuation while we have incorrect asset valuation if reverse is the case. (See Appendix A.) We also assigned dummy variable of (1) and (0) for incorrect and correct. (See Appendix A.).

5.2.3.2 Objective 2:

Improper Expense Recognition (**IER_t**): It represents a cluster of improper expense recognition. Operating expense ratio was used to measure the variable.

OER = $\frac{\text{Operating expenses}}{\text{Total revenue}}$: a decreasing ratio is desirable because is taken as efficient performance and vice versa, therefore, a decreasing ratio is scaled "0" otherwise "1" scale is attached.

The primary concern in this representation will be on the index of financial statement fraud **FR_t**, **IAV_t** and **IER_t** were joined to the representation as the explanatory variables.

6. Technique of Data Analysis

Statistics collected was valued by means of econometric estimation using STATA 11 econometric software.

A general Pooled regression data model is given as

$$Y_{it} = Z'_i\alpha + X'_{it}\beta + u_{it} \dots 3$$

$$= C_i + X'_{it}\beta + u_{it} \dots 4$$

The major goal for this investigation will maintain a steady and proficient evaluation of the partial influences,

$$\beta = \partial E[y_{it} | x_{it}] / \partial x_{it} \dots 5$$

Table 1: Pooled Ordinary Least Square Regression

Variables	Coef.	Std error	p>/t/
FR	-.0507784	.015809	0.003
IAV	.2134987	.0634835	0.002
IER	.0284455	.1577902	0.858
-cons	.4834	.1840582	0.012

Source: Researcher's Computation, 2017

Table 2: Fixed Effect or LSDV (Least Square Dummy Variable) Regression

Variables	Coef	Std error	p>/t/
FR	-.0388832	.0154248	0.016
IAV	.1684227	.062765	0.011
IER	.1552098	.1538656	0.320
-cons	.5702894	.1798974	0.003
Sigma_u	.2329338		
Sigma_e	.43503685		
Rho	.25317223		

Source: Researcher's Computation, 2017

Table 3: Random Effect Model: In this model, the firms take a common mean value for the intercept and the items in the group are selected at random, the result is shown below:

Table 3: Random Effect Model

Variables	Coef	Std error	p>/t/
FR	-.0507784	.015809	0.001
IAV	.2134987	.0634835	0.001
IER	.0284455	.1577903	0.857
-cons	.4834	.1840582	0.009
Sigma_u	0		
Sigma_e	.43503685		

6.1 Pooled OLS Regression

The surveillance are collated and the estimation result is produced, regardless of other properties of the data. The issue with this representation lies on its inability to show differences among organizations that were under consideration

Table 4: Pooled OLS Regression

Regress	ROA	fr	iav	ier		
Source	SS	Df	Ms	Number of obs	=	43
Model	5.11135372	3	1.70378457	F (3, 39)	=	7.73
Residual	8.59113736	39	.220285573	Prob > F	=	0.0004
Total	13.7024911	42	.326249788	R-squared	=	0.3730
				Adj R-squared	=	0.3248
				Root MSE	=	.46935
ROA	Coef.	Std.Err.	T	P>/t/	[95%Conf	Interval]
Fr	-.0507784	.015809	-3.21	0.003	-.0827551	-.0188017
Iav	.2134987	.0634835	3.36	0.002	.0850912	.3419063
Ier	.0284455	.1577902	0.18	0.858	-.2907154	.3476064
-cons	.4834	.1840582	2.67	0.012	.1111072	.8556928

Source: Researcher's Computation, 2017

The result above will not be considered for now because there are still two models to be estimated to know which model will be adopted for the research work.

6.1.1 Fixed Effect or LSDV Regression

The fixed effect or LSDV (least square dummy variable) representation permits for differences within the organization making possible for each item to poses individual intercept worth.

Table 5: Least Square Dummy Variable (LSDV) Model

ROA	Coef.	Std.Err.	T	P>/t/	[95% Conf. Interval]
Fr	-.0388832	.0154248	-2.52	0.016	-.0701368 -.0076295
Iav	.1684227	.062765	2.68	0.011	.0412486 .2955967
Ier	.1552098	.1538656	1.01	0.320	-.1565516 .4669712
-cons	.5702894	.1798974	3.17	0.003	.2057827 .9347961
sigma_u	.25329338				
sigma_e	.43503685				
Rho	.25317223	(fraction of variance due to u_i)			
Fixed effects within regression			Number of obs = 43		
Group variable: company			Number of groups = 3		
R-sq: within	= 0.3462	Obs per group: min		=	14
between	= 0.6675	avg		=	14.3
overall	= 0.3580	max		=	15
Corr(u_i, xb) = 0.1665			F (3,37) =		6.53
			Prob > F =		0.0012
F test that all u_i = 0:		F(2,37) = 4.20		Prob > F = 0.0228	

Source: Researcher's Computation, 2017

The result above will also not be considered for now because the random effect model also needs to be evaluated because it is also a very important option when it involves using panel data.

6.1.2 Random Effect Model

In this model, the firms take a common mean value for the intercept and the items in the group are selected at random, the result is stated under;

Table 6: Random Effect Model

ROA	Coef.	Std.Err.	Z	P>/z/	[95% Conf. Interval]
Fr	-.0507784	.015809	-3.21	0.001	-.0817634 -.0197933
Iav	.2134987	.0634835	3.36	0.001	.0890733 .3379242
Ier	.0284455	.1577902	0.18	0.857	-.2808177 .3377087
-cons	.4834	.1840582	2.63	0.009	.1226526 .8441474
sigma_u	0				
sigma_e	.43503685				
Rho	0	(fraction of variance due to u_i)			
Random effects GLS regression			Number of obs = 43		
Group variable: company			Number of groups = 3		
R-sq: within	= 0.3332	Obs per group: min		=	14
between	= 0.8720	avg		=	14.3
overall	= 0.3730	max		=	15
Random effects u_i ~ Gaussian			Wald chi2(3) =		23.20
Corr(u_i, X) = 0 (assumed)			Prob > chi 2 =		0.0000

Source: Researcher's Computation, 2017

Out of the three regression result shown above, only one will be chosen for the purpose of this study, so our aim now is to find out the appropriate model for this research. Hausman test and Bruesch and Pagan LM test to find out the right representation.

Huasman Test

H₀ : Random effect model is appropriate

H₁ : Fixed effect model is appropriate

Table 7: Fixed effect Within Regression

```

.estimates restore random.
(results random are active now)
.hausman fixed.

-----Coefficients-----
                (b)          (B)          (b-B)          sqrt(diag(V_b-V_B))
                Fixed       Random       Difference      S.E.

Fr              -.0388832     -.0507784     .0118952        .
Iav             .1684227       .2134987     -.0450761        .
Ier             .1552098       .0284455     .1267643        .

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
Chi 2(3) = (b - B)' [(V_b-V_B)^(-1)](b - B)
= 4.73
Prob > chi2 = 0.1928
(V_b - V_B is not possible definite)
    
```

Source: Researcher's Computation, 2017

Result above showed that Hausman test for model appropriateness between the fixed and random effect model. The chi square value is given as 4.73 with it corresponding probability value of 0.1928, this shows a low level of significant at 99 percent confidence level. One can now conclude that the null hypothesis would be accepted while the alternative hypothesis would then be rejected which put forward the appropriateness of the fixed effect or LSDV representation, that is the random effect model is most suitable than LSDV model.

We are left with the pooled regression result and the random effect result. A cursory look at the two result revealed that the random effect representation is most suitable than the pooled regression because of this two basic observation;

1. The significant variables in the random effect model are significant at 99 percent confident level unlike the pooled regression that has one of it significant variable to be at 95 percent confidence level while the F-statistics of the earlier model is far more important that the later model.
2. The R-squared within the variable in the random effect model is about 33.3 percent unlike the pooled regression R-squared coefficient of 32.4 percent.

Succinctly, the random effect model has a lot of important information in it result than the pooled regression with a high level of aggregate. Our focus will now be on the random effect model as its parameters will be discussed below on how it relate to the objectives of the study.

Table 8: Parameters and Findings of the Random Effect Model

ROA	Coef.	Std.Err.	Z	P> z	[95% Conf.	Interval]
Fr	-.0507784	.015809	-3.21	0.001	-.0817634	-.0197933
Iav	.2134987	.0634835	3.36	0.001	.0890733	.3379242
Ier	.0284455	.1577902	0.18	0.857	-.2808177	.3377087
-cons	.4834	.1840582	2.63	0.009	.1226526	.8441474
sigma_u	0					
sigma_e	.43503685					
Rho	0	(fraction of variance due to u_i)				
Random effects GLS regression			Number of obs	=	43	
Group variable: company			Number of groups	=	3	
R-sq: within	=	0.3332	Obs per group: min	=	14	
between	=	0.8720	avg	=	14.3	
overall	=	0.3730	max	=	15	
Random effects u_i ~ Gaussian			Wald chi2(3)	=	23.20	
Corr(u_i, X) = 0 (assumed)			Prob > chi 2	=	0.0000	

Source: Researcher's Computation, 2017

Based on the result provided in table 9 above, at (0.05) critical value with probability value of 0.001 and t-statistics is 3.36 IAV shown in the result above, shows a direct relationship with profitability of selected organization for the period of the research. It shows that when the assets of firms are incorrectly valued their

performance tends to increase by 21 percent. The null hypothesis was therefore not accepted and alternate hypothesis not rejected having a significance correlation among incorrect asset valuation and return on assets. This is in line with the result of the t-test shown above.

Hypothesis 1

Ho1: There is no significance relationship between incorrect asset valuation and return on assets.

Based on the result provided in table 9 above, at (0.05) critical value with probability value of 0.001 and t-statistics is 3.36 IAV shown in the result above, shows a direct relationship with profitability of selected organization for the period of the research. It shows that when the assets of firms are incorrectly valued their performance tends to increase by 21 percent. The null hypothesis was therefore not accepted and alternate hypothesis not rejected having a significance correlation among incorrect asset valuation and return on assets. This is in line with the result of the t-test shown above.

Hypothesis 2

Ho2: Improper expense recognition does not affect return on asset in Nigeria manufacturing industry.

Based on the result provided in table 9 above, for the third hypothesis, where the significance level is 0.05 percent and p-value of 0.857 and t-statistics value of 3.36. Although 0.857 IER showed a direct impact on 0.018 profitability of the selected firm but its coefficient is not statistically significant given the p-value and t-statistics above. The value of the R^2 stood at about 37 percent; this implies that the explanatory variables explained approximately 37 percent variation in profit performance. Therefore, the null hypothesis was accepted and the alternate hypothesis was not accepted that improper expense recognition affect return on assets. This decision is in line with the result of t-test as previously shown.

7. Discussion on Incorrect Asset Valuation and Return on Assets (ROA)

The result of the pool ordinary least square showed the result on incorrect asset valuation. The coefficient is .2134987, while the standard error is .0634835, the p value showed 0.002. The implication of the result showed that incorrect asset valuation has a positive impact in detecting fraud in the manufacturing industries.

The result from fixed effect model shows incorrect asset valuation of the profitability of the manufacturing industry is positive and does not exacts a negative relationship on financial statement fraud on profitability of the Nigerian manufacturing industry. The fixed effect regression outcome indicated considerable affirmative correlation with a regression coefficient of .1684227, standard error .062765, t-statistic of 2.68, and Prob.value of 0.011. The significance of the result is that the result is positive and does not exact a negative result on the profitability of the manufacturing industries.

The random effect method estimation result revealed a positive significant relationship between return on asset and incorrect asset valuation in the determinant of financial statement fraud in manufacturing industries in Nigeria. The result showed a regression estimated coefficient of .2134987, standard error 0634835, t-statistic of 3.36, and P-value of 0.001.

The random effect model result shows incorrect asset valuation on the profitability of the manufacturing industry is positive and does not exacts a negative relationship on financial statement fraud on profits of the country's manufacturing firm.

Incorrect asset valuation revealed a direct correlation with the profits of selected firms for the period of study with a coefficient of 99 percent confidence level from table 5. It showed that when assets of firms are incorrectly valued their performance on return on asset (ROA) tends to increase by 21 percent. The implication of this result is that incorrect asset valuation is one of the major determinants used in carrying out financial statement fraud.

Most firms in Nigeria will disclose conflicting, indistinct or incredible assets. Analytical review of misplaced inventories of tangible properties gives a rise in tangible stock evaluation variation which will lead to reduction in the worth of the property and subsequently affect monetary position of the firm when subjected to analytical review, this findings is supported by Odunayo (2014) and Oyadongha and Ogoun (2013) who revealed in their various studies that there exist a relationship between asset valuation method and financial statement fraud. However, the studies failed to appropriately devise any effective method in valuation of these assets.

Furthermore, the study by Ann and William (2010) on relationship of tangible assets estimation representation, a research approach revealed that merit and disadvantages of application of net present value, bases of judgment, and available practical options. Also the study only highlighted the real assets investment evaluation and risk modeling without giving course to the overall impact of assets when not properly valued.

Financial statement fraud, overstatement or understatement of properties and indebtedness and other anti-social actions have risen very high within the authorities of firms. While on Incorrect Asset Valuations (IAV), Katsis et al. (2012) stated that financial scam is the falsification of monetary statistics by those kept in position of trust including workers in the organization in order to create a positive impression about their firm to those intending doing business with them including other people interested in financial report.

While on the contrary, Teed (2013) associated the rise in monetary scam by organizational management and

workers to the inability of coordinating agencies to play their role while Frankel (2012) attributed financial scam to advancement on computer technology.

8. Discussion on Improper expense Recognition and return on assets (ROA)

Analysis of the result on improper expense recognition showed a positive result on the result which stood at .0284455 of the coefficient variable, .1577902 stood for the standard error; t-statistics is 0.18 and while the p value stood at 0.858. The implication of the result is that improper expense recognition showed a positive impact in the determination of fraud on the profitability of a manufacturing company in Nigeria.

The panel fixed effect regression outcome in this research indicated affirmative considerable link among return on asset and improper expense recognition with an estimation ratio of .1552098, standard error .1538656, t-statistic 1.01 and prob. value of 0.320. This means that the result is positive and does not exact a negative impact on a financial statement fraud on profitability of the Nigerian manufacturing industry.

The analysis of the random effect estimation result, in this study showed the coefficient estimate to be .0284455, standard error .1577903, t-statistic 0.18 and p value of 0.857. The result showed a statistical significant positive relationship between return on asset and improper expense recognition in the determination of financial statement fraud on profits of country's manufacturing firms. But the significance is minute compare to the previous two.

The improper expense shown in the result has direct impact on profitability of the selected firms but its ratio is not considered based on data giving prob. value of 0.857 and the t-statistical value of 0.18. The point here is that the influence of improper expense recognition on firms return on assets (ROA) is not so consequential compared to the influence of incorrect asset valuation and fictitious revenue but still significantly affect the principle of ethical disclosure and factual and reasonable analysis of the financial report.

To this finding, Ryerson (2009) stated in his study that improper capitalization or deferral of expenses a major means of manipulating expenses.

9. Conclusion

The specific objective which the study sought to achieve has indeed yielded the overall result which provides evidence to show the impact of financial statement fraud on profitability of Nigerian manufacturing industry. The return on asset (ROA) has been linked by findings of this study to be having an impact based on the explanatory variables. Effective and adequate management of the explanatory variables will have a great result on the profitability of firm.

Consequently, if the Nigerian manufacturing industry is to be made more effective and developed, financial statement fraud have to be managed effectively and developed best means of covering all loopholes of it or by complete jettison of the practice.

However, this must be done by professional in the field of accounting so that adequate advice can be given to the top management level for decision making. To this end financial statement fraud need to be focused on and treated as necessary innovation in manufacturing sector in order to encourage fiscal growth.

10. Recommendations

The study offered the following recommendations based on the research findings.

1. The financial statement fraud should be paramount in the effective running of manufacturing industry in Nigeria. Since effects of the explanatory variables have effective effects in reducing the return on asset either in short run or long run.
2. Threat or total reduction or breakdown in market sales due to improper organization of financial statement scam including other cases concerning creditors of the firm brings about the firm's failure
3. It should be mandatory for all manufacturing industry to apply correct financial rules and operations in the preparation of monetary statement.
4. Accounting professional bodies and appropriate regulators should ensure proper financial statement fraud management system within the organization as internal control.
5. Auditors and forensic experts should be retrain on various modalities in detecting and preventing financial statement fraud.
6. Government should ensure that FRCN entrusted with the task of overseeing the communication practices of firms in Nigeria should put in place appropriate policies that will limit financial statement fraud.

References

- AbdulRaheem, A, Isiaka, S. Band Muhammed, A.Y (2012). Fraud and Its Implications for Bank Performance in Nigeria. *International Journal of Asian Social Science* 2 (4), 382-387.
- Abbott, L. J.; Park, Y. and Parker, S. (2000). The effects of audit committee activity and independence on

- corporate fraud. *Journal of managerial finance*. 26(11), 55 – 68.
- Aburime, T. U. (2008). “Company-Level Determinants of Bank Profitability in Nigeria”. *Lagos Journal of Banking, Finance & Economic Issues*, 2 (1), 221-239.
- Aburime, T.U (2009). Impact of Corruption on Bank Profitability in Nigeria. *Symposium for Young Researcher* 15(17), 15-17.
- Adeyemo, K.A (2012) Frauds in Nigeria Banks: Nature, Deep-Seated Causes, Aftermaths and Probable Remedies. *Mediterranean Journal of Social Science*: 3(2), 279-289.
- Agbaje, W. H.; Busari, G. A and Adeboye, N. O. (2014). Effects of Accounting Information Management on Profitability of Nigerian Banking Industry. *International Journal of Humanities Social Sciences and Education (IJHSSE)*. 1(9), 100 – 105.
- Ahn, B. S.; Cho, S.S. and Kim, C. Y. (2000). The integrated methodology of rough set theory and artificial neural network for business failure prediction. *Expert system with applications*. 18(2), 65 – 74.
- Akinola, G. O. (2008). Effect of Globalization on Market Structure, Conduct and Performance in Nigeria Banking Industry. An Unpublished PhD Post Field Seminar, Department of Management and Accounting, Obafemi Awolowo University, Ile-Ife. 42P.
- Altman, E. I. (1968). Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. *Journal of Finance*. 23, 589 – 609.
- Altman, E. I.; Marco, G. and Varetto, F. (1994). Corporate Distress Diagnosis: Comparisons Using Linear Discriminant Analysis and Neural Networks (The Italia Experience). *Journal of Banking and Finance*. 18 (3), 505 – 529.
- Altman, E. I.; Danovi, A. and Falini, A. (2010). Z-score models’ application to Italian companies subject to extraordinary administration.
- Ann, W. and William, H. (2010). Comparison of Real Asset Valuation Models. A Literature Review. *International Journal of Business and Management*. 5(5), 14 – 24.
- Arthur, P (2014) Detecting Financial Statement Fraud. Retrieved from: <http://www.investopedia.com/article/financial-theory/14/08/2015>
- Arunkumar, K (2015). How to Detect Fraud in Corporate financial statement. Retrieved from: <http://www.linkedin.com/pulse/15/08/2015>
- Beaver, W. H. (1966). Financial Ratios as Predictors of Failure. *Journal of Accounting Research*. 4(1), 71 – 127.
- Beasley, M (1996). An Empirical analysis of the relation between the board of directors’ composition and financial statement fraud. *The Accounting Review*. 71(4), 443 – 465.
- Chen, C. J. and Huang, J. W. (2009). Strategic Human resources practices and innovation performance. The mediating role of knowledge management capacity. *Journal of Business research*. 62(1), 104 – 115.
- Coats, P. and Fant, L. (1993). Recognizing financial distress patterns using a neural network tool. *Financial management*. 22(3), 142 – 155
- Dabor, E. L. and Adeyemi, S. B (2009). Corporate governance and credibility of financial statement in Nigeria. *Journal of Business Systems, Governance and Ethics*. 4(1), 13 – 24.
- Dechow, P.; Sloan, R. and Sweeney, A. (1995). Causes and Consequences of earnings manipulation. *Contemporary accounting research*. 13, 1 – 36.
- Everette, E.C (1998) Financial Statement Fraud, Part1; Professional Development Network; Ontario, Canada: The Know How.
- Everette, E.C (2012) Financial Statement Fraud, Part2 and 3; Professional Development Network; Ontario, Canada: The Know How.
- Eze, O. R. and Ogiji, F. S. (2013). Impact of fiscal policy on the manufacturing sector output in Nigeria: An Error Correction Analysis. *International Journal of Business and Management Review (IJBMR)*. 1(3), 35 – 55.
- Frankel, T. (2012). The Ponzi scheme puzzle: A history and analysis of con artists and victims. New York, NY: Oxford University Press.
- Gentry, J.; Newbold, P. and Whitford, D. T. (1985). Classifying Bankrupt Firms with fund flow components. *Journal of Accounting Research*. 23(2), 146 -160.
- Gentry, J. A.; Newbold, P. and Whitford, D. T. (1985). Predicting Bankruptcy: If cash flow’s not the bottom line, what is? *Financial Analysts Journal*. 41, 47 – 58.
- Hausman, J. A. (1978). Specification Test in Econometrics. *Econometrical* 46(6), 1251-1271.
- IASB (2007a). Presentation of Financial Statement. Standard IAS 1, International Accounting Standards Board. Retrieved from <http://www.iasplus.com/standard/ias01.htm> 23/05/2015
- IASB (2007b). The Framework for the Preparation and Presentation of Financial Statements. International Accounting Standards Board. Retrieved from <http://www.iasplus.com/standard/framework.htm>25/05/2015
- Ibrahim, A.; Monammed, D. and Fatima, U. (2014). Managing Bank Fraud and Forgeries through effective control strategies. A case study of Central Bank of Nigeria, Gombe Branch. *International Journal of*

- Business and Management Invention*. 3(4), 7 – 17.
- Ikpefan, O. A. (2006). Growth of Bank frauds and the impact on the Nigerian Banking Industry.
- Ikpefan, O. A. & Akande, O. A. (2012). Benefits, obstacles and Intrigues or Implementation IFRS in Nigeria. *Business Intelligence Journal*. 5(2), 1- 9.
- Javaid, S.; Anwar, J.; Zamar, K. and Ghafoor, A. (2011). Determinants of bank profitability in Pakistan: Internal factor analysis. *International Journal academic Research*. 23(6), 3794 – 3804.
- Kanu, S.I and Okorafor, E.O (2013). The Nature, Extent and Economic Impact of fraud on Bank Deposit in Nigeria. *Interdisciplinary Journal of Contemporary Research in Business*. 4(9), 253-265.
- Kapland, S.E and Ruland, R.G (1991) Positive Theory, Rationality and Accounting Regulation: *Critical Perspective on Accounting*: 2(4), 361-374.
- Katsis, C.D., Goletsis, Y., Boufounou, P.V., Stylious, G. & Koumanakos, E. (2012). Using ants to detect fraudulent financial statement. *Journal of applied finance and banking*, 2(6), 73-81.
- Khanh, N. (2010). Financial Statement Fraud: Motives, Methods, Cases and Detection. Dissertation.com, Boca Raton, Florida USA.
- Kuang, H. S.; Ching, C.C. and Yi, H. W. (2010). Financial Information Fraud Risk Warning for Manufacturing Industry- Using Logistic Regression and Neural Network. *Romania Journal of Economic Forecasting*. 14(1), 54 – 71.
- Kwok, K.B (2005). Forensic Accountancy in Hong Kong: Trends in a decade. Articles Published by Institute of Chartered Accountant in England and Wales.
- Martin, D. (1977). Early warning of bank failure: A legit regression approach. *Journal of Banking and Finance*. 1(3) 249 – 276.
- Odunayo, B.A (2014) Fraudulent Financial Reporting: The Nigerian Experience. *The Clute Institute International Conference*; San Antonio Texas, USA 18-30
- Ogbonna, G.N and Ebimobowei, A. (2012). Ethical compliance by the Accountant on the Quality of Financial Reporting and Performance of quited Companies in Nigeria. *Asian Journal of Business Management* 3 (3), 152-160.
- Ogunleye, G. A. (2010). Perspectives on the Nigerian Financial Safety- Net. *NDIC Quarterly*, 17, 3 – 4.
- Ohlson, J. A. (1980). Financial Ratios and the Probabilistic of Bankruptcy. *Journal of Accounting Research*. 18, 109 – 131.
- Ojek, S. A; Mukoro, D. O. and Kanu, C. (2015). Does Financial Reporting Disclosure Enhance firm financial performance in the Nigerian Manufacturing Companies? *Mediterranean Journal of Social Sciences*. 6(6), 332 – 338.
- Okoye, E.I and B.B. Alao (2008). The Ethics of Creative Accounting in Financial Reporting: The Challenges of Regulatory Agencies in Nigeria. *A Quarterly Journal of Association of National Accountants of Nigeria*. 16(1).
- Olaoye, C. O. and Dada, R. A. (2014). Analysis of frauds in Banks: Nigeria’s Experience. *European Journal of Business and Management*. 6(31), 90 – 99.
- Olorunsegun, S. (2010) The Impact of electronic Banking in Nigeria banking System. MBA Research Project Submitted to the Department of Management Science, Faculty of Engineering and Technology, Ladoko Akintola University of Technology, Ogbomosho, Oyo State Nigeria. 23-29. Unpublished Retrieved online on 14/03/2016.
- Oyadongha, K. J. and Ogoun, S (2013). Revaluation Accounting and Decision Usefulness of Accounting Ratios. *European Journal of Business and Management*. 5(16), 56-74.
- Rezaee, Z., 2005. Causes, consequences and deterrence of financial statement fraud. 16, .227-298.
- Ryerson, F. E. (2009). Improper Capitalization and the Management of Earnings. *Proceedings of ASBBS*. 16(1), 1 – 8.
- Salchenberger, L. M.; Cinar, E. M. and Lash, N. A. (1992). Neural Networks: A new tool for predicting thrift failures. *Decision sciences*. 23, 899 – 916.
- Sanni, A. A. (2009). Assessment of the impacts of banking sector consolidation on the real sector of the Nigeria economy. *Journal of finance and accounting research*. 1(3)
- Schneider, A. (2013). Internal Auditing and Real Earnings Management. *Journal of Contemporary Issues in Business Research*. 14(5), 75-92.
- Sharma, S. D. (2004). The role of cash flow information in predicting corporate failure: The state of the literature. *Managerial Finance*. 27(4), 3 – 28.
- Shehu, U. H. and Abubakar, A. (2012). Corporate Governance, Earnings Management and Financial Performance: A case of Nigerian Manufacturing Firms. *American International Journal of Contemporary Research*. 2(7), 214 – 226.
- Shehu, U. and Garba, I. (2014). Governance Attributes and Real Activities Manipulation of Listed Manufacturing Firms in Nigeria. *International Journal of Accounting and Taxation*. 2(1), 37 – 62.

- Suchman, M. C. (1995). Managing Legitimacy: Strategic and Institutional Approaches, *Academy of Management Journal*: 20 (3), 571-610.
- Teed, G.D. (2013). Legislation of ethics in the early years of the securities and Exchange Commission. *Review of Business and Finance Studies*, 4(2), 1-10
- Tsomoscos, D. (2003). “Equilibrium Analysis, Banking contagion and Financial Fragility” WORKING Paper 175, Bank of England, London UK.
- Uguru, L. C. (2014). Assessment of the Effect of production Constraints on the Profitability of bakers Firms in Ebonyi State, Nigeria. An Unpublished P.hD thesis in the Department of Accounting, Faculty of Management Sciences. Ebonyi State University, Ebonyi State.
- Wu, L. and Jing- Zhi, H. (2004). Specification Analysis of Option Pricing Models Based on Time – Changed Levy Processes. *Journal of Finance* 2004. 59(3), 1405 – 1439.
- Zavgren, C. V. (1985). Assessing the vulnerability of failure of American Industrial firms. A logistic analysis. *Journal of Business, Finance and Accounting*, 1(2), 34-66.
- Zmijewski, M. D. (1984). Methodological Issues Related to the Estimation of Financial Distress Prediction Models. *Journal of Accounting Research*. 22, 59 – 82.
- Zmijewski, M. E. (1984). An income strategy approach to the positive theory of accounting standard setting / choice. *Journal of Accounting and Economics*. 3(2), 129 – 149.