DYNAMIC ANALYSIS OF FINANCIAL STATEMENT FRAUD ON PROFITABILITY OF MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT: *The aim of this research study is to assess the impact of financial statement fraud on profitability of selected Nigerian manufacturing firms covering (2002-2016). The specific objectives focused on ascertaining the effect of variables of financial statement fraud on return on assets (ROA). To achieve these objective, descriptive research design was used for the study while secondary data was 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 adopted in the analysis of the data. Beneish model 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. Three 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 found that increase in fictitious revenue in manufacturing industry would lead to low profitability. The implication of this is that increase in fictitious revenue would lead to decrease in performance. The study therefore recommended that pragmatic policy options need to be taken in the manufacturing industry to effectively manage fictitious revenue, in order to enhance manufacturing industry performance in the country and also 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; Financial Statement, Fraud, Fictitious Revenue, Profitability, Beneish Model

INTRODUCTION

Accounting is the language of business. According to Ayingbo (1999) business transactions and activities are translated into figures and recorded in monetary terms. Thus, transactions of business organizations are most appropriately recorded in accounting form. These economic events (transactions) when recorded, summarised and analyzed provide the necessary financial accounting information needed by management for sound decision making (Nelson and Victor 2009).

Financial statement is a comprehensive report describing the activities of an enterprise such as the manufacturing industry (Mamdi and Zluila, 2008). According to International Accounting Standard Board (IASB, 2007a) it describes financial statement as a reporting statement of all relevant accounting information in a systematic way that is easily understood for use by those who run the given enterprise for the purpose applying it to the day to day running of the enterprise.

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.

Prior studies have identified that financial statement fraud can take several methods, such as reporting non existing income(fictitious revenue), preparing accounting information for different period, hiding indebtedness or expenditure,(incorrect expense recognition) wrong reporting, wrong assessment of property values(incorrect asset valuation), (Everette, 2012). Kwok (2005) reveals that judging from the angle of financial information, income, gains, or properties are usually overvalued, while loss of income, expenditure, debt are mostly under reported. Over reporting income, gains or properties make a firm look financially healthy. Under reporting income, over reporting expenditure is done by firms that try to evade tax. 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, (Aburime 2012).

However, fictitious revenue has become one of the major aspect of manipulation in the financial statement. 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).

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, 1998).

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. (Everette, 1998), (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.

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. 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.

Objective 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

1. To ascertain the effect of fictitious revenue on return on assets (ROA) in Nigerian manufacturing industry.

Hypothesis

HO₁: Fictitious revenue does not affect the return on assets (ROA) in Nigerian manufacturing industry.

REVIEW OF RELATED LITERATURE

Singleton, Singleton and Balogna (2006) identified fraud with different explanations, fraud as a crime. Fraud is a general name which covers various means through which men can devise negative approaches to be used to cheat or misrepresent others. Aburime (2012) asserted that there is no particular way accepted as the best way to explain fraud since it involves, shock, deception, shrewdness and unjust means through which someone is taking advantage of.

Financial inconsistencies seen in financial reports can be due to mistakes or fraud (Kwok, 2010). Hence it is important to separate issues regarding to monetary report fraud and monetary report inaccuracy. Mistakes relates to non-deliberate disclosure of wrong financial information which could involve omitting figures completely or not including at all (Arthur 2014)

Aburime (2012), further explained several methods by which financial statement fraud is considered to be common. These include fictitious sales, improper expense recognition and inappropriate asset valuation. With regards to financial information, revenue, gain or long term properties are mostly over reported, but loss of income, expenditure or debt are usually under reported. According to Odunayo (2014), over reporting income, gains or long term property indicates that companies are strong but under reporting loss of revenue, spending, debts shows an increase in the value and capital of the firm.

Everette (1998) gave insight into analytical review as the most powerful technique in financial statement fraud. He further stress that three principal kinds of investigative measures exist which include: investigation of pattern, determination of ratios and rationality check.

Pheijffer (1998) explains financial inquiry as an inquiry in which the application of legislation, use of monetary knowledge so as to bring together, confirms, adjust and analyze financial data. Tuffey (2002) opines that financial inquiry is inquiry concerning a person or establishment of monetary activities. Willemse (2004) believes that financial investigation deals with specification, collation of financial flow within or after fraud have been committed.

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.

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.

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.

Empirical Review

Kuang, Ching and Yi (2010) carried out an investigative study on Financial Information on alert of danger of fraud in manufacturing firm. The data used for the study was in ratio of 1:2, of 96 sample of deceptive companies and 192 normal companies within three years of prediction. Findings from the authors' research showed that the ratio of debt and ratio from shareholders were major monetary variables used in identifying scam in an organization or production firm, presenting a correct and accurate time model for financial information on alert of scam in manufacturing firms which enables prediction of such fraud through variations in financial indicators within a time period. Therefore, the study recommends that debt ratio and shareholders ratio should be used in identifying fraud in manufacturing industry. The results of the research never relates the effect of the research on profitability of the manufacturing sector and ratio analysis adopted in the study which are debt ratio and shareholders ratio do not put into consideration a ratio that is comprehensive on revenue.

Another study by Aburime (2009) focused on developing the influence of bribery on the assumed profit of a bank in Nigeria. The author employed information of about 358 sample of 48 different banks within the period of 1996-2006. The result from the estimation showed that dishonesty in financial reports in banks has a reasonable affirmative influence on the profits made by banks in Nigeria context, having the view that successes made by scammers are mostly caused by bankers. The study further affirmed that banks are used as possible conduct pipes for corrupt financial flow. Hence, the study recommended that further study should be carried out on identifying the type of corruption method being used by banks.

Shehu and Garba (2014) in their study on attitude of the government towards manipulation on production activities in Nigerian firms. The study adopted panel data method of analysis for the study with the result indicating less than 5% outcome based on the model specification. The findings indicate part time and female members of executives were more prone to scam in the industry whereas internal members of the executives failed to take proactive steps to curtail fraudulent activities and abuse of lay down financial principles. More so, the freedom of auditors, extent of monetary knowledge, volume of audit group size and regularity of audit

meetings were identified as important means of curtailing financial scam. The study suggested that supervising authorities should ensure that necessary rules and principles guiding public organizations are completely adhered to.

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 strengthen.

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.

Theoretical Framework

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

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.

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

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.

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.

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)

$$y = \beta_1 + \beta_2 d_1 + \beta_3 d_2 + \beta_4 d_4 + \varepsilon \ …i$$

Specific modification on the model shown above,

$$ROA = f(FR) \ …1$$

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

This model can now be expressed mathematically as shown below

$$ROA = \alpha_0 + \alpha_1 FR \ …2$$

Description of Research Variable

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

Dependent variable

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

Independent Variables

Fictitious Revenue (FR_i): it represents a cluster of fictitious revenue variables. It was measured based on an opinion by Okoye 2016, that Beneish Model has demonstrated its suitability in the Nigerian business environment as a predictive instrument for fraud uncovering with preclusion in the financial statement of firms. Beneish M-Score (2012) is a standard model in capturing revenue manipulation.

It is from the statistics of the firm contained in the monetary report that the variables are created, at the end of every calculation, the m –score is used to explain the extent to which the revenue record was altered. Beneish and Nichols (2012) explain further that to determine the earning manipulation using an alternative fraud detection model that involves five variables from the eight variables of Beneish (1999) model. The five variable M-score is stated below

M-Score = -6.065+0.823**DSRI**+0.906**GMI**+0.593**AQI**+0.717**SGI**+0.107**DEPI**.   (Beneish 2012).

After calculation, the variables are joined to realize an m – score for the firm. An M-score of < -2.22 suggest that the firm has no fictitious revenue, an M-score > than -2.22 indicates that the firm is having fictitious revenue. (See Appendix A.)

In M-score results; fictitious revenue will be assigned a dummy (1) and a dummy (0) for otherwise. (See Appendix A.)

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

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

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

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

$$\beta = \partial E[y_{it} \mid \mathbf{x}_{it}]/\partial \mathbf{x}_{it}. \quad \dots 5$$

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	Sts 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		

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.

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	
		F (3,37)	=	6.53	
Corr(u_i, xb) = **0.1665**		Prob > F	=	0.0012	

F test that all u_i = 0:	**F(2,37) = 4.20**	**Prob > F = 0.0228**

Source: Researcher's Computation, 2016

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.

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 Pegan LM test to find out the right representation.

Huasman Test

H_0 **:** Random effect model is appropriate

H_1 **:** Fixed effect model is appropriate

Table 7: Fixed effect Within Regression

.estimates restore random.
(results <u>random</u> 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, 2016

Hypothesis 1

Ho1: The result showed that all the variable Fictions revenue is taken into consideration in the regression result. The result is obtained by comparing the coefficients of the variables, standard error and the p value of the results. The coefficient when divided by two should greater than the standard error to obtain a significant of the p value.

The results however showed that fictitious revenue stood at -.0507784. Similar index was adopted in testing the link between the explanatory and dependent variable. As indicated in table 1, how Fictitious Revenue (FR), affect return on assets (ROA) poses considerable inverse and positive influence on the state of fraud in the manufacturing sector. However, fictitious revenue exhibited reasonable negative influence on the state of fraud.

Discussion on Fictitious Revenue and Return on Assets

The result of the regression model shown above is for the random effect model after the appropriateness tests had been undertaken. The table shows a positive intercept of 0.48340, this implies that if all the explanatory variable was zero, the return on assets of the selected firm will be 48.34 percent, this simply means that when the revenue is declared non-fictitious, the ROA will be equal to the intercept of the estimated regression above, the coefficient is highly significant at 99 percent confidence level.

From the result above, fictitious revenue showed a negative relationship with the firms' profitability, this means that when the firm revenue is declared or recognized to be fictitious, the return on asset (ROA) will decrease 5.07%.This is consistent with the a priori expectation that when a firm profit is taken to be fictitious the consequence will be negative either in the short or long run. This variable is highly significant with its p value and t-statistics equal to 0.001 and -3.21 respectively, this showed that fictitious revenue is a very important determinant of firms' performances.

However, the value of Wald Chi-squared is a proxy of F-statistic taking the Rank of the coefficient is 23.20 with its corresponding p-value of 0.000.this shows that the model is altogether highly significant, Thus will not accept the null hypothesis that states no considerable relationship among profitability of Nigeria firm proxy by ROA and financial report frauds but accepted the alternate hypothesis which put forward significant correlation.

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 variable. Effective and adequate management of the fictitious revenue will have a great result on the profitability of firm.

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.

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APPENDIX

Year	Company	Revenue '000	Total assets '000	Operating expenses	Bernish model for FR	Dummy Values FR
2002	Cadbury	22,317,546	18,375,482	3,933,560	-3.28	1
2003	Cadbury	26,280,393	21,880,755	4,565,158	-2.45	1
2004	Cadbury	35,128,356	29,971,989	5,232,748	-2.43	1
2005	Cadbury	40,672,245	33,245,692	7,235,520	-2.96	1
2006	Cadbury	43,712,823	35,670,275	8,462,725	-3.14	1
2007	Cadbury	20,083,559	20,529,085	4,283,236	-4.71	1
2008	Cadbury	27,444,419	30,134,826	6,221,861	-2.44	1
2009	Cadbury	24,298,000	23,901,000	8,041,000	-1.19	0
2010	Cadbury	25,585,000	25,246,000	7,984,000	-3.75	1
2011	Cadbury	29,170,000	26,243,000	4,216,000	-3.09	1
2012	Cadbury	33,546,000	26,623,000	9,153,000	-1.27	0
2013	Cadbury	39,584,000	29,385,000	10,148,000	-2.92	1
2014	Cadbury	48,688,000	43,172,624	13,619,000	-1.08	0
2015	Cadbury	30,518,586	28,811,286	6,367,017	-1.27	0
2016	Cadbury	7,825,194	28,411,005	7,530,874	-3.21	1
2002	Nestle	23,441,908	10,929,947	2,973,561	-2.78	1
2003	Nestle	18,422,738	8,800,023	4,462,113	-3.14	1
2004	Nestle	20,932,323	9,864,985	3,345,699	-2.51	1
2005	Nestle	28,461,078	13,399,870	4,458,571	-2.6	1
2006	Nestle	34,335,891	16,875,084	5,578,526	-3.07	1
2007	Nestle	48,909,989	40,671,457	11,950,678	-3.03	1
2008	Nestle	69,532,178	56,038,244	15,050,141	-3.16	1
2009	Nestle	66,219,079	55,439,201	14,250,755	-3.0	1
2010	Nestle	74,896,525	58,875,182	15,561,825	-3.47	1
2011	Nestle	80,106,738	60,347,062	16,993,573	-3.83	1
2012	Nestle	8,511,642	62,365,042	18,984,421	-3.64	1
2013	Nestle	143,328,982	106,062,067	26,426,545	-2.84	1
2014	Nestle	133,084,076	108,207,480	29,304,262	-4.08	1
2015	Nestle	143,328,982	106,062,067	31,689,301	3.52	1
2016	Nestle	151,271,526	119,215,053	32,904,586	-2.86	1
2002	UAC	16,381,053	17,346,700	2,171,431	-1.60	0
2003	UAC	15,387,151	16,927,593	2,085,365	-2.92	1
2004	UAC	17,178,802	18,849,529	2,437,864	-2.97	1
2005	UAC	17,374,954	17,765,807	2,257,497	-1.52	0
2006	UAC	16,982,650	19,933,249	2,618,231	-2.80	1
2007	UAC	24,795,450	12,636,576	2,508,749	-4.08	1
2008	UAC	26,710,382	11,749,008	2,989,132	-3.05	1
2009	UAC	23,570,119	10,860,891	3,277,810	-3.19	1
2010	UAC	20,134,638	213,735,007	3,422,903	-1.81	0
2011	UAC	19,326,151	20,555,531	3,289,512	-2.92	1
2012	UAC	35,289,903	22,557,273	3,289,512	-2.28	1
2013	UAC	47,526,868	122,975,593	6,052,604	-1.68	0
2014	UAC	60,473,968	119,831,874	7,442,772	6.2	1
2015	UAC	128,853	26,474,320	1,479,006	25.8	1
2016	UAC	820,655	27,572,156	1,515,180	-2.88	1